CONSULTATION PAPER

P015-2014
August 2014

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

Monetary Authority of Singapore

PREFACE

On 16 August 2013, MAS issued a consultation paper on the implementation of the Liquidity Coverage Ratio ("LCR") rules in Singapore. MAS would like to thank all respondents for their comments, and we have carefully considered the feedback received. Comments that are of wider interest, together with our responses, are highlighted in this document. The revised framework for banks will be implemented in a new MAS Notice. The draft Notice and the corresponding reporting forms are appended in Annexes A and B respectively.

MAS invites interested parties to provide their views and comments on the draft Notice and reporting forms attached at the Annexes. Electronic submission is encouraged. Please submit written comments by 5 September 2014 to:

Specialist Risk Department
Monetary Authority of Singapore
10 Shenton Way MAS Building
Singapore 079117
Email: liquidity@mas.gov.sg

Please note that all submissions received may be made public unless confidentiality is specifically requested for the whole or part of the submissions.

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RESPONSE TO FEEDBACK RECEIVED

1 Two-Tier Approach

1.1 In the August 2013 consultation paper, MAS proposed to require all banks, merchant banks and finance companies in Singapore to comply with the LCR requirements.

1.2 Some respondents asked MAS to consider adopting a two-tier approach, under which larger banks will comply with the LCR requirements whereas smaller institutions will comply with a simpler requirement that is commensurate with their size and complexity. They highlighted similar approaches that are being considered by some other regulators.

<u>MAS' Response</u>

1.3 Taking into account industry feedback, MAS will adopt a two-tier liquidity requirement framework. Banks and related entities assessed by MAS to be systemically important in Singapore will be required to adopt the LCR framework to ensure that they have sound liquidity risk management.[1] The LCR framework is more risk-sensitive compared to the current Minimum Liquid Assets ("MLA") framework, and allows for a more granular assessment of the liquidity health of a bank as well as the buffer it would need to hold to avoid a funding squeeze in a stress situation.

1.4 Smaller, niche institutions whose operations in Singapore are much simpler than the larger banks will be given a choice to comply with either the LCR or a modified MLA framework.[2] This two-tier approach balances the implementation cost of complying with the LCR with the systemic significance of the institution involved.

2 US Dollar Liquidity Requirement

2.1 MAS had proposed to require all banks, merchant banks and finance companies in Singapore to meet a US dollar LCR requirement, the next most significant currency in the banking system after the Singapore dollar.

2.2 A number of respondents asked MAS to reconsider the proposal, highlighting that holding a US dollar liquidity buffer (on top of buffers for Singapore dollar and all

[1] MAS has consulted on the proposed framework for domestic systemically important banks ("D-SIBs") (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.

[2] The current MLA framework will be modified to include an all-currency requirement, in addition to the existing Singapore Dollar requirement, with both requirements set at 16% of Qualifying Liabilities.

currencies) in Singapore is inefficient for an international banking group. Some respondents added that local branches of international banks have full and unrestricted access to US dollar liquid assets and funding held centrally at Group level.

MAS' Response

2.3 Having considered the industry feedback, MAS will not impose a separate US dollar liquidity requirement but will monitor that institutions manage prudently their liquidity risks by currency on a supervisory basis. Should there be prudential concerns at a particular institution, MAS may impose currency-specific liquidity requirements on an institution-specific basis.

3 All-Currency Liquidity Requirement

3.1 MAS had proposed to set the all-currency LCR requirement at 60% by 1 January 2015, rising by 10% points each year to reach 100% by 1 January 2019. Recognising that it would be inefficient for global banks to maintain liquid assets at each location where they have operations, MAS proposed allowing a lower LCR requirement for foreign bank branches that meet certain conditions.

3.2 Some respondents expressed interest in applying for the reduced requirements, and sought clarifications on the criteria for approval.

MAS' Response

3.3 MAS proposes to revise the all-currency liquidity requirement as follows.

3.4 For the DBS, OCBC and UOB banking groups which are headquartered in Singapore, the all-currency LCR requirement will be set at 60% by 1 January 2015, and rise by 10% points each year to reach 100% by 1 January 2019. This follows the implementation timeline set by the Basel Committee on Banking Supervision for all internationally active banking groups.

3.5 For all other locally-incorporated banks, merchant banks and finance companies that are not headquartered in another jurisdiction, and that are required or choose to comply with the LCR, the all-currency LCR requirement will be set at 70% by 1 January 2016, and rise by 10% points each year to reach 100% by 1 January 2019.

3.6 For banks, merchant banks and finance companies that are headquartered in another jurisdiction, and that are required or choose to comply with the LCR, the all-currency LCR requirement will be set at a reduced 50%. This recognises that the parent banking groups of these foreign entities would likely also set aside liquid assets for the liquidity needs attributable to their Singapore operations. This approach will be automatically available to all foreign entities that are required or opt to comply with the LCR requirement, i.e. they need not apply to MAS for the lower requirement.

3.7 The all-currency MLA requirement will be set at 16% of Qualifying Liabilities for all entities that elect to adopt the MLA framework.

4 Timeline for Implementation

4.1 MAS had proposed that the new liquidity requirements will commence on 1 January 2015 for all institutions, in line with the Basel implementation timeline.

4.2 Some respondents commented that the timeline is tight and their systems may not be upgraded in time to ensure compliance. They suggested delaying implementation to give the industry more time to make the necessary changes to their systems.

MAS' Response

4.3 For the DBS, OCBC and UOB banking groups, the LCR requirement will commence on 1 January 2015, aligned with the Basel timeline.

4.4 Other institutions will comply with the new liquidity requirements by 1 January 2016, in line with the commencement of the domestic systemically important banks framework. Pending implementation of the new requirements on 1 January 2016, these institutions must continue to comply with the existing Singapore dollar MLA requirement set out in MAS Notice 613 and MAS Notice 806.

4.5 Table 1 below summarises the implementation details of the new liquidity requirements for various classes of institutions.

Table 1: Summary of New Liquidity Requirements and Implementation Timeline

	Regulatory Requirement & Timeline		
DBS, OCBC, UOB banking groups	LCR All Currency – 60% by 1 January 2015, increasing 10% every year to reach 100% by 1 January 2019 SGD – 100% by 1 January 2015		
For Other Entities	**Locally incorporated and not headquartered in foreign jurisdiction**	**Locally incorporated and headquartered in foreign jurisdiction**	**Branch of a Foreign-incorporated Entity**
D-SIB	LCR All Currency – 70% by 1 January 2016, increasing 10% every year to reach 100% by 1 January 2019 SGD – 100% by 1 January 2016	LCR All Currency – 50% by 1 January 2016 SGD – 100% by 1 January 2016	
Non-DSIB	Choice between: LCR All Currency – 70% by 1 January 2016, increasing 10% every year to reach 100% by 1 January 2019 SGD – 100% by 1 January 2016 OR MLA All Currency – 16% by 1 January 2016 SGD – 16% by 1 January 2016	Choice between: LCR All Currency – 50% by 1 January 2016 SGD – 100% by 1 January 2016 OR MLA All Currency – 16% by 1 January 2016 SGD – 16% by 1 January 2016	

5 Intragroup Flows

5.1 In response to MAS' proposal to allow netting of intragroup flows within the same day, some respondents asked if MAS could consider extending the netting treatment to the full 30-day period over which the LCR requirement is calculated. They shared that, as the regional funding centre for their banking group, the Singapore entity would sometimes obtain funding from Head Office before lending it out to other branches in the region over the next few days. Another respondent added that it is not practically feasible to square each intragroup flow on a back-to-back basis at all times.

MAS' Response

5.2 MAS notes the industry feedback and agrees to allow netting of all intragroup flows within the 30-day period used for calculating the LCR requirement. This recognises that the manner in which banks manage their intragroup flows may vary and that the LCR framework generally does not distinguish between cashflows occurring at any time within the 30-day computation period.

6 Definition of High-Quality Liquid Assets ("HQLA")

6.1 MAS proposed in the consultation paper not to accept equities, residential mortgage-backed securities and non-financial corporate debt securities that are rated below A as Level 2B HQLA.

6.2 Some respondents asked MAS to consider accepting the full list of Level 2B HQLA prescribed permitted by the Basel Committee. A respondent noted that there is a growing market for residential mortgage-backed securities. It was also suggested that a wider definition of HQLA would reduce product concentration risk.

MAS' Response

6.3 MAS will align the definition of Level 2B HQLA with that in the Basel rules text, so as to avoid unnecessary friction for global banks' reporting systems. This means that equities, residential mortgage-backed securities, non-financial corporate debt securities rated between A+ and BBB-, and sovereign and central bank debt securities rated between BBB+ and BBB- will be accepted as Level 2B HQLA.

6.4 To address concerns over the quality of certain Level 2B HQLA, equities, residential mortgage-backed securities as well as sovereign, central bank and non-financial corporate debt securities rated between BBB+ and BBB- must not account for more than 5% of total HQLA. This sub-cap is in addition to the 15% cap on Level 2B assets recommended by the Basel Committee.

6.5 Table 2 below summarises the range of acceptable HQLA and the rate at which they may be recognised.

Table 2: Summary of Range of Acceptable HQLA

HQLA Item	**Rate**
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%

7 Daily Compliance with LCR Requirement

7.1 As with the current MLA requirement, MAS proposed that entities subject to the LCR rules be required to comply with the rules on an ongoing basis but only need to submit a monthly report under the revised liquidity requirement framework.

7.2 Several respondents asked whether they could comply with the LCR requirement on a weekly or monthly basis, instead of ongoing compliance which they considered to be onerous. Some commented that there are limitations in relying on projections to estimate LCR requirements, and that unexpected client transactions or behavior may lead to inadvertent breaches. They added that the high daily volatility of LCR could add to their regulatory cost and asked if MAS could use a monthly average figure instead. Some respondents shared that they are in the process of upgrading their systems but may not be able to complete such enhancements in time for the proposed 1 January 2015 implementation date. A respondent also suggested requiring ongoing compliance only for the Singapore dollar LCR, while allowing monthly compliance and reporting for the all-currency LCR requirement.

MAS' Response

7.3 MAS notes the operational challenges that entities face in upgrading their systems to implement daily monitoring and compliance. However, such ongoing monitoring and compliance are integral to the LCR framework as they help to ensure that liquidity stresses are detected and corrective actions can be taken in a timely manner. Moreover, the proposed requirement is no different from the requirement under the existing MLA framework. As most entities are only required to comply with the new liquidity requirements by 1 January 2016, there should be sufficient time to implement the needed systems upgrade.

Annex A – Draft MAS Notice

[DRAFT AND SUBJECT TO CHANGE]

MAS XXX

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") shall only comply with Part II – LCR of this Notice.

3 A bank which does not fall within paragraph 2 above shall comply with either Part I - MLA or Part II - LCR of this Notice, subject to approval by the Authority and the requirements in the relevant part would apply accordingly.

4 The Authority may allow a bank which has to comply with Part II of this Notice to comply with the requirements set out in this Notice on a banking group basis with the Authority's approval.

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;

"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 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 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];

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

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;

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 2006;

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;

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

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[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.

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;

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;

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

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;

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].

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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.

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.

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.

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[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.

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—

"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 the Reporting 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;

"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 approved under section 38(9) as "liquid assets" and which satisfies the requirements in Part II to be included as high quality liquid assets for the purposes of computing the LCR;

"Level 1 HQLA" means the liquid assets listed in paragraph 21(a), 21(b), 21(c), 21(d), 21(g), 21(h) and 21(n) of this Notice and which satisfies the requirement as set out in paragraph 22 of this Notice;

"Level 2A HQLA" means the liquid assets listed in paragraph 21(e), 21(i) and 21(o) of this Notice and which satisfies the requirement as set out in paragraph 22 of this Notice;

"Level 2B(I) HQLA" means the liquid assets listed in paragraph 21(j) and 21(o) of this Notice and which satisfies the requirement as set out in paragraph 22 of this Notice;

"Level 2B(II) HQLA" means the liquid assets listed in paragraph 21(f), 21(k), 21(l), 21(m) and 21(o) of this Notice and which satisfies the requirement as set out in paragraph 22 of this Notice;

"Liquidity Coverage Ratio" or "LCR" is computed as:

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

"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

"significant currency" in relation to a bank, means a currency where the aggregate liabilities of the bank denominated in that currency 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 of at least 100% and an all currency LCR 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;

[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.

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;

[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 HQLA; however, if the term expires within 30 days, the term deposit could be considered as an inflow per paragraph 91.

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; and

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

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

   i) it is assigned a 20% risk weight under MAS Notice 637;

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

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

   iv) it is not an obligation of, or not issued by, 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) the security either 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; and

iii) the debt security 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 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 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;

h) where the sovereign has a non-0% risk weight as determined in accordance with MAS Notice 637, any domestic sovereign or central bank debt security issued in foreign currencies is eligible 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;

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) the corporate debt security either 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; and

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

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

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

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

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

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

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

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

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

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

   iv) the debt security 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 loan-to-value ratio (LTV) of 80% on average at issuance; and

  vii) the securitizations are subject to risk retention 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 supervisor of the bank in that jurisdiction recognises for purposes of including the equities as Level 2B HQLA under the applicable regulatory policy; or

(C) any other index for which the 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)[10] and where the supervisor of the bank in that jurisdiction recognises for purposes of including the liquid assets as Level 1 HQLA, subject to the requirements specified in paragraph 101.

o) any liquid assets recognized as alternative liquid assets in jurisdictions that implement the Alternative Liquidity Approach (ALA)[10] and where the supervisor of the bank in that jurisdiction recognises for purposes of including the liquid assets as Level 2 HQLA, subject to the requirements specified in paragraph 101.

Operational requirements

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

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

a) the liquid asset is unencumbered[11] and cannot 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 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 stress period and that the proceeds of doing so are available to the function throughout the 30-day stress period 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 qualifies as HQLA 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) the qualifying HQLA that are 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 to the extent that the net cash flows as measured by the bank's or bank, 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) entity 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 58; and

g) the 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.

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

Composition of HQLA

23 HQLA shall comprise Level 1 or Level 2 HQLA available on the bank's balance sheet the first day of the 30-day computation period of the LCR.

24 There is no limit or haircut applicable on Level 1 HQLA for the purposes of determining a bank's LCR[12].

25 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.

26 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.

27 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.

28 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.

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

Total net cash outflows

30 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.

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

31 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.

32 A bank is not permitted to 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.

Cash outflows

(A) Retail deposit cash outflows

33 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 38 and 39.

34 Retail deposits are divided into "stable" and "less stable" as described below.

(I) Stable deposits

35 Stable deposits are those which are fully insured[13] by the Singapore Deposit Insurance Corporation Limited (SDIC)[14], or an effective government deposit insurance scheme[15], where:

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[13] 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".

[14] 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.

[15] 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

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).

36 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

37 Less stable deposits are deposits that are not stable deposits.

38 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 before its maturity date 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 less stable deposits.

39 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 100.

(B) Unsecured wholesale funding cash outflows

40 "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.

41 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

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sovereign deposit guarantee that effectively functions as deposit insurance can be regarded as having an effective deposit insurance scheme.

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.

42 Unsecured wholesale funding that is callable by such person 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

43 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:

44 Only qualifying operational deposits from customers with qualifying clearing, custody and cash management accounts with the bank 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.

45 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.

46 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.

47 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.

48 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.

49 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.

50 Notwithstanding the inclusion of a deposit into the operational deposit category, if the deposit under consideration arises out of correspondent banking[16] 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.

[16] 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.

(III) Deposits in institutional networks of cooperative banks:

51 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.

52 A bank shall seek the Authority's approval before applying the treatment in paragraph 51. The bank shall not include its correspondent banking activities in this category and are 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 51 above, or for clearing, custody, or cash management activities.

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

53 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.

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

54 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 40 to 53. Funding provided from intragroup entities may be computed on a net basis with intragroup inflows.

55 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.

56 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 50, 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

57 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. Appendix 7 provides a summary of the cash outflow rates that are applied to each category for outstanding maturing secured funding transactions.

(D) Additional requirements

58 **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. inflows can offset outflows), where it has entered into a valid master netting agreement with that counterparty. 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 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.

59 **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 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.

60 **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.

61 **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.

62 **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.

63 **Increased liquidity needs related to contracts that allow collateral substitution to non- HQLA assets:** A bank shall include, as a cash outflow rate 100% of the amount of HQLA collateral that can be substituted for non-HQLA assets without the bank's

consent, where such HQLA collateral has been received to secure transactions that have not been segregated.

64 **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.

65 **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).

66 **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

67 **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 76. 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 68 to 73 shall remain outstanding at the amounts assigned throughout the 30-day period in computing the net outflows for the LCR, regardless of maturity.

68 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.

69 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.

70 Any additional capacity of the committed liquidity facility in paragraph 69 (i.e. the remaining commitment) would be treated as a committed credit facility with its associated drawdown rate as specified in paragraph 73. 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.

71 Notwithstanding paragraphs 67 to 70, 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.

72 For that portion of financing programs issued by a bank that are captured under paragraphs 65 and 66 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.

73 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 100% cash outflow rate of the undrawn portion of these facilities.

74 **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%.

75 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%.

76 **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 100% outflow rate.

77 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.

78 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 76 where there is the expectation that the bank will be the main liquidity provider when the entity is in need of liquidity.

79 **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.

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

81 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 73 for such commitments.

82 **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.

83 **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

84 When considering its available cash inflows, the 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.

85 **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 of the Notice. This requires that a bank maintain a minimum amount of HQLA equal to 25% of the total net cash outflows.

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

86 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 haircut 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 50% cash inflow rate) from maturing margin loans made against collateral which would not be considered as HQLA. Table 3 lists the relevant inflow rates.

87 As an exception to paragraph 86, if the collateral obtained through reverse repo, securities borrowing, or collateral swaps, which matures within the next 30 calendar days is re-used (i.e. rehypothecated), to cover short positions that could be extended beyond 30 days, a bank shall assume that such reverse repo 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%

88 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 83. 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%.

89 Notwithstanding the roll-over assumptions in paragraphs 86 and 87, 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.

(F) Committed facilities

90 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

91 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 73.

92 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 93 and 94.

(I) Retail and small business customer inflows

93 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

94 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 0% cash inflow rate for financial institutions and central banks, and 50% cash inflow rate 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.

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

96 Operational deposits 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%.

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

(H) Other cash inflows

98 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 58.

99 Other contractual cash inflows: 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. Cash inflows related to non-financial revenues are not taken into account in the calculation of net cash inflows for the purposes of this Notice.

Scope of Application

100 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 36 and 39 shall apply.

101 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's operations in these jurisdictions.

102 The Authority reserves the right to impose stricter parameters when deemed necessary.

Utilisation of HQLA

103 A bank shall notify the Authority in writing of its intent to utilise its HQLA, thereby causing LCR to fall below 100%, 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.

104 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.

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

Frequency of calculation and reporting

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

107 A bank shall submit all returns prepared in accordance with paragraph 106 to the Authority electronically through MASNET not later than 10 calendar days after the last day of each month.

Effective Date

108 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.

Appendix 1

Exclusion as Qualifying Liabilities

1 Subject to paragraph 2 of the 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 Bank-Specific and Bank-General 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	Designation of Country Level Entities
Form 1 Section 2	Assets and Liabilities by Currency
Form 1 Section 3	Top 20 individual depositors
Form 1 Section 4	Top 20 corporate depositors
Form 1 Section 5	Top 20 interbank lenders
Form 2 Section 1	Designation of Country Level Entities
Form 2 Section 2A	Liquidity Coverage Ratio
Form 2 Section 2B	Minimum Liquid Assets
Form 2 Section 3	Contractual cash flow for on and off-balance sheet items
Form 2 Section 4	Contractual residual maturity of on and off-balance sheet items
Form 2 Section 5	Behavioural cash flow of on and off-balance sheet items
Form 2 Section 6	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. 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 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.

<table>
<tr><th>FI type</th><th>Forms to submit</th></tr>
<tr><td>D-SIB bank

Individual submission</td><td>• Form 1
    o All sections except Section 1
• Form 2 (All Currency)
    o Section 2A
    o Section 3
    o Section 4
    o Section 5
    o Section 6
• Form 2 (Singapore Dollar)
    o Section 2A
    o Section 3
    o Section 4
    o Section 5
    o Section 6</td></tr>
<tr><td>D-SIB bank (Currency X is a significant currency)

Individual submission</td><td>• Form 1
    o All sections except Section 1
• Form 2 (All Currency)
    o Section 2A
    o Section 3
    o Section 4
    o Section 5
    o Section 6
• Form 2 (Singapore Dollar)
    o Section 2A
    o Section 3
    o Section 4
    o Section 5
    o Section 6
• Form 2 (Currency X)
    o Section 2A
    o Section 3
    o Section 4
    o Section 5
    o Section 6</td></tr>
</table>

FI type	Forms to submit

Non-D-SIB bank
 	
Individual submission
 	
Bank is on LCR framework
	• Form 1
	  ○ All sections except Section 1
	• Form 2 (All Currency)
	  ○ Section 2A
	  ○ Section 3
	  ○ Section 4
	  ○ Section 6
	• Form 2 (Singapore Dollar)
	  ○ Section 2A
	  ○ Section 3
	  ○ Section 4
	  ○ Section 6

Non-D-SIB bank (Currency X is a significant currency)
 	
Individual submission
 	
Bank is on LCR framework
	• Form 1
	  ○ All sections except Section 1
	• Form 2 (All Currency)
	  ○ Section 2A
	  ○ Section 3
	  ○ Section 4
	  ○ Section 6
	• Form 2 (Singapore Dollar)
	  ○ Section 2A
	  ○ Section 3
	  ○ Section 4
	  ○ Section 6
	• Form 2 (Currency X)
	  ○ Section 2A
	  ○ Section 3
	  ○ Section 4
	  ○ Section 6

Non-D-SIB bank
 	
Individual submission
 	
Bank is on MLA framework
	• Form 1
	  ○ All sections except Section 1
	• Form 2 (All Currency)
	  ○ Section 2B (All Currency section)
	  ○ Section 3
	  ○ Section 4
	  ○ Section 6
	• Form 2 (Singapore Dollar)
	  ○ Section 2B (Singapore Dollar section)
	  ○ Section 3
	  ○ Section 4
	  ○ Section 6

FI type	Forms to submit

Non-D-SIB bank (Currency X is a significant currency)
 	
Individual submission
 	
Bank is on MLA framework
	• Form 1
	  ○ All sections except Section 1
	• Form 2 (All Currency)
	  ○ Section 2B (All Currency section)
	  ○ Section 3
	  ○ Section 4
	  ○ Section 6
	• Form 2 (Singapore Dollar)
	  ○ Section 2B (Singapore Dollar section)
	  ○ Section 3
	  ○ Section 4
	  ○ Section 6
	• Form 2 (Currency X)
	  ○ Section 3
	  ○ Section 4
	  ○ Section 6

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 25 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[17], secured lending[18] 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,

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[17] Refer to paragraph 57

[18] Refer to paragraph 86

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 25 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),(5/60)*Adjusted Level 1HQLA,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

Cashflow 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	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 other Level 2B HQLA - All other secured funding transactions	0% 15% 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:	0% 15% 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	100%
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 – Draft Reporting Forms

Form 1

Section 1

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

Liquidity Coverage Ratio
Designation of Country Level Entities

Institution code	
Institution Name	
Reporting Cycle	(MM/YYYY)
Business Unit	

Country level group details (if applicable):

Country level group name	
Country level group ID	

Institution codes
of entities in group:

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

Approved by:

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

Form 1

Section 2

Assets and Liabilities by Currency

(Name of Bank)

As at close of business on (day/month/year)

Currency (1)	Amount of assets in balance sheet (S$'000) (2)	Percentage of Total Assets % (3)	Amount of liabilities in balance sheet (S$'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)	0	100%	0	100%	

Notes for completion

1. A bank shall report in this Form its assets and liabilities by currency. 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. A bank shall also exclude asset and liability positions arising from FX swap positions.

Form 1

Section 3

Top 20 Individual Depositors

(Name of Bank)

As at close of business on (day/month/year)

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			

<u>Notes for completion</u>

1. A bank shall submit to the Authority details of its top 20 individual depositors in both the Domestic Banking Unit and the Asian Currency Unit 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 Currency Conversion Rates for Asian Currency Unit Statistical Returns found at https://secure.sgs.gov.sg/apps/msbs/exchangeRatesForm.jsp.
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.

Form 1

Section 4

Top 20 Corporate Depositors

(Name of Bank)

As at close of business on (day/month/year)

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			

<u>Notes for completion</u>

1. A bank shall submit to the Authority details of its top 20 corporate depositors in both the Domestic Banking Unit and the Asian Currency Unit 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 Currency Conversion Rates for Asian Currency Unit Statistical Returns found at https://secure.sgs.gov.sg/apps/msbs/exchangeRatesForm.jsp.
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.

Form 1

Section 5

Top 20 Interbank Lenders
(Name of Bank)
As at close of business on (day/month/year)

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 in both the Domestic Banking Unit and the Asian Currency Unit 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 Currency Conversion Rates for Asian Currency Unit Statistical Returns found at https://secure.sgs.gov.sg/apps/msbs/exchangeRatesForm.jsp.
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

Section 1

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

Liquidity Coverage Ratio
Designation of Country Level Entities

Institution code

Institution Name

Reporting Cycle (MM/YYYY)

Business Unit

Country level group details (if applicable):

Country level group name
Country level group ID

Institution codes
of entities in group:

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

Approved by:
(a) Name

(b) Designation

(c) Date (dd/mm/yyyy)

(d) Person to contact for queries

(e) Telephone number

(f) Email address

Section 2A

Computation of Liquidity Coverage Ratio
(Name of Bank)
As at close of business on (day/month/year)

A) LCR by maintenance day

Currency:

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

B) High Quality Liquid Assets

1. Level 1 Assets

			Paragraph number in notice	**Market value**	**Weight**	**Weighted amount**
a.	Coins and banknotes		17		100%	
b.	Total central bank reserves; of which:					
	i.	part of central bank reserves that can be drawn in times of stress	17		100%	
c.	Securities with a 0% risk weight:					
	i.	issued by sovereigns	17		100%	
	ii.	guaranteed by sovereigns	17		100%	
	iii.	issued or guaranteed by central banks	17		100%	
	iv.	issued or guaranteed by PSEs	17		100%	
	v.	issued or guaranteed by BIS, IMF, ECB and European Community, or MDBs	17		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		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		100%	
e.	**Total stock of Level 1 assets**		**17**			
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		85%	
	ii.	guaranteed by sovereigns	17		85%	
	iii.	issued or guaranteed by central banks	17		85%	
	iv.	issued or guaranteed by PSEs	17		85%	
	v.	issued or guaranteed by MDBs	17		85%	
b.	Non-financial corporate bonds, rated AA- or better		17		85%	
c.	Covered bonds, not self-issued, rated AA- or better		17		85%	
d.	**Total stock of Level 2A assets**		17			
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		50%	
b.	Total stock of Level 2B(I) assets	17			
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.	Non-financial corporate bonds rated BBB+ to BBB-	17		50%	
b.	Residential mortgage-backed securities (RMBS), rated AA or better	17		75%	
c.	Non-financial common equity shares that are index stocks, with maximum price decline over a 30 days period below 40%	17		50%	
d.	Total stock of Level 2B(II) non-RMBS assets	17			
e.	Adjustment to stock of Level 2B(II) non-RMBS assets	Appendix 6			
f.	Adjusted amount of Level 2B(II) non-RMBS assets	Appendix 6		50%	
g.	Total stock of Level 2B(II) RMBS assets	17			
h.	Adjustment to stock of Level 2B(II) RMBS assets	Appendix 6			
i.	Adjusted amount of Level 2B(II) RMBS assets	Appendix 6		75%	
j.	Adjusted amount of Level 2B(II) RMBS and non-RMBS assets	Appendix 6			

4. Alternative Liquid Assets					
		Paragraph number in notice	**Market value (pre haircut)**	**Weight**	**Weighted amount (post haircut)**
a.	Option 1 – Contractual committed liquidity facilities from the relevant central bank	Footnote 10			
b.	Option 2 – Foreign currency HQLA; of which;				
	i. Level 1 assets	Footnote 10			
	ii Level 2 assets	Footnote 10			
c.	Option 3 – Additional use of Level 2 assets with a higher haircut	Footnote 10			
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				

5. 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**				

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:	33, 34			
	-	eligible for a 3% run-off rate; of which:	34			
		are in Singapore			3%	
		are not in Singapore			3%	
	-	eligible for a 5% run-off rate; of which:	33			
		are in Singapore			5%	
		are not in Singapore			5%	
	-	in non-transactional accounts with established relationships that make deposit withdrawal highly unlikely; of which:	33, 34			
	-	eligible for a 3% run-off rate; of which:	34			
		are in Singapore			3%	
		are not in Singapore			3%	
	-	eligible for a 5% run-off rate; of which:	33			
		are in Singapore			5%	
		are not in Singapore			5%	
	-	in non-transactional and non-relationship accounts	35		10%	
	ii.	Uninsured deposits	35		10%	
	iii.	Term deposits (treated as having >30 day remaining maturity)	36		0%	
	iv.	Term deposits (with >30 day maturity but treated as having < 30 day maturity)	36			
b.		Retail and small business customer deposits subject to different run-off rates due to host jurisdiction rules	37			
c.	**Total retail deposits run-off**					

			Paragraph number in notice	Amount	Weight	Weighted amount
d.	Total unsecured wholesale funding		38-54			
	i.	Total funding provided by small business customers; of which:	41			
	-	Insured deposits; of which:				
	-	in transactional accounts; of which:	41, 33, 34			
	-	eligible for a 3% run-off rate; of which:	34			
		are in Singapore			3%	
		are not in Singapore			3%	
	-	eligible for a 5% run-off rate; of which:	33			
		are in Singapore			5%	
		are not in Singapore			5%	
	-	in non-transactional accounts with established relationships that make deposit withdrawal highly unlikely; of which:	41, 33, 34			
	-	eligible for a 3% run-off rate; of which:	34			
		are in Singapore			3%	
		are not in Singapore			3%	
	-	eligible for a 5% run-off rate; of which:	33			
		are in Singapore			5%	
		are not in Singapore			5%	
	-	in non-transactional and non-relationship accounts	41, 35		10%	
	-	Uninsured deposits	41, 35		10%	
	-	Term deposits (treated as having >30 day maturity)	41, 36		0%	
	-	Term deposits (with >30 day maturity but treated as having < 30 day maturity)	41, 36			
	ii.	Total operational deposits; of which:	42-48			
	-	provided by non-financial corporates	42-48			
	-	insured, with a 3% run-off rate	42		3%	
	-	insured, with a 5% run-off rate	42		5%	
	-	uninsured	42-48		25%	
	-	provided by sovereigns, central banks, PSEs and MDBs	42-48			

		1(d)(ii) continued	**Paragraph number in notice**	**Amount**	**Weight**	**Weighted amount**
	-	insured, with a 3% run-off rate	42		3%	
	-	insured, with a 5% run-off rate	42		5%	
	-	uninsured	42-48		25%	
	-	provided by banks	42-48			
	-	insured, with a 3% run-off rate	42		3%	
	-	insured, with a 5% run-off rate	42		5%	
	-	uninsured	42-48		25%	
	-	provided by other financial institutions and other legal entities	42-48			
	-	insured, with a 3% run-off rate	42		3%	
	-	insured, with a 5% run-off rate	42		5%	
	-	uninsured	42-48		25%	
	iii.	Total non-operational deposits; of which	49-54			
	-	provided by non-financial corporates; of which:	49-54			
	-	Where the entire amount is fully covered by an effective deposit insurance scheme	51		20%	
	-	Where the entire amount is not fully covered by an effective deposit insurance scheme	51		40%	
	-	provided by sovereigns, central banks, PSEs and MDBs; of which:	51			
	-	Where the entire amount is fully covered by an effective deposit insurance scheme	51		20%	
	-	Where the entire amount is not fully covered by an effective deposit insurance scheme	51		40%	
	-	provided by members of the institutional networks of cooperative (or otherwise named) banks	52		25%	
	-	provided by other banks	52		100%	
	-	provided by other financial institutions and other legal entities	52		100%	
	iv.	Unsecured debt issuance	53		100%	
	v.	Additional balances required to be installed in central bank reserves	54		100%	
e.	**Total unsecured wholesale funding run-off**					

		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:	55, Appendix 7				
	i. Backed by Level 1 assets; of which:	55, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	ii. Backed by Level 2A assets; of which	55, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	iii. Backed by Level 2B(I) assets; of which	55, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	v. Backed by Level 2B(II) non-RMBS assets; of which	55, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	vi. Backed by Level 2B(II) RMBS assets; of which	55, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	vii. Backed by other assets	55, Appendix 7			0%	

		Paragraph number in notice	Amount received	Market value of extended collateral	Weight	Weighted amount
g.	Transactions not conducted with the bank's domestic central bank; of which	55, Appendix 7				
	i. Backed by Level 1 assets; of which:	55, Appendix 7			0%	
	- Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	ii. Backed by Level 2A assets; of which	55, Appendix 7			15%	
	- Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	iii. Backed by Level 2B(I) assets; of which	55, Appendix 7				
	- Counterparties are domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight; of which:	55, Appendix 7			25%	
	Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	- Counterparties are not domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight; of which:	55, Appendix 7			50%	
	Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	iv. Backed by Level 2B(II) non-RMBS assets; of which	55, Appendix 7				
	- Counterparties are domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight; of which:	55, Appendix 7			25%	
	Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	- Counterparties are not domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight; of which:	55, Appendix 7			50%	
	Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	v. Backed by Level 2B(II) RMBS assets; of which	55, Appendix 7			25%	
	- Transactions involving eligible liquid assets – see instructions for more detail	55, Appendix 7				
	vi. Backed by other assets; of which	55, Appendix 7				
	- Counterparties are domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight	55, Appendix 7			25%	
	- Counterparties are not domestic sovereigns, MDBs or domestic PSEs with a 20% risk weight	55, Appendix 7			100%	
h.	**Total secured wholesale funding run-off**					

			Paragraph number in notice	Amount		Weight	Weighted amount
i.		Derivatives cash outflow	56			100%	
j.		Increased liquidity needs related to downgrade triggers in derivatives and other financing transactions	57			100%	
k.		Increased liquidity needs related to the potential for valuation changes on posted collateral securing derivative and other transactions:	58				
	i.	Cash and Level 1 assets	58			0%	
	ii.	For other collateral (ie all non-Level 1 collateral)	58			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	59			100%	
m.		Increased liquidity needs related to contractually required collateral on transactions for which the counterparty has not yet demanded the collateral be posted	60			100%	
n.		Increased liquidity needs related to contracts that allow collateral substitution to non-HQLA assets	61			100%	
o.		Increased liquidity needs related to market valuation changes on derivative or other transactions	62			100%	

			Paragraph number in notice	Amount		Weight	Weighted amount
p.	Loss of funding on ABS and other structured financing instruments issued by the bank, excluding covered bonds		63			100%	
q.	Loss of funding on ABCP, conduits, SIVs and other such financing activities; of which:		64				
	i.	debt maturing ≤ 30 days	64			100%	
	ii.	with embedded options in financing arrangements	64			100%	
	iii.	other potential loss of such funding	64			100%	
r.	Loss of funding on covered bonds issued by the bank		63			100%	
w.	Undrawn committed credit and liquidity facilities to retail and small business customers		71 (a)			5%	
t.	Undrawn committed credit facilities to						
	i.	non-financial corporates	71 (b)			10%	
	ii.	sovereigns, central banks, PSEs and MDBs	71 (b)			10%	
u.	Undrawn committed liquidity facilities to						
	i.	non-financial corporates	71 (c)			30%	
	ii.	sovereigns, central banks, PSEs and MDBs	71 (c)			30%	
v.	Undrawn committed credit and liquidity facilities provided to banks subject to prudential supervision		71 (d)			40%	
w.	Undrawn committed credit facilities provided to other FIs		71 (e)			40%	
x.	Undrawn committed liquidity facilities provided to other FIs		71 (f)			100%	
y.	Undrawn committed credit and liquidity facilities to other legal entities		71 (g)			100%	
z.	Other contractual obligations to extend funds to				**Rollover of inflows**		
	i.	financial institutions	72			100%	
	ii.	retail clients	73				
	iii.	small business customers	73				
	iv.	non-financial corporates	73				
	v.	other clients	73				
	vi.	retail, small business customers, non-financials and other clients				100%	
aa.	Total contractual obligations to extend funds in excess of 50% roll-over assumption						
ab.	**Total additional requirements run-off**						

		Paragraph number in notice	Amount		Weight	Weighted amount
ac.	Non-contractual obligations related to potential liquidity draws from joint ventures or minority investments in entities	76			0%	
ad.	Unconditionally revocable "uncommitted" credit and liquidity facilities	79			0%	
ae.	Trade finance-related obligations (including guarantees and letters of credit)	77, 78			3%	
af.	Guarantees and letters of credit unrelated to trade finance obligations	79			0%	
ag.	Non-contractual obligations:					
	i. Debt-buy back requests (including related conduits)	81			0%	
	ii. Structured products	81			0%	
	iii. Managed funds	81			0%	
	iv. Other non-contractual obligations	81			0%	
ah.	Outstanding debt securities with remaining maturity > 30 days	81			0%	
ai.	Non contractual obligations where customer short positions are covered by other customers' collateral	80			50%	
aj.	Bank outright short positions covered by a collateralised securities financing transaction	81,86			0%	
ak.	Other contractual cash outflows (including those related to unsecured collateral borrowings and uncovered short positions)	81,86			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		84-87				
	i.	Of which collateral is **not re-used** (ie is not rehypothecated) to cover the reporting institution's outright short positions	84-87				
	-	Transactions backed by Level 1 assets; of which:	84-87			0%	
		Transactions involving eligible liquid assets – see instructions for more detail	84-87				
	-	Transactions backed by Level 2A assets; of which:	84-87			15%	
		Transactions involving eligible liquid assets – see instructions for more detail	84-87				
	-	Transactions backed by Level 2B(I) assets; of which:	84-87			50%	
		Transactions involving eligible liquid assets – see instructions for more detail	84-87				
	-	Transactions backed by Level 2B(II) non-RMBS assets; of which:	84-87			50%	
		Transactions involving eligible liquid assets – see instructions for more detail	84-87				
	-	Transactions backed by Level 2B(II) RMBS assets; of which:	84-87			25%	
		Transactions involving eligible liquid assets – see instructions for more detail	84-87				
	-	Margin lending backed by non-Level 1 or non-Level 2 collateral	84-87			50%	
	-	Transactions backed by other collateral	84-87			100%	

			Paragraph number in notice	Amount extended	Market value of received collateral	Weight	Weighted amount
	ii.	Of which collateral **is re-used** (ie is rehypothecated) in transactions to cover the reporting insitution's outright short positions	84-87				
	-	Transactions backed by Level 1 assets	84-87			0%	
	-	Transactions backed by Level 2A assets	84-87			0%	
	-	Transactions backed by Level 2B(I) assets	84-87			0%	
	-	Transactions backed by Level 2B(II) non-RMBS assets	84-87			0%	
	-	Transactions backed by Level 2B(II) RMBS assets	84-87			0%	
	-	Margin lending backed by non-Level 1 or non-Level 2 collateral	84-87			0%	
	-	Transactions backed by other collateral	84-87			0%	
b.	**Total inflows on reverse repo and securities borrowing transactions**						

			Paragraph number in notice	Amount extended	Market value of received collateral	Weight	Weighted amount
c.	Contractual inflows due in ≤ 30 days from fully performing loans, not reported in lines 270 to 290, from:						
	i.	Retail customers	91			50%	
	ii.	Small business customers	91			50%	
	iii.	Non-financial corporates	92			50%	
	iv.	Central banks	92			100%	
	v.	Financial institutions, of which	92				
	-	operational deposits	94			0%	
	-	deposits at the centralised institution of an institutional network that receive 25% run-off	95			0%	
	-	all payments on other loans and deposits due in ≤ 30 days	92			100%	
	vi.	Other entities	92			50%	
d.	**Total of other inflows by counterparty**						
			Paragraph number in notice	**Amount**		**Weight**	**Weighted amount**
e.	Other cash inflows						
	i.	Derivatives cash inflow	96, 97			100%	
	ii.	Contractual inflows from securities maturing ≤ 30 days, not included anywhere above	93			100%	
	iii.	Other contractual cash inflows	97			0%	
f.	**Total of other cash inflows**						
			Paragraph number in notice				**Amount**
g.	Total cash inflows before applying the cap		83				
h.	Cap on cash inflows		28, 83			75%	
i.	Total cash inflows after applying the cap		28, 83				

E) Collateral swaps

Reference paragraphs in notice: 23, 55, 84, Appendix 7

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

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

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						

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						

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	

Form 2

Section 2B Part 1

Minimum Liquid Assets Requirements

(Name of Bank)

As at close of business on (day/month/year)

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			
20			
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.
   if the maintenance day is 28/8/2008, the Qualifying Liabilities reported under column (1) shall be as at the close of 26/8/2008 (corresponding computation day).

3. Column (2) is is the amount of liquid assets (after haircuts) held by the bank as computed in parts 2 and 3.

4. Column (3) is computed automatically

Form 2

Section 2B Part 2

Computation of Qualifying Liabilities

(Name of Bank)

As at close of business on (day/month/year)

		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 SGD		
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.

Section 2B Part 3 (All Currency)

All currency liquid Assets
(Name of Bank)
As at close of business on (day/month/year)

		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			
	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%	

		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), 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 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%	
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%	

		S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
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%	
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.

Section 2B Part 3 (Singapore Dollar)

SGD Liquid Assets
(Name of Bank)
As at close of business on (day/month/year)

		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			
	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%	

	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%	
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%	

	S$'000 (Gross) (1)	% Applied	S$'000 (Net) (2)
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%	
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.

Form 2

Section 3

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

(Name of Bank)

As at close of business on (day/month/year)

[Currency] $'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**	**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																		
Cash inflows from 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**	**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																		
Cash outflows from 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	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																		
Cash inflows from off-balance sheet items (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																		
Cash outflows from off-balance sheet items (E)																		

Notes for completion

1. A bank shall report in this Form its future contractual cash flows by the tenor of expected of receipt of cash flows.
2. The maturity analysis incorporates items from both the banking and trading books. A bank shall report for SGD as well as for its significant foreign currencies in terms of total liabilities. A significant currency is defined as one where liabilities denominated in the currency form more than 5% of a bank's total liabilities.
3. Items shall be reported on a cashflow basis, including both interest and principal amounts, together with other income relating to them
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
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.

Form 2

Section 4

Residual Maturity Analysis of on and off-balance sheet items (Contractual Basis)
(Name of Bank)
As at close of business on (day/month/year)

[Currency]

$'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**	**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	**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**	**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	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	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)																		
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 Form, the residual contractual maturity of its assets, liabilities and off-balance sheet positions based on the book value of the asset, liability or off-balance sheet position. For example, a S$1 million, 5-year individual non-amortizing loan initiated 2 years ago would be reported in the form under the "Over 2 yrs to 3 yrs" column, with value S$ 1million, on the line "Loans and advances to non-bank customers - Individual Customers".

2. The maturity analysis incorporates items from both the banking and trading books. A bank shall report for SGD as well as for its significant foreign currencies in terms of total liabilities. A significant currency is defined as one where liabilities denominated in the currency form more than 5% of a bank's total liabilities.
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, the bank is to report the amount of each asset or liability that is expected to mature at each maturity date.
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.

Form 2

Section 5

Cashflow analysis of on and off-balance sheet items (Behavioural Basis)
(Name of Bank)
As at close of business on (day/month/year)

[Currency] $'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	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	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	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	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	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																		
Cash inflows from off-balance sheet items (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																		
Cash outflows from off-balance sheet items (E)																		

Notes for completion

1. A D-SIB bank shall report in this Form cash flows after adjustment for the behavioural patterns it expects to occur.
2. Where a bank considers an adjustment is appropriate, it shall approach the Authority which will consider the proposed adjustments on an individual bank basis.
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 asusmptions periodically to ensure that these are still valid.
5. No bank may make behavioural assumptions without first informing the Authority.
6. The maturity analysis incorporates cash flows from both the banking and trading books. A bank shall report for SGD as well as for its significant foreign currencies in terms of total liabilities. A significant currency is
7. 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
8. Items shall be reported on a cashflow basis, including both interest and principal amounts, together with other income relating to them
9. 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.
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
11. Cash flows from derivatives are to be reported under 'Off-balance sheet items', segregated by the type of derivative contract.
12. Inflows shall be shown as "positive" and outflows "negative".
13. Instruments payable on demand shall be bucketed in the 'within 7 days' column. Items should be allocated to the 'unallocated' bucket sparingly.

Form 2

Section 6

Available non-HQLA unencumbered assets
(Name of Bank)
As at close of business on (day/month/year)

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						
22						
23						
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25						
26						
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32						
33						
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37						
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40						
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47						
48						
49						
50						

Notes for completion

1. A bank shall submit to the Authority the details of all non-HQLA unencumbered 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 Currency Conversion Rates for Asian Currency Unit Statistical Returns found at https://secure.sgs.gov.sg/apps/msbs/exchangeRatesForm.jsp.

Monetary Authority of Singapore