RESPONSE TO FEEDBACK

P015-2014
Nov 2014

Response to Feedback: Consultation on Local Implementation of Basel III Liquidity Rules – Liquidity Coverage Ratio

Monetary Authority of Singapore

PREFACE

On 6 August 2014, MAS published for public consultation a draft MAS Notice on the Liquidity Coverage Ratio ("LCR") requirement for banks in Singapore, together with proposed revisions to the Minimum Liquid Assets ("MLA") requirement. MAS thanks all respondents for sharing their perspectives and comments with us. We have carefully considered the feedback, and have highlighted comments that are of wider interest, together with our responses, in this document.

The revised framework for banks will be implemented in a new MAS Notice 649. MAS Notice 649 and the corresponding reporting forms are appended in Annexes A and B respectively.

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RESPONSE TO FEEDBACK RECEIVED

1 LCR – Country-level compliance and determination of "significant currency"

1.1 Respondents sought clarification on the criteria for country-level compliance with the LCR requirement, as well as the method for identifying a "significant currency".

<u>MAS' Response</u>

1.2 In general, MAS will assess whether a group of banks applying for country level compliance does in fact manage their liquidity risk on a consolidated basis. This may in some cases be evidenced through arrangements such as a common liquidity risk management unit and a unified Asset and Liability Committee across the group of banks. Assessments will be made on a case-by-case basis, taking into consideration the different operating models of banking groups. Paragraph 4 in MAS Notice 649 has been modified to clarify that banks are to seek MAS' prior approval for compliance with the LCR on a country level.

1.3 The definition of a "significant currency" is now included in paragraph 17 of MAS Notice 649. The default definition of significant currency is any currency in which a bank's aggregate liability amounts to 5% or more of the bank's total liabilities at the end of the reporting month. MAS recognises this may not be reflective of a bank's on-going currency exposures in certain circumstances. As such, should a bank's end-of-month balance sheet currency breakdown not reflect the normal currency exposures of the bank, the bank may apply to MAS for an alternative determination of its significant currencies.

2 LCR - High-quality liquid assets ("HQLA"), and computation of outflows and inflows

2.1 Several respondents requested for a broader definition of HQLA, while other respondents asked if statutory board bonds would qualify as HQLA.

2.2 Some respondents asked if deposits placed by trusts and private investment companies ("PICs") that manage the funds of a single individual or a few individuals could be classified as retail deposits instead of non-financial corporates, as the beneficial owner of these entities would be individuals who would likely behave similarly to retail depositors.

2.3 One respondent requested that inflows from trade loans be set at 100% instead of 50% as these loans tend to be self-liquidating and short-term in nature.

2.4 Another respondent commented that the 100% outflow rate for liquidity facilities provided to other financial institutions may discourage banks from providing liquidity facilities to central counterparties ("CCPs") that may depend on these lines for liquid resources.

2.5 Other respondents sought additional guidance on the operational requirements of HQLA, as well as guidance on how certain transactions are treated within the LCR framework.

MAS' Response

2.6 The types of and haircuts for HQLA, as well as the outflow and inflow factors, were calibrated with reference to a combination of historical data as well as expert views from supervisors around the world. These factors are intended to provide an estimate of banks' expected cash flows during a stress period, and encourage banks to consider liquidity costs appropriately when pricing their products.

2.7 Adjustments have been made, through the international rule-making process, to accommodate the areas where the proposed factors do not properly reflect local conditions. In some cases, discretion is provided to national supervisors to adopt a treatment that best reflects their local conditions. An example of this would be the outflow factor for trade finance instruments. In some other cases, the international rules have been duly modified, taking into consideration the broader experience of banks and supervisors. An example would be the outflow factor for non-financial corporate deposits, which have been adjusted from the initially proposed 75% to 40% today.

2.8 In the absence of additional data to suggest that other alternative treatment is appropriate in the Singapore context, MAS will not be making further changes to the HQLA haircuts, nor the outflow and inflow factors, under the LCR requirement set out in MAS Notice 649. The following paragraphs sets out the salient considerations for some factors that were of concern to respondents.

2.9 Data provided by banks in the private banking business showed that the behaviour of trust and PIC deposits bore little similarity to that of retail deposits in a stress situation. Trust and PIC deposits also demonstrated a large variance in outflow rates across banks. These suggest that it would not be appropriate to assign the lower outflow rates used for retail deposits to trust and PIC deposits. Tailoring the outflow factors to the specific customer profiles of different banks would also unduly increase the complexity of the LCR and compliance costs for banks, and is hence not considered appropriate.

2.10 The 50% inflow factor for all loans is designed to reflect the situation that a bank will continue making loans to customers in order to maintain its franchise value, even in a stress scenario. While trade loans may be self-liquidating, a bank that operates as a going concern in a stress scenario would continue to experience outflows from loan disbursements. Hence a 100% inflow rate would not be appropriate.

2.11 While the outflow factors for committed credit and liquidity facilities to CCPs is higher than that for retail, small business customers, central banks and non-financial corporates, these have been calibrated according to actual outflow rates observed in stress situations.

2.12 Singapore statutory board bonds are considered Level 2A HQLA given the 20% risk-weight that is assigned to them under MAS Notice 637. Additional language has been included in paragraph 22 of MAS Notice 649 to clarify the circumstances in which HQLA eligible collateral received may be counted as part of a bank's HQLA. Additional guidance has also been included, to the extent possible, on how certain transactions should be treated in the LCR. Further questions on the treatment of specific transactions not addressed in MAS Notice 649 may be directed to MAS at liquidity@mas.gov.sg.

3 MLA – Liquid assets and intra-group borrowings

3.1 Several respondents sought clarification on the different treatment of liquid assets under the MLA and LCR frameworks, while others sought guidance on how to treat intra-group borrowings in the MLA framework.

MAS' Response

3.2 The MLA framework is a simpler metric intended for compliance by non-systemically important banks. To minimise complexity and compliance costs, only limited changes has been made to the treatment of liquid assets under the MLA framework. Full alignment with the definition of liquid assets under the more complex LCR metric intended for implementation by systemically important banks is not necessary given the differences in design and headline requirements of the two frameworks.

3.3 Additional language has been included in paragraph 6 of MAS Notice 649 to clarify that liabilities due to intragroup banking entities will be included in the computation of Qualifying Liabilities.

4 Effect on other regulations

4.1 Several respondents sought clarifications on whether other MAS regulations would be affected by the introduction of the new liquidity rules, in particular MAS Notice 613 on the MLA, MAS Notice 640 on Asset Maintenance and MAS Notice 758 on Minimum Cash Balances.

4.2 Other respondents also sought guidance on how the new liquidity rules would be applied to Finance Companies and Merchant Banks.

<u>MAS' Response</u>

4.3 MAS Notice 649 will replace MAS Notice 613 in 2 stages. Specifically, MAS Notice 649 will apply to banks incorporated and headquartered in Singapore from 1 Jan 2015, and all other banks from 1 Jan 2016. MAS Notice 640 on Asset Maintenance will not be affected. MAS Notice 758 on Minimum Cash Balance will be amended to include the definition of Qualifying Liabilities under MAS Notice 649 instead of referencing MAS Notice 613, which will be cancelled with effect from 1 Jan 2016.

4.4 The equivalent liquidity rules for Finance Companies and Merchant Banks will be released in 2015. The proposed rules will be subject to a public consultation period prior to finalisation, and a reasonable transition period will be given for affected entities to comply with the new requirements.

5 Reporting forms

5.1 In the August 2014 consultation paper, MAS proposed that the reporting forms in the current MAS Notice 613 be adjusted to include additional information on the currency breakdown of the bank's balance sheet, inputs needed for the bank's LCR computation, contractual and behavioural cash flows by currency, residual maturity of the bank's assets and liabilities by currency, and a list of all unencumbered liquid assets of the bank.

5.2 Some respondents requested that banks be permitted to use their own foreign exchange ("FX") rates for converting foreign currency amounts into Singapore Dollars.

5.3 Some respondents also commented that the additional information requested would require significant modifications to their reporting systems and requested for a delay in the commencement date for reporting under the new forms.

5.4 With respect to the requirement for banks to report their LCR within 10 days after the close of each month, some respondents suggested allowing more time to ease banks' compliance burden.

MAS' Response

5.5 MAS agrees that banks can use their internal FX rates for converting foreign currency amounts to Singapore Dollars for reporting under MAS Notice 649. This is now clarified in the instructions for filling out the reporting forms under MAS Notice 649.

5.6 To allow sufficient time for banks to make appropriate modifications to their reporting systems, the commencement date for regulatory reporting under the new forms that do not contain details on a bank's LCR computation will be delayed by a year to 1 Jan 2016. Banks complying with the LCR requirement from 1 Jan 2015 will continue to submit Forms 3 to 7 of the current MAS Notice 613, together with Form 2 Section 1A of MAS Notice 649 (see Annex B) for details of their LCR computations.

5.7 The 10-day window for reporting will be retained to ensure timeliness and relevance of the reported information at the time of receipt.

6 Transitional arrangements

6.1 Some respondents sought clarity on the transitional arrangements from the MLA to the LCR.

MAS' Response

6.2 Paragraphs 118 to 121 of MAS Notice 649 have been added to clarify the transitional arrangements as banks adopt the new liquidity rules. Banks incorporated and headquartered in Singapore are required to comply with MAS Notice 649 from 1 Jan 2015, while all other banks have to comply from 1 Jan 2016. Banks that are required to comply from 1 Jan 2016 may elect to comply with MAS Notice 649 ahead of schedule by giving a month's notice to MAS. Banks transitioning to the LCR framework need only maintain their Minimum Liquid Assets ("MLA") requirement until the date on which they comply with the LCR.

Annex A – Final MAS Notice

MAS 649

NOTICE TO BANKS

BANKING ACT, CAP 19

MINIMUM LIQUID ASSETS ("MLA") AND LIQUIDITY COVERAGE RATIO ("LCR")

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1 This Notice is issued pursuant to sections 36 and 38 of the Banking Act (Cap. 19) ("the Act") and applies to all banks in Singapore. Except where specifically mentioned in the paragraph, the requirements set out in this Notice are issued under section 38.

2 A bank incorporated and headquartered in Singapore or a bank which has been notified by the Authority that it is a domestic systemically important bank[1] ("D-SIB") need only comply with Part II – LCR of this Notice.

3 A bank which does not fall within paragraph 2 above may, upon giving prior written notice of at least one month to the Authority, choose to comply with either Part I - MLA or Part II - LCR of this Notice, and the requirements in the relevant part would apply accordingly. While a bank which has chosen to comply with Part I-MLA of this Notice may be choose to comply with Part II- LCR of this Notice subsequently upon giving the requisite notice to the Authority, a bank which has chosen to comply with Part II – LCR of this Notice will have to write in to the Authority for approval to comply with Part I – MLA of this Notice subsequently. The Authority will not ordinarily grant such an approval except in exceptional circumstances.

4 A bank which has to comply with Part II of this Notice may, with the Authority's approval comply with the requirements set out in this Notice on a banking group or country-level group basis. The Authority will subject the bank and the entities which are in the country-level group to an assessment before granting any approval for the bank to comply with this Notice on a country-level group basis.

5 The expressions used in this Notice shall, except where expressly defined in this Notice or where the context otherwise requires, have the same meanings as in the Act.

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[1] MAS has consulted on the proposed D-SIB framework (http://www.mas.gov.sg/News-and-Publications/Consultation-Paper/2014/Consultation-Paper-on-the-Proposed-Framework-for-Systemically-Important-Banks-in-Singapore.aspx) and intends to publish the initial list of D-SIBs early next year.

PART I – MLA

Definitions

6 In Part I of this Notice—

"bills of exchange" has the same meaning as in section 3 of the Bills of Exchange Act (Cap. 23);

"business day" means any calendar day on which a bank carries on business;

"computation day" means the business day on which the bank computes the minimum amount of liquid assets that the bank has to maintain on the relevant maintenance day;

"intragroup banking entities" in relation to a bank, means the bank's head office; branches of the bank's head office; and bank subsidiaries of the bank's head office which are not licensed in Singapore.

"maintenance day", in relation to any computation day, means the day occurring two business days from that computation day;

"MAS Bills" means any debt securities issued by the Monetary Authority of Singapore under the Monetary Authority of Singapore Act (Cap. 186);

"Qualifying Liabilities" means the aggregate of:

a) all liabilities of the bank[2] denominated in the relevant currency or currencies, as the case may be, due to non-bank customers, computed on a gross basis;

b) all liabilities of the bank denominated in the relevant currency or currencies, as the case may be, due to the Authority within one month from the computation day, computed on a net basis (i.e. after the deduction of all claims denominated in the relevant currency or currencies, as the case may be, by the bank on the Authority maturing within one month from the computation day), and where this is a net asset, the net asset amount may be deducted from Qualifying Liabilities;

c) all liabilities of the bank denominated in the relevant currency or currencies as the case may be, due to other banks (whether licensed in Singapore or not, including intragroup banking entities) within one month from the computation day, computed on a net basis (i.e. after the deduction of all claims denominated in the relevant currency or currencies, as the case may be, by the bank on the other banks maturing within one month from the computation day), and where this is a

[2] For avoidance of doubt, this excludes any contingent liability of the bank.

net asset, the net asset amount shall not be deducted from Qualifying Liabilities and shall be treated as zero;

d) 15% of all undrawn commitments denominated in the relevant currency or currencies, as the case may be[3];

e) all liabilities arising from the issue of bills of exchange, other than a bill of exchange which satisfies the requirements set out in Appendix 2; and

f) all liabilities of the bank arising from the operation of any stored value facility as defined in section 2(1) of the Payment Systems (Oversight) Act (Cap 222A);

but does not include any liability of the bank arising from—

a) any funds received through repurchase agreements of Singapore Government Securities or MAS Bills;

b) any funds received through currency, interest rate and foreign exchange swaps;

c) any issue of subordinated debt, the terms of which comply with the criteria for the treatment of the liabilities as capital in the computation of the bank's capital adequacy ratio under section 10 of the Act, whether or not the entire amount of such liabilities is in fact treated in such computation as capital; and

d) any funds raised through the discounting of any bill of exchange which satisfies the requirements set out in Appendix 2, with other banks or finance companies in Singapore;

"Singapore Government Securities" means any security or equivalent instrument issued under the Government Securities Act (Cap 121A) and any Treasury bill or equivalent instrument issued under the Local Treasury Bills Act (Cap. 167);

"Tier-1 liquid asset" means –

a) notes and coins which are legal tender in Singapore other than assets maintained and held for the purposes of section 40 of the Act;

[3] For the purpose of the Singapore Dollar MLA requirement, where the undrawn commitment is a multi-currency facility involving the Singapore Dollars as a component currency, a bank shall include the entire facility amount as its undrawn commitment for its computation of its Singapore Dollar Qualifying Liabilities. However, if there is a sub-limit for the Singapore Dollars in the facility, the bank may use the sub-limit amount for its computation of its Singapore Dollar Qualifying Liabilities.

b) balances with the Authority other than cash balances maintained for the purposes of section 39 of the Act and assets maintained and held for the purposes of section 40;

c) for the purposes of the Singapore Dollar MLA requirement, the assets listed in paragraph 7(b), 7(c), 7(d) of this Notice; or

d) for the purposes of the all currency MLA requirement, the assets listed in paragraph 7(b), 7(c), 7(d) and 7(e) of this Notice.

"undrawn commitment" means any arrangement of a bank with any person (including other branches of the bank) which would pose liquidity risk to the bank in the event the person or a third party in whose favour the arrangement is made, utilises or calls upon the commitment, such as any unutilised portion of a guarantee, any standby letter of credit, any warranty, any standby credit facility, any forward asset purchase, any underwriting arrangements, any credit protection sold by the bank and any liquidity facilities granted by the bank, but does not include any arrangement where the drawdown or utilisation is subject to the approval of the bank at the point of drawdown, and the bank has the unconditional right to refuse drawdown.

Assets approved as "liquid assets"

7 For the purposes of section 38(9) of the Act, the following assets are approved by the Authority as liquid assets:

a) notes and coins of any currency, including notes and coins which are customary tender in Singapore;

b) any Singapore Government Securities ("SGS") and any SGS held under a reverse repurchase agreement;

c) any sukuk issued by Singapore Sukuk Pte Ltd;

d) any MAS Bills and any MAS Bills held under a reverse repurchase agreement;

e) any debt securities or sukuk[4] denominated in the relevant currency or currencies, as the case may be, not being a sukuk which is a liquid asset by virtue of sub-paragraph (c), that is issued by a sovereign or a central bank and assigned a credit rating of at least AA- by Fitch, Inc, or Standard and Poor's Corporation or a credit rating of at least Aa3 by Moody's Investor Services;

[4] For the avoidance of doubt, only sukuk which demonstrates characteristics similar to a debt security are approved by the Authority as liquid assets.

f) any debt securities or sukuk denominated in the relevant currency or currencies, not being a sukuk which is a liquid asset by virtue of sub-paragraph (c), and not being a debt security or sukuk defined in sub-paragraph (e), that are —

i) issued by a statutory board in Singapore, with a minimum issue size of SGD 200 million, at 90% of its value;

ii) with a minimum issue size of SGD 200 million which satisfies either the long term issue or short term issue credit ratings and at the relevant value set out in Appendix 3;

iii) issued by a sovereign, a supranational (i.e. an entity that is both of a governmental and international character), or a sovereign-guaranteed company (where the sovereign or government is not the Singapore Government) and the debt securities or sukuk are assigned a credit rating of AAA by Fitch, Inc, or Standard and Poor's Corporation or a credit rating of Aaa by Moody's Investor Services; or

iv) issued by a AAA-rated Public Sector Entity ("PSE")[5] and accorded a risk weight of zero under MAS Notice 637,

and includes any such debt securities or sukuk held under a reverse repurchase agreement[6]; or

g) any bill of exchange which satisfies the requirements set out in Appendix 2;

provided always that —

a) the asset shall be free from any prior encumbrances;

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[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;
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).

[6] For the avoidance of doubt, where an issue of such debt securities or sukuk is partially redeemed such that the outstanding issue size falls below SGD200m, those debt securities or sukuk would no longer be approved as liquid assets.

b) where the asset is a debt security or sukuk, it shall not be a convertible debt security or sukuk and if the bank holds more than 20% of the total market of a particular issue of debt securities or sukuk (including issues from different tranches), the bank shall only treat as liquid assets, 50% of the value of those debt securities or sukuk; and

c) the asset does not arise or result from any contractual or other arrangements with, or investments in, a counterparty related to the bank[7].

Valuation of Liquid Assets

8 A bank shall use the marked-to-market value of its liquid assets (other than bills of exchange) when computing the minimum amount of liquid assets to be held by it. Bills of exchange shall be valued at book value.

MLA Framework

9 Every bank shall hold, at all times:

a) liquid assets denominated in any currency amounting to no less than 16% of the value of its Qualifying Liabilities denominated in all currencies ("All currency MLA requirement"); and

b) liquid assets denominated in Singapore Dollars amounting to no less than 16% of the value of its Qualifying Liabilities denominated in Singapore Dollars ("Singapore Dollar MLA requirement")

10 Every business day shall be a computation day. On a maintenance day, a bank shall hold the Singapore Dollar MLA requirement and the All Currency MLA requirement, respectively, that was computed on the relevant computation day. Where a day is not a business day, a bank shall hold for that day, the Singapore Dollar MLA requirement and the All Currency MLA requirement of the immediately preceding maintenance day which is a business day. Appendix 4 sets out the computation and maintenance schedules for a bank determining its MLA requirements.

[7] A counterparty related to a bank includes a related corporation or associate of the bank, an entity which is treated as part of the bank's group of entities according to Accounting Standards and any subsidiary or associate of any holding company of the Bank. "Holding company" and "subsidiary" have the same meaning as in section 5 of the Companies Act. "[A]ssociate" has the same meaning as in the Fifth Schedule of the Banking Act, save that any reference to "substantial shareholder" shall be replaced by reference to "corporation". "Accounting Standards" have the same meaning as in section 4(1) of the Companies Act.

Minimum Amount of Tier 1 assets

11 A bank shall hold, at all times, at least 50% of its liquid assets held for the purposes of section 38 (9) ("MLA") in Tier-1 liquid assets.

Utilisation of liquid assets

12 A bank shall notify the Authority in writing of its intent to utilise its MLA in a liquidity stress situation prior to the utilisation. The bank shall ensure that the notification is signed by its chief executive, chief financial officer or any equivalent senior management.

13 A bank shall—

a) provide its justification for the utilisation of MLA;

b) set out the cause of the liquidity stress situation and to provide supporting documents, where available; and

c) detail the steps which it has taken and is going to take to resolve the liquidity stress situation,

to the Authority within one business day after the utilisation of its liquid assets.

14 A bank shall also keep the Authority informed of material developments during the liquidity stress situation.

Submission of liquidity returns

15 A bank shall prepare the appropriate liquidity returns set out at Appendix 5 as at the last calendar day of each month.

16 A bank shall submit all returns prepared in accordance with paragraph 15 to the Authority electronically through MASNET not later than 10 calendar days after the last day of each month.

PART II – LCR

Definitions

17 In Part II of this Notice—

"30-day LCR horizon" means the 30-day period following the day on which the LCR is computed;

"banking group" refers to the bank and its banking group entities;

"banking group entity" means any subsidiary or any other entity which is treated as part of a bank's group of entities according to Accounting Standards as defined in section 4(1) of the Companies Act (Cap. 50);

"cash management activity" in relation to a bank, means the remittance of payments, collection and aggregation of funds, payroll administration, and control over the disbursement of funds in the context of a relationship where the bank provides products and services to a customer to manage his or its cash flows, assets and liabilities, and conducts financial transactions necessary to the customer's affairs or operations;

"clearing activity" in relation to a bank, means the transmission, reconciliation and confirmation of payment orders; daylight overdraft, overnight financing and maintenance of post-settlement balances; and determination of intra-day and final settlement positions in the context of a relationship where the bank provides a service that enables customers to transfer funds (or securities) through direct participants in domestic settlement systems to final recipient;

"country-level group" in relation to a bank, refers to a group comprising any combination of the bank (first-mentioned bank), any other bank in Singapore or any merchant bank belonging to the same banking group as the first-mentioned bank approved by MAS to be part of the group;

"custody activity" in relation to a bank, means the settlement of securities transactions, the transfer of contractual payments, the processing of collateral, the provision of custody related cash management services, the receipt of dividends and other income, client subscriptions and redemptions, asset and corporate trust servicing, treasury, escrow, funds transfer, stock transfer and agency services, including payment and settlement services (excluding correspondent banking), and depository receipts; in the context of a relationship where the bank provides services for the safekeeping, reporting, processing of assets or the facilitation of the operational and administrative elements of related activities on behalf of customers in the process of their transacting and retaining financial assets;

“external credit assessment institution” or “ECAI” has the same definition as in MAS Notice 637;

“high quality liquid assets” or “HQLA” means any asset (a) approved under section 38(9) as “liquid assets” as listed in paragraph 21, which satisfies the requirements set out in paragraph 22 of this Notice to be included as high quality liquid assets for the purposes of computing the LCR and (b) which is available on the bank’s balance sheet as at the end of the day immediately preceding the 30-day LCR horizon;

“Level 1 HQLA” means any HQLA listed in paragraph 21(a), 21(b), 21(c), 21(d), 21(g), 21(h) or 21(n) of this Notice which satisfies the requirements set out in paragraph 22 of this Notice;

“Level 2A HQLA” means any HQLA listed in paragraph 21(e), 21(i) or 21(o) of this Notice which satisfies the requirements set out in paragraph 22 of this Notice;

“Level 2B(I) HQLA” means any HQLA listed in paragraph 21(j) or 21(o) of this Notice which satisfies the requirements set out in paragraph 22 of this Notice;

“Level 2B(II) HQLA” means any HQLA listed in paragraph 21(f), 21(k), 21(l), 21(m) and 21(o) of this Notice which satisfies the requirements set out in paragraph 22 of this Notice;

“Liquidity Coverage Ratio” or “LCR” refers to a ratio which is computed at the end of each day as follows:

$$\mathrm{LCR} = \frac{\mathrm{HQLA}}{\text{Total net cash outflows}} \times 100\%$$

“small business customer” means any customer that enters into a transaction with a bank with total exposures of less than S$2 million (on a consolidated basis where applicable) and are managed by the bank as retail exposures[8]; and

[8] “Small business customers” are defined in line with the definition of loans extended to small businesses in footnote 124 of the MAS Notice 637 that are managed as retail exposures and are generally considered as having similar liquidity risk characteristics to retail accounts provided the total aggregated funding raised from one small business customer is less than S$2 million (on a consolidated basis where applicable). Where a bank does not have any exposure to a small business customer that would enable it to use the definition under footnote 124 of the MAS Notice 637, the bank may include such a deposit in this category provided that the total aggregate funding raised from the customer is less than S$2 million (on a consolidated basis where applicable) and the deposit is managed as a retail deposit. This means that the bank treats such deposits in its internal risk management systems consistently over time and in the same manner as other retail deposits, and that the deposits are not individually managed in a way comparable to larger corporate deposits.

"significant currency" in relation to a bank, means a currency where the aggregate liabilities of the bank denominated in that currency as at the end of the month amounts to 5% or more of the bank's total liabilities.

LCR Framework

18 A bank incorporated and headquartered in Singapore shall maintain at all times, a Singapore Dollar LCR ("Singapore Dollar LCR requirement") of at least 100% and an all currency LCR ("all currency LCR requirement") of at least 60% by 1 January 2015, with the all currency LCR requirement increasing by 10% each year to 100% by 2019. Table 1 shows the implementation timetable. Pursuant to section 36 of the Act, the bank shall comply with the LCR requirements on a consolidated ("Group") level, which consolidates the assets and liabilities of its banking group entities, after excluding the following banking group entities:

a) any investment in an insurance subsidiary;

b) 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)

Table 1: Table for all currency LCR for a bank incorporated and headquartered in Singapore

From	1 January 2015	1 January 2016	1 January 2017	1 January 2018	1 January 2019
Minimum LCR requirement	60%	70%	80%	90%	100%

19 Any other bank notified by the Authority that it is D-SIB or a bank that elects to comply with the LCR framework, shall maintain at all times, a Singapore Dollar LCR requirement of 100% and an all currency LCR requirement of 50% by 1 January 2016.

20 A bank shall only use liquid assets denominated in Singapore Dollars to fulfil its Singapore Dollar LCR requirement. For avoidance of doubt, the total net cash outflows for the Singapore Dollar LCR requirement shall only include total net cash outflows denominated in Singapore Dollars.

Assets approved as "Liquid Assets"

21 For the purposes of section 38(9) of the Act, the following assets are approved by the Authority as "liquid assets":

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 MAS and other central banks, to the extent that MAS and the central banks' policies allow them to be drawn down in times of stress[9];

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[5], 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;

    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;

    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;

    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

[9] In this context, reserves would include banks' overnight deposits with the central bank, and term deposits with the central bank that: (i) are explicitly and contractually repayable on notice from the depositing bank; or (ii) that constitute a loan against which the bank can borrow on a term basis or on an overnight but automatically renewable basis (only where the bank has an existing deposit with the relevant central bank). Other term deposits with central banks are not eligible as liquid assets; however, if the term expires within 30 days, the term deposit could be considered as an inflow per paragraph 100.

percentage points over a 30-day period of significant liquidity stress;

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, a central bank, PSE or multilateral development 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;

g) where a sovereign has a non-0% risk weight as determined in accordance with 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, 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; 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;

   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;

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:

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;

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 affiliated entities;

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 only;

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[10] 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

[10] Weighted average LTV is computed as follows:

$$\boldsymbol{weighted\ average\ LTV} = \frac{mortgage\ amount_1 \times LTV_1 + mortgage\ amount_2 \times LTV_2 + \cdots + mortgage\ amount_n \times LTV_n}{mortgage\ amount_1 + mortgage\ amount_2 + \cdots + mortgage\ amount_n}$$

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

(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 (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.

n) any liquid assets recognized as alternative liquid assets in jurisdictions that implement the Alternative Liquidity Approach (ALA)[11] and which the banking supervisor of that jurisdiction recognises for purposes of including the liquid assets as Level 1 HQLA, subject to the requirements specified in paragraph 111.

o) any liquid assets recognized as alternative liquid assets in jurisdictions that implement the Alternative Liquidity Approach (ALA)[10] and which the banking supervisor of that jurisdiction recognises for purposes of including the liquid assets as Level 2 HQLA, subject to the requirements specified in paragraph 111.

Operational requirements

22 A bank shall treat a liquid asset as HQLA only if the liquid asset complies with the following operational requirements:

a) the liquid asset is unencumbered[12] and shall not be pledged whether explicitly or implicitly, to secure, collateralise or credit-enhance any transaction, nor be designated to cover operational costs (such as rents and salaries);

b) the liquid asset is to be under the control of the function charged with managing the liquidity of the bank (e.g. the treasurer). In this regard, an asset would only be

[11] Please refer to paragraphs 55-67 of the "Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring Tools"

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

considered to be under the control of the function if the asset is maintained in a separate pool managed by the function with the sole intent for use as a source of contingent funds or if the bank is able to demonstrate that the function has the authority and legal and operational capability to monetise the asset at any point in the 30-day LCR horizon and that the proceeds of doing so are available to the function throughout the 30-day LCR horizon without directly conflicting with a stated business or risk management strategy;

c) any liquid asset received in reverse repo and securities financing transactions and which has not been rehypothecated and is legally and contractually available for the bank's use (i.e. where the bank can sell or deal with such assets);

d) any liquid asset which has been deposited with, or pledged to, the central bank or a PSE but which has not been used to generate liquidity may be included as HQLA;

e) any liquid asset held to meet statutory liquidity requirements at the bank, branch or subsidiary level (where applicable) may only be included as HQLA at the consolidated level only if the expected cash flows as measured by the bank's branch or subsidiary are also reflected in the consolidated LCR. Any surplus of HQLA held at the bank can only be included in the consolidated stock if those HQLA would also be freely available to the consolidated (parent) group in times of stress;

f) any asset received as collateral for derivatives transactions that are not segregated and are legally available and not yet re-hypothecated may be included as HQLA provided that the bank records an appropriate outflow for the associated risks as set out in paragraph 64;

g) the portion of liquid assets received as part of a basket of collateral as security for a transaction may be included as HQLA to the extent that it can be monetised separately;

h) the unused portion of liquid assets which are pledged as collateral, as at the end of the day may be included as HQLA. If a bank is unable to determine which assets are unused, it shall assume that the assets are encumbered in the following order: Level 1 HQLA, Level 2A HQLA. Level 2B(I) HQLA, Level 2B(II) HQLA, non-HQLA eligible assets; and

i) any liquid asset received as part of a securities borrowing transaction where the liquid assets can be returned or recalled during the next 30 days shall not be included as HQLA.

Guidelines of HQLA

23 A bank should periodically monetise a representative proportion of the assets in the stock through repo or outright sale, in order to test its access to the market, the effectiveness of its processes for monetisation, the availability of the assets, and to minimise the risk of negative signalling during a period of actual stress;

Composition of HQLA

24 HQLA shall comprise Level 1 or Level 2 HQLA.

25 There is no limit or haircut applicable on Level 1 HQLA for the purposes of determining a bank's LCR[13].

26 Level 2 HQLA comprises of Level 2A and Level 2B HQLA. Level 2B HQLA comprises of Level 2B(I) and Level 2B(II) HQLA. Level 2B(II), Level 2B and Level 2 HQLA shall comprise a maximum of 5%, 15% and 40% of total HQLA respectively.

27 Level 2A HQLA are subject to a 15% haircut on the current market value of each Level 2A HQLA. Level 2B HQLA are subject to a 25% haircut for RMBS, 50% haircut for corporate debt securities (including commercial paper) and sovereign debt securities, and 50% haircut on ordinary shares. Where a liquid asset can be categorised into different categories of HQLA, a bank shall categorise the liquid asset into the HQLA category with the highest haircut except where expressively provided, or where the bank has obtained the approval of the Authority to do otherwise. A bank may apply to the Authority for such approval with evidence supporting the less conservative treatment.

28 A bank shall calculate the cap on Level 2 HQLA and Level 2B HQLA after the application of the required haircuts, and after taking into account the unwinding of short-term securities financing transactions and collateral swap transaction maturing within 30 calendar days that involve the exchange of HQLA. In this context, short term transactions are transactions with a maturity date up to and including 30 calendar days.

29 If a liquid asset no longer qualifies as HQLA, (e.g. due to rating downgrade), a bank is permitted to keep such liquid assets as HQLA for an additional 30 calendar days. This would allow the bank additional time to adjust its HQLA as needed or replace the liquid asset.

30 The Authority may vary the types of HQLA when deemed appropriate. The formula for the computation of HQLA is found in Appendix 6.

[13] For the purposes of calculating the LCR, Level 1 HQLA shall be measured at an amount no greater than their current market value.

Total net cash outflows

31 Total net cash outflows is defined as total expected cash outflows minus:

a) total expected cash inflows; or

b) 75% of total expected cash outflows,

whichever is the lower. Transactions between entities in a country-level group shall not be included for the purposes of computing total net cash outflows.

32 Except where otherwise stated, expected cash outflows and inflows are computed by multiplying the outflow and inflow rates respectively to the outstanding balances of the outflow and inflow items due within 30 days from the computation date. Appendix 7 provides a summary of the outflow and inflow rates that are applied to each category of cash outflows and cash inflows.

33 A bank shall not double count assets and liabilities in the computation of the LCR. If a liquid asset is included as part of HQLA, the cash inflows associated with that liquid asset cannot be counted as part of the total expected cash inflows.

34 Where transactions can be categorised into multiple categories with different inflow or outflow factors, a bank shall adopt the higher outflow factor or lower inflow factor, as the case may be, except where expressly provided otherwise or where the bank has obtained the approval of the Authority to do otherwise.

Cash outflows

(A) Retail deposit cash outflows

35 Retail deposits are deposits placed with a bank by a natural person. Deposits from legal entities, sole proprietorships or partnerships are captured in the wholesale funding categories. Retail deposits that may be included as part of the LCR computation include demand deposits and term deposits, unless otherwise excluded under the criteria set out in paragraphs 40 and 41.

36 Retail deposits are divided into “stable” and “less stable” as described below.

(I) Stable deposits

37 Stable deposits are those which are fully insured[14] by the Singapore Deposit Insurance Corporation Limited (SDIC)[15], or an effective government deposit insurance scheme[16], 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).

38 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.

(II) Less stable deposits

39 Less stable deposits are deposits that are not stable deposits.

(III) Retail term deposits

40 A bank shall exclude the cash outflow from a retail term deposit with a residual maturity or withdrawal notice period of greater than 30 days from the total expected cash outflows. If a bank allows a depositor to withdraw such deposits within the 30-day

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[14] Fully insured means that the deposit amount, up to the deposit insurance limit, will be fully paid out by an effective deposit insurance scheme. Deposit balances up to the deposit insurance limit can be treated as "fully insured" or "stable" even if a depositor has a balance in excess of the deposit insurance limit. However, any amount in excess of the deposit insurance limit is to be treated as "less stable".

[15] The current cash outflow rate for stable deposits fully insured by the Singapore Deposit Insurance Corporation Limited (SDIC) is 5%. This may change to 3% when the insurance scheme meets the additional criteria of (i) the insurance scheme is based on a system of prefunding via the periodic collection of levies on banks with insured deposits and ii) the scheme has adequate means of ensuring ready access to additional funding in the event of a large call on its reserves, e.g. an explicit and legally binding guarantee from the government, or a standing authority to borrow from the government; and access to insured deposits is available to depositors no more than 7 business days once the deposit insurance scheme is triggered.

[16]Effective deposit insurance scheme means – A scheme (i) that guarantees that it has the ability to make prompt payouts, (ii) for which the coverage is clearly defined and (iii) of which public awareness is high. The deposit insurer in an effective deposit insurance scheme has formal legal powers to fulfil its mandate and is operationally independent, transparent and accountable. A jurisdiction with an explicit and legally binding sovereign deposit guarantee that effectively functions as deposit insurance can be regarded as having an effective deposit insurance scheme.

LCR horizon without applying any penalty that is materially greater than the loss of interest, notwithstanding a clause that says the depositor has no legal right to withdraw, the entire category of such deposits would then have to be treated as either stable or less stable deposits depending on their fulfilment of the criteria in paragraphs 35 to 39.

41 Where a bank has a branch or subsidiary in other jurisdictions carrying on banking business, the bank shall apply the cash flow rates outlined in this Notice when it calculates its LCR except for deposits from retail and small business customers where the bank shall follow the relevant treatment adopted in the host jurisdiction where the branch or subsidiary operates, subject to the requirements in paragraph 110.

(B) Unsecured wholesale funding cash outflows

42 "Unsecured wholesale funding" is defined as those liabilities and general obligations of persons who are not natural persons and such liabilities and general obligations that are not secured by legal rights to specifically designated assets owned by the person in the event of the bankruptcy, insolvency, liquidation or resolution of the person. Liabilities and obligations related to derivative contracts are explicitly excluded from this definition.

43 The unsecured wholesale funding included in the LCR is defined as all funding that is callable within 30 calendar days or that has its earliest possible contractual maturity date situated within this horizon (such as maturing term deposits and unsecured debt securities) as well as funding with an undetermined maturity, and includes all funding with options that are exercisable at the counterparty's discretion within 30 calendar days. For options exercisable at the bank's discretion, the bank may consider reputational factors that may limit the bank's ability not to exercise the option and its impact on unsecured wholesale funding cash outflows.

44 Unsecured wholesale funding that is callable by such counterparties subject to a contractually defined and binding notice period surpassing the horizon of 30 calendar days is not included.

(I) Unsecured wholesale funding provided by small business customers

45 Unsecured wholesale funding provided by small business customers is treated the same way as retail deposits i.e. on the same basis as determining stable and less stable deposits and associated cash outflow rates apply[8].

(II) Operational deposits generated by clearing, custody and cash management activities:

46 Only operational deposits from customers with qualifying clearing, custody and cash management accounts with the bank ("qualifying operational deposits") are allocated a

cash outflow rate of 25%. 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.

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

a) 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;

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

c) 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.

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

a) 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

b) 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. 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 (as defined below) could be significant.

49 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.

50 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.

51 Operational deposits would receive a 0% inflow assumption for the depositing bank given that these deposits are required for operational reasons, and are therefore not available to the depositing bank to repay other outflows.

52 Notwithstanding the inclusion of a deposit into the operational deposit category, if the deposit under consideration arises out of correspondent banking[17] or from the provision of prime brokerage services, a bank shall treat the deposit as if there were no operational activity for the purpose of determining cash outflow rates.

(III) Deposits in institutional networks of cooperative banks:

53 An institutional network of cooperative (or otherwise named) banks is 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 specialised service providers. A cash outflow rate of 25% may be applied to the amount of deposits of member institutions with the central institution or specialised central service providers that are placed arising from statutory minimum deposit requirements or in the context of common task sharing and legal, statutory or contractual arrangements so long as both the bank that has received the monies and the bank that has deposited the monies participate in the same institutional network's mutual protection scheme against illiquidity and insolvency of its members. As with other operational deposits, these deposits would receive a cash inflow rate of 0% for the depositing bank, as these funds are considered to remain with the centralised institution.

54 A bank shall seek the Authority's approval before applying the treatment in paragraph 52. The bank shall not include its correspondent banking activities in this category and such banking activities shall to receive a cash outflow rate of 100%, as would funds placed at the central institutions or specialised service providers for any other reason other than those outlined in paragraph 53 above, or for clearing, custody, or cash management activities.

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[17] 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.

(IV) Deposits contractually pledged to a bank as collateral to secure other transactions

55 Notwithstanding the paragraphs above, if a deposit is contractually pledged to a bank as collateral to secure a credit facility or loan granted by the bank ("pledged deposit") that will not mature or settle within the next 30 days, the pledged deposit may be excluded from the LCR only if all the following conditions are met:

a) the loan or credit facility is not maturing in the next 30 days;

b) there is a legally enforceable contract disallowing withdrawal of the pledged deposit before the loan is fully settled or repaid; and

c) the amount of deposit that is excluded from the LCR does not exceed the outstanding balance of the loan or drawn portion of the credit facility.

This shall not apply to a deposit which is pledged against an undrawn facility, in which case the higher of the outflow rate applicable to the undrawn facility or the pledged deposit applies.

(V) Unsecured wholesale funding provided by non-financial corporate and sovereigns, central banks, multilateral development banks and PSEs:

56 A bank shall apply a cash outflow rate of 20% on unsecured wholesale funding provided by corporate customers which are not financial institutions, sovereigns, central banks, multilateral development banks, and PSEs, that also do not qualify as operational deposits if the entire amount of the deposit is fully covered by an effective deposit insurance scheme or by a public guarantee that provides equivalent protection. Otherwise, the bank shall apply a cash outflow rate of 40% on such unsecured wholesale funding.

(VI) Unsecured wholesale funding provided by other customers which are not natural persons:

57 A bank shall apply a cash outflow rate of 100% on all deposits and other funding from other institutions (including banks, securities firms, insurance companies), fiduciaries, beneficiaries, conduits and special purpose vehicles, affiliated entities of the bank and other entities that are not specifically held for operational purposes (as defined above) and not included in the paragraphs 42 to 56. Outflows from unsecured wholesale funding over the 30-day LCR horizon and provided by intragroup banking entities may be computed on a net basis with inflows from unsecured wholesale funding over the 30-day LCR horizon provided by intragroup banking entities.

58 All notes, bonds and other debt securities issued by the bank are to be included in this category regardless of the holder, unless the bond is sold exclusively in the retail market and held in retail accounts (including small business customer accounts), in which case a bank may include the notes, bonds or debt securities in the appropriate retail or small business customer deposit category provided that limitations are placed on the instrument by the bank such that those instruments cannot be bought and held by parties other than retail or small business customers.

59 A bank shall separate customer cash balances arising from the provision of prime brokerage services, including but not limited to the cash arising from prime brokerage services as identified in paragraph 52, from any required segregated balances related to client protection regimes imposed by national regulations and such cash balances shall not be netted against other customer exposures included in LCR. These offsetting balances held in segregated accounts are treated as inflows and shall be excluded from HQLA.

(C) Secured funding cash outflows

60 A bank shall include as secured funding cash outflows any liabilities and general obligations that are collateralised by legal rights to specifically designated assets owned by the borrowing institution in the case of bankruptcy, insolvency, liquidation or resolution. The bank shall include forward repurchase transactions and collateral swaps that start prior to, but mature within the 30-day LCR horizon in this category.

61 A bank shall treat collateral swaps as a combination of a repurchase and reverse repurchase agreement, as shall any other transaction which involves an exchange of non-cash assets. The net outflow for collateral swaps is computed based on the net cash outflow that will result from an equivalent repurchase and reverse repurchase transaction, floored at 0%. The bank shall treat collateral lent to the bank's customers to effect short positions as a form of secured funding.

62 If a pool of assets is used as collateral for a secured funding transaction, and a bank is unable to determine specifically which assets are used to collateralise the transaction, it shall assume that the assets are encumbered in the following order: Level 1 HQLA, Level 2A HQLA. Level 2B(I) HQLA, Level 2B(II) HQLA, non-HQLA eligible assets.

63 Appendix 7 provides a summary of the cash outflow rates that applies to each category for outstanding secured funding transactions that matures within the 30-day LCR horizon. A bank shall apply the outflow rates to the amount of funds raised through the secured funding transaction.

(D) Additional requirements

64 **Cash outflows from derivative contracts:** The sum of all net cash outflows shall be assigned a cash outflow rate of 100%. A bank shall calculate, in accordance with its existing valuation methodologies, expected cash inflows and outflows from its derivative contracts. A bank may calculate its cash flows with its counterparty on a net basis (i.e. derivative inflows within the 30-day LCR horizon can offset derivative outflows within the 30-day LCR horizon), where it has entered into a valid master netting agreement with that counterparty. In determining its all currency LCR, a bank may calculate its cash flows on a net basis for foreign exchange derivative contracts not covered by a master netting agreement, where it involves a full exchange of principal amounts within the same day. The bank shall exclude from such calculations those liquidity requirements that would result from increased collateral needs due to market value movements or falls in value of collateral posted. Options shall be assumed to be exercised at the point when they are 'in the money' to the option buyer. Where derivative payments are collateralised by HQLA, cash outflows are calculated net of any corresponding cash or collateral inflows that would result, all other things being equal, from contractual obligations for cash or collateral to be provided to the bank, if the bank is legally entitled and operationally capable to re-use the collateral in new cash raising transactions once the collateral is received. The bank shall treat outflows from options with delivery settlement as secured borrowing transactions, where the delivered assets are treated as collateral in secured transactions or collateral swaps, with the appropriate outflow factors assigned in paragraphs 60 to 63. If contractual arrangements allow for both physical delivery and cash settlement, cash settlement may be assumed. For physical delivery, where not otherwise stated in the derivative contract, delivery of the least value security ("cheapest to deliver") may be assumed.

65 **Increased liquidity needs related to downgrade triggers embedded in financing transactions, derivatives and other contracts:** Often, contracts governing derivatives and other transactions have clauses that require the posting of additional collateral, drawdown of contingent facilities, or early repayment of existing liabilities upon the bank's downgrade by a recognised credit rating organisation. For each contract in which downgrade triggers exist, the bank shall assume that 100% of this additional collateral or cash outflow as stated in the governing contract shall be posted for any downgrade during the next 30 calendar days up to and including a 3-notch downgrade of the bank's long-term credit rating. Triggers linked to a bank's short-term rating shall be triggered at the corresponding long-term rating in accordance with published ratings criteria. The bank shall consider impacts on all types of margin collateral and contractual triggers which change rehypothecation rights for non-segregated collateral for the impact of the downgrade.

66 **Increased liquidity needs related to the potential for valuation changes on posted collateral securing derivative and other transaction:** Observation of market practices indicates that most counterparties to derivatives transactions typically are required to secure the mark-to-market valuation of their positions and that this is predominantly done using cash or sovereign, central bank, multilateral development banks, or PSE debt securities with a 0% risk weight under the Basel II standardised approach. When these Level 1 HQLA securities are posted as collateral, the framework will not require that additional HQLA be maintained for potential valuation changes. If however, counterparties are securing mark-to-market exposures with other forms of collateral, to cover the potential loss of market value on those securities, 20% of the value of all such posted collateral, net of collateral received on a counterparty basis (provided that the collateral received is not subject to restrictions on reuse or rehypothecation) will be added to the stock of required HQLA by the bank posting such collateral. This 20% will be calculated based on the notional amount required to be posted as collateral after any other haircuts have been applied that may be applicable to the collateral category. Any collateral that is in a segregated margin account can only be used to offset outflows that are associated with payments that are eligible to be offset from that same account. The notional amount to be collateralised shall be based on the contractual terms of the transaction. The bank shall not net collateral inflows and outflows across counterparties. The bank shall compute the amount of collateral to be posted in accordance with the relevant contract governing the respective transactions.

67 **Increased liquidity needs related to excess non-segregated collateral held by the bank that could contractually be called at any time by the counterparty:** A bank shall include 100% of the non-segregated collateral amount that could contractually be recalled by the counterparty because the collateral is in excess of the counterparty's current collateral requirements. The bank shall compute the amount that can be recalled in accordance with the relevant contract governing the transactions.

68 **Increased liquidity needs related to contractually required collateral on transactions for which the counterparty has not yet demanded the collateral be posted:** A bank shall include 100% of the collateral amount that is contractually due but where the counterparty has not yet demanded the posting of such collateral. The amount of collateral shall be computed in accordance with the relevant contract governing the transactions.

69 **Increased liquidity needs related to contracts that allow collateral substitution to non- HQLA assets or lower-quality HQLA:** A bank shall include a cash outflow equivalent to the market value of the initial HQLA collateral received multiplied by the difference in haircuts (as defined in paragraph 27 of this Notice) of the received collateral and the potential substitute collateral. This shall apply to initial HQLA collateral received that is counted in the bank's HQLA, and that can be substituted for non-HQLA assets or lower-quality HQLA assets without the bank's consent, where such HQLA collateral has been received to secure transactions that have not been

segregated. The bank shall compute the contingent outflow resulting from collateral substitution in secured lending or borrowing transactions in accordance with the relevant contract governing the transactions.

70 **Increased liquidity needs related to market valuation changes on derivative or other transactions:** As market practice requires collateralisation of mark-to-market exposures on derivative and other transactions, a bank faces potentially substantial liquidity risk exposures to these valuation changes. A bank may treat inflows and outflows of transactions executed under the same master netting agreement on a net basis. A bank shall include any outflow generated by increased needs related to market valuation changes in its calculation of the LCR by identifying the largest absolute net 30-day collateral flow realised during the preceding 24 months. The absolute net collateral flow is based on both realised outflows and inflows. The largest absolute net 30-day collateral flow shall be assessed on a portfolio level. The bank shall compute the contingent outflow resulting from market valuation changes in accordance with the relevant contract governing the transactions.

71 **Loss of funding on asset-backed securities, covered bonds and other structured financing instruments:** A bank shall assign a cash outflow rate of 100% for such instruments maturing within the 30-day period, when these instruments are issued by the bank itself (as this assumes that the re-financing market will not exist). For products maturing within the next 30 days, a bank may offset inflows from Level 1 or Level 2 HQLA used as collateral for the products against the redemption payment of the products. Any net inflow shall be considered as other contractual cash inflows in paragraph 108.

72 **Loss of funding on asset-backed commercial paper, conduits, securities investment vehicles and other such financing facilities:** A bank having structured financing facilities that include the issuance of short-term debt instruments, such as asset backed commercial paper, shall fully consider the potential liquidity risk arising from these structures. These risks include the inability of the bank to refinance maturing debt, and the existence of derivatives or derivative-like components contractually written into the documentation associated with the structure that would allow the "return" of assets in a financing arrangement, or that require the original asset transferor to provide liquidity, effectively ending the financing arrangement ("liquidity puts") within the 30-day period. Where the structured financing activities of a bank are conducted through a special purpose entity (such as a special purpose vehicle ("SPV"), conduit or structured investment vehicle – ("SIV")), the bank shall, in determining the HQLA requirements, look through to the maturity of the debt instruments issued by the entity and any embedded options in financing arrangements that may potentially trigger the "return" of assets or the need for liquidity, irrespective of whether or not the SPV is consolidated.

Table 2: Outflow rates from potential risk elements

Potential Risk Element	Cash outflow rate required
Debt maturing within the 30 -day period	A cash outflow rate of 100% on maturing amount
Embedded options in financing arrangements that allow for the return of assets or potential liquidity support	A cash outflow rate of 100% on the amount of assets that could potentially be returned, or the liquidity required

73 **Drawdowns on committed credit and liquidity facilities:** Committed facilities are defined as explicit contractual agreements or obligations to extend funds at a future date to retail or wholesale counterparties, which are contractually irrevocable or conditionally revocable agreements. A bank shall classify facilities that are unconditionally cancellable by the bank (in particular, those without a precondition of a material change in the credit condition of the borrower) as other contingent funding obligations as outlined in paragraph 82. Irrevocable or conditionally revocable facilities or funding commitments can have long or short-term maturities, with short-term facilities frequently renewing or automatically rolling-over. In a stressed environment, it will likely be difficult for customers drawing on facilities of any maturity, even short-term maturities, to be able to quickly pay back the borrowings. Therefore, for purposes of this Notice, all such facilities that are assumed to be drawn as outlined in paragraphs 74 to 79 shall remain outstanding at the amounts assigned throughout the 30-day period in computing the net outflows for the LCR, regardless of maturity.

74 The currently undrawn portion of these committed facilities is calculated net of any HQLA which have already been posted as collateral by the counterparty to secure the facilities, or that are contractually obliged to be posted when the counterparty draws down the facility. (e.g. a liquidity facility structured as a repo facility). This is provided that the bank is legally entitled and operationally capable to re-use the collateral in new cash raising transactions once the facility is drawn, and there is no undue correlation between the probability of drawing the facility and the market value of the collateral. The collateral can be netted against the outstanding amount of the facility to the extent that this collateral is not already counted in the stock of HQLA.

75 A committed liquidity facility is defined as any committed, undrawn back-up facility that would be utilised to refinance the debt obligations of a customer in situations where such a customer is unable to rollover that debt in financial markets (e.g. pursuant to a commercial paper programme, secured financing transactions, obligations to redeem units). For the purpose of this Notice, the amount of the commitment to be treated as a committed liquidity facility is the amount of the currently outstanding debt issued by the customer (or proportionate share, if a syndicated facility) maturing within

a 30-day period that is backstopped by the facility. The portion of a liquidity facility that is backing debt that does not mature within the 30-day window is excluded from the scope of the definition of a facility.

76 Any additional capacity of the committed liquidity facility in paragraph 75 (i.e. the remaining commitment) would be treated as a committed credit facility with its associated drawdown rate as specified in paragraph 79. General working capital facilities for corporate entities (e.g. revolving credit facilities in place for general corporate or working capital purposes) will not be classified as liquidity facilities, but as credit facilities.

77 Notwithstanding paragraphs 73 to 76, any committed facilities provided to hedge funds, money market funds and special purpose funding vehicles or conduits, or other vehicles used to finance the bank's own assets, are to be captured in their entirety as a committed liquidity facility to other legal entities.

78 For that portion of financing programs issued by a bank that are captured under paragraphs 71 and 72 of the Notice (i.e. are maturing or have liquidity puts that may be exercised within 30 calendar days), banks that are providers of the associated liquidity facilities do not need to double count the maturing financing instrument and the liquidity facility for consolidated programs.

79 Any contractual and estimated loan drawdowns from committed facilities within the 30-day period shall be fully reflected as cash outflows with the following outflow rates:

a) Committed credit and liquidity facilities to retail and small business customers: A bank shall assume a cash outflow rate of 5% of the undrawn portion of these facilities;

b) Committed credit facilities to non-financial corporates, sovereigns and central banks, PSEs and multilateral development banks: A bank shall assume a cash outflow rate of 10% of the undrawn portion of these credit facilities;

c) Committed liquidity facilities to non-financial corporates, sovereigns and central banks, PSEs, and multilateral development banks: A bank shall assume a cash outflow rate of 30% of the undrawn portion of these liquidity facilities;

d) Committed credit and liquidity facilities extended to banks subject to prudential supervision: A bank shall assume a cash outflow rate of 40% of the undrawn portion of these facilities;

e) Committed credit facilities to other financial institutions including securities firms, insurance companies, fiduciaries, and beneficiaries: A bank shall assume a cash outflow rate of 40% of the undrawn portion of these credit facilities;

f) Committed liquidity facilities to other financial institutions including securities firms, insurance companies, fiduciaries, and beneficiaries: A bank shall assume a cash outflow rate of 100% of the undrawn portion of these liquidity facilities; or

g) Committed credit and liquidity facilities to other legal entities (including SPEs, conduits and special purpose vehicles, and other entities not included in the prior categories): A bank shall assume a cash outflow rate of 100% of the undrawn portion of these facilities.

80 **Contractual obligations to extend funds within a 30-day period:** Any contractual lending obligations to financial institutions not captured elsewhere in this notice are to be captured here at a cash outflow rate of 100%.

81 If the total of all contractual obligations to extend funds to retail and non-financial corporate clients within the next 30 calendar days not captured in the prior paragraphs exceeds 50% of the total contractual inflows due in the next 30 calendar days from these clients, the difference should be reported as a cash outflow rate of 100%.

82 **Other contingent funding obligations:** These contingent funding obligations may be either contractual or non-contractual and are not lending commitments. Non-contractual contingent funding obligations include associations with, or sponsorship of, products sold or services provided that may require the support or extension of funds in the future under stressed conditions. Non-contractual obligations may be embedded in financial products and instruments sold, sponsored, or originated by the institution that can give rise to unplanned balance sheet growth arising from support given for reputational risk considerations. These include products and instruments for which the customer or holder has specific expectations regarding the liquidity and marketability of the product or instrument and for which failure to satisfy customer expectations in a commercially reasonable manner would likely cause material reputational damage to the institution or otherwise impair ongoing viability. The full amount of the obligations that is expected to materialise will receive a cash outflow rate of 100%.

83 Some of these contingent funding obligations are explicitly contingent upon a credit or other event that is not always related to the liquidity events simulated in the stress scenario, but may nevertheless have the potential to cause significant liquidity drains in times of stress.

84 Non contractual contingent funding obligations related to potential liquidity draws from joint ventures or minority investments in entities, which are not consolidated, are to be captured in paragraph 82 where there is the expectation that the bank will be the main liquidity provider when the entity is in need of liquidity.

85 **Trade finance cash outflows:** Trade finance instruments consist of trade-related obligations, directly underpinned by the movement of goods or the provision of services, such as:

a) documentary trade letters of credit, documentary and clean collection, import bills and export bills; and

b) guarantees directly related to trade finance obligations, such as shipping guarantees.

86 For contingent funding obligations stemming from trade finance instruments, a bank shall apply a cash outflow rate of 3%.

87 Lending commitments, such as direct import or export financing for non-financial corporate firms, are excluded from the above treatment and a bank shall apply the cash outflow rates specified in paragraph 79 for such commitments.

88 **Non contractual obligations where customer short positions are covered by other customers' collateral:** A bank shall apply a cash outflow rate of 50% on such contingent obligations where the bank has internally matched client assets against other clients' short positions, where the collateral does not qualify as Level 1 or Level 2 HQLA, and the bank may be obligated to find additional sources of funding for these positions in the event of client withdrawals.

89 **Other contractual cash outflows:** Any other contractual cash outflows within the next 30 calendar days should be captured in this Notice, such as outflows to cover unsecured collateral borrowings, uncovered short positions, dividends or contractual interest payments, with explanation given as to what comprises this bucket. A bank shall apply a cash outflow rate of 100% to these contractual cash outflows. A bank however does not need to include outflows related to operating costs.

Cash inflows

90 When considering its available cash inflows, a bank shall only include contractual inflows (including interest payments) from outstanding exposures that are fully performing and for which the bank has no reason to expect a default within the next 30 calendar days. The bank shall not include contingent inflows in total net cash inflows.

91 **Cap on total inflows:** In order to prevent banks from relying solely on anticipated inflows to meet their liquidity requirement, and also to ensure a minimum level of HQLA holdings, the amount of inflows that can offset outflows shall be capped at 75% of total expected cash outflows as calculated in Part II - LCR of the Notice.

(E) Secured lending, including reverse repos and securities borrowing

92 For maturing reverse repurchase or securities borrowing agreements:

a) if the agreement is secured by Level 1 HQLA, a cash inflow rate of 0% shall be assumed;

b) if the agreement is secured by Level 2 HQLA, a cash inflow rate equivalent to the relevant haircut for the specific HQLA shall be assumed; or

c) if the agreement is secured by non-HQLA, a cash inflow rate of 100% shall be assumed.

Collateralised loans extended to customers for the purpose of taking leveraged trading positions ("margin loans") are to receive 50% of contractual inflows (i.e. a cash inflow rate of 50%) from maturing margin loans made against collateral which would not be considered as HQLA. Table 3 lists the relevant inflow rates.

93 As an exception to paragraph 92, if the collateral obtained through reverse repurchase, securities borrowing, or collateral swaps is used to cover short positions that could be extended beyond 30 days, a bank shall assume that such reverse repurchase or securities borrowing arrangements will be rolled-over and will not give rise to any cash inflows (i.e. a cash inflow rate of 0%), reflecting its need to continue to cover the short position or to re-purchase the relevant securities. Table 3 lists the relevant inflow rates.

Table 3: Maturing secured lending inflow rates

Maturing secured lending backed by the following asset category	**Inflow rate (if collateral is not used to cover short positions)**	**Inflow rate (if collateral is used to cover short positions)**
Level 1 HQLA	0%	0%
Level 2A HQLA	15%	0%
Level 2B HQLA		
• Eligible RMBS	25%	0%
• Other Level 2B HQLA	50%	0%
Margin lending backed by all other collateral	50%	0%
Other collateral	100%	0%

94 In the case of a bank's short positions, if the short position is being covered by an unsecured security borrowing, the bank should assume the unsecured security borrowing of collateral from financial market participants would run-off in full, leading to a 100% outflow of either cash or HQLA to secure the borrowing, or cash to close out the short position by buying back the security. This should be recorded as a 100% other

contractual outflow according to paragraph 89. If, however, the bank's short position is being covered by a collateralised securities financing transaction, the bank should assume the short position will be maintained throughout the 30-day period and receive a cash outflow rate of 0%.

95 If a pool of assets is used as collateral for a secured lending transaction, and a bank is unable to determine specifically which assets are used to collateralise the transaction, it shall assume that the assets are encumbered in the following order: Level 1 HQLA, Level 2A HQLA. Level 2B(I) HQLA, Level 2B(II) HQLA, non-HQLA eligible assets.

96 Notwithstanding the roll-over assumptions in paragraphs 92 and 93, a bank shall manage its collateral such that it is able to fulfil obligations to return collateral whenever the counterparty decides not to roll-over any reverse repo or securities lending transaction.

97 A bank shall include forward reverse repurchase transactions and collateral swaps that start prior but mature within the 30-day LCR horizon in this category.

98 Paragraphs 92 to 97 shall not apply to any transaction where there is a possibility of the inflow occurring after 30 days.

(F) Committed facilities

99 Credit facilities, liquidity facilities or other contingent funding facilities that the bank holds at other institutions for its own purposes receive a cash inflow rate of 0%.

(G) Other inflows by counterparty

100 For loan payments, a bank shall only include cash inflows from fully performing loans. In addition, a bank shall only include cash inflows at the latest possible date, based on the contractual rights available to counterparties. For revolving credit facilities, the bank shall assume that the existing loan will be rolled over and any remaining balances are treated as a committed facility according to paragraph 79.

101 Cash inflows from loans that have no specific maturity should not be included, except for minimum payments of principal, fee or interest associated with an open maturity loans that are contractually due within 30 days. An exception to this would be minimum payments of principal, fee or interest associated with an open maturity loan, provided that such payments are contractually due within 30 days. These minimum payment amounts are captured as inflows at the rates prescribed in paragraphs 102 and 103.

(I) Retail and small business customer inflows

102 A bank shall assume that all payments (including interest payments and instalments) from retail and small business customers that are fully performing and contractually due within the next 30 calendar days will be received in full. At the same time, the bank shall assume that it will continue extending loans to retail and small business customers at a rate of 50% of contractual inflows. This results in a net cash inflow rate of 50% of the contractual amount.

(II) Other wholesale inflows

103 A bank shall assume that all payments (including interest payments and instalments) received from wholesale customers that are fully performing and contractually due within the next 30 calendar days will be received in full. In addition, the bank is to assume to continue extending loans to wholesale customers at a cash inflow rate of 0% for financial institutions and central banks, and a cash inflow rate of 50% for all others, including non-financial corporates, sovereigns, multilateral development banks, and PSEs. This will result in a cash inflow rate of:

a) 100% for financial institution and central bank counterparties; and

b) 50% for non-financial wholesale counterparties.

104 Inflows from securities maturing within 30 days not included in HQLA shall receive a cash inflow rate of 100%.

105 Operational deposits of a bank held at other financial institutions for operational purposes are to receive a cash inflow rate of 0%. Similarly, deposits held at the centralised institution in a cooperative banking network, which are assumed to stay at the centralised institution, are to receive a cash inflow rate of 0%. A bank shall assess operational deposits according to the methodology in paragraphs 46 to 52. A deposit that has been classified by a receiving bank or financial institution, as the base may be, as operational shall also be considered by a depositing bank or financial institution, as the case may be as an operational deposit.

106 Inflows from intragroup entities may be computed on a net basis with outflows from intragroup entities.

(H) Other cash inflows

107 Cash inflows from derivative contracts: the sum of all net cash inflows shall be assigned a cash inflow rate of 100%. Where derivatives are collateralised by HQLA, a bank shall calculate the cash inflows for the derivatives net of any corresponding cash

or contractual collateral outflows. The bank shall not double-count liquidity inflows or outflows. The amounts of cash inflows from derivative contracts shall be calculated in accordance to the methodology described in paragraph 64. A bank shall treat inflows from an option with a delivery settlement as a secured lending transaction, with the appropriate outflows assigned as per paragraphs 92 to 96. If the contractual arrangements allow for both physical delivery and cash settlement, cash settlement may be assumed. For physical delivery, where not otherwise stated in the derivative contract, delivery of the least value security ("cheapest to deliver") may be assumed

108 Other contractual cash inflows: All other contractual cash inflows shall receive a cash inflow rate of 0%. A bank shall include any other contractual cash inflows not captured in any other earlier category here, with an explanation as to what has been included in this category.

109 A bank shall not include the following items as contractual cash inflows:

a) any cash inflow related to non-financial revenues;

b) any forward repurchase, forward reverse repurchase agreements or forward collateral swap that starts and matures within the 30-day LCR horizon;

c) any forward repurchase, forward reverse repurchase agreements or forward collateral swap that starts prior to and matures after the 30-day LCR horizon;

d) any forward sales of HQLA.

Scope of Application

110 Where a bank has a branch or subsidiary in jurisdictions that do not apply the Basel Committee's global framework for liquidity risk, the bank shall apply the parameters outlined in this Notice for its calculation of the LCR. Where a bank has a branch or subsidiary in jurisdictions that applies the Basel Committee's global framework for liquidity risk, paragraphs 35 to 41 and footnote 8 shall be interpreted according to the host jurisdiction's equivalent LCR rules.

111 Where a bank has banking presence (branch or subsidiary) in jurisdictions that adopt the Alternative Liquidity Approaches (ALA), the bank may include the HQLA recognized in these jurisdictions for its calculation of the LCR, up to the amount of the bank's stressed net cash outflows stemming from the bank or its subsidiary's operations in these jurisdictions.

112 The Authority reserves the right to impose stricter parameters where necessary.

Utilisation of HQLA

113 A bank shall notify the Authority in writing of its intent to utilise its HQLA, where it will cause its LCR to fall below the prevailing minimum requirements as described in paragraphs 18 and 19, in a liquidity stress situation prior to the utilisation. The bank shall ensure that the notification is signed by its chief executive, chief financial officer or any equivalent senior management.

114 A bank shall —

a) provide its justification for the utilisation of HQLA;

b) set out the cause of the liquidity stress situation and to provide supporting documents, where available; and

c) detail the steps which it has taken and is going to take to resolve the liquidity stress situation,

to the Authority within one business day after the utilisation of its HQLA.

115 A bank shall also keep the Authority informed of material developments during the liquidity stress situation.

Frequency of calculation and reporting

116 Every bank shall prepare the appropriate liquidity returns set out at Appendix 5 as at the last calendar day of each month.

117 A bank shall submit all returns prepared in accordance with paragraph 116 to the Authority electronically through MASNET not later than 10 calendar days after the last day of each month.

Effective date and transitional arrangements

118 Subject to paragraph 119, this Notice shall take effect on 1 January 2015 for a bank incorporated and headquartered in Singapore, and 1 January 2016 for all other banks in Singapore (collectively referred to as "effective date").

119 A bank in Singapore to which paragraph 118 applies may at any time before the effective date, elect to comply with this Notice by giving written notice of this to the Authority at least 1 month before the intended date of compliance as specified in the Notice; and as from the intended date of compliance ("early compliance date"), this Notice shall apply to the bank.

120 A bank transitioning from complying with the minimum liquid assets requirement in MAS Notice 613 in force immediately before the effective date ("old MLA requirement") to the LCR framework, shall maintain the old MLA requirement up to the effective date or the early compliance date, as the case may be.

121 A bank complying with Part II – LCR of this Notice for the period from 1 Jan 2015 to 31 Dec 2015 ("relevant period") shall only submit Form 2 Section 1A in Appendix 5 for the relevant currencies and Forms 3 to 7, where applicable, of the old MLA requirement during the relevant period.

Appendix 1

Exclusion as Qualifying Liabilities

1 Subject to paragraph 2 of Appendix 1 of this Notice, a bank may exclude a bill of exchange as its Qualifying Liabilities if –

a) the bill of exchange is denominated in Singapore Dollars. Where the underlying transaction referred to the bill of exchange is denominated in a foreign currency, the bill shall be substituted for the first time into a Singapore dollar usance bill;

b) the bill of exchange relates to a trade transaction and reference to such a transaction shall appear on the face of the bill. The trade transaction shall be in respect of imports into or exports from, Singapore and includes trade transactions between foreign exporters and foreign importers arranged by companies in Singapore. The first discounting bank shall ascertain that the bill of exchange is in fact related to trade transactions by examining the appropriate documents and obtaining written declarations from their customers that they have not sought or obtained other means of financing; and

c) the outstanding period to maturity of the bill of exchange is 3 months or less.

2 A bank shall not exclude the following bills of exchange from its Qualifying Liabilities:

a) any bill which originates from a “switch transaction” where the transaction is solely between a foreign exporter and a foreign importer and the foreign currency trade bill is “switched” into a Singapore dollar bill and financed here;

b) any bill which is a bill drawn for a trade transaction in Singapore where all parties are in Singapore;

c) any bill which is a bill relating to services;

d) any bill which relates to a trade transactions where payment has been made, i.e. where the supporting invoice has been paid by the customer prior to presentation of the bill to a bank for discounting;

e) any bill which is overdue or been extended beyond the maturity date and a new bill has been drawn to substitute or roll-over the matured bill, regardless of whether the original bill had 3 months or less to maturity at the time it was discounted by the bank;

f) any bill which is drawn for imports where the importer is also receiving credit from the seller for the same period, as the imports would effectively be financed by the seller and not from proceeds of the bill.

Appendix 2

Qualification as Approved Liquid Assets

1 A bank which purchases a bill of exchange denominated in Singapore Dollars from another bank in Singapore may include such a bill as liquid assets if —

a) the bill has been endorsed by one or more banks in Singapore;

b) the purchasing bank obtained a written confirmation from the first discounting bank that —

i) the first discounting bank had taken necessary and sufficient steps to ascertain that the bills are in fact related to trade transactions as evidenced on the bills;

ii) the bill does not originate from a "switch transaction" where the transaction is solely between a foreign exporter and a foreign importer and the foreign currency trade bill is "switched" into a Singapore dollar bill and financed here;

iii) the bill is not drawn for a trade transaction in Singapore where all parties are in Singapore;

iv) the bill does not relate to services;

v) the bill does not relate to a trade transactions where payment has been made, i.e. where the supporting invoice has been paid by the customer prior to presentation of the bill to a bank for discounting;

vi) the bill has not become overdue or been extended beyond the maturity date and no new bill has been drawn to substitute or roll-over the matured bill, regardless of whether the original bill had 3 months or less to maturity at the time it was discounted by the bank;

vii) the bill is not drawn for imports where the importer is also receiving credit from the seller for the same period (as the imports would effectively be financed by the seller and not from proceeds of the bills); and

c) the outstanding period to maturity of the bill shall be 3 months or less. A bill originally drawn for more than 3 months shall only be eligible as liquid asset when there is 3 months or less to maturity.

Appendix 3

Credit Ratings and Relevant Values

<table>
<tr><td>Description</td><td>Moody's</td><td>S&P</td><td>Fitch</td><td>Percentage</td></tr>
<tr><td rowspan="3">Long Term Issue Ratings</td><td>Aaa
Aa1
Aa2
Aa3</td><td>AAA
AA+
AA
AA-</td><td>AAA
AA+
AA
AA-</td><td>90%</td></tr>
<tr><td>A1
A2
A3</td><td>A+
A
A-</td><td>A+
A
A-</td><td>80%</td></tr>
<tr><td>Baa1
Baa2</td><td>BBB+
BBB</td><td>BBB+
BBB</td><td>70%</td></tr>
</table>

<table>
<tr><td>Description</td><td>Moody's</td><td>S&P</td><td>Fitch</td><td>Percentage</td></tr>
<tr><td rowspan="3">Short Term Issue Ratings</td><td>P-1</td><td>A-1</td><td>F-1</td><td>90%</td></tr>
<tr><td>P-2</td><td>A-2</td><td>F-2</td><td>80%</td></tr>
<tr><td>P-3</td><td>A-3</td><td>F-3</td><td>70%</td></tr>
</table>

If more than one rating is available, a bank shall use the lowest rating. Where a particular debt issue is assigned both long term and short term ratings, a bank shall apply the lower percentage.

Appendix 4

Schedules for Computation and Maintenance of MLA Requirements

For a 5-day business week:

Computation Day	Maintenance Day
Monday	Wednesday
Tuesday	Thursday
Wednesday	Friday, Saturday and Sunday
Thursday	next Monday
Friday	next Tuesday
next Monday	next Wednesday
next Tuesday … …	next Thursday … …

Example 1: If Thursday is a public holiday

Computation Day	Maintenance Day
Monday	Wednesday and Thursday
Tuesday	Friday, Saturday and Sunday
Wednesday	next Monday
Friday	next Tuesday
next Monday	next Wednesday
next Tuesday … …	next Thursday … …

Example 2: If Friday is a public holiday

Computation Day	Maintenance Day
Monday	Wednesday
Tuesday	Thursday, Friday, Saturday and Sunday
Wednesday	next Monday
Thursday	next Tuesday
next Monday	next Wednesday
next Tuesday … …	next Thursday … …

Example 3: If next Monday is a public holiday

Computation Day	Maintenance Day
Monday	Wednesday
Tuesday	Thursday
Wednesday	Friday, Saturday, Sunday and next Monday
Thursday	next Tuesday
Friday	next Wednesday
next Tuesday	next Thursday
next Wednesday … …	next Friday … …

Example 4: If next Tuesday is a public holiday

Computation Day	Maintenance Day
Monday	Wednesday
Tuesday	Thursday
Wednesday	Friday, Saturday and Sunday
Thursday	next Monday and Tuesday
Friday	next Wednesday
next Monday	next Thursday
next Wednesday … …	next Friday … …

Example 5: If next Wednesday is a public holiday

Computation Day	Maintenance Day
Monday	Wednesday
Tuesday	Thursday
Wednesday	Friday, Saturday and Sunday
Thursday	next Monday
Friday	next Tuesday and Wednesday
next Monday	next Thursday
next Tuesday	next Friday, Saturday and Sunday
next Thursday … …	Monday, a fortnight later … …

Appendix 5

Submission Requirements

Summary of forms

	Title
Form 1 Section 1	Assets and Liabilities by Currency
Form 1 Section 2	Top 20 individual depositors
Form 1 Section 3	Top 20 corporate depositors
Form 1 Section 4	Top 20 interbank lenders
Form 2 Section 1A	Liquidity Coverage Ratio
Form 2 Section 1B	Minimum Liquid Assets
Form 2 Section 2	Contractual cash flow for on and off-balance sheet items
Form 2 Section 3	Contractual residual maturity of on and off-balance sheet items
Form 2 Section 4	Behavioural cash flow of on and off-balance sheet items
Form 2 Section 5	Available non-HQLA unencumbered assets

1 A bank shall submit 1 copy of Form 1, but as many copies of Form 2 as there are significant currencies on a standalone and banking group level, if any. A bank may, in consultation with the Authority, determine an alternate methodology to determine its significant currencies if the default methodology in paragraph 17 does not properly reflect the funding structure of the bank. The forms to submit are given in the table below.

Country level compliance

2 As per paragraph 4 of the Notice, a bank on the LCR framework may elect to comply with the LCR on a country-level group basis, by consolidating the balance sheets of related banking entities in Singapore. Each bank within the country-level grouping shall submit the same set of forms as if they were complying with the LCR on an individual level.

3 The banks within each country-level grouping shall select an entity to perform the country-level submission, and this choice has to be made known to the Authority. The country level submission shall follow the steps as per the individual entity submission,

but the details of the entities in the country-level grouping shall be indicated in Section 1 of both Form 1 and Form 2.

FI type	Forms to submit

D-SIB bank
 	
Individual/Group submission
	• Form 1
	  o All sections
	• Form 2 (All Currency)
	  o Section 1A
	  o Section 2
	  o Section 3
	  o Section 4
	  o Section 5
	• Form 2 (Singapore Dollar)
	  o Section 1A
	  o Section 2
	  o Section 3
	  o Section 4
	  o Section 5

D-SIB bank (Currency X is a significant currency)
 	
Individual/Group submission
	• Form 1
	  o All sections
	• Form 2 (All Currency)
	  o Section 1A
	  o Section 2
	  o Section 3
	  o Section 4
	  o Section 5
	• Form 2 (Singapore Dollar)
	  o Section 1A
	  o Section 2
	  o Section 3
	  o Section 4
	  o Section 5
	• Form 2 (Currency X)
	  o Section 1A
	  o Section 2
	  o Section 3
	  o Section 4
	  o Section 5

FI type	Forms to submit

Non-D-SIB bank
 	
Individual/Group submission
 	
Bank is on LCR framework
	• Form 1
	    ○ All sections
	• Form 2 (All Currency)
	    ○ Section 1A
	    ○ Section 2
	    ○ Section 3
	    ○ Section 5
	• Form 2 (Singapore Dollar)
	    ○ Section 1A
	    ○ Section 2
	    ○ Section 3
	    ○ Section 5

Non-D-SIB bank (Currency X is a significant currency)
 	
Individual/Group submission
 	
Bank is on LCR framework
	• Form 1
	    ○ All sections
	• Form 2 (All Currency)
	    ○ Section 1A
	    ○ Section 2
	    ○ Section 3
	    ○ Section 5
	• Form 2 (Singapore Dollar)
	    ○ Section 1A
	    ○ Section 2
	    ○ Section 3
	    ○ Section 5
	• Form 2 (Currency X)
	    ○ Section 1A
	    ○ Section 2
	    ○ Section 3
	    ○ Section 5

Non-D-SIB bank
 	
Individual/Group submission
 	
Bank is on MLA framework
	• Form 1
	  ○ All sections
	• Form 2 (All Currency)
	  ○ Section 1B (All Currency section for part 3)
	  ○ Section 2
	  ○ Section 3
	  ○ Section 5
	• Form 2 (Singapore Dollar)
	  ○ Section 1B (Singapore Dollar section for part 3)
	  ○ Section 2
	  ○ Section 3
	  ○ Section 5

FI type	**Forms to submit**

Non-D-SIB bank (Currency X is a significant currency)
 	
Individual/Group submission
 	
Bank is on MLA framework
	• Form 1
	  ○ All sections
	• Form 2 (All Currency)
	  ○ Section 1B (All Currency section for part 3)
	  ○ Section 2
	  ○ Section 3
	  ○ Section 5
	• Form 2 (Singapore Dollar)
	  ○ Section 1B (Singapore Dollar section for part 3)
	  ○ Section 2
	  ○ Section 3
	  ○ Section 5
	• Form 2 (Currency X)
	  ○ Section 2
	  ○ Section 3
	  ○ Section 5

Appendix 6

Calculation of the cap on Level 2 HQLA with regard to short-term securities financing transactions

1 This appendix describes the method that a bank shall apply for the calculation of the cap on Level 2A, Level 2B(I) and Level 2B(II) HQLA with regard to short-term securities financing transactions.

2 As stated in paragraph 26 of the Notice, the calculation of the 40% cap on Level 2 HQLA shall take into account the impact on the stock of HQLA of the amounts of Level 1 and Level 2 HQLA involved in secured funding[18], secured lending[19] and collateral swap transactions maturing within 30 calendar days. The maximum amount of adjusted Level 2 HQLA in the stock of HQLA shall be equal to two-thirds of the adjusted amount of Level 1 HQLA after haircuts have been applied. The calculation of the 40% cap on Level 2 HQLA shall take into account any reduction in eligible Level 2B HQLA on account of the 15% cap on Level 2B HQLA.

3 The calculation of the 15% cap on Level 2B HQLA shall take into account the impact on the stock of HQLA of the amounts of HQLA involved in secured funding, secured lending and collateral swap transactions maturing within 30 calendar days. The maximum amount of adjusted Level 2B HQLA in the stock of HQLA shall be equal to 15/85 of the sum of the adjusted amounts of Level 1 and Level 2 HQLA, or, in cases where the 40% cap is binding, up to a maximum of 1/4 of the adjusted amount of Level 1 HQLA, both after haircuts have been applied.

4 Further, the calculation of the 5% cap on Level 2B(II) HQLA shall take into account the impact on the stock of HQLA of the amounts of HQLA assets involved in secured funding, secured lending and collateral swap transactions maturing within 30 calendar days. The maximum amount of adjusted Level 2B(II) HQLA in the stock of HQLA shall be equal to 5/95 of the sum of the adjusted amounts of Level 1, Level 2A and Level 2B(II) HQLA, or in cases where the 15% cap is binding, up to a maximum of 5/85 of the adjusted amount of Level 1 and Level 2A HQLA, or in cases where the 40% cap is binding, up to a maximum of 5/60 of the adjusted amount of Level 1 and, after haircuts have been applied.

5 The adjusted amount of Level 1, Level 2A, Level 2B(I) and Level 2B(II) HQLA is defined as the amount of Level 1, Level 2A, Level 2B(I) and Level 2B(II) HQLA that would result after unwinding those short-term secured funding, secured lending and collateral swap transactions involving the exchange of any HQLA for any Level 1,

[18] Refer to paragraph 60
[19] Refer to paragraph 92

Level 2A, Level 2B(I) and Level 2B(II) HQLA (including cash) that meet, or would meet if held unencumbered, the operational requirements for HQLA set out in paragraph 22 of the Notice. In this context, short-term transactions are transactions with maturity date up to and including 30 calendar days. Relevant haircuts would be applied prior to calculation of the respective caps.

6 "Unadjusted value" refers to the value of the relevant category of HQLA after accounting for the haircuts as specified in paragraph 26 of the Notice.

7 "Adjusted value" refers to the unadjusted value of the relevant category of HQLA after accounting for the exchange of assets in secured funding, secured lending and collateral swap transactions maturing within 30 calendar days.

8 The formula for the calculation of HQLA is as follows:

HQLA = Unadjusted Level 1 HQLA + Unadjusted Level 2A HQLA + Unadjusted Level 2B(I) HQLA + Unadjusted Level 2B(II) HQLA- Adjustment for 5% Level 2B(II) cap - Adjustment for 15% Level 2B(I) HQLA cap - Adjustment for 40% cap

Where:

a) Adjustment for 5% Level 2B(II) HQLA cap = MAX (Adjusted Level 2B(II) HQLA - (5/95)*(Adjusted Level 1 HQLA + Adjusted Level 2A HQLA + Adjusted Level 2B(I)HQLA), Adjusted Level 2B(II) HQLA - (5/85)*(Adjusted Level 1HQLA + Adjusted Level 2A HQLA), Adjusted Level 2B(II) HQLA - (5/60)*Adjusted Level 1 HQLA,0)

b) Adjustment for 15% Level 2B(I) HQLA cap = MAX ((Adjusted Level 2B(I) HQLA+ Adjusted Level 2B(II) HQLA – Adjustment for 5% Level 2B(II) HQLA cap) - (15/85)*(Adjusted Level 1 HQLA + Adjusted Level 2A HQLA),Adjusted Level 2B(I) HQLA+ Adjusted Level 2B(II) HQLA – Adjustment for 5% Level 2B(II) HQLA cap - (15/60)*Adjusted Level 1 HQLA,0)

c) Adjustment for 40% Level 2 HQLA cap = MAX ((Adjusted Level 2A HQLA + Adjusted Level 2B(I) HQLA + Adjusted Level 2B(II) HQLA - Adjustment for 5% Level 2B(II) HQLA cap - Adjustment for 15% Level 2B(I) HQLA cap) - (2/3)*Adjusted Level 1 HQLA,0)

Appendix 7

HQLA haircuts, outflow and inflow rates

Item	**Rate**
HQLA	
A. Level 1 HQLA:	
- Notes and coins - Qualifying marketable securities from sovereigns, central banks, PSEs, and multilateral development banks - Qualifying central bank reserves - Domestic sovereign or central bank debt for non-0% risk-weighted sovereigns	100%
B. Level 2 HQLA (maximum of 40% of HQLA):	
Level 2A HQLA	
- Sovereign, central bank, multilateral development banks, and PSE assets qualifying for 20% risk weighting - Qualifying corporate debt securities rated AA- or higher - Qualifying covered bonds rated AA- or higher	85%
Level 2B HQLA (maximum of 15% of HQLA)	
Level 2B(I) HQLA	
- Qualifying corporate debt securities rated between A+ and A-	50%
Level 2B(II) HQLA (maximum of 5% of HQLA)	
- Qualifying corporate debt securities rated between BBB+ and BBB- - Qualifying sovereign and central bank debt securities rated between BBB+ and BBB- - Qualifying Ordinary shares, excluding preference shares and treasury shares - Qualifying RMBS	50% 50% 50% 75%
Total value of HQLA	

Item	Rate
Cash Outflows	
A. Retail deposits:	
Demand deposits and term deposits (less than 30 days maturity) - Stable deposits (fully insured by the Singapore Deposit Insurance Corporation Limited - SDIC) - Stable deposits (fully insured by other effective government deposit insurance scheme) - Less stable retail deposits	5% To follow host jurisdiction's rate 10%
Term deposits with residual maturity greater than 30 days	0%
B. Unsecured wholesale funding:	
Demand and term deposits (less than 30 days maturity) provided by small business customers: - Stable deposits - Less stable deposits	 5% 10%
Operational deposits generated by clearing, custody and cash management activities: - Portion covered by deposit insurance	25% 5%
Cooperative banks in an institutional network (qualifying deposits with the centralised institution	25%
Non-financial corporates, sovereigns, central banks, multilateral development banks, and PSEs - If the entire amount fully covered by deposit insurance scheme	40% 20%
Other legal entity customers not included above.	100%
Retail/Small Business Customer deposits in other jurisdictions	To follow host jurisdiction's rate
C. Secured funding:	
- Secured funding transactions with central bank counterparty or backed by Level 1 HQLA with any counterparty. - Secured funding transactions backed by Level 2A HQLA, with any counterparty - Secured funding transactions backed by non-Level 1 or non-Level 2A HQLA, with domestic sovereigns, multilateral development banks, or domestic PSEs as a counterparty - Backed by RMBS eligible for inclusion in Level 2B - Backed by other Level 2B HQLA - All other secured funding transactions	0% 15% 25% 25% 50% 100%

Item	**Rate**
D. Additional requirements:	
Liquidity needs (e.g. collateral calls) related to financing transactions, derivatives and other contracts	3 notch downgrade
Market valuation changes on derivatives transactions (largest absolute net 30-day collateral flows realised during the preceding 24 months)	Look back approach
Valuation changes on non-Level 1 posted collateral securing derivatives	20%
Excess collateral held by a bank related to derivative transactions that could contractually be called at any time by its counterparty	100%
Liquidity needs related to collateral contractually due from the reporting bank on derivatives transactions	100%
Increased liquidity needs related to derivative transactions that allow collateral substitution to non-HQLA assets	100%
ABCP, SIVs, conduits, SPVs, etc.:	
- Liabilities from maturing ABCP, SIVs, SPVs, etc. (applied to maturing amounts and returnable assets)	100%
- Asset Backed Securities (including covered bonds) applied to maturing amounts.	100%
Currently undrawn committed credit and liquidity facilities provided to:	
- Retail and small business customers - Non-financial corporate, sovereigns and central banks, multilateral development banks, and PSEs - Bank subject to prudential supervision - Other financial institutions (include securities firms, insurance companies) - Other legal entity customers, credit and liquidity facilities	5% 10% for credit, 30% for liquidity 40% 40% for credit, 100% for liquidity 100%
Other contingent funding liabilities (such as guarantees, letters of credit, revocable credit and liquidity facilities, etc.) - Trade finance - Customer short positions covered by other customers' collateral	 3% 50%
Any additional contractual outflows	100%
Net derivatives cash outflows	100%
Any other contractual cash outflows	100%
Total cash outflows	

Item	Rate
Cash Inflows	
Maturing secured lending transactions backed by the following collateral:	
- Level 1 HQLA: - Level 2A HQLA: - Level 2B HQLA (eligible RMBS): - Level 2B HQLA (Others):	0% 15% 25% 50%
Margin lending backed by all other collateral	50%
All other assets	100%
Credit or liquidity facilities provided to the reporting bank	0%
Operational deposits held at other financial institutions (include deposits held at centralised institution of network of co-operative banks)	0%
Other inflows by counterparty: - Amount to be received from retail counterparties - Amount to be received from non-financial wholesale counterparties, from transactions other than those listed in above inflow categories - Amount to be received from financial institutions and central banks, from transactions others than those listed in above inflow categories	 50% 50% 100%
Net derivatives cash inflows	100%
Other contractual cash inflows not included above.	0%
Total cash inflows	
Total net cash outflows = Total cash outflows minus min [total cash inflows, 75% of gross outflows]	
LCR = HQLA / Total net cash outflows	

Annex B – Reporting Forms

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTIONS 36 AND 38)

Assets and Liabilities by Currency

( )

As at close of business on ( )

Section 1

Currency (1)	Amount of assets on balance sheet (S$'000) (2)	Percentage of Total Assets % (3)	Amount of liabilities on balance sheet (S$'000) (4)	Percentage of Total Liabilities % (5)	Required to fill in Form 2? (6)
SGD					
USD					
AUD					
CHF					
CNH					
CNY					
EUR					
GBP					
HKD					
IDR					
INR					
JPY					
KRW					
MYR					
NZD					
PHP					
THB					
TWD					
VND					
Others					
Total (CSL)		100%		100%	

<u>Notes for completion</u>

1. A bank shall report in this Section its on-balance sheet assets and liabilities by currency. Off-balance sheet exposures are to be excluded. Additional currencies not listed above are to be chosen from the drop down list.
2.A bank shall compute its liabilities in a currency by excluding equity. As this section captures the degreee of currency mismatch on a bank's balance sheet, a bank shall exclude asset and liability positions arising from FX swaps (i.e. FX derivative payables and receivables).
3. A bank shall <u>not</u> adopt any of the netting procedures in the LCR or MLA frameworks for this Section.
4. Amount in the original currency shall be converted into Singapore dollar equivalent using the bank's internal rates.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTIONS 36 AND 38)

Top 20 Individual Depositors
( )
As at close of business on ( )

Section 2

Position	Related to Bank (Yes/No)	Amount in S$ Equivalent ($'000)	% of Total Liabilities
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Notes for completion

1. A bank shall submit to the Authority details of its top 20 individual depositors for transactions denominated in all types of currencies. No names of customers shall be submitted to the Authority in this Form.
2. For joint accounts, each individual depositor is deemed to have an equal share in the account unless there is an express provision to the contrary in any of the bank's records. An individual's share in a joint account shall be aggregated with his own accounts.
3. Amount shall be shown on a gross basis.
4. Amount in the original currency shall be converted into Singapore dollar equivalent using the bank's internal rates.
5. Deposits of individuals engaged in a common enterprise whether in the form of a partnership, joint venture or other association need not be aggregated with the individuals' deposits.
6. Deposits placed by an individual and any of his associates are not required to be aggregated. Deposits of company directors are not required to be aggregated with deposits placed by companies where they hold the position of directors on the companies' boards.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTIONS 36 AND 38)

Top 20 Corporate Depositors

( )

As at close of business on ( )

Section 3

Position	Related to Bank (Yes/No)	Amount in S$ Equivalent ($'000)	% of Total Liabilities
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Notes for completion

1. A bank shall submit to the Authority details of its top 20 corporate depositors for transactions denominated in all types of currencies. A bank shall group depositors who are deemed related according to note 4 into the same customer group. No names of customers shall be submitted to the Authority in this Form.
2. Amount shall be shown on a gross basis.
3. Amount in the original currency shall be converted into Singapore dollar equivalent using the bank's internal rates.
4. The deposits of a parent company shall be aggregated with deposits of all subsidiary companies and other companies over which it has control or influence and companies deemed to be related to the parent company. Subsidiary companies and companies deemed to be related are defined in Sections 5, 5A, 5B and 6 of the Companies Act (Cap. 50). Control or influence over a company exist when there is ownership or power to control 20% or more of the voting shares of the company or when there is power to determine the composition of the board of directors of the company or when there is power to exercise controlling influence over management and policies of the company. This applies to any secondary level group below the ultimate parent.
5. Deposits placed by the Singapore government and statutory boards are to be aggregated. Singapore government-linked companies are to be treated in accordance with the guidelines prescribed for companies in note 4 above.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTIONS 36 AND 38)

Top 20 Interbank Lenders

( )

As at close of business on ( )

Section 4

Position	Name of Bank	Amount in S$ Equivalent ($'000)	% of Total Liabilities
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Notes for completion

1. A bank shall submit to the Authority details of its top 20 interbank lenders for transactions denominated in all types of currencies.
2. Amount shall be shown on a gross basis.
3. Amount in the original currency shall be converted into Singapore dollar equivalent using the bank's internal rates.
4. The deposits from a lender bank need not be aggregated with deposits from all subsidiary banks or financial institutions, or financial institutions over which the lender bank has control or influence or are deemed to be related.

Form 2: Minimum Liquid Assets Requirements

Please login to MAS website to check for the latest release.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 38)

Liquidity Coverage Ratio
Designation of Country Level Entities

Institution code

Institution Name

Reporting Cycle (MM/YYYY)

Business Unit

Currency

Consolidated submission?

Reset all figures in this return to zero

Import from xfdf file

Export to xfdf file for submission to MAS

(Please make sure you entered all fields required for your company before export)

Approved by:

(a) *Name

(b) *Designation

(c) *Date (dd/mm/yyyy)

(d) *Person to contact for queries

(e) *Telephone number

(f) *Email address

compulsory fields

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Computation of Liquidity Coverage Ratio

( )

As at close of business on ( )

Section 1A

A) LCR by maintenance day

Reporting Day	LCR % (1)	Adjusted stock of High Quality Liquid Assets ($'000) (2)	Net Cash Outflows ($'000) (3)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			

Notes for completion

1. A bank shall fill in columns (1) and (2) for its consolidated currency and SGD submission.
2. A bank shall report columns (1) and (2) as at the close of business on the reporting day.
3. Column (2) is the stock of adjusted High-Quality Liquid Assets, as computed under the LCR framework, converted to Singapore Dollars at the end of day FX rate, and rounded to the closest thousand Singapore Dollars.
4. Column (3) is the net cash outflow, as computed under the LCR framework, converted to Singapore Dollars at the end of day FX rate as computed by the bank, and rounded to the closest thousand Singapore Dollars.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Computation of Liquidity Coverage Ratio

( )
As at close of business on ( )

Section 1A

B) High Quality Liquid Assets

1. Level 1 Assets						
			Paragraph number in notice	**Market value**	**Weight**	**Weighted amount**
a.	Coins and banknotes		17, 21		100%	
b.	Total central bank reserves; of which:		17, 21			
	i.	part of central bank reserves that can be drawn in times of stress	17, 21		100%	
c.	Securities with a 0% risk weight:					
	i.	issued by sovereigns	17, 21		100%	
	ii.	guaranteed by sovereigns	17, 21		100%	
	iii.	issued or guaranteed by central banks	17, 21		100%	
	iv.	issued or guaranteed by PSEs	17, 21		100%	
	v.	issued or guaranteed by BIS, IMF, ECB and European Community, or MDBs	17, 21		100%	
d.	For non-0% risk-weighted sovereigns:					
	i.	sovereign or central bank debt securities issued in domestic currencies by the sovereign or central bank in the country in which the liquidity risk is being taken or in the bank's home country	17, 21		100%	
	ii.	domestic sovereign or central bank debt securities issued in foreign currencies, up to the amount of the bank's stressed net cash outflows in that specific foreign currency stemming from the bank's operations in the jurisdiction where the bank's liquidity risk is being taken	17, 21		100%	
e.	**Total stock of Level 1 assets**		**17, 21**			
f.	Adjustment to stock of Level 1 assets		Appendix 6			
g.	Adjusted amount of Level 1 assets		Appendix 6			

2. Level 2A Assets						
			Paragraph number in notice	**Market value**	**Weight**	**Weighted amount**
a.	Securities with a 20% risk weight:					
	i.	issued by sovereigns	17, 21		85%	
	ii.	guaranteed by sovereigns	17, 21		85%	
	iii.	issued or guaranteed by central banks	17, 21		85%	
	iv.	issued or guaranteed by PSEs	17, 21		85%	
	v.	issued or guaranteed by MDBs	17, 21		85%	
b.	Non-financial corporate bonds, rated AA- or better		17, 21		85%	
c.	Covered bonds, not self-issued, rated AA- or better		17, 21		85%	
d.	**Total stock of Level 2A assets**		**17, 21**			
e.	Adjustment to stock of Level 2A assets		Appendix 6			
f.	Adjusted amount of Level 2A assets		Appendix 6		85%	

3. Level 2B(I) Assets					
		Paragraph number in notice	**Market value**	**Weight**	**Weighted amount**
a.	Non-financial corporate bonds rated A+ to A-	17, 21		50%	
b.	Total stock of Level 2B(I) assets	17, 21			
c.	Adjustment to stock of Level 2B(I) assets	Appendix 6			
d.	Adjusted amount of Level 2B(I) assets	Appendix 6		50%	

4. Level 2B(II) Assets					
		Paragraph number in notice	**Market value**	**Weight**	**Weighted amount**
a.	Qualifying sovereign and central bank debt securities rated between BBB+ and BBB-	17, 21		50%	
b.	Non-financial corporate bonds rated BBB+ to BBB-	17, 21		50%	
c.	Residential mortgage-backed securities (RMBS), rated AA or better	17, 21		75%	
d.	Non-financial common equity shares that are index stocks, with maximum price decline over a 30 days period below 40%	17, 21		50%	
e.	Total stock of Level 2B(II) non-RMBS assets	17, 21			
f.	Adjustment to stock of Level 2B(II) non-RMBS assets	Appendix 6			
g.	Adjusted amount of Level 2B(II) non-RMBS assets	Appendix 6		50%	
h.	Total stock of Level 2B(II) RMBS assets	17, 21			
i.	Adjustment to stock of Level 2B(II) RMBS assets	Appendix 6			
j.	Adjusted amount of Level 2B(II) RMBS assets	Appendix 6		75%	
k.	Adjusted amount of Level 2B(II) RMBS and non-RMBS assets	Appendix 6			

5. Alternative Liquid Assets						
			Paragraph number in notice	**Market value**	**Weight**	**Weighted amount**
a.	Option 1 – Contractual committed liquidity facilities from the relevant central bank		Footnote 11			
b.	Option 2 – Foreign currency HQLA; of which;					
	i.	Level 1 assets	Footnote 11			
	ii	Level 2 assets	Footnote 11			
c.	Option 3 – Additional use of Level 2 assets with a higher haircut		Footnote 11			
d.	Total usage of alternative treatment (post-haircut) before applying the cap					
e.	Adjustment to ALA due to cap on Option 1 and 2					
f.	Total usage of alternative treatment (post-haircut) after applying the cap on Option 1 and 2					

6. Stock of High Quality Liquid Assets					
a.	Adjustment to stock of HQLA due to cap on Level 2B(II) assets	Appendix 6			
b.	Adjustment to stock of HQLA due to cap on Level 2B(I) assets	Appendix 6			
c.	Adjustment to stock of HQLA due to cap on Level 2 assets	Appendix 6			
d.	**Total stock of HQLA**				

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Computation of Liquidity Coverage Ratio

( )

As at close of business on ( )

Section 1A

C) Cash outflows

1. Cash outflows						
			Paragraph number in notice	**Amount**	**Weight**	**Weighted amount**
a.		Total retail deposits; of which:				
	i.	Insured deposits; of which:				
	-	in transactional accounts; of which:	35-39			
		- eligible for a 3% run-off rate; of which:	37			
		are in Singapore	37		3%	
		are not in Singapore	38		3%	
		- eligible for a 5% run-off rate; of which:	37			
		are in Singapore	37		5%	
		are not in Singapore	38		5%	
	-	in non-transactional accounts with established relationships that make deposit withdrawal highly unlikely; of which:	35-39			
		- eligible for a 3% run-off rate; of which:	37			
		are in Singapore	37		3%	
		are not in Singapore	38		3%	
		- eligible for a 5% run-off rate; of which:	37			
		are in Singapore	37		5%	
		are not in Singapore	38		5%	
	-	in non-transactional and non-relationship accounts	39		10%	
	ii.	Uninsured deposits	39		10%	
	iii.	Term deposits (treated as having >30 day remaining maturity)	40		0%	
	iv.	Term deposits (with >30 day maturity but treated as having < 30 day maturity)	40			
b.		Retail/Small business customer deposits subject to different run-off rates due to host jurisdiction rules	38, 45		NA	
c.		**Total retail deposits run-off**				
d.		Total unsecured wholesale funding	42-59			
	i.	Total funding provided by small business customers; of which:	45			
	-	Insured deposits; of which:				
	-	in transactional accounts; of which:	35-39, 45			
		- eligible for a 3% run-off rate; of which	37, 45			
		are in Singapore	37, 45		3%	
		are not in Singapore	38, 45		3%	
		- eligible for a 5% run-off rate; of which	37, 45			
		are in Singapore	37, 45		5%	
		are not in Singapore	38, 45		5%	
	-	in non-transactional accounts with established relationships that make deposit withdrawal highly unlikely; of which:	35-39, 45			
		- eligible for a 3% run-off rate; of which	37, 45			
		are in Singapore	37, 45		3%	
		are not in Singapore	38, 45		3%	
		- eligible for a 5% run-off rate; of which	37, 45			
		are in Singapore	37, 45		5%	
		are not in Singapore	38, 45		5%	
	-	in non-transactional and non-relationship accounts	39, 45		10%	
	-	Uninsured deposits	39, 45		10%	
	-	Term deposits (treated as having >30 day maturity)	40, 45		0%	
	-	Term deposits (with >30 day maturity but treated as having < 30 day maturity)	40, 45			
	ii.	Total operational deposits; of which:	46-52			
	-	provided by non-financial corporates	46			
		- insured, with a 3% run-off rate	46		3%	
		- insured, with a 5% run-off rate	46		5%	
		- uninsured	46		25%	
	-	provided by sovereigns, central banks, PSEs and MDBs	46			
		- insured, with a 3% run-off rate	46		3%	
		- insured, with a 5% run-off rate	46		5%	
		- uninsured	46		25%	
	-	provided by banks	46			
		- insured, with a 3% run-off rate	46		3%	
		- insured, with a 5% run-off rate	46		5%	
		- uninsured	46		25%	
	-	provided by other financial institutions and other legal entities	46			
		- insured, with a 3% run-off rate	46		3%	
		- insured, with a 5% run-off rate	46		5%	
		- uninsured	46		25%	
	iii.	Total non-operational deposits; of which	53-59			
	-	provided by non-financial corporates; of which:	56			
		- Where the entire amount is fully covered by an effective deposit insurance scheme	56		20%	
		- Where the entire amount is not fully covered by an effective deposit insurance scheme	56		40%	
	-	provided by sovereigns, central banks, PSEs and MDBs; of which:	56			
		- Where the entire amount is fully covered by an effective deposit insurance scheme	56		20%	
		- Where the entire amount is not fully covered by an effective deposit insurance scheme	56		40%	
	-	provided by members of the institutional networks of cooperative (or otherwise named) banks	53-54		25%	
	-	provided by other banks	57		100%	
	-	provided by other financial institutions and other legal entities	57		100%	
	iv.	Unsecured debt issuance	58		100%	
	v.	Additional balances required to be installed in central bank reserves	57		100%	
e.		**Total unsecured wholesale funding run-off**				

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Computation of Liquidity Coverage Ratio

( )

As at close of business on ( )

Section 1A

		Paragraph number in notice	Amount received	Market value of extended collateral	Weight	Weighted amount
f.	Transactions conducted with the bank's domestic central bank; of which:	60-63, Appendix 7				
	i. Backed by Level 1 assets; of which:	60-63, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	ii. Backed by Level 2A assets; of which	60-63, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	iii. Backed by Level 2B(I) assets; of which	60-63, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	v. Backed by Level 2B(II) non-RMBS assets; of which	60-63, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	vi. Backed by Level 2B(II) RMBS assets; of which	60-63, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	vii. Backed by other assets	60-63, Appendix 7			0%	
g.	Transactions not conducted with the bank's domestic central bank; of which	60-63, Appendix 7				
	i. Backed by Level 1 assets; of which:	60-63, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	ii. Backed by Level 2A assets; of which	60-63, Appendix 7			15%	
	- Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	iii. Backed by Level 2B(I) assets; of which	60-63, Appendix 7				
	- Counterparties are domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight; of which:	60-63, Appendix 7			25%	
	Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	- Counterparties are not domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight; of which:	60-63, Appendix 7			50%	
	Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	iv. Backed by Level 2B(II) non-RMBS assets; of which	60-63, Appendix 7				
	- Counterparties are domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight; of which:	60-63, Appendix 7			25%	
	Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	- Counterparties are not domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight; of which:	60-63, Appendix 7			50%	
	Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	v. Backed by Level 2B(II) RMBS assets; of which	60-63, Appendix 7			25%	
	- Transactions involving eligible liquid assets – see instructions for more detail	60-63, Appendix 7				
	vi. Backed by other assets; of which	60-63, Appendix 7				
	- Counterparties are domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight	60-63, Appendix 7			25%	
	- Counterparties are not domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight	60-63, Appendix 7			100%	
h.	**Total secured wholesale funding run-off**					
i.	Derivatives cash outflow	64			100%	
j.	Increased liquidity needs related to downgrade triggers in derivatives and other financing transactions	65			100%	
k.	Increased liquidity needs related to the potential for valuation changes on posted collateral securing derivative and other transactions:	66				
	i. Cash and Level 1 assets	66			0%	
	ii. For other collateral (ie all non-Level 1 collateral)	66			20%	
l.	Increased liquidity needs related to excess non-segregated collateral held by the bank that could contractually be called at any time by the counterparty	67			100%	
m.	Increased liquidity needs related to contractually required collateral on transactions for which the counterparty has not yet demanded the collateral be posted	68			100%	
n.	Increased liquidity needs related to contracts that allow collateral substitution to non-HQLA assets	69			100%	
o.	Increased liquidity needs related to market valuation changes on derivative or other transactions	70			100%	
p.	Loss of funding on ABS and other structured financing instruments issued by the bank, excluding covered bonds	71			100%	
q.	Loss of funding on ABCP, conduits, SIVs and other such financing activities; of which:	72				
	i. debt maturing ≤ 30 days	72			100%	
	ii. with embedded options in financing arrangements	72			100%	
	iii. other potential loss of such funding	72			100%	
r.	Loss of funding on covered bonds issued by the bank	72			100%	
s.	Undrawn committed credit and liquidity facilities to retail and small business customers	79 (a)			5%	
t.	Undrawn committed credit facilities to					
	i. non-financial corporates	79 (b)			10%	
	ii. sovereigns, central banks, PSEs and MDBs	79 (b)			10%	
u.	Undrawn committed liquidity facilities to					
	i. non-financial corporates	79 (c)			30%	
	ii. sovereigns, central banks, PSEs and MDBs	79 (c)			30%	
v.	Undrawn committed credit and liquidity facilities provided to banks subject to prudential supervision	79 (d)			40%	
w.	Undrawn committed credit facilities provided to other FIs	79 (e)			40%	
x.	Undrawn committed liquidity facilities provided to other FIs	79 (f)			100%	
y.	Undrawn committed credit and liquidity facilities to other legal entities	79 (g)			100%	
z.	Other contractual obligations to extend funds to			**Rollover of inflows**		
	i. financial institutions	80-81			100%	
	ii. retail clients	80-81				
	iii. small business customers	80-81				
	iv. non-financial corporates	80-81				
	v. other clients	80-81				
	vi. retail, small business customers, non-financials and other clients				100%	

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Computation of Liquidity Coverage Ratio

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Section 1A

			Paragraph number in notice	Amount received	Market value of extended collateral	Weight	Weighted amount
aa.	Total contractual obligations to extend funds in excess of 50% roll-over assumption						
ab.	**Total additional requirements run-off**						
ac.	Non-contractual obligations related to potential liquidity draws from joint ventures or minority investments in entities		84			0%	
ad.	Unconditionally revocable "uncommitted" credit and liquidity facilities		82			0%	
ae.	Trade finance-related obligations (including guarantees and letters of credit)		85, 86			3%	
af.	Guarantees and letters of credit unrelated to trade finance obligations		89			0%	
ag.	Non-contractual obligations:						
	i.	Debt-buy back requests (including related conduits)	88			0%	
	ii.	Structured products	88			0%	
	iii.	Managed funds	88			0%	
	iv.	Other non-contractual obligations	88			0%	
ah.	Outstanding debt securities with remaining maturity > 30 days					0%	
ai.	Non contractual obligations where customer short positions are covered by other customers' collateral		88			50%	
aj.	Bank outright short positions covered by a collateralised securities financing transaction					0%	
ak.	Other contractual cash outflows (including those related to unsecured collateral borrowings and uncovered short positions)		89			100%	
al.	**Total run-off on other contingent funding obligations**						
am.	**Total cash outflows**						

D) Cash inflows

1. Cash inflows							
			Paragraph number in notice	Amount extended	Market value of received collateral	Weight	Weighted amount
a.	Reverse repo and other secured lending or securities borrowing transactions maturing ≤ 30 days		92-98				
	i.	Of which collateral is **not re-used** (ie is not rehypothecated) to cover the reporting institution's outright short positions	92-98				
	-	Transactions backed by Level 1 assets; of which:	92-98			0%	
		Transactions involving eligible liquid assets – see instructions for more detail	92-98				
	-	Transactions backed by Level 2A assets; of which:	92-98			15%	
		Transactions involving eligible liquid assets – see instructions for more detail	92-98				
	-	Transactions backed by Level 2B(I) assets; of which:	92-98			50%	
		Transactions involving eligible liquid assets – see instructions for more detail	92-98				
	-	Transactions backed by Level 2B(II) non-RMBS assets; of which:	92-98			50%	
		Transactions involving eligible liquid assets – see instructions for more detail	92-98				
	-	Transactions backed by Level 2B(II) RMBS assets; of which:	92-98			25%	
		Transactions involving eligible liquid assets – see instructions for more detail	92-98				
	-	Margin lending backed by non-Level 1 or non-Level 2 collateral	92-98			50%	
	-	Transactions backed by other collateral	92-98			100%	
	ii.	Of which collateral **is re-used** (ie is rehypothecated) in transactions to cover the reporting insitution's outright short positions	92-98				
	-	Transactions backed by Level 1 assets	92-98			0%	
	-	Transactions backed by Level 2A assets	92-98			0%	
	-	Transactions backed by Level 2B(I) assets	92-98			0%	
	-	Transactions backed by Level 2B(II) non-RMBS assets	92-98			0%	
	-	Transactions backed by Level 2B(II) RMBS assets	92-98			0%	
	-	Margin lending backed by non-Level 1 or non-Level 2 collateral	92-98			0%	
	-	Transactions backed by other collateral	92-98			0%	
b.	**Total inflows on reverse repo and securities borrowing transactions**						
c.	Contractual inflows due in ≤ 30 days from fully performing loans from:						
	i.	Retail customers	102			50%	
	ii.	Small business customers	102			50%	
	iii.	Non-financial corporates	103			50%	
	iv.	Central banks	103			100%	
	v.	Financial institutions, of which	103, 105, 106				
	-	operational deposits	103, 105, 106			0%	
	-	deposits at the centralised institution of an institutional network that receive 25% run-off	103, 105, 106			0%	
	-	all payments on other loans and deposits due in ≤ 30 days	103, 105, 106			100%	
	vi.	Other entities	103			50%	
d.	**Total of other inflows by counterparty**						
e.	Other cash inflows						
	i.	Derivatives cash inflow	107			100%	
	ii.	Contractual inflows from securities maturing ≤ 30 days, not included anywhere above	104			100%	
	iii.	Other contractual cash inflows	108, 109			0%	
f.	**Total of other cash inflows**						
g.	Total cash inflows before applying the cap		31, 91				
h.	Cap on cash inflows		31, 91			75%	
i.	Total cash inflows after applying the cap		31, 91				

Computation of Liquidity Coverage Ratio

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As at close of business on ( )

Section 1A

E) Collateral swaps

Reference paragraphs in notice: 60-63, 92-98, Appendix 6

Collateral swaps maturing in ≤ 30 days:

i) Of which the borrowed assets **are not re-used** (i.e. are not rehypothecated) to cover short positions which results in a net **outflow** when the transaction is unwound

Market value of collateral		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1						
	Level 2A						
	Level 2B(I)						
	Level 2B(II) non-RMBS						
	Level 2B(II) RMBS						
	Other assets						

Market value of collateral involving eligible liquid assets		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1						
	Level 2A						
	Level 2B(I)						
	Level 2B(II) non-RMBS						
	Level 2B(II) RMBS						
	Other assets						

Weight of outflows		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1	0%					
	Level 2A	15%	0%				
	Level 2B(I)	50%	35%	0%	0%	25%	
	Level 2B(II) non-RMBS	50%	35%	0%	0%	25%	
	Level 2B(II) RMBS	25%	10%			0%	
	Other assets	100%	85%	50%	50%	75%	0%

Weighted outflows		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1						
	Level 2A						
	Level 2B(I)						
	Level 2B(II) non-RMBS						
	Level 2B(II) RMBS						
	Other assets						

Section 1A

ii) Of which the borrowed assets **are not re-used** (i.e. are not rehypothecated) to cover short positions which results in a net **inflow** when the transaction is unwound

Market value of collateral		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1						
	Level 2A						
	Level 2B(I)						
	Level 2B(II) non-RMBS						
	Level 2B(II) RMBS						
	Other assets						

Market value of collateral involving eligible liquid assets		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1						
	Level 2A						
	Level 2B(I)						
	Level 2B(II) non-RMBS						
	Level 2B(II) RMBS						
	Other assets						

Weight of inflows		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1	0%	15%	50%	50%	25%	100%
	Level 2A		0%	35%	35%	10%	85%
	Level 2B(I)			0%	0%		50%
	Level 2B(II) non-RMBS			0%	0%		50%
	Level 2B(II) RMBS			25%	25%	0%	75%
	Other assets						0%

Weighted inflows		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1						
	Level 2A						
	Level 2B(I)						
	Level 2B(II) non-RMBS						
	Level 2B(II) RMBS						
	Other assets						

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Section 1A

iii) Of which the borrowed assets **are re-used** (i.e. are not rehypothecated) to cover short positions which results in a net **outflow** when the transaction is unwound.

Market value of collateral		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1						
	Level 2A						
	Level 2B(I)						
	Level 2B(II) non-RMBS						
	Level 2B(II) RMBS						
	Other assets						

Weight of outflows		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1	0%					
	Level 2A	15%	0%				
	Level 2B(I)	50%	35%	0%	0%	25%	
	Level 2B(II) non-RMBS	50%	35%	0%	0%	25%	
	Level 2B(II) RMBS	25%	10%			0%	
	Other assets	100%	85%	50%	50%	75%	0%

Weighted outflows		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1						
	Level 2A						
	Level 2B(I)						
	Level 2B(II) non-RMBS						
	Level 2B(II) RMBS						
	Other assets						

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Section 1A

iv) Of which the borrowed assets **are not re-used** (i.e. are not rehypothecated) to cover short positions which results in a net **inflow** when the transaction is unwound.

Market value of collateral		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1						
	Level 2A						
	Level 2B(I)						
	Level 2B(II) non-RMBS						
	Level 2B(II) RMBS						
	Other assets						

Weight of inflows		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1	0%	15%	50%	50%	25%	100%
	Level 2A		0%	35%	35%	10%	85%
	Level 2B(I)			0%	0%		50%
	Level 2B(II) non-RMBS			0%	0%		50%
	Level 2B(II) RMBS			25%	25%	0%	75%
	Other assets						0%

Weighted inflows		Securities borrowed					
		Level 1	Level 2A	Level 2B(I)	Level 2B(II) non-RMBS	Level 2B(II) RMBS	Other assets
Securities lent	Level 1						
	Level 2A						
	Level 2B(I)						
	Level 2B(II) non-RMBS						
	Level 2B(II) RMBS						
	Other assets						

Total outflows from collateral swaps	
Total inflows from collateral swaps	

	Addition	**Reduction**
Adjustments to Level 1 HQLA due to collateral swaps		
Adjustments to Level 2A HQLA due to collateral swaps		
Adjustments to Level 2B(I) HQLA due to collateral swaps		
Adjustments to Level 2B(II) non-RMBS HQLA due to collateral swaps		
Adjustments to Level 2B(II) RMBS HQLA due to collateral swaps		

F) LCR

Net cash outflows	
LCR	NA

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Minimum Liquid Assets Requirements
( )
As at close of business on ( )

Section 1B Part 1

Maintenance Day	Applicable Qualifying Liabilities S$'000 (1)	Liquid Assets S$'000 (2)	Liquid Asset Ratio % (3)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
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21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			

Notes for completion

1. A bank shall report column (1) as at the close of business of the corresponding computation day or computation period, as the case may be.
2. Column (2) is is the amount of liquid assets (after haircuts) held by the bank as computed in Section 1B Parts 2 and 3 as at maintenance day.
3. Column (3) is computed automatically

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Computation of Qualifying Liabilities

( )

As at close of business on ( )

Section 1B Part 2

		S$'000	S$'000
1	All liabilities of the bank denominated in the reporting currency due to non-bank customers		
2	All liabilities of the bank denominated in the reporting currency due to the Authority within one month from the computation day		
	LESS all claims denominated in the reporting currency by the bank on the Authority maturing within one month from the computation day		(see note 1)
3	All liabilities of the bank denominated in the reporting currency due to other banks within one month from the computation day		
	LESS all claims denominated in the reporting currency by the bank on other banks maturing within one month from the computation day		(see note 2)
4	15% of all undrawn commitments denominated in the reporting currency		
5	All liabilities arising from the issue of bills of exchange, other than a bill of exchange which satisfies the requirements set out in Appendix 2		
6	All liabilities of the bank arising from the operation of any stored value facility as defined in section 2(1) of the Payment Systems (Oversight) Act 2006		
	QUALIFYING LIABILITIES		

Notes

1. If this is a net asset, the net asset amount may be deducted from Qualifying Liabilities.
2. If this is a net asset, the net asset amount shall not be deducted from Qualifying Liabilities and shall be treated as zero.

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All currency liquid Assets
( )
As at close of business on ( )

Section1B Part 3 (All currency)

		S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
	Tier 1			
1	Balance with MAS			
2	Notes and coins			
3	Debt Securities in any currency and rated at least Aa3 / AA- (issued by sovereigns)			
3a	Sukuk in any currency and rated at least Aa3 / AA- (issued by sovereigns or Singapore Sukuk Pte Ltd)			
3b	Debt Securities in any currency and rated at least Aa3 / AA- (issued by central banks)			
4	Debt Securities in any currency and rated at least Aa3 / AA- (issued by sovereigns) held under reverse repo			
4a	Sukuk in any currency and rated at least Aa3 / AA- (issued by sovereigns or Singapore Sukuk Pte Ltd) held under reverse repo			
4b	Debt Securities in any currency and rated at least Aa3 / AA- (issued by central banks) held under reverse repo			
	Tier 1 Subtotal			

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All currency liquid Assets
( )
As at close of business on ( )

Section1B Part 3 (All currency)

		S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
	Tier 2			
5	Bills of Exchange			
6a	Debt Securities / Sukuk in any currency (issued by statutory boards in Singapore)		90%	
6b	Debt Securities / Sukuk in any currency (issued by statutory boards in Singapore), where holding exceeds 20% of issue size		50%	
6c	Debt Securities / Sukuk in any currency and rated Aaa / AAA (issued by supranationals or sovereign-guaranteed corporates, excluding those covered above)		100%	
6d	Debt Securities / Sukuk in any currency and rated Aaa / AAA (issued by supranationals or sovereign-guaranteed corporates, excluding those covered above), where holding exceeds 20% of issue size		50%	
6e	Debt Securities / Sukuk in any currency and rated Aaa / AAA (issued by PSEs)		100%	
6f	Debt Securities / Sukuk in any currency and rated Aaa / AAA (issued by PSEs), where holding exceeds 20% of issue size		50%	
7a	Debt Securities / Sukuk in any currency (issued by sovereigns, statutory boards, supranationals or sovereign-guaranteed corporates, excluding those counted above)			
	- Aa3 to Aaa / AA- to AAA		90%	
	- A3 to A1 / A- to A+		80%	
	- Baa2 to Baa1 / BBB to BBB+		70%	
	- P-1 / A-1 / F1		90%	
	- P-2 / A-2 / F2		80%	
	- P-3 / A-3 / F3		70%	

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All currency liquid Assets

( )

As at close of business on ( )

Section1B Part 3 (All currency)

	S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
7b Debt Securities / Sukuk in any currency (issued by sovereigns, statutory boards, supranationals or sovereign-guaranteed corporates, excluding those counted above),			
- Aa3 to Aaa / AA- to AAA		50%	
- A3 to A1 / A- to A+		50%	
- Baa2 to Baa1 / BBB to BBB+		50%	
- P-1 / A-1 / F1		50%	
- P-2 / A-2 / F2		50%	
- P-3 / A-3 / F3		50%	
8a Debt Securities / Sukuk in any currency (issued by banks)			
- Aa3 to Aaa / AA- to AAA		90%	
- A3 to A1 / A- to A+		80%	
- Baa2 to Baa1 / BBB to BBB+		70%	
- P-1 / A-1 / F1		90%	
- P-2 / A-2 / F2		80%	
- P-3 / A-3 / F3		70%	

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THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

All currency liquid Assets

( )

As at close of business on ( )

Section1B Part 3 (All currency)

	S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
8b Debt Securities / Sukuk in any currency (issued by banks), where holding exceeds 20% of issue size			
- Aa3 to Aaa / AA- to AAA		50%	
- A3 to A1 / A- to A+		50%	
- Baa2 to Baa1 / BBB to BBB+		50%	
- P-1 / A-1 / F1		50%	
- P-2 / A-2 / F2		50%	
- P-3 / A-3 / F3		50%	
9a Debt Securities / Sukuk in any currency (issued by other corporates)			
- Aa3 to Aaa / AA- to AAA		90%	
- A3 to A1 / A- to A+		80%	
- Baa2 to Baa1 / BBB to BBB+		70%	
- P-1 / A-1 / F1		90%	
- P-2 / A-2 / F2		80%	
- P-3 / A-3 / F3		70%	

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All currency liquid Assets
( )
As at close of business on ( )

Section1B Part 3 (All currency)

	S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
9b Debt Securities / Sukuk in any currency (issued by other corporates), where holding exceeds 20% of issue size			
- Aa3 to Aaa / AA- to AAA		50%	
- A3 to A1 / A- to A+		50%	
- Baa2 to Baa1 / BBB to BBB+		50%	
- P-1 / A-1 / F1		50%	
- P-2 / A-2 / F2		50%	
- P-3 / A-3 / F3		50%	
Tier 2 Subtotal			
Total Liquid Assets			

Notes for completion

1. Column (1) is the actual level of liquid assets (i.e. net of asset maintenance and mininum cash balance requirements) as at month end.
2. Column (2) is obtained by multiplying Column (1) by the relevant percentages.
3 Where liquid assets have been included under one of the categories, please do not include the same liquid assets under a subsequent category.

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SGD Liquid Assets

( )

As at close of business on ( )

Section 1B Part 3 (SGD)

		S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
	Tier 1			
1	Balance with MAS			
2	Notes and coins			
3	Singapore Government Securities			
3A	Sukuk (Singapore Sukuk Pte Ltd)			
3B	MAS Bills			
4	Singapore Government Securities held under reverse repo			
4A	Sukuk (Singapore Sukuk Pte Ltd) held under reverse repo			
4B	MAS Bills held under reverse repo			
	Tier 1 Subtotal			

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

SGD Liquid Assets
( )
As at close of business on ( )

Section 1B Part 3 (SGD)

		S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
	Tier 2			
5	Bills of Exchange			
6a	Debt Securities / Sukuk in SGD (issued by statutory boards in Singapore)		90%	
6b	Debt Securities / Sukuk in SGD (issued by statutory boards in Singapore), where holding exceeds 20% of issue size		50%	
6c	Debt Securities / Sukuk in SGD and rated Aaa / AAA (issued by sovereigns, supranationals or sovereign-guaranteed corporates, where the sovereign is not the Singapore Government)		100%	
6d	Debt Securities / Sukuk in SGD and rated Aaa / AAA (issued by sovereigns, supranationals or sovereign-guaranteed corporates, where the sovereign is not the Singapore Government), where holding exceeds 20% of issue size		50%	
6e	Debt Securities / Sukuk in S$ and rated Aaa / AAA (issued by PSEs)		100%	
6f	Debt Securities / Sukuk in S$ and rated Aaa / AAA (issued by PSEs), where holding exceeds 20% of issue size		50%	
7a	Debt Securities / Sukuk in SGD (issued by other sovereigns, other statutory boards or supranationals, excluding those counted above)			
	- Aa3 to Aaa / AA- to AAA		90%	
	- A3 to A1 / A- to A+		80%	
	- Baa2 to Baa1 / BBB to BBB+		70%	
	- P-1 / A-1 / F1		90%	
	- P-2 / A-2 / F2		80%	
	- P-3 / A-3 / F3		70%	

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

SGD Liquid Assets

( )

As at close of business on ( )

Section 1B Part 3 (SGD)

	S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
7b Debt Securities / Sukuk in SGD (issued by other sovereigns, statutory boards or supranationals, excluding those counted above), where holding exceeds 20% of issue size			
- Aa3 to Aaa / AA- to AAA		50%	
- A3 to A1 / A- to A+		50%	
- Baa2 to Baa1 / BBB to BBB+		50%	
- P-1 / A-1 / F1		50%	
- P-2 / A-2 / F2		50%	
- P-3 / A-3 / F3		50%	
8a Debt Securities / Sukuk in SGD (issued by banks)			
- Aa3 to Aaa / AA- to AAA		90%	
- A3 to A1 / A- to A+		80%	
- Baa2 to Baa1 / BBB to BBB+		70%	
- P-1 / A-1 / F1		90%	
- P-2 / A-2 / F2		80%	
- P-3 / A-3 / F3		70%	

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

SGD Liquid Assets
( )
As at close of business on ( )

Section 1B Part 3 (SGD)

	S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
8b Debt Securities / Sukuk in SGD (issued by banks), where holding exceeds 20% of issue size			
- Aa3 to Aaa / AA- to AAA		50%	
- A3 to A1 / A- to A+		50%	
- Baa2 to Baa1 / BBB to BBB+		50%	
- P-1 / A-1 / F1		50%	
- P-2 / A-2 / F2		50%	
- P-3 / A-3 / F3		50%	
9a Debt Securities / Sukuk in SGD (issued by other corporates)			
- Aa3 to Aaa / AA- to AAA		90%	
- A3 to A1 / A- to A+		80%	
- Baa2 to Baa1 / BBB to BBB+		70%	
- P-1 / A-1 / F1		90%	
- P-2 / A-2 / F2		80%	
- P-3 / A-3 / F3		70%	

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

SGD Liquid Assets
( )
As at close of business on ( )

Section 1B Part 3 (SGD)

		S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
9b	Debt Securities / Sukuk in SGD (issued by other corporates), where holding exceeds 20% of issue size			
	- Aa3 to Aaa / AA- to AAA		50%	
	- A3 to A1 / A- to A+		50%	
	- Baa2 to Baa1 / BBB to BBB+		50%	
	- P-1 / A-1 / F1		50%	
	- P-2 / A-2 / F2		50%	
	- P-3 / A-3 / F3		50%	
	Tier 2 Subtotal			
	Total Liquid Assets			

Notes for completion

1. Column (1) is the actual level of liquid assets (i.e. net of asset maintenance and mininum cash balance requirements) as at month end.
2. Column (2) is obtained by multiplying Column (1) by the relevant percentages.
3 Where liquid assets have been included under one of the categories, please do not include the same liquid assets under a subsequent category.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Cashflow analysis of on and off-balance sheet items (Contractual Basis)

( )

As at close of business on ( )

Section 2 Part I

$'000

Cashflows of assets	**Up to 1 week**	**Over 1 wk to 2 wks**	**Over 2 wks to 3 wks**	**Over 3 wks to 1 mth**	**Over 1 mth to 3 mths**	**Over 3 mths to 6 mths**	**Over 6 mths to 1 yr**	**Over 1 yr to 2 yrs**	**Over 2 yrs to 3 yrs**
Notes and coins									
Balance with MAS									
Amounts due from banks (excluding intra-group)									
- interbank placements									
- nostro (debit balances)									
Intra-group balances									
- placements									
- nostro (debit balances)									
Securities of									
- the Government of Singapore (trading portfolio)									
- the Government of Singapore (non-trading portfolio)									
- Statutory Boards in Singapore (trading portfolio)									
- Statutory Boards in Singapore (non-trading portfolio)									
- Other Sovereigns and Statutory Boards (trading portfolio)									
- Other Sovereigns and Statutory Boards (non-trading portfolio)									
- Other Banks (trading portfolio)									
- Other Banks (non-trading portfolio)									
- Other Corporates (trading portfolio)									
- Other Corporates (non-trading portfolio)									
Reverse repurchase agreement									
Negotiable certificates of deposits held									
Other securities									
Equity investments									
Bills discounted or purchased									
Loans and advances to non-bank customers									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed assets									
Other assets									
Total cashflows of assets (A)									

$'000

Cashflows of liabilities and shareholders' equity	**Up to 1 week**	**Over 1 wk to 2 wks**	**Over 2 wks to 3 wks**	**Over 3 wks to 1 mth**	**Over 1 mth to 3 mths**	**Over 3 mths to 6 mths**	**Over 6 mths to 1 yr**	**Over 1 yr to 2 yrs**	**Over 2 yrs to 3 yrs**
Demand deposits/current accounts/savings accounts									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Other Deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Repurchase agreement									
Negotiable certificates of deposits issued									
Debt securities issued (exclude certificates of deposits)									
Amount due to banks (excluding intra-group)									
- interbank takings									
- nostro (credit balances)									
Intra-group balances									
- takings									
- nostro (credit balances)									
Bills payable									
Other liabilities									
Paid-up capital									
Reserves									
Balance of profit and loss account									
Subordinated debt									
Perpetual cumulative preference shares									
Total cashflows of liabilities and shareholders' equity (B)									

$'000

	Up to 1 week	**Over 1 wk to 2 wks**	**Over 2 wks to 3 wks**	**Over 3 wks to 1 mth**	**Over 1 mth to 3 mths**	**Over 3 mths to 6 mths**	**Over 6 mths to 1 yr**	**Over 1 yr to 2 yrs**	**Over 2 yrs to 3 yrs**
Net cashflows of on-balance sheet items (C), (C) = (A) + (B)									

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Cashflow analysis of on and off-balance sheet items (Contractual Basis)

( )

As at close of business on ( )

Section 2 Part I

$'000

Cashflows of off-balance sheet items	Up to 1 week	Over 1 wk to 2 wks	Over 2 wks to 3 wks	Over 3 wks to 1 mth	Over 1 mth to 3 mths	Over 3 mths to 6 mths	Over 6 mths to 1 yr	Over 1 yr to 2 yrs	Over 2 yrs to 3 yrs
Inflows									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Forward asset sales									
Other off-balance sheet items									
Total inflows (D)									
Outflows									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Guarantees, warranties and indemnities									
Endorsements and other obligations									
Bills for collection									
Unutilised commitments and undisbursed credit facilities									
Forward asset purchase									
Underwriting commitments									
Other off-balance sheet items									
Total outflows (E)									
Net cashflows of off-balance sheet items (F), (F) = (D) + (E)									

$'000

Consolidated cashflows of on-balance sheet and off-balance sheet items	Up to 1 week	Over 1 wk to 2 wks	Over 2 wks to 3 wks	Over 3 wks to 1 mth	Over 1 mth to 3 mths	Over 3 mths to 6 mths	Over 6 mths to 1 yr	Over 1 yr to 2 yrs	Over 2 yrs to 3 yrs
Total net inflows/(outflows) (G), (G) = (C) + (F)									
Total net cumulative inflows/(outflows)									

Notes for completion

1. A bank shall report in this Section, its future contractual cash flows by the tenor of expected of receipt of cash flows. A bank shall use its internal methodology for determining the cash flows for each item.
2. The maturity analysis incorporates items from both the banking and trading books. A bank shall report for an all currency basis, for SGD as well as for its non-SGD significant currencies.
3. Items shall be reported on a cashflow basis, including both interest and principal amounts, together with other income relating to them. Both interest and principal amounts should be reported as per their contractual terms.
4. Where the amounts are immaterial, the bank may agree, in consultation with the Authority, to a relaxation of the reporting requirements. The bank shall agree in advance with the Authority which flows will not be considered 'material' for the purposes of liquidity reporting. Any such arrangements shall be included in the bank's liquidity policy.
5. For products with multiple maturity dates, inflows shall be assumed to occur at their latest residual contractual maturity, while outflows shall be assumed to occur at their earliest residual contractual maturity.
6. All inflows and outflows shall be reported gross. A bank shall not net (or offset) claims on counterparties or groups of counterparties against debts owed to those counterparties or groups of counterparties, even where a legal right of set off exists.
7. Cash flows from derivatives are to be reported under 'Off-balance sheet items', segregated by the type of derivative contract.
8. Inflows shall be shown as "positive" and outflows "negative".
9. Instruments payable on demand shall be bucketed in the 'within 7 days' column. Items should be allocated to the 'unallocated' bucket sparingly.
10. Amounts in the original currency shall be converted into Singapore dollar equivalent using the bank's internal exchange rates
11. A bank shall use its internal definitions of a 'trading book' and 'non-trading book' for the purposes of this form.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Cashflow analysis of on and off-balance sheet items (Contractual Basis)

( )

As at close of business on ( )

Section 2 Part II

$'000

Cashflows of assets	**Over 3 yrs to 4 yrs**	**Over 4 yrs to 5 yrs**	**Over 5 yrs to 7 yrs**	**Over 7 yrs to 10 yrs**	**Over 10 yrs to 15 yrs**	**Over 15 yrs to 20 yrs**	**Over 20 yrs**	**Unallocated**	**Total**
Notes and coins									
Balance with MAS									
Amounts due from banks (excluding intra-group)									
- interbank placements									
- nostro (debit balances)									
Intra-group balances									
- placements									
- nostro (debit balances)									
Securities of									
- the Government of Singapore (trading portfolio)									
- the Government of Singapore (non-trading portfolio)									
- Statutory Boards in Singapore (trading portfolio)									
- Statutory Boards in Singapore (non-trading portfolio)									
- Other Sovereigns and Statutory Boards (trading portfolio)									
- Other Sovereigns and Statutory Boards (non-trading portfolio)									
- Other Banks (trading portfolio)									
- Other Banks (non-trading portfolio)									
- Other Corporates (trading portfolio)									
- Other Corporates (non-trading portfolio)									
Reverse repurchase agreement									
Negotiable certificates of deposits held									
Other securities									
Equity investments									
Bills discounted or purchased									
Loans and advances to non-bank customers									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed assets									
Other assets									
Total cashflows of assets (A)									

$'000

Cashflows of liabilities and shareholders' equity	**Over 3 yrs to 4 yrs**	**Over 4 yrs to 5 yrs**	**Over 5 yrs to 7 yrs**	**Over 7 yrs to 10 yrs**	**Over 10 yrs to 15 yrs**	**Over 15 yrs to 20 yrs**	**Over 20 yrs**	**Unallocated**	**Total**
Demand deposits/current accounts/savings accounts									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Other Deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Repurchase agreement									
Negotiable certificates of deposits issued									
Debt securities issued (exclude certificates of deposits)									
Amount due to banks (excluding intra-group)									
- interbank takings									
- nostro (credit balances)									
Intra-group balances									
- takings									
- nostro (credit balances)									
Bills payable									
Other liabilities									
Paid-up capital									
Reserves									
Balance of profit and loss account									
Subordinated debt									
Perpetual cumulative preference shares									
Total cashflows of liabilities and shareholders' equity (B)									

$'000

	Over 3 yrs to 4 yrs	**Over 4 yrs to 5 yrs**	**Over 5 yrs to 7 yrs**	**Over 7 yrs to 10 yrs**	**Over 10 yrs to 15 yrs**	**Over 15 yrs to 20 yrs**	**Over 20 yrs**	**Unallocated**	**Total**
Net cashflows of on-balance sheet items (C), (C) = (A) + (B)									

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Cashflow analysis of on and off-balance sheet items (Contractual Basis)

( )

As at close of business on ( )

Section 2 Part II

$'000

Cashflows of off-balance sheet items	Over 3 yrs to 4 yrs	Over 4 yrs to 5 yrs	Over 5 yrs to 7 yrs	Over 7 yrs to 10 yrs	Over 10 yrs to 15 yrs	Over 15 yrs to 20 yrs	Over 20 yrs	Unallocated	Total
Inflows									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Forward asset sales									
Other off-balance sheet items									
Total inflows (D)									
Outflows									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Guarantees, warranties and indemnities									
Endorsements and other obligations									
Bills for collection									
Unutilised commitments and undisbursed credit facilities									
Forward asset purchase									
Underwriting commitments									
Other off-balance sheet items									
Total outflows (E)									
Net cashflows of off-balance sheet items (F), (F) = (D) + (E)									

$'000

Consolidated cashflows of on-balance sheet and off-balance sheet items	Over 3 yrs to 4 yrs	Over 4 yrs to 5 yrs	Over 5 yrs to 7 yrs	Over 7 yrs to 10 yrs	Over 10 yrs to 15 yrs	Over 15 yrs to 20 yrs	Over 20 yrs	Unallocated	Total
Total net inflows/(outflows) (G), (G) = (C) + (F)									
Total net cumulative inflows/(outflows)									

Notes for completion

1. A bank shall report in this Section, its future contractual cash flows by the tenor of expected of receipt of cash flows. A bank shall use its internal methodology for determining the cash flows for each item.
2. The maturity analysis incorporates items from both the banking and trading books. A bank shall report for an all currency basis, for SGD as well as for its non-SGD significant currencies.
3. Items shall be reported on a cashflow basis, including both interest and principal amounts, together with other income relating to them. Both interest and principal amounts should be reported as per their contractual terms.
4. Where the amounts are immaterial, the bank may agree, in consultation with the Authority, to a relaxation of the reporting requirements. The bank shall agree in advance with the Authority which flows will not be considered 'material' for the purposes of liquidity reporting. Any such arrangements shall be included in the bank's liquidity policy.
5. For products with multiple maturity dates, inflows shall be assumed to occur at their latest residual contractual maturity, while outflows shall be assumed to occur at their earliest residual contractual maturity.
6. All inflows and outflows shall be reported gross. A bank shall not net (or offset) claims on counterparties or groups of counterparties against debts owed to those counterparties or groups of counterparties, even where a legal right of set off exists.
7. Cash flows from derivatives are to be reported under 'Off-balance sheet items', segregated by the type of derivative contract.
8. Inflows shall be shown as "positive" and outflows "negative".
9. Instruments payable on demand shall be bucketed in the 'within 7 days' column. Items should be allocated to the 'unallocated' bucket sparingly.
10. Amounts in the original currency shall be converted into Singapore dollar equivalent using the bank's internal exchange rates
11. A bank shall use its internal definitions of a 'trading book' and 'non-trading book' for the purposes of this form.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Residual Maturity Analysis of on and off-balance sheet items (Contractual Basis)

( )

As at close of business on ( )

Section 3 Part I

$'000

Assets	**Up to 1 week**	**Over 1 wk to 2 wks**	**Over 2 wks to 3 wks**	**Over 3 wks to 1 mth**	**Over 1 mth to 3 mths**	**Over 3 mths to 6 mths**	**Over 6 mths to 1 yr**	**Over 1 yr to 2 yrs**	**Over 2 yrs to 3 yrs**
Notes and coins									
Balance with MAS									
Amounts due from banks (excluding intra-group)									
- interbank placements									
- nostro (debit balances)									
Intra-group balances									
- placements									
- nostro (debit balances)									
Securities of									
- the Government of Singapore (trading portfolio)									
- the Government of Singapore (non-trading portfolio)									
- Statutory Boards in Singapore (trading portfolio)									
- Statutory Boards in Singapore (non-trading portfolio)									
- Other Sovereigns and Statutory Boards (trading portfolio)									
- Other Sovereigns and Statutory Boards (non-trading portfolio)									
- Other Banks (trading portfolio)									
- Other Banks (non-trading portfolio)									
- Other Corporates (trading portfolio)									
- Other Corporates (non-trading portfolio)									
Reverse repurchase agreement									
Negotiable certificates of deposits held									
Other securities									
Equity investments									
Bills discounted or purchased									
Loans and advances to non-bank customers									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed assets									
Other assets									
Total assets (A)									

$'000

Liabilities and shareholders' equity	**Up to 1 week**	**Over 1 wk to 2 wks**	**Over 2 wks to 3 wks**	**Over 3 wks to 1 mth**	**Over 1 mth to 3 mths**	**Over 3 mths to 6 mths**	**Over 6 mths to 1 yr**	**Over 1 yr to 2 yrs**	**Over 2 yrs to 3 yrs**
Demand deposits/current accounts/savings accounts									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Other Deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Repurchase agreement									
Negotiable certificates of deposits issued									
Debt securities issued (exclude certificates of deposits)									
Amount due to banks (excluding intra-group)									
- interbank takings									
- nostro (credit balances)									
Intra-group balances									
- takings									
- nostro (credit balances)									
Bills payable									
Other liabilities									
Paid-up capital									
Reserves									
Balance of profit and loss account									
Subordinated debt									
Perpetual cumulative preference shares									
Total liabilities and shareholders' equity (B)									

$'000

Off-balance sheet items	**Up to 1 week**	**Over 1 wk to 2 wks**	**Over 2 wks to 3 wks**	**Over 3 wks to 1 mth**	**Over 1 mth to 3 mths**	**Over 3 mths to 6 mths**	**Over 6 mths to 1 yr**	**Over 1 yr to 2 yrs**	**Over 2 yrs to 3 yrs**
Gross asset positions									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Forward asset sales									
Other off-balance sheet items									
Total gross asset position (D)									

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Residual Maturity Analysis of on and off-balance sheet items (Contractual Basis)
( )
As at close of business on ( )

Section 3 Part I

$'000

Off-balance sheet items	Up to 1 week	Over 1 wk to 2 wks	Over 2 wks to 3 wks	Over 3 wks to 1 mth	Over 1 mth to 3 mths	Over 3 mths to 6 mths	Over 6 mths to 1 yr	Over 1 yr to 2 yrs	Over 2 yrs to 3 yrs
Gross liability positions									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Guarantees, warranties and indemnities									
Endorsements and other obligations									
Bills for collection									
Unutilised commitments and undisbursed credit facilities									
Forward asset purchase									
Underwriting commitments									
Other off-balance sheet items									
Total gross liability position (E)									

Notes for completion

1. A bank shall report in this Section, the residual contractual maturity of its assets, liabilities and off-balance sheet positions based on the book value/fair value of the asset, liability or off-balance sheet item as per MAS610 valuation methods. The
2. The maturity analysis incorporates items from both the banking and trading books. A bank shall report for an all currency basis, for SGD as well as for its non-SGD significant currencies.
3. Where the amounts are immaterial, the bank may agree, in consultation with the Authority, to a relaxation of the reporting requirements. The bank shall agree in advance with the Authority which flows will not be considered 'material' for the purposes of liquidity reporting. Any such arrangements shall be included in the bank's liquidity policy.
4. For products with multiple maturity dates, inflows shall be assumed to occur at their latest residual contractual maturity, while outflows shall be assumed to occur at their earliest residual contractual maturity.
5. All claims and liabilities shall be reported gross. A bank shall not net (or offset) claims on counterparties or groups of counterparties against debts owed to those counterparties or groups of counterparties, even where a legal right of set off exists.

6. Assets shall be shown as "positive" and liabilities "negative".
7. Instruments payable on demand shall be bucketed in the 'within 7 days' column. Items should be allocated to the 'unallocated' bucket sparingly.
8. Cash flows from derivatives are to be reported under 'Off-balance sheet items', segregated by the type of derivative contract.
9. Amounts in the original currency shall be converted into Singapore dollar equivalent using the bank's internal exchange rates.
10. A bank shall use its internal definitions of a 'trading book' and 'non-trading book' for the purposes of this form.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Residual Maturity Analysis of on and off-balance sheet items (Contractual Basis)

( )

As at close of business on ( )

Section 3 Part II

$'000

Assets	**Over 3 yrs to 4 yrs**	**Over 4 yrs to 5 yrs**	**Over 5 yrs to 7 yrs**	**Over 7 yrs to 10 yrs**	**Over 10 yrs to 15 yrs**	**Over 15 yrs to 20 yrs**	**Over 20 yrs**	**Unallocated**	**Total**
Notes and coins									
Balance with MAS									
Amounts due from banks (excluding intra-group)									
- interbank placements									
- nostro (debit balances)									
Intra-group balances									
- placements									
- nostro (debit balances)									
Securities of									
- the Government of Singapore (trading portfolio)									
- the Government of Singapore (non-trading portfolio)									
- Statutory Boards in Singapore (trading portfolio)									
- Statutory Boards in Singapore (non-trading portfolio)									
- Other Sovereigns and Statutory Boards (trading portfolio)									
- Other Sovereigns and Statutory Boards (non-trading portfolio)									
- Other Banks (trading portfolio)									
- Other Banks (non-trading portfolio)									
- Other Corporates (trading portfolio)									
- Other Corporates (non-trading portfolio)									
Reverse repurchase agreement									
Negotiable certificates of deposits held									
Other securities									
Equity investments									
Bills discounted or purchased									
Loans and advances to non-bank customers									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed assets									
Other assets									
Total assets (A)									

$'000

Liabilities and shareholders' equity	**Over 3 yrs to 4 yrs**	**Over 4 yrs to 5 yrs**	**Over 5 yrs to 7 yrs**	**Over 7 yrs to 10 yrs**	**Over 10 yrs to 15 yrs**	**Over 15 yrs to 20 yrs**	**Over 20 yrs**	**Unallocated**	**Total**
Demand deposits/current accounts/savings accounts									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Other Deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Repurchase agreement									
Negotiable certificates of deposits issued									
Debt securities issued (exclude certificates of deposits)									
Amount due to banks (excluding intra-group)									
- interbank takings									
- nostro (credit balances)									
Intra-group balances									
- takings									
- nostro (credit balances)									
Bills payable									
Other liabilities									
Paid-up capital									
Reserves									
Balance of profit and loss account									
Subordinated debt									
Perpetual cumulative preference shares									
Total liabilities and shareholders' equity (B)									

$'000

Off-balance sheet items	**Over 3 yrs to 4 yrs**	**Over 4 yrs to 5 yrs**	**Over 5 yrs to 7 yrs**	**Over 7 yrs to 10 yrs**	**Over 10 yrs to 15 yrs**	**Over 15 yrs to 20 yrs**	**Over 20 yrs**	**Unallocated**	**Total**
Gross asset positions									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Forward asset sales									
Other off-balance sheet items									
Total gross asset position (D)									

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Residual Maturity Analysis of on and off-balance sheet items (Contractual Basis)

( )

As at close of business on ( )

Section 3 Part II

$'000

Off-balance sheet items	Over 3 yrs to 4 yrs	Over 4 yrs to 5 yrs	Over 5 yrs to 7 yrs	Over 7 yrs to 10 yrs	Over 10 yrs to 15 yrs	Over 15 yrs to 20 yrs	Over 20 yrs	Unallocated	Total
Gross liability positions									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Guarantees, warranties and indemnities									
Endorsements and other obligations									
Bills for collection									
Unutilised commitments and undisbursed credit facilities									
Forward asset purchase									
Underwriting commitments									
Other off-balance sheet items									
Total gross liability position (E)									

Notes for completion

1. A bank shall report in this Section, the residual contractual maturity of its assets, liabilities and off-balance sheet positions based on the book value/fair value of the asset, liability or off-balance sheet item as per MAS610 valuation methods. The
2. The maturity analysis incorporates items from both the banking and trading books. A bank shall report for an all currency basis, for SGD as well as for its non-SGD significant currencies.
3. Where the amounts are immaterial, the bank may agree, in consultation with the Authority, to a relaxation of the reporting requirements. The bank shall agree in advance with the Authority which flows will not be considered 'material' for the purposes of liquidity reporting. Any such arrangements shall be included in the bank's liquidity policy.
4. For products with multiple maturity dates, inflows shall be assumed to occur at their latest residual contractual maturity, while outflows shall be assumed to occur at their earliest residual contractual maturity.
5. All claims and liabilities shall be reported gross. A bank shall not net (or offset) claims on counterparties or groups of counterparties against debts owed to those counterparties or groups of counterparties, even where a legal right of set off exists.

6. Assets shall be shown as "positive" and liabilities "negative".
7. Instruments payable on demand shall be bucketed in the 'within 7 days' column. Items should be allocated to the 'unallocated' bucket sparingly.
8. Cash flows from derivatives are to be reported under 'Off-balance sheet items', segregated by the type of derivative contra
9. Amounts in the original currency shall be converted into Singapore dollar equivalent using the bank's internal exchange rates.
10. A bank shall use its internal definitions of a 'trading book' and 'non-trading book' for the purposes of this form.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Cashflow analysis of on and off-balance sheet items (Behavioural Basis)
( )
As at close of business on ( )

Section 4 Part I

$'000

Cashflows of assets	Up to 1 week	Over 1 wk to 2 wks	Over 2 wks to 3 wks	Over 3 wks to 1 mth	Over 1 mth to 3 mths	Over 3 mths to 6 mths	Over 6 mths to 1 yr	Over 1 yr to 2 yrs	Over 2 yrs to 3 yrs
Notes and coins									
Balance with MAS									
Amounts due from banks (excluding intra-group)									
- interbank placements									
- nostro (debit balances)									
Intra-group balances									
- placements									
- nostro (debit balances)									
Securities of									
- the Government of Singapore (trading portfolio)									
- the Government of Singapore (non-trading portfolio)									
- Statutory Boards in Singapore (trading portfolio)									
- Statutory Boards in Singapore (non-trading portfolio)									
- Other Sovereigns and Statutory Boards (trading portfolio)									
- Other Sovereigns and Statutory Boards (non-trading portfolio)									
- Other Banks (trading portfolio)									
- Other Banks (non-trading portfolio)									
- Other Corporates (trading portfolio)									
- Other Corporates (non-trading portfolio)									
Reverse repurchase agreement									
Negotiable certificates of deposits held									
Other securities									
Equity investments									
Bills discounted or purchased									
Loans and advances to non-bank customers									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed assets									
Other assets									
Total cashflows of assets (A)									

$'000

Cashflows of liabilities and shareholders' equity	Up to 1 week	Over 1 wk to 2 wks	Over 2 wks to 3 wks	Over 3 wks to 1 mth	Over 1 mth to 3 mths	Over 3 mths to 6 mths	Over 6 mths to 1 yr	Over 1 yr to 2 yrs	Over 2 yrs to 3 yrs
Demand deposits/current accounts/savings accounts									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Other Deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Repurchase agreement									
Negotiable certificates of deposits issued									
Debt securities issued (exclude certificates of deposits)									
Amount due to banks (excluding intra-group)									
- interbank takings									
- nostro (credit balances)									
Intra-group balances									
- takings									
- nostro (credit balances)									
Bills payable									
Other liabilities									
Paid-up capital									
Reserves									
Balance of profit and loss account									
Subordinated debt									
Perpetual cumulative preference shares									
Total cashflows of liabilities and shareholders' equity (B)									

$'000

	Up to 1 week	Over 1 wk to 2 wks	Over 2 wks to 3 wks	Over 3 wks to 1 mth	Over 1 mth to 3 mths	Over 3 mths to 6 mths	Over 6 mths to 1 yr	Over 1 yr to 2 yrs	Over 2 yrs to 3 yrs
Net cashflows of on-balance sheet items (C), (C) = (A) + (B)									

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Cashflow analysis of on and off-balance sheet items (Behavioural Basis)

( )

As at close of business on ( )

Section 4 Part I

$'000

Cashflows of off-balance sheet items	**Up to 1 week**	**Over 1 wk to 2 wks**	**Over 2 wks to 3 wks**	**Over 3 wks to 1 mth**	**Over 1 mth to 3 mths**	**Over 3 mths to 6 mths**	**Over 6 mths to 1 yr**	**Over 1 yr to 2 yrs**	**Over 2 yrs to 3 yrs**
Inflows									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Forward asset sales									
Other off-balance sheet items									
Total inflows (D)									
Outflows									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Guarantees, warranties and indemnities									
Endorsements and other obligations									
Bills for collection									
Unutilised commitments and undisbursed credit facilities									
Forward asset purchase									
Underwriting commitments									
Other off-balance sheet items									
Total outflows (E)									
Net cashflows of off-balance sheet items (F), = (D) + €									

$'000

Consolidated cashflows of on-balance sheet and off-balance sheet items	**Up to 1 week**	**Over 1 wk to 2 wks**	**Over 2 wks to 3 wks**	**Over 3 wks to 1 mth**	**Over 1 mth to 3 mths**	**Over 3 mths to 6 mths**	**Over 6 mths to 1 yr**	**Over 1 yr to 2 yrs**	**Over 2 yrs to 3 yrs**
Total net inflows/(outflows) (G), (G) = (C) + (F)									
Total net cumulative inflows/(outflows)									

Notes for completion

1. A D-SIB bank shall report in this Section, cash flows after adjustment for the behavioural patterns it expects to occur. A bank shall utilise its internal behavioural methodologies in bucketing the behavioural cash flows.
2. A bank that has been designated as a D-SIB shall submit to the Authority all its behavioural assumptions used in this form.
3. Banks shall provide empirical evidence to support the adjustments they propose. The empirical data shall be run over an appropriate period of time.
4. A bank shall review the behavioural assumptions periodically to ensure that these are still valid.
5. No bank may make behavioural assumptions without first informing the Authority. A bank that makes changes to its behavioural assumptions in this form shall inform the Authority promptly.
6. The maturity analysis incorporates cash flows from both the banking and trading books.
7. A bank shall report for an all currency basis, for SGD as well as for its non-SGD significant foreign currencies.
8. Where the amounts are immaterial, the bank may agree, in consultation with the Authority, to a relaxation of the reporting requirements. The bank shall agree in advance with the Authority which flows will not be considered 'material' for the purposes of liquidity reporting. Any such arrangements shall be included in the bank's liquidity policy.
9. Items shall be reported on a cashflow basis, including both interest and principal amounts, together with other income relating to them.
10. All inflows and outflows shall be reported gross. A bank shall not net (or offset) claims on counterparties or groups of counterparties against debts owed to those counterparties or groups of counterparties, even where a legal right of set off exists.
11. Inflows shall be shown as "positive" and outflows "negative".
12. Instruments payable on demand shall be bucketed in the 'within 7 days' column. Items should be allocated to the 'unallocated' bucket sparingly.
13. Cash flows from derivatives are to be reported under 'Off-balance sheet items', segregated by the type of derivative contract.
14. Amounts in the original currency shall be converted into Singapore dollar equivalent using the bank's internal exchange rates.
15. A bank shall use its internal definitions of a 'trading book' and 'non-trading book' for the purposes of this form.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Cashflow analysis of on and off-balance sheet items (Behavioural Basis)

( )

As at close of business on ( )

Section 4 Part II

$'000

Cashflows of assets	Over 3 yrs to 4 yrs	Over 4 yrs to 5 yrs	Over 5 yrs to 7 yrs	Over 7 yrs to 10 yrs	Over 10 yrs to 15 yrs	Over 15 yrs to 20 yrs	Over 20 yrs	Unallocated	Total
Notes and coins									
Balance with MAS									
Amounts due from banks (excluding intra-group)									
- interbank placements									
- nostro (debit balances)									
Intra-group balances									
- placements									
- nostro (debit balances)									
Securities of									
- the Government of Singapore (trading portfolio)									
- the Government of Singapore (non-trading portfolio)									
- Statutory Boards in Singapore (trading portfolio)									
- Statutory Boards in Singapore (non-trading portfolio)									
- Other Sovereigns and Statutory Boards (trading portfolio)									
- Other Sovereigns and Statutory Boards (non-trading portfolio)									
- Other Banks (trading portfolio)									
- Other Banks (non-trading portfolio)									
- Other Corporates (trading portfolio)									
- Other Corporates (non-trading portfolio)									
Reverse repurchase agreement									
Negotiable certificates of deposits held									
Other securities									
Equity investments									
Bills discounted or purchased									
Loans and advances to non-bank customers									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed assets									
Other assets									
Total cashflows of assets (A)									

$'000

Cashflows of liabilities and shareholders' equity	Over 3 yrs to 4 yrs	Over 4 yrs to 5 yrs	Over 5 yrs to 7 yrs	Over 7 yrs to 10 yrs	Over 10 yrs to 15 yrs	Over 15 yrs to 20 yrs	Over 20 yrs	Unallocated	Total
Demand deposits/current accounts/savings accounts									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Fixed deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Other Deposits									
- Singapore Government and Statutory Boards									
- Other Sovereigns and Statutory Boards									
- Non-bank Financial Institutions									
- Other Corporate Customers									
- Individual Customers									
Repurchase agreement									
Negotiable certificates of deposits issued									
Debt securities issued (exclude certificates of deposits)									
Amount due to banks (excluding intra-group)									
- interbank takings									
- nostro (credit balances)									
Intra-group balances									
- takings									
- nostro (credit balances)									
Bills payable									
Other liabilities									
Paid-up capital									
Reserves									
Balance of profit and loss account									
Subordinated debt									
Perpetual cumulative preference shares									
Total cashflows of liabilities and shareholders' equity (B)									

$'000

	Over 3 yrs to 4 yrs	Over 4 yrs to 5 yrs	Over 5 yrs to 7 yrs	Over 7 yrs to 10 yrs	Over 10 yrs to 15 yrs	Over 15 yrs to 20 yrs	Over 20 yrs	Unallocated	Total
Net cashflows of on-balance sheet items (C), (C) = (A) + (B)									

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Cashflow analysis of on and off-balance sheet items (Behavioural Basis)

( )

As at close of business on ( )

Section 4 Part II

$'000

Cashflows of off-balance sheet items	Over 3 yrs to 4 yrs	Over 4 yrs to 5 yrs	Over 5 yrs to 7 yrs	Over 7 yrs to 10 yrs	Over 10 yrs to 15 yrs	Over 15 yrs to 20 yrs	Over 20 yrs	Unallocated	Total
Inflows									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Forward asset sales									
Other off-balance sheet items									
Total inflows (D)									
Outflows									
Interest rate derivatives									
Foreign exchange derivatives									
Equity derivatives									
Credit derivatives									
Other derivative transactions									
Guarantees, warranties and indemnities									
Endorsements and other obligations									
Bills for collection									
Unutilised commitments and undisbursed credit facilities									
Forward asset purchase									
Underwriting commitments									
Other off-balance sheet items									
Total outflows (E)									
Net cashflows of off-balance sheet items (F), (F) = (D) + (E)									

$'000

Consolidated cashflows of on-balance sheet and off-balance sheet items	Over 3 yrs to 4 yrs	Over 4 yrs to 5 yrs	Over 5 yrs to 7 yrs	Over 7 yrs to 10 yrs	Over 10 yrs to 15 yrs	Over 15 yrs to 20 yrs	Over 20 yrs	Unallocated	Total
Total net inflows/(outflows) (G), (G) = (C) + (F)									
Total net cumulative inflows/(outflows)									

Notes for completion

1. A D-SIB bank shall report in this Section, cash flows after adjustment for the behavioural patterns it expects to occur. A bank shall utilise its internal behavioural methodologies in bucketing the behavioural cash flows.
2. A bank that has been designated as a D-SIB shall submit to the Authority all its behavioural assumptions used in this form.
3. Banks shall provide empirical evidence to support the adjustments they propose. The empirical data shall be run over an appropriate period of time.
4. A bank shall review the behavioural assumptions periodically to ensure that these are still valid.
5. No bank may make behavioural assumptions without first informing the Authority. A bank that makes changes to its behavioural assumptions in this form shall inform the Authority promptly.
6. The maturity analysis incorporates cash flows from both the banking and trading books.
7. A bank shall report for an all currency basis, for SGD as well as for its non-SGD significant foreign currencies.
8. Where the amounts are immaterial, the bank may agree, in consultation with the Authority, to a relaxation of the reporting requirements. The bank shall agree in advance with the Authority which flows will not be considered 'material' for the purposes of liquidity reporting. Any such arrangements shall be included in the bank's liquidity policy.
9. Items shall be reported on a cashflow basis, including both interest and principal amounts, together with other income relating to them.
10. All inflows and outflows shall be reported gross. A bank shall not net (or offset) claims on counterparties or groups of counterparties against debts owed to those counterparties or groups of counterparties, even where a legal right of set off exists.
11. Inflows shall be shown as "positive" and outflows "negative".
12. Instruments payable on demand shall be bucketed in the 'within 7 days' column. Items should be allocated to the 'unallocated' bucket sparingly.
13. Cash flows from derivatives are to be reported under 'Off-balance sheet items', segregated by the type of derivative contract.
14. Amounts in the original currency shall be converted into Singapore dollar equivalent using the bank's internal exchange rates.
15. A bank shall use its internal definitions of a 'trading book' and 'non-trading book' for the purposes of this form.

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTION 36 AND 38)

Available unencumbered liquid assets
( )
As at close of business on ( )

Section 5

S/N	Asset type	Platform where asset can be monetised	Location of unencumbered assets	Amount available for secured borrowing (S$'000)	Average expected haircut for secured borrowing (%)	Expected monetised value for assets (S$'000)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
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26						
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32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						

Notes for completion

1. A bank shall submit to the Authority the details of all unencumbered liquid assets that the bank may use as collateral for central bank or secondary market borrowing. The bank shall submit details on the amount, type and location of these available unencumbered assets, as well as the expected haircuts on these assets. The bank shall also submit details on the expected monetised value of these assets.
2. The bank is to group similar assets together for the purposes of reporting.
3. The rows shall be filled in ascending order.
4. All amounts shall be shown on a gross basis.
5. Amounts in the original currency shall be converted into Singapore dollar equivalent using the bank's internal exchange rates

Monetary Authority of Singapore