Basel Committee
on Banking Supervision

Regulatory Consistency Assessment Programme (RCAP)

Assessment of Basel III LCR regulations – Singapore

December 2016

BANK FOR INTERNATIONAL SETTLEMENTS

Note that this report refers to the RCAP grades prior to October 2025. The grade 'materially non-compliant (MNC)', ie one notch above the lowest grade, has since been renamed to 'partially non-compliant (PNC)' for greater clarity

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Glossary

AGC	Attorney-General's Chambers
ALA	Alternative Liquidity Approaches
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
C	compliant (grade)
CPMI	Committee on Payments and Market Infrastructures
DBS	DBS Bank
D-SIB	domestic systemically important bank
FAQ	frequently asked questions
FTP	funds transfer pricing
G-SIB	global systemically important bank
HQLA	high-quality liquid assets
LC	largely compliant (grade)
LCR	Liquidity Coverage Ratio
MAS	Monetary Authority of Singapore
MLA	Minimum Liquid Asset (requirement)
MNC	materially non-compliant (grade)
n/a	not applicable
NC	non-compliant (grade)
NSFR	Net Stable Funding Ratio
OCBC	Oversea-Chinese Banking Corporation
PSE	public sector entity
RCAP	Regulatory Consistency Assessment Programme
RCLF	restricted committed liquidity facilities
SDIC	Singapore Deposit Insurance Corporation
SGD	Singapore dollar
SIG	Supervision and Implementation Group
UOB	United Overseas Bank

Preface

The Basel Committee on Banking Supervision (Basel Committee) sets a high priority on the implementation of regulatory standards underpinning the Basel III framework. The prudential benefits of adopting Basel standards can only fully accrue if these are implemented appropriately and consistently by all member jurisdictions. The Committee established the Regulatory Consistency Assessment Programme (RCAP) to monitor, assess and evaluate its members' implementation of the Basel framework.

This report presents the findings of the RCAP Assessment Team on the domestic adoption of the Basel Liquidity Coverage Ratio (LCR) framework in Singapore and its consistency with the minimum requirements of this framework. The assessment focuses on the adoption of the Basel LCR standards applied to the Singapore banks that are internationally active and of significance to domestic financial stability.

The RCAP Assessment Team was led by Mr Stephen Bland, Director & Strategic Policy Advisor at the UK Prudential Regulation Authority. The Assessment Team comprised two technical experts drawn from Brazil and Sweden (Annex 1). The main counterpart of the assessment was the Monetary Authority of Singapore (MAS). The overall work was coordinated by the Basel Committee Secretariat.

The focus of the assessment was on the consistency and completeness of the Singapore regulations with regard to the Basel minimum requirements. Issues relating to prudential outcomes, the liquidity position of individual banks or MAS's supervisory effectiveness did not fall within the scope of this RCAP assessment exercise. The assessment relied on the data, information and materiality computations provided by MAS as of 30 September 2016. The assessment findings are based primarily on an understanding of the current processes in Singapore as explained by the counterpart staff and the expert view of the Assessment Team on the documents and data reviewed.

The assessment began in March 2016 and consisted of three phases: (i) completion of an RCAP questionnaire (a self-assessment) by MAS; (ii) an assessment phase (May to September 2016); and (iii) a post-assessment review phase (October to November 2016). The second phase included an on-site assessment, which involved discussions with MAS and representatives of Singapore banks. These exchanges provided the Assessment Team with a deeper understanding of the implementation of the Basel LCR in Singapore. The third phase consisted of a two-stage technical review of the assessment findings: first, by a separate RCAP Review Team, including feedback from the Basel Committee's Supervision and Implementation Group (SIG); and second, by the RCAP Peer Review Board and the Basel Committee. This two-step review process is a key part of the RCAP process, providing quality control and ensuring integrity of the assessment findings.

Where domestic regulations and provisions were identified to be non-conforming with the Basel framework, those deviations were evaluated for their current and potential impact (or absence of impact) on the reported LCRs of a sample of Singapore banks. Some findings were evaluated on a qualitative basis. The assessment outcome was based on the materiality of findings and use of expert judgment.

The report has three sections and a set of annexes: (i) an executive summary with a statement from MAS; (ii) the context, scope and methodology, and the main set of assessment findings; and (iii) details of the deviations and their materiality along with other assessment-related observations.

The RCAP Assessment Team acknowledges the professional cooperativeness of MAS throughout the assessment process. In particular, the team sincerely thanks the staff of MAS for playing an instrumental role in coordinating the assessment exercise. The series of comprehensive briefings and clarifications provided by MAS helped the RCAP assessors to arrive at their expert assessment. The Assessment Team would also like to thank the representatives of Singapore banks that provided data and information. The Assessment Team is hopeful that the RCAP assessment exercise will contribute to the sound initiatives that have been undertaken by MAS and to the further strengthening of the prudential effectiveness and full implementation of the LCR in Singapore.

Executive summary

The Singapore framework for the Liquidity Coverage Ratio (LCR) standard and disclosure requirements was issued by the Monetary Authority of Singapore (MAS) in November 2014 and December 2015, respectively.

The LCR standard came into effect on 1 January 2015. The LCR disclosure requirements came into force on 1 January 2016. MAS imposes the all-currency LCR requirement on the three domestic banking groups that are considered by MAS as internationally active, namely the DBS Bank, the Oversea-Chinese Banking Corporation and the United Overseas Bank. Additionally, these banking groups have been subject to a 100% Singapore dollar (SGD) LCR requirement since 1 January 2015. Further, any bank classified as a domestic systemically important bank (D-SIB) is subject to a modified LCR requirement, which entails a 50% minimum all-currency LCR requirement and a 100% SGD LCR requirement. Non-D-SIB banks are subject to an alternative liquidity regime, namely the Minimum Liquid Asset requirement.

In May 2016, the MAS submitted its self-assessment of the domestic LCR rules. Based on the self-assessment, the Regulatory Consistency Assessment Programme (RCAP) Assessment Team identified a few deviations in these rules from the Basel framework. MAS used the RCAP findings to amend its regulation to the extent feasible and consistent with Singapore national interests. This resulted in a further strengthening of the Singapore liquidity regime and increased the level of compliance with the Basel LCR framework.

Overall, as of 30 September 2016 (the cut-off date for the RCAP assessment), the LCR regulations in Singapore are assessed as compliant with the Basel LCR framework. This is the highest grade. All graded components of the LCR framework, including the definition of high-quality liquid assets, liquidity inflows, liquidity outflows and disclosure requirements, are assessed as compliant.

The Assessment Team identified two deviations regarding the scope of application. The MAS regulations do not make an explicit distinction between internationally active and non-internationally active banks. Instead, MAS applies supervisory judgment to determine if a bank is internationally active and therefore whether or not to subject it to the full LCR requirements. In addition, at the cut-off date MAS had not yet issued the LCR regulations applicable to bank holding companies. Based on discussions with MAS, the Assessment Team considered the first deviation not material at present, but potentially material in the future subject to further clarification by the Basel Committee regarding the application of the LCR to internationally active subsidiaries. The second deviation is assessed as not material (see Section 1.4 for further details).

In addition to the formal assessment of the LCR standard and disclosure requirements, this report contains annexes that summarise Singapore's implementation of the LCR monitoring tools and the Basel Committee's Principles for Sound Liquidity Risk Management (Annexes 9 and 10). Further, a summary is provided of the key national discretions and approaches that MAS has adopted in its implementation of the LCR standard (Annex 14). These annexes show how national authorities implement certain aspects of the Basel standards that do not fall within the scope of the formal RCAP-LCR assessment. Over time, the information detailed in these annexes will provide a basis for designing best practices and additional supervisory guidance that will benefit the regulatory community and the banking industry to raise consistency of the implementation of the LCR and to improve its effectiveness in practice.

The Assessment Team compliments MAS on its implementation of and alignment with the Basel LCR framework. Looking ahead, the team noted one issue for follow-up post-RCAP or when another RCAP assessment is undertaken in Singapore (Annex 12).

Response from the Monetary Authority of Singapore

The Monetary Authority of Singapore (MAS) heartily thanks the Assessment Team led by Mr Stephen Bland for their contribution to the LCR RCAP review of Singapore.

The technical expertise and experience of the Assessment Team, coupled with their professionalism and openness, facilitated robust discussions on the appropriateness of Singapore's implementation of the Basel III LCR standards given our local context, and how that compared with implementation across Basel member jurisdictions. The strong focus on having local regulations deliver strong liquidity management practices intended by the Basel III LCR standards also resulted in a thoughtful process and meaningful outcomes.

The MAS agrees with the analysis and conclusions in the Singapore LCR RCAP Assessment Report, including the main findings by component and the detailed assessment findings contained in the report. These incorporated data and information provided by the MAS during the course of the LCR RCAP review.

The MAS welcomes the identification of three areas for further guidance from the Basel Committee. The three areas were: (a) the applicability of the LCR standard with respect to an internationally active local or foreign bank subsidiary of banking groups that are already subject to the LCR standard on a consolidated group basis; (b) the Sukuk's eligibility as HQLA; and (c) the methodology around the determination of jurisdiction-specific outflow rates. We believe that greater clarity on these identified areas would further contribute to the RCAP objective of promoting greater consistency in LCR implementation by all member jurisdictions.

The LCR RCAP review had been a tremendously useful exercise for the MAS. Aside from the affirmation we received with regard to the consistency of Singapore's LCR framework with the Basel III LCR standards, it helped us to inject greater clarity into our local rules which would in turn serve to further strengthen the prudential effectiveness of the Singapore LCR framework. The MAS would like to take the opportunity to affirm our commitment to the work of the Basel Committee and the consistent implementation of regulatory standards underpinning the Basel III framework.

1 Assessment context and main findings

1.1 Context

Status of implementation

The Monetary Authority of Singapore (MAS) is the central bank and the integrated prudential supervisor overseeing all financial institutions in Singapore: banks, insurers, capital market intermediaries, financial advisers and the stock exchange. In November 2014, MAS issued the minimum requirements for the Liquidity Coverage Ratio (LCR) for banks through regulatory notice MAS 649. The regulation came into force on 1 January 2015. In December 2015, MAS published notice MAS 651, which specifies the LCR disclosure requirements and which came into force on 1 January 2016.

In accordance with the transitional arrangements stipulated in the Basel LCR standard, MAS has adopted a stepwise implementation approach for the all-currency LCR requirement, starting with a minimum requirement of 60% in 2015. The minimum is raised annually by 10 percentage points until it reaches 100% in 2019. Additionally, MAS has implemented an LCR requirement for Singapore dollars (SGD), but without a phase-in arrangement, at a minimum SGD LCR requirement of 100% since January 2015.

The Basel standard allows jurisdictions that have a structural shortfall in high-quality liquid assets (HQLA) to implement Alternative Liquidity Approaches (ALA). At the time of the assessment, MAS had not implemented ALA.

Structure of the banking sector

As of end-June 2016, 126 institutions had a banking licence under the Banking Act of Singapore. Out of these, there are eight locally incorporated banks, while the remaining institutions operate as branches of foreign banks headquartered outside Singapore. Five of the locally incorporated banks are part of three local banking groups: the DBS Bank (DBS), the Oversea-Chinese Banking Corporation (OCBC) and the United Overseas Bank (UOB). DBS, OCBC and UOB are the only internationally active banking groups. Three locally incorporated banks are subsidiaries of foreign-headquartered banks. These banks are largely focused on retail business in Singapore and are not internationally active.

In evaluating the materiality of its findings, the Assessment Team focused on the three banking groups that are internationally active. The total assets of DBS, OCBC and UOB (on a consolidated basis) stood at 92% of the aggregate total assets of all locally incorporated banks and 39% of the system's total assets as at end-June 2016 (Annex 8).

Regulatory system and model of supervision

MAS imposes the all-currency LCR requirement on the three domestic banking groups (DBS, OCBC and UOB) that are considered by MAS as internationally active (see also the assessment of scope of application in Section 1.4). Additionally, these banking groups are subject to the 100% SGD LCR requirement. Further, any other bank in Singapore that is classified as a domestic systemically important bank (D-SIB) is subject to a modified LCR requirement, which entails a 50% minimum all-currency LCR requirement and a 100% SGD LCR requirement. The MAS regulations do not make an explicit distinction between internationally active and non-internationally active banks (see Section 1.4 for further discussion). Non-D-SIB banks are subject to an alternative liquidity regime, namely the Minimum Liquid Asset (MLA) requirement, which requires banks to hold a minimum of 16% of qualifying liabilities in liquid assets unless they elect to be subject to the (modified) LCR requirements.

The Banking Act provides MAS, as supervisory authority, with broad-ranging powers to take mitigating measures. For example, MAS can temporarily exempt individual banks from the minimum LCR requirements, in line with the Basel principles around the use of the liquidity buffer.

In addition to the supervision of minimum liquidity requirements, MAS monitors the banks' liquidity buffers through the Basel liquidity monitoring tools (Annex 9). The quality of the banks' liquidity risk management is also assessed against the Principles for Sound Liquidity Risk Management and involves both on-site and off-site assessments (Annex 10).

1.2 Structure, enforceability and binding nature of prudential regulations

The key MAS Notices implementing the Basel LCR standard are part of the Directions issued by MAS under the Banking Act. The Banking Act and the Directions have force of law and are legally binding. Failure to comply attracts legal penalties under the Banking Act. Both the Banking Act and the Directions are published on the MAS and Attorney-General's Chambers (AGC) websites.

Directions detail specific instructions to financial institutions or other specified persons to ensure compliance. They have legal effect, meaning that MAS could specify whether a contravention of a Direction is a criminal offence. Directions come in two forms: Directives and Notices. Directives primarily impose legally binding requirements on an individual financial institution or a specified person, while Notices primarily impose legally binding requirements on a specified class of financial institutions or persons. For example, the LCR standard and disclosure requirements are implemented through MAS Notices 649 and 651, respectively.

The Assessment Team considered that the Notices implementing the LCR framework are binding and therefore within the scope of the RCAP assessment. For more information on the hierarchy of regulatory documents and their bindingness in Singapore, see Annexes 2 and 6.

1.3 Scope of the assessment

The assessment was made of the LCR requirements as applicable to internationally active banks in Singapore. The assessment had two dimensions:

- a comparison of domestic regulations with the Basel LCR standards to ascertain that all the required provisions have been adopted (completeness of the Singapore domestic regulation); and
- a review to determine whether there are any differences in substance between the domestic regulations and the Basel LCR standards and their significance (consistency of the Singapore regulation).

In its assessment, the RCAP Assessment Team considered all binding documents that effectively implement the Basel LCR framework in Singapore. Importantly, the assessment did not evaluate the adequacy of liquidity or resilience of the banking system in Singapore or the supervisory effectiveness of MAS.

Assessment grading and methodology

As per the RCAP methodology approved by the Basel Committee, the outcome of the assessment was summarised using a four-grade scale, both at the level of each key component of the Basel framework and at that of the overall assessment of compliance: compliant (C), largely compliant (LC), materially non-compliant (MNC) and non-compliant (NC).[1]

The materiality of the deviations was assessed in terms of their current or, where applicable, potential future impact (or absence of impact) on liquidity coverage ratios of the banks. The quantification was, however, limited to the agreed sample of banks. Wherever relevant and feasible, the Assessment Team, together with MAS, attempted to quantify the impact based on data collected from Singapore banks in the agreed sample of banks (Annex 8). The non-quantifiable aspects of identified deviations were discussed and reviewed in the context of the prevailing regulatory practices and processes with MAS.

Ultimately, the assignment of the assessment grades was guided by the collective expert judgment of the assessment team. The Assessment Team thereby relied on the general principle that the burden of proof that a finding is not material or not potentially material rests with the assessed jurisdiction. A summary of the materiality analysis is provided in Section 2 and Annex 8.

In a number of areas, the domestic rules go beyond the minimum Basel standards. Although these elements provide for a more rigorous implementation of the Basel framework in some aspects, they have not been taken into account for the assessment of compliance under the RCAP methodology as per the agreed assessment methodology (see Annex 13 for a listing of areas of super-equivalence).

1.4 Main findings

A summary of the main findings is given below.

Summary assessment grading

Table 1

Key components of the Basel LCR framework	Grade
Overall grade	C
HQLA (numerator)	C
Net outflows (denominator)	C
Net inflows (denominator)	C
LCR disclosure requirements	C

Compliance assessment scale (see Section 1.3 for more information on the definition of the grades): C = compliant; LC = largely compliant; MNC = materially non-compliant; NC = non-compliant.

Main findings by component

General comments: scope of application and transitional arrangements

The Assessment Team finds that the scope of application of the LCR in Singapore is in line with the Basel standard. The team identified two findings, which are assessed as not material at present, but one of which is assessed as potentially material for the future. The team also identified one interpretative issue.

[1] This four-grade scale is consistent with the approach used for assessing countries' compliance with the Basel Committee's *Core principles for effective banking supervision*. The actual definition of the four grades has been adjusted to take into account the different nature of the two exercises. In addition, components of the Basel framework that are not relevant to an individual jurisdiction may be assessed as not applicable (n/a). See www.bis.org/publ/bcbs264.htm for further details.

Regarding the first finding, the Basel LCR standard specifies that the LCR should follow the existing scope of application set out in the Basel II framework and be applied to all internationally active banks on a consolidated basis.

The team noted that MAS does not apply the LCR to locally incorporated subsidiaries of foreign banks. MAS explained that foreign-owned subsidiaries in Singapore are not internationally active and would therefore not be within the scope of the Basel LCR framework. Instead, these banks, if designated as a D-SIB, are subject to a modified LCR framework, which entails a 50% minimum all-currency LCR requirement and a 100% SGD LCR requirement. Non-D-SIBs are subject to an alternative liquidity regime, namely the MLA requirement. Under this regime, banks are required to hold a minimum of 16% of qualifying liabilities in liquid assets.

The team discussed with MAS whether foreign-owned subsidiaries could develop international activities in the future. MAS explained that it closely monitors the activities of these banks, which would allow MAS to subject the bank to the full LCR requirements if and when it becomes internationally active. The team noted that MAS's regulatory approach requires supervisory judgment as to whether a bank is "internationally active" and a specific supervisory direction to ensure an outcome that is in line with the Basel LCR framework.

The team considered that the MAS regulation deviates from the Basel standard, as it does not explicitly require that internationally active banks, including subsidiaries of foreign banks, meet the Basel LCR requirements. Whilst the team considers this deviation currently as not material, as none of the foreign-owned subsidiaries is internationally active at present, it does consider the deviation to be potentially material for the future and therefore recommends revisiting this issue in a future RCAP assessment of Singapore. This assessment is, however, conditional on any future clarification from the Basel Committee regarding the application of the LCR to internationally active subsidiaries (see below).

As regards the second finding, the team found that the MAS regulation does not include LCR requirements for bank holding companies. MAS indicated that there is currently one bank holding company among the three domestic banking groups in Singapore and that this situation is not expected to change in the near term. Furthermore, this holding company owns one banking group only, and nothing but this banking group, which implies that it would make no practical difference whether the LCR requirements are applied at the group level or at the holding company level. MAS indicated also that, under the Financial Holding Company Act, MAS can subject any institution designated as a financial holding company to the full LCR requirements. As a result, the team considers this deviation as not material. Additionally, MAS informed the team that it is working on a regulatory notice that will lay down the LCR requirements for financial holding companies and expects to publish this notice in the near term.

The team identified one interpretative issue. MAS applies the all-currency LCR requirement on a consolidated basis to all banks that are "incorporated and headquartered in Singapore". This encompasses the three domestic banking groups (DBS, OCBC and UOB), which are considered by MAS as internationally active. In addition, there are two local subsidiary banks of these groups in Singapore, which, according to the MAS definition of "incorporated and headquartered in Singapore", would in principle also be subject to the LCR requirements. However, MAS explained that both local subsidiary banks are exempted from the LCR requirements, based on supervisory discretion. MAS explained that one subsidiary is not internationally active and hence would not fall within the scope of the Basel LCR framework. The other subsidiary, however, is an internationally active bank. MAS explained that the liquidity risk management of the parent banking group is organised centrally and that the subsidiary therefore relies entirely on the group treasury. Requiring the local subsidiary to comply with the LCR standard on a standalone basis would necessitate introducing a separate treasury and liquidity risk management function for the subsidiary, without a commensurate prudential benefit. Further, MAS explained that the local subsidiary and the parent-banking group have extensive contingency funding plans in place to address liquidity stress situations. In addition, the local subsidiary regularly reports its standalone LCR, which allows MAS to monitor the liquidity position.

In the discussions with the team, MAS argued that liquidity requirements are generally intended to address stresses arising in the situation where a banking group is still solvent. That being the case, there is every incentive for a banking group to ensure effective and efficient deployment of liquidity to meet needs in every part of the group, in order to avoid precipitating a confidence crisis. In this context, centralised group-level liquidity risk management is a common practice across many banks in Basel Committee member jurisdictions, and is typically accommodated by the home supervisor. Further, MAS observed that the Basel LCR requirements with regard to the scope of application could be interpreted differently from those of the risk-based capital framework, as the Basel LCR standard does not explicitly reference application to every tier of a banking group (Basel III LCR paragraph 164).

Whilst the team is of the view that the LCR standard is in principle applicable to any internationally active bank, it acknowledges there is an interpretative issue with regard to the Basel framework on this point. In addition, the team finds that the discretionary exemption provided by MAS to the internationally active local subsidiary is in substance a justified and well reasoned supervisory decision. Similar decisions have been taken by supervisors in other Basel Committee member jurisdictions.

Overall, therefore, the team recommends that the Basel Committee clarify the requirements around the scope of application of the LCR standard, in particular with regard to the application to local subsidiaries of a domestic banking group, to support supervisory decisions on this point (Annex 11). The clarification from the Committee may also be relevant for the assessment of the application of the LCR to locally incorporated subsidiaries of foreign banks (see above).

Regarding the transitional arrangements, the team finds that the implementation is also in line with the Basel standard. The minimum all-currency LCR requirement imposed by MAS rises in annual increments of 10% until it reaches 100% in 2019. The team notes that the Singapore banks are also subject to a minimum SGD LCR requirement of 100% since 1 January 2015, which is super-equivalent to the Basel standard (Annex 13).

Objective of the LCR and the use of HQLA

The Basel standard specifies that, during a period of financial stress, banks may use their stock of HQLA, thereby falling below 100%. The MAS regulation requires banks to notify the supervisor before utilising HQLA. MAS explained to the team that in practice the bank could send an e-mail to the supervisor before utilising the HQLA, which would serve as notification. The notification regime allows MAS to assess the situation and adjust its response flexibly according to the circumstances in a timely manner, as required by the Basel LCR standard. Supervisory approval is therefore not required or even expected prior to utilisation of the HQLA buffer. Thus, the reaction time of banks would be unaffected by such a notification regime in a stress situation. This was confirmed in a meeting between the Assessment Team and Singapore banks. The team considers this regime to be in line with the Basel standard.

HQLA (numerator)

The implementation of the definition of HQLA is assessed as compliant with the Basel standard. The team did not identify any deviations from that standard.

With regard to Islamic banking, the Basel standard specifies that national supervisors in jurisdictions in which sharia-compliant banks operate have the discretion to define sharia-compliant financial products (such as sukuk) as eligible HQLA. The Basel standard specifies that this supervisory discretion is available in the case of sharia-compliant banks only.

The team observed that the MAS regulation allows sukuk to be an eligible HQLA instrument for non-sharia banks as well. MAS explained that, for sukuk to be eligible, it must comply with all the Basel eligibility requirements that are applicable to other eligible asset types. In addition, MAS explained that sukuk is a regular financial instrument, is freely available in the market and can be negotiated by sharia and non-sharia banks without distinction, even when no Islamic financial activity is involved. This was confirmed in a meeting of the Assessment Team with Singapore banks.

The team considers that the MAS regulation is in line with the Basel standard, as it allows banks to include sukuk in HQLA only if such products comply with the operational criteria for HQLA. The team recommends that the Basel Committee clarify the requirements regarding sukuk's eligibility as HQLA, and specifically to define whether sukuk can be an eligible HQLA instrument also for non-sharia banks.

Outflows (denominator)

The implementation of the outflow rates is assessed as compliant with the Basel standard. The Basel standard specifies minimum run-off rates for various balance sheet items, but also expects national supervisors to evaluate and determine outflow rates based on an analysis of relevant historical outflow rates. The Assessment Team found that the MAS regulation includes the minimum run-off rates as specified by the Basel standard, but does not include any additional outflow buckets with higher outflow rates (for example, for less stable retail deposits).

MAS explained that its quantitative studies show that there is currently no need for additional buckets with higher run-off rates. MAS also indicated that, going forward, it will continue to collect additional data on outflows and, in this context, pay close attention to stress tests in order to help determine any potential future need for additional categories of deposits with higher run-off rates.

In the discussion with the team, the question arose whether, for the determination of jurisdiction-specific outflow rates, the data analysis should be based on system-wide outflows or individual bank outflows. Individual bank outflows could in principle be much larger than system-wide outflows, as system-wide outflows are aggregated across banks and may therefore be dampened by deposit flows between the banks. At present, the Basel standard does not provide clear guidance on this point, and the team recommends that the Basel Committee look further into this issue.

Regarding outflows from trade finance instruments, the Basel standard specifies that contingent cash outflows arising from trade finance instruments are to be determined by national supervisors and should be supported by data. The team observed that MAS has set the outflow rate at the Basel minimum of 3%, based on its internal data analysis.

Inflows (denominator)

The implementation of the inflow rates is assessed as compliant with the Basel standard. The team did not identify any deviations. For other contractual cash inflows, where inflow rates are established by national discretion, MAS has taken a conservative approach applying a 0% inflow rate.

Disclosure requirements

The disclosure requirements are assessed as compliant with the Basel standard. No deviations or observations were identified. Furthermore, the disclosure requirements in Singapore are extended to D-SIBs that are not internationally active (ie local subsidiaries of foreign banks).

2 Detailed assessment findings

The component-by-component details of the assessment of compliance with the LCR standard of the Basel framework are listed below. The focus of Sections 2.1 and 2.2 is on findings that were assessed to be deviating from the Basel minimum standards and their materiality. Section 2.3 lists observations and other findings specific to the implementation practices in Singapore. Observations do not indicate sub-equivalence, but the items concerned are considered compliant with the Basel standard.

2.1 LCR

2.1.1 Scope of application and transitional arrangements

Summary	The Assessment Team finds that the scope of application of the LCR in Singapore is in line with the Basel standard. The team identified two findings, which are both assessed as not material.
Basel paragraph no	Basel III LCR paragraph 164
Reference in domestic regulation	MAS Notice 649 paragraphs 18 and 19.
Findings	The Basel LCR standard specifies that the LCR should follow the existing scope of application set out in the Basel II framework and be applied to all internationally active banks on a consolidated basis. The team noted that MAS does not apply the LCR to locally incorporated subsidiaries of foreign banks. MAS explained that foreign-owned subsidiaries in Singapore are not internationally active and would therefore not fall within the scope of the Basel LCR framework. Instead, these banks, if designated as D-SIBs, are subject to a modified LCR requirement, which entails a 50% minimum all-currency LCR requirement and a 100% SGD LCR requirement. Non-D-SIBs are subject to an alternative liquidity regime, namely the MLA requirement. Under this regime, banks are required to hold a minimum of 16% of qualifying liabilities in liquid assets. The team discussed with MAS whether these foreign-owned subsidiaries could develop international activities in the future. MAS explained that it closely monitors the activities of these banks, which would allow MAS to subject the bank to the full LCR standard if and when it becomes internationally active. The team noted that MAS's regulatory approach requires supervisory judgment as to whether a bank is "internationally active" and a specific supervisory direction to ensure an outcome that is in line with the Basel standard. The team considers that the MAS regulation deviates from the Basel standard, as it does not explicitly require that internationally active banks, including subsidiaries of foreign banks, meet the Basel LCR requirement. Whilst the team considers the deviation currently as not material, as none of the foreign-owned subsidiaries is internationally active at present, the team would recommend revisiting this issue in a future RCAP assessment of Singapore (Annex 12). This assessment is, however, conditional on any future clarification from the Basel Committee regarding the application of the LCR to internationally active subsidiaries (Annex 11). Regarding the second finding, the team identified that the MAS regulation does not include LCR requirements for bank holding companies. MAS indicated that there is currently one bank holding company among the three domestic banking groups in Singapore and that this situation is not expected to change in the near term. Furthermore, this holding company owns one banking group only, and nothing but this banking group, which implies that it makes no practical difference whether the LCR requirements are applied at the group level or at the holding company level. MAS indicated also that, under the Financial Holding Company Act, MAS can subject any institution designated as a financial holding company to the full LCR requirements. Therefore, whilst a deviation from the Basel standard, the team considers this deviation as not material. Additionally, MAS informed the team it is

	working on the regulatory notice that lays down the LCR requirements for financial holding companies and expects to publish the notice in the near term.
Materiality	The findings are assessed as not material. With regard to the application of the LCR to subsidiaries for foreign banks, the team recommends a future follow-up assessment (Annex 12).

2.1.2 Definition of the LCR and HQLA (numerator)

Section grade	Compliant.
Summary	No findings identified.

2.1.3 Outflows (denominator)

Section grade	Compliant.
Summary	No findings identified.

2.1.4 Inflows (denominator)

Section grade	Compliant.
Summary	No findings identified.

2.2 LCR disclosure requirements

Section grade	Compliant.
Summary	No findings identified.

2.3 Observations and other findings specific to the implementation practices in Singapore

The following observations highlight certain special features of the regulatory implementation of the Basel standards in Singapore. These are presented for contextual and informational purposes only. The items observed are considered compliant with the Basel standard and do not have a bearing on the assessment outcome.

Basel paragraph no	Basel III LCR paragraph 68
Reference in domestic regulation	MAS Notice 649 paragraph 21.
Observation	With regard to Islamic banking, the Basel standard specifies that national supervisors in jurisdictions in which sharia-compliant banks operate have the discretion to define sharia-compliant financial products (such as sukuk) as eligible HQLA. The Basel standard specifies that this supervisory discretion is available in the case of sharia-compliant banks only. The team observed that the MAS regulation allows sukuk to be an eligible HQLA instrument for non-sharia banks as well. MAS explained that, for sukuk to be eligible, it must comply with all the Basel eligibility requirements that are applicable to other eligible asset types. In addition, MAS explained that sukuk is a regular financial instrument, is freely available in the market and can be negotiated by sharia and non-sharia banks without distinction, even when no Islamic financial activity is involved. This was confirmed in a meeting of the Assessment Team with Singapore banks. The team considers that the MAS regulation is in line with the Basel standard, as it allows banks to include sukuk in HQLA only when such products comply with the operational criteria for HQLA. The team recommends that the Basel requirements

	regarding sukuk be clarified on this point, as the current Basel text suggests that sukuk can be an eligible HQLA instrument for sharia banks only (Annex 11).
Basel paragraphs no	Basel III LCR paragraphs 70 and 138
Reference in domestic regulation	MAS Notice 649 paragraph 86.
Observation	The Basel standard specifies that, for a few categories, the run-off rates must be determined by supervisory authorities at the national level. In this context, the Basel standard specifies that, with regard to contingent funding obligations stemming from trade finance instruments, national authorities can apply a relatively low run-off rate. MAS has implemented a cash outflow rate of 3% for contingent funding obligations stemming from trade finance instruments. MAS clarified to the team that the data underpinning this implementation shows that the 3% outflow rate is sufficiently prudent in capturing the liquidity risk arising from trade finance instruments.
Basel paragraph no	Basel III LCR paragraph 10: transitional arrangements
Reference in domestic regulation	MAS Notice 649 paragraph 19.
Observation	The Basel standard specifies that the minimum LCR requirement will be set at 60% and rise in equal annual steps to reach 100% on 1 January 2019. MAS has implemented this transitional arrangement. In addition, since 1 January 2015 MAS has required banks to comply with a 100% LCR in Singapore dollars. For non-internationally active banks, MAS applies a fixed all-currency LCR requirement of 50% without transitional arrangement.
Basel paragraph no	Basel III LCR paragraph 79
Reference in domestic regulation	
Observation	Regarding the less stable retail deposits, the Basel standard states that supervisors are expected to develop additional buckets with higher run-off rates as necessary, but with a run-off rate of at least 10%. The team observed that MAS has not created such additional buckets. MAS shared its quantitative studies with the team to show that there is currently no need for additional buckets with higher run-off rates. MAS also indicated that, going forward, it will continue to collect additional data on outflows and, in this context, pay close attention to stress tests in order to help determine any potential future need for additional categories of deposits with higher run-off rates. In the discussion with the team, the question arose whether, for the determination of jurisdiction-specific outflow rates, the data analysis should be based on system-wide outflows or individual bank outflows. Individual bank outflows could in principle be much larger than system-wide outflows, as system-wide outflows are aggregated across banks and may therefore be dampened by deposit flows between the banks. At present, the Basel standard does not provide clear guidance on this point, and the team recommends that the Basel Committee look further into this issue.

Annexes

Annex 1: RCAP Assessment Team and Review Team

Team leader

Mr Stephen Bland	UK Prudential Regulation Authority

Assessment Team members

Mr Björn Jönsson	Sveriges Riksbank
Ms Paula Oliveira	Central Bank of Brazil

Supporting members

Mr Maarten Hendrikx	Basel Committee Secretariat
Mr Olivier Prato	Basel Committee Secretariat

Review Team

Mr Neil Esho	Basel Committee Secretariat
Mr Alexandre Kurth	Swiss Financial Market Supervisory Authority (FINMA)
Mr Muhammet Salih Ağan	Banking Regulation and Supervision Agency of Turkey
Mr Sunny Yung	Hong Kong Monetary Authority

Annex 2: Local regulations issued by Singapore authorities for implementing Basel LCR standards

Overview of issuance dates of important Singapore rules — Table 2

Domestic regulations	Name of the document, version and date
Banking Act	Banking Act (Chapter 19), last revised on 1 July 2015.
MAS Notice 649	MAS Notice 649 re Minimum Liquid Assets and Liquidity Coverage Ratio, issued on 28 November 2014.
MAS Notice 651	MAS Notice 651 re Liquidity Coverage Ratio Disclosure, issued on 14 December 2015.

Hierarchy of Singapore laws and regulatory instruments — Table 3

Level of rules (in legal terms)	Type
Acts	The Acts contain statutory laws under the purview of MAS, which are passed by Parliament. These have the force of law and are published in the Government Gazette. Examples are the Banking Act and the Financial Advisers Act.
Subsidiary legislation	Subsidiary legislation is issued under the authority of the relevant Acts and typically fleshes out the provisions of an Act, spelling out in greater detail the requirements that financial institutions or other specified persons (eg a financial adviser's representative) have to adhere to. Subsidiary legislation has the force of law and may specify that a contravention is a criminal offence. It too is published in the Government Gazette.
Directions	Directions detail specific instructions to financial institutions or other specified persons to ensure compliance. They have legal effect, meaning that MAS could specify whether a contravention of a direction is a criminal offence. Directions consist of the following: (a) Directives, which primarily impose legally binding requirements on an individual financial institution or a specified person; and (b) Notices, which primarily impose legally binding requirements on a specified class of financial institutions or persons. These include MAS Notices 649 and 651, which implement the LCR standard.
Guidelines	Guidelines set out principles or "best practice standards" that govern the conduct of specified institutions or persons. Whilst contravention of guidelines is not a criminal offence and does not trigger civil penalties, specified institutions or persons are encouraged to observe the spirit of guidelines. The degree to which an institution or person observes a guideline may have an impact on MAS's overall risk assessment of that institution or person.
Codes	Codes set out a system of rules governing the conduct of certain specified activities. Codes are non-statutory and do not have the force of law. A failure to abide by a code does not in itself amount to a criminal offence but may have certain consequences. For example, a breach of a Code may trigger certain non-statutory sanctions, such as private reprimand or public censure.
Practice Notes	Practice Notes are meant to guide specified institutions or persons on administrative procedures relating to, among others, licensing, reporting and

	compliance matters. Contravention of a Practice Note is not a criminal offence, unless a procedure stated in the Note is also required by an Act or regulation.
Circulars	Circulars are documents that are sent to specified persons for their information or are published on the MAS website for public information. Circulars have no legal effect.
Policy Statements	Policy Statements outline broadly the major policies of MAS.

Annex 3: List of LCR standards under the Basel framework used for the assessment

Basel documents within the scope of the assessment

(i) *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools* (January 2013), including the *Frequently asked questions on Basel III's January 2013 Liquidity Coverage Ratio* (April 2014).

(ii) *Liquidity Coverage Ratio disclosure standards* (January 2014).

Basel documents reviewed for information purposes

(iii) *Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools* (January 2013) (part of liquidity risk monitoring tools).

(iv) *Monitoring tools for intraday liquidity management* (April 2013).

(iv) *Principles for sound liquidity risk management and supervision* (September 2008).

Annex 4: Details of the RCAP assessment process

A. Off-site evaluation

(i) Completion of a self-assessment questionnaire by MAS.

(ii) Evaluation of the self-assessment by the RCAP Assessment Team.

(iii) Independent evaluation and comparison of the domestic regulations issued by MAS against corresponding Basel III standards issued by the BCBS.

(iv) Formulation of observations.

(v) Refinement of the list of observations based on clarifications provided by MAS.

(vi) Assessment of the materiality of deviations for all quantifiable deviations based on data and non-quantifiable deviations based on expert judgment.

(vii) Forwarding of the list of observations to MAS.

B. On-site assessment

(viii) Discussion of individual observations with MAS.

(ix) Meeting with selected Singapore banks.

(x) Discussion with MAS and revision of findings to reflect additional information received.

(xi) Assignment of component grades and overall grade.

(xii) Submission of the detailed findings to MAS with grades.

(xiii) Receipt of comments on the detailed findings from MAS.

C. Review and finalisation of the RCAP report

(xiv) Review of comments by the RCAP Assessment Team, finalisation of the draft report and forwarding to MAS for comments.

(xv) Review of MAS's comments by the RCAP Assessment Team.

(xvi) Review of the draft report by the RCAP Review Team.

(xvii) Review of the draft report by the Peer Review Board.

(xviii) Reporting of findings to SIG by the Assessment Team leader.

Annex 5: List of rectifications by MAS

Basel Paragraph	Reference to Singapore document and paragraph	Brief description of the forthcoming correction
Scope of application and transitional arrangements		
165	84	Added that non-contractual contingent funding obligations related to potential liquidity draw from investments in banking, securities and financial entities will be treated as "Other contingent funding obligations". The methodology for quantifying such potential liquidity draws for the purpose of calculating the LCR standard shall be agreed between the banks and MAS.
166	Appendix 8	Reinforced the Guidelines by stating in the Notice that banks should actively monitor and manage liquidity risk exposures and funding needs at the level of individual legal entities, foreign branches and subsidiaries, and the banking group as a whole, taking into account legal, regulatory and operational limitations to the transferability of liquidity.
172	Appendix 8	Clarified that banks should have processes in place to capture all existing liquidity transfer restrictions to the extent practicable, and to monitor the rules and regulations in the jurisdictions in which the banking group operates and assess their liquidity implications for the group as a whole.
Definition of the LCR		
21	Appendix 8	Reinforced the Guidelines by stating in the Notice that banks should conduct their own stress tests to assess the level of liquidity they should hold, and construct their own scenarios that could cause difficulties for their specific business activities.
HQLA (numerator)		
35	Appendix 8	Clarified that banks should monitor the legal entity and physical location where collateral is held and how it may be mobilised in a timely manner. Specifically, they should have a policy in place that identifies legal entities, geographical locations, currencies and specific custodial or bank accounts where liquid assets are held.
38	22	Clarified that banks shall exclude from the stock of HQLA those assets where there are impediments to sale, such as large fire-sale discounts, which would cause them to breach minimum solvency requirements, or requirements to hold such assets, including, but not limited to, statutory minimum inventory requirements for market-making.
41	Appendix 8	Reinforced the Guidelines by stating in the Notice that banks should actively manage their intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems.
42	Appendix 8	Reinforced the Guidelines by stating in the Notice that banks should meet their liquidity needs in each currency and maintain liquid assets consistent with the distribution of their liquidity needs by currency. Banks should be able to use the liquid assets to generate liquidity in the currency and jurisdiction in which the net cash outflows arise. Banks should take into account the risk that their ability to swap currencies and access the relevant foreign exchange markets may erode rapidly under stressed conditions and be aware that sudden, adverse exchange rate movements could sharply widen existing mismatched positions and alter the effectiveness of any foreign exchange hedges in place.

44	Appendix 8	Clarified that banks should ensure that liquid assets held are well diversified within the asset classes themselves (except for sovereign debt of the bank's home jurisdiction or from the jurisdiction in which the bank operates; central bank reserves; central bank debt securities; and cash). Moreover, banks should have policies and limits in place in order to avoid concentration with respect to asset types, issue and issuer types, and currency (consistent with the distribution of net cash outflows by currency) within asset classes.
52 (b)	21 (i)	Footnote added to explain treatment in the event of split ratings.
54 / FAQ 3 (a)	21 (f)	Clarified that only sovereign and central bank debt securities rated BBB+ to BBB– that are not included in the definition of Level 1 assets may be included in the definition of Level 2B assets with a 50% haircut within the 15% cap for all Level 2B assets.
Outflows (denominator)		
86	43	Clarified that, for options exercisable at the bank's discretion to terminate wholesale funding within the 30-day LCR horizon, the bank shall consider reputational factors that may limit the bank's ability not to exercise the option and its impact on unsecured wholesale funding cash outflows.
93	46	Added a requirement for banks to obtain MAS's approval to utilise the cash outflow rates set out in this paragraph.
115	Appendix 7	Clarified that, with regard to secured funding transactions, only PSEs with a risk weight of 20% or lower can qualify for the 25% run-off rate.
136	83	Added a requirement for banks to inform MAS annually of any new contingent funding obligations that they have assumed.
137	84	Added that the amount of potential liquidity draws included should be calculated using a methodology agreed by the banks and MAS.
Inflows (denominator)		
143	Appendix 8	Clarified that banks should monitor the concentration of expected inflows across wholesale counterparties in order to limit overreliance on the arrival of expected inflows from one or a limited number of wholesale counterparties.

Annex 6: Assessment of bindingness of regulatory documents

The following table summarises the assessment of the seven criteria used by the Assessment Team to determine the eligibility of Singapore regulatory documents.

Criterion	Self-assessment by jurisdiction
(1) The instruments used are part of a well defined, clear and transparent hierarchy of a legal and regulatory framework.	Yes. The Basel LCR standard is implemented in Singapore in MAS Notice 649 ("Minimum Liquid Assets and Liquidity Coverage Ratio") and MAS Notice 651 ("Liquidity Coverage Ratio Disclosure") (collectively, the "Notices"). MAS Notice 649 is issued under Sections 36 and 38 of the Banking Act, and MAS Notice 651 is issued under Section 55 of the Banking Act. Both the Banking Act and the Notices have force of law and are legally binding.
(2) They are public and easily accessible.	Yes. The Banking Act and the Notices are published on the MAS and AGC websites and easily accessible by the public.
(3) They are properly communicated and viewed as binding by banks as well as by the supervisors.	Yes. The Banking Act and the Notices are properly communicated through the MAS and AGC websites and are viewed as binding by banks as well as by the supervisors.
(4) They would generally be expected to be legally upheld if challenged and are supported by precedent.	Yes. To date, the instruments have not been challenged before a court of law, but in the event they are, it is generally expected they will be legally upheld.
(5) Consequences of failure to comply are properly understood and carry the same practical effect as for the primary law or regulation.	Yes. A failure to comply attracts legal penalties under the Banking Act.
(6) The regulatory provisions are expressed in clear language that complies with the Basel provisions in both substance and spirit.	Yes. The regulatory provisions are expressed clearly in English and comply with the Basel provisions in both substance and spirit.
(7) The substance of the instrument is expected to remain in force for the foreseeable future.	Yes. The substance of the instrument is expected to remain in force in the foreseeable future.

Annex 7: Key liquidity indicators of the Singapore banking system

Size of banking sector (SGD millions); data as of June 2016		
1. Total assets of all banks operating in the jurisdiction (including off-balance sheet assets)[2]	2,958,044	
2. Total assets of all major locally incorporated banks (including off-balance sheet assets)	1,325,502	
3. Total assets of locally incorporated banks to which liquidity standards under the Basel framework are applied (including off-balance sheet assets)	1,219,206	
Number of banks		
4. Number of banks operating in the jurisdiction (excluding local representative offices)	126	
5. Number of G-SIBs	0	
6. Number of D-SIBs	7[3]	
7. Number of banks which are internationally active	3[4]	
8. Number of banks required to implement Basel III liquidity standards	3	
9. Number of banks required to implement domestic liquidity standards	123	
Breakdown of LCR for three RCAP sample banks	Unweighted	Weighted
10. Total HQLA	163,881	152,171
11. Level 1 HQLA	125,011	125,011
12. Level 2A HQLA	22,071	18,760
13. Level 2B HQLA	16,799	8,399
14. ALA HQLA	–	–
15. Total cash outflows	907,544	252,442
16. Retail and small business stable deposits	112,322	5,616
17. Retail and small business less stable deposits	243,210	24,321
18. Wholesale unsecured operational deposits	59,765	14,388
19. Wholesale unsecured non-operational funding	229,112	134,346
20. Secured funding	9,893	991
21. Derivatives cash outflows	32,066	32,066
22. Debt issued instruments (including credit and liquidity facilities)	112,725	32,365
23. Other contractual outflows	3,014	3,014
24. Contingent funding obligations	105,437	5,334
25. Total cash inflows	192,835	127,844
26. Secured lending	18,883	3,110
27. Fully performing unsecured loans	133,375	88,580
28. Other cash inflows	40,578	36,154

[2] The measure of assets including off-balance sheet positions is the denominator of the Basel leverage ratio.

[3] MAS has designated seven banking groups as D-SIBs as at April 2015, and there are 13 banking legal entities that belong to these seven banking groups.

[4] There are five banking legal entities that belong to these three banking groups.

29. LCR (%)	122%

Annex 8: Materiality assessment

As a general principle, and mirroring the established RCAP assessment methodology for risk-based capital standards, the RCAP-LCR materiality assessment is based on both quantitative and qualitative information with an overlay of expert judgment. Where possible, teams also take into account the dynamic nature of liquidity risks and seek to assess the materiality of deviation at different points in time.

In line with underlying RCAP principles, the quantitative materiality assessment for the LCR is based on a determination of the cumulative impact of all identified deviations (both quantifiable and non-quantifiable deviations). Where deviations are quantifiable, the Assessment Team will generally base the assessment on the highest impact that has been reported across three data points. The collection of data across different dates is agreed upon between the team leader and the assessed jurisdiction.

In the case of the Singapore LCR assessment, two deviations were assessed on a qualitative basis, taking into account the amendments made by MAS during the course of the RCAP. The following table summarises the number of deviations according to their materiality.

Number of gaps/differences by component Table 4

Component	Non-material	Material	Potentially material
Scope of application	1	0	1
Transitional arrangements	0	0	0
Definition of HQLA (numerator)	0	0	0
Outflows (denominator)	0	0	0
Inflows (denominator)	0	0	0
LCR disclosure requirements	0	0	0

Materiality is defined based on quantitative benchmark thresholds (for the quantifiable gaps) and expert judgment (for the non-quantifiable gaps). See Section 2 with the detailed assessment findings for further information.

RCAP sample of banks

The following banks were selected for testing the materiality of quantifiable deviations. Together these banks represent 100% of internationally active domestic banks in Singapore and 39% of the total assets of the banking system in Singapore.[5]

Banking group	Share of banks' assets in Singapore banking sector assets
1. DBS Bank	15%
2. Oversea-Chinese Banking Corp	12%
3. United Overseas Bank	12%
Total	39%

Source: MAS.

[5] For this purpose, banking assets would mean both on-balance sheet and off-balance sheet assets.

Annex 9: Singapore's implementation of the liquidity monitoring tools

Basel liquidity monitoring tools

In addition to the minimum standard for the LCR, the LCR framework outlines metrics to be used as consistent liquidity monitoring tools ("the monitoring tools"). The monitoring tools capture specific information related to a bank's cash flows, balance sheet structure, available unencumbered collateral and certain market indicators. The monitoring tools supplement the LCR standard and are meant to provide the cornerstone of information that aids supervisors in assessing the liquidity risk of a bank. This annex provides a qualitative overview of the implementation of the monitoring tools in Singapore.

Method of implementing the monitoring tools

The liquidity monitoring tools were implemented in Singapore through MAS Notices 613 and 649. These Notices require banks to implement the monitoring tools as part of their liquidity risk management process and practices, and to submit the returns on a monthly basis. Banks submit returns based on standard reporting templates. The information required includes, but is not limited to, (i) maturity mismatch; (ii) concentration of funding; (iii) available unencumbered assets; and (iv) LCR by significant currency.[6]

MAS monitors and analyses the returns and actively engages individual banks on areas of supervisory concern as flagged by the reported information.

Description of how the monitoring tools are implemented

I. Contractual maturity mismatch

Banks are required to submit the contractual maturity mismatch profile for all-currency, SGD and all other significant currencies. The tenor buckets are defined by MAS, and the data collected allow MAS to construct the cash flow mismatches within weekly buckets for the first month, then from the first to third months, third to sixth months, and sixth month to one year. Beyond the one-year horizon, there are buckets up to year 20.[7] An unallocated column is provided to allow banks to report instruments that have no specific maturity (non-defined or open maturity, as recommended by the Basel III LCR document).

In addition, banks submit the behavioural maturity mismatch profile for all-currency, SGD and all other significant currencies. Incorporating the behavioural figures computed using their internal methodologies gives supervisors an alternative perspective of the bank's liquidity needs and profile based on the actual future forecasted flows, rather than having to rely on the contractual figures alone.

Internally, banks also conduct their own maturity mismatch analyses, based on going-concern behavioural assumptions of the inflows and outflows of funds in both normal situations and under stress. These are assessed by MAS during inspections and supervisory engagements.

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

7 One to two years, two to three years, three to four years, four to five years, five to seven years, seven to 10 years, 10 to 15 years, and 15 to 20 years.

II. Concentration of funding

Banks are required to report to MAS how the funding amount raised from each of their top 20 individual, corporate and interbank counterparties compares with the banks' total liabilities. Moreover, the contractual maturity mismatch profile for all-currency, SGD and all other significant currencies is used to capture the amount of structural currency mismatch in a bank's assets and liabilities.

Internally, banks also actively monitor the concentration ratios and balance sheet composition at their asset liability management committee meetings to manage funding concentration.

III. Available unencumbered assets

Banks are required to report the amount, type, location and average expected stressed haircut of available unencumbered assets that could serve as collateral for secured borrowing in secondary markets or with relevant central banks at prearranged or current haircuts at reasonable costs for all-currency, SGD and other significant currencies. These banks provide MAS with information on other assets that could potentially be used to raise additional liquidity other than the HQLA reported in the LCR templates.

IV. LCR by significant currency

Banks are required to submit the LCR information for all significant foreign currencies, in addition to their all-currency and SGD submissions. Together with their internal stress testing processes, banks use this information to actively monitor and manage their foreign currency risks with MAS providing regulatory oversight.

V. Market-related monitoring tools

Besides relying on the monthly liquidity submissions from banks, MAS utilises market data as part of its surveillance process. MAS monitors market-wide information such as government debt yields, equity indices, foreign exchange rates and interbank rates. MAS also monitors bank-specific information such as equity prices and CDS spreads. This information allows MAS to monitor and identify potential liquidity problems in the market or at specific banks, and to take timely action to manage the situation.

Basel guidance on monitoring tools for intraday liquidity management

Different monitoring tools could be used to track factors influencing a bank's usage of intraday liquidity in payment and settlement systems and its vulnerability to intraday liquidity shocks. MAS tracks information such as daily maximum intraday liquidity usage, available intraday liquidity at the start of the business day, total payments and time-specific obligations. Banks in Singapore also generate and utilise daily reports that provide information based on these monitoring indicators.

On top of that, banks providing corresponding banking services also track value of payments and intraday credit lines extended to customers as recommended by the BCBS-CPMI guidelines on monitoring tools for intraday liquidity management. Last but not least, banks that are direct participants also monitor intraday throughput by tracking the percentage of payments completed at different times of the day.

Annex 10: MAS's implementation of the *Principles of sound liquidity risk management and supervision*

This annex outlines the implementation of the Basel Committee's *Principles for sound liquidity risk management and supervision* ("Sound Principles") in the MAS regulation.

The MAS Liquidity Risk Management Guidelines ("Guidelines") provide guidance on sound liquidity risk management practices, and set expectations for banks to embed the Sound Principles into banks' respective liquidity risk management frameworks. The extent and degree to which a bank adopts these Guidelines should be commensurate with the size, nature and complexity of its activities. Relevant extracts of the Guidelines are provided below.

Fundamental principle for the management and supervision of liquidity risk – Principle 1

Paragraph 3.2 of the Guidelines states that banks should consistently observe prescribed liquidity requirements and assess their liquidity risk profile (including on- and off-balance sheet risks) in the context of the markets and macroeconomic conditions in which they operate. Moreover, banks should have a robust liquidity management framework that requires maintaining sufficient liquidity to withstand a range of stress events. This includes appropriate policies and processes for managing liquidity risk that have been approved by the institution's board of directors. These policies and processes should also provide a comprehensive institution-wide view of liquidity risk that should be consistent with the institution's risk profile. These policy and processes are assessed and validated by MAS during supervisory engagements and inspections.

Governance of liquidity risk management – Principles 2–4

Paragraph 3.3 of the Guidelines states that banks should have liquidity strategies, policies and processes that establish an appropriate and properly controlled liquidity risk environment, including:

(a) clear articulation of an overall liquidity risk appetite that is appropriate for the institution's business and its role in the financial system and that is approved by its board;

(b) sound day-to-day and intraday liquidity risk management practices;

(c) effective information systems to enable active and timely identification, aggregation, monitoring and control of liquidity risk exposures and funding needs (including active management of collateral positions) institution-wide;

(d) adequate oversight by the institution's board in ensuring that management effectively implements policies and processes for the management of liquidity risk in a manner consistent with the institution's liquidity risk appetite; and

(e) regular review by the institution's board (at least annually) and appropriate adjustment of the institution's strategy, policies and processes for the management of liquidity risk in the light of the institution's changing risk profile and external developments in the markets and macroeconomic conditions in which it operates.

In practice, banks in Singapore have funds transfer pricing (FTP) frameworks to price and transfer risks between the business units and the assets and liability management function. These FTP frameworks help to align the risk-taking incentives of individual business lines with the liquidity risk exposures their activities create for the bank as a whole, as recommended in Principle 4.

Measurement and management of liquidity risk – Principles 5–12

The Guidelines state that banks should establish and regularly review funding strategies and policies and processes for the ongoing measurement and monitoring of funding requirements and the effective management of funding risk. The policies and processes should take into account how other risks (eg credit, market, operational and reputation risk) may impact the institution's overall liquidity strategy, and include:

(a) an analysis of funding requirements under alternative scenarios;

(b) the maintenance of a cushion of high-quality, unencumbered, liquid assets that can be used, without impediment, to obtain funding in times of stress;

(c) diversification in the sources (including counterparties, instruments, currencies and markets) and tenor of funding, and regular review of concentration limits;

(d) regular efforts to establish and maintain relationships with liability holders; and

(e) regular assessment of the capacity to sell assets.

Where a bank's foreign currency business is significant, or the institution has significant exposure in a given currency, the bank should undertake separate analysis of its strategy and monitor its liquidity needs separately for each such significant currency. This includes the use of stress testing to determine the appropriateness of mismatches in that currency and, where appropriate, the setting and regular review of limits on the size of its cash flow mismatches for foreign currencies in aggregate and for each significant currency individually.

In addition, a bank's levels of encumbered balance sheet assets should be managed within acceptable limits to mitigate the risks posed by excessive levels of encumbrance in terms of the impact on the institution's cost of funding and the implications for the sustainability of its long-term liquidity position. Banks should provide adequate disclosure of such risks and set appropriate limits to mitigate the identified risks.

Moreover, banks should also have liquidity strategies, policies and processes that establish an appropriate and properly controlled liquidity risk environment for sound intraday liquidity risk management practices. The Guidelines also encourage banks to consider whether regulatory or legal impediments to accessing liquidity from related sources are addressed in the intragroup liquidity analysis and monitoring programme.

Further, the Guidelines state that banks should include a variety of short-term and protracted institution-specific and market-wide liquidity stress scenarios (individually and in combination), using conservative and regularly reviewed assumptions, in their stress testing programmes for risk management purposes. The results of the stress tests should be used by the banks to adjust their liquidity risk management strategies, policies and positions and to develop effective contingency funding plans.

Last but not least, the Guidelines state that banks should have a robust contingency funding plan in place to handle liquidity problems. The contingency funding plan should be formally articulated and adequately documented and set out the institution's strategy for addressing liquidity shortfalls in a range of stress environments without placing reliance on lender of last resort support. The institution's contingency funding plan should establish clear lines of responsibility, include clear communication plans (including communication with the supervisor) and be regularly tested and updated to ensure it is operationally robust. Interactions with other related entities should also be considered.

Public disclosure – Principle 13

MAS Notice 651 requires banks to make LCR disclosure at the same time as they publish their financial statements, irrespective of whether those statements are audited. The disclosure requirements closely mirror those promulgated by the BCBS for internationally active banks. The requirements comprise a common LCR disclosure template to promote consistency and comparability of liquidity disclosures by banks, and accompanying qualitative disclosures to help users understand the information published by banks. They also include guidance on additional qualitative and quantitative disclosures that banks are encouraged to make in order to provide market participants with a broader understanding of the reporting bank's liquidity risk profile and management.

The role of supervisors – Principles 14–17

MAS regularly engages banks in Singapore and also conducts on-site inspection to assess and validate banks' overall liquidity risk management frameworks and liquidity positions to ensure that they are sufficiently resilient to potential liquidity stress situations. Shortcomings will be flagged, and banks will be required to rectify the issues in an effective and timely manner.

Besides submissions regarding their compliance with liquidity regulatory requirements, banks are also required to submit to MAS regulatory returns on a monthly basis that include information such as (i) maturity mismatch; (ii) concentration of funding; (iii) available unencumbered assets; and (iv) LCR by significant currency (Annex 9). MAS monitors and analyses the returns and will engage individual banks if the reported positions reveal any supervisory concerns or deteriorating trends.

In addition to relying on the monthly liquidity submissions from banks, MAS also utilises market data as part of its surveillance process. MAS monitors market-wide information such as government debt yields, equity indices, foreign exchange rates and interbank rates. Moreover, MAS monitors bank-specific information such as equity prices and CDS spreads. This information allows MAS to identify potential liquidity problems in the market or at specific banks, and to take timely action to manage the situation.

MAS also engages the host supervisors of local banks, and the home supervisors of foreign banks, on a regular basis to facilitate effective cooperation on the supervision and oversight of liquidity risk management.

Annex 11: Areas for further guidance from the Basel Committee

The Assessment Team listed the following three issues for further guidance from the Basel Committee:

- To clarify the requirements around the scope of application of the LCR standard, in particular with regard to its application to local subsidiaries that are internationally active. This may also be of relevance to the application to foreign-owned subsidiaries that are internationally active.
- To clarify the Basel requirements regarding sukuk's eligibility as HQLA. The current Basel text suggests that sukuk can be an eligible HQLA instrument for sharia banks only. The team considers that sukuk may generally be eligible for all banks, including non-sharia banks, if such products meet all the operational criteria for HQLA.
- Regarding the determination of jurisdiction-specific outflow rates, to clarify if the data analysis should be based on system-wide outflows or individual bank outflows. Individual bank outflows could in principle be much larger than system-wide outflows, as system-wide outflows are aggregated across banks and may therefore be dampened by deposit flows between the banks.

Annex 12: List of issues for follow-up RCAP assessments

The Assessment Team identified the following issue for a follow-up RCAP assessment of Singapore:

- The MAS regulation does not require explicitly that internationally active subsidiaries of foreign banks be subject to the full LCR requirement. The MAS regulatory approach requires supervisory judgment if a bank is "internationally active" to ensure an outcome that is in line with the Basel standard. The team recommends revisiting this issue in a future RCAP assessment. This follow-up assessment may, however, depend on any future clarification by the Basel Committee regarding the application of the LCR to internationally active subsidiaries (Annex 11).

Annex 13: Areas where Singapore's LCR rules are stricter than the Basel standards

In some areas, MAS has adopted a stricter approach than the minimum Basel LCR standard. The following list provides an overview of these areas. It should be noted that, for purposes of the assessment, these areas are considered fully compliant and have not been taken into account as mitigants for the overall assessment of compliance.

1. 100% SGD LCR requirements

In addition to the all-currency requirement, a 100% LCR requirement is imposed on SGD. As SGD is the local currency of financial institutions based in Singapore and is systemically important to the domestic financial system, sufficient SGD-denominated liquid assets must be available as a buffer for their SGD-denominated net outflows. Imposing an SGD LCR requirement will ensure that there is adequate SGD-denominated HQLA within the total HQLA pool.

2. Additional cap on Level 2B assets

On top of the 40% and 15% caps placed, respectively, on Level 2 and Level 2B assets as prescribed under the Basel III LCR standard, MAS has imposed an additional cap of 5% of total HQLA on most Level 2B assets, namely equities and residential mortgage-backed securities as well as sovereign, central bank and non-financial corporate debt securities rated between BBB+ and BBB–. This prevents banks from being overly reliant on lower-quality assets.

Annex 14: Implementation of LCR elements subject to prudential judgment or discretion in Singapore

The following tables provides information on elements of LCR implementation that are subject to prudential judgment and national discretion. The information provided helps the Basel Committee to identify implementation issues where clarifications and (additional) FAQ could improve the quality and consistency of implementation. It should also inform the preliminary design of any peer comparison of consistency across the membership that the Committee may decide to conduct, in similar fashion to the studies on risk-weighted asset variation for the capital standards.

Elements requiring judgment (non-comprehensive list) Table 5

Basel para-graph	Description	Implementation by MAS
24 (f)	Treatment of the concept of "large, deep and active markets"	MAS has adopted the same language as that used in the Basel III LCR document in MAS Notice 649. In assessing whether assets reported by banks indeed meet the criteria, MAS takes into account factors such as daily trading volume and bid-ask spreads.
50	Treatment of the concept of "reliable source of liquidity"	MAS has adopted the same language as that used in the Basel III LCR document in MAS Notice 649. In assessing whether assets reported by banks indeed meet the criteria, MAS takes into account factors such as historical prices and volume during past crises.
52	Treatment of the concept of "relevant period of significant liquidity stress"	MAS has adopted the same language as that used in the Basel III LCR document in MAS Notice 649. MAS does not prescribe the relevant period of significant liquidity stress, but generally expects banks to include past stress scenarios such as the Asian financial crisis and/or the global financial crisis.
74–84	Retail deposits are divided into "stable" and "less stable"	MAS has adopted the same language as that used in the Basel III LCR document in MAS Notice 649. Stable deposits are those which are fully insured by the Singapore Deposit Insurance Corporation Limited (SDIC), or an effective government deposit insurance scheme, where: (a) the depositors have established relationships with the bank such that the deposits are highly unlikely to be withdrawn ("established relationships"); or (b) the deposits are in transactional accounts (eg accounts where salaries are automatically credited). Less stable deposits are defined as deposits that are not stable deposits.
83, 86	Treatment of the possibility of early withdrawal of funding with maturity above 30 days (para 83 – retail deposits; para 86 – wholesale funding)	MAS has adopted the same language as that used in the Basel III LCR document in MAS Notice 649. 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 the depositor has no legal right to withdraw deposits within the 30-day horizon of the LCR, or if early withdrawal results in a significant penalty that is materially greater

		than the loss of interest. If a bank allows a depositor to withdraw such deposits within the 30-day LCR horizon without applying any penalty that is materially greater than the loss of interest, notwithstanding a clause that states that the depositor has no legal right to withdraw, the entire category of such deposits would have to be treated as either stable or less stable deposits depending on their fulfilment of the criteria in paragraphs 35 to 39. The unsecured wholesale funding included in the LCR is defined as all funding that is callable within 30 calendar days or that has its earliest possible contractual maturity date situated within this horizon (such as maturing term deposits and unsecured debt securities) as well as funding with an undetermined maturity, and includes all funding with options that are exercisable at the counterparty's discretion within 30 calendar days. For options exercisable at the bank's discretion, the bank shall consider reputational factors that may limit the bank's ability not to exercise the option and its impact on unsecured wholesale funding cash outflows.
90–91	Definition of exposure to small business customers is based on nominal euro amount (EUR 1 million)	MAS has adopted the same language as that used in the Basel III LCR document in MAS Notice 649. "Small business customers" are defined in line with the definition of loans extended to small businesses in footnote 124 of 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 SGD 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 MAS Notice 637, the bank may include such a deposit in this category provided the total aggregate funding raised from the customer is less than SGD 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.
94–103	Deposits subject to "operational" relationships"	MAS has adopted the same language as that used in the Basel III LCR document in MAS Notice 649. Operational deposits from customers with qualifying clearing, custody and cash management accounts must 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 backup 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 by 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. 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 where 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. 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.
131 (f)	Definition of other financial institutions and other legal entities	MAS has adopted the same language as that used in the Basel III LCR document in MAS Notice 649. The term "other financial institutions" refers to financial institutions that are not banks, while "other legal entities" captures entities that are not already covered in the preceding paragraphs of the Notice.

Elements left to national discretion (non-comprehensive list)

Table 6

Basel paragraph	Description	Implementation by MAS
5	These two standards [the LCR and NSFR] comprised mainly specific parameters which are internationally "harmonised" with prescribed values. *Certain parameters, however, contain elements of national discretion to reflect jurisdiction-specific conditions. In these cases, the parameters should be transparent and clearly outlined in the regulations of each jurisdiction to provide clarity both within the jurisdiction and internationally.*	All parameters used in the local liquidity regulations are clearly described in the Notices, which are published on the MAS and AGC websites and are easily accessible.
8	Use of phase-in options	MAS follows the phase-in transitional arrangement proposed by the Basel Committee to implement the LCR in Singapore starting from 1 January 2015, with a 60% minimum requirement set for the year 2015, followed by increments of 10 percentage points per annum until 100% is reached by 1 January 2019.

11	The Committee also reaffirms its view that, during periods of stress, it would be entirely appropriate for banks to use their stock of HQLA, thereby falling below the minimum. Supervisors will subsequently assess this situation and will give guidance on usability according to circumstances. *Furthermore, individual countries that are receiving financial support for macroeconomic and structural reform purposes may choose a different implementation schedule for their national banking systems, consistent with the design of their broader economic restructuring programme*.	A bank may utilise its stock of HQLA and have its LCR fall below the prevailing minimum requirements in a liquidity stress situation after notifying MAS in writing of its intent to utilise its HQLA prior to the utilisation. Under this paragraph, the aforementioned context of a different LCR implementation schedule was intended for countries receiving financial support for macroeconomic and structural reform purposes, This was not relevant to Singapore when the LCR rules were effected in Singapore, and MAS did not adopt a different LCR implementation schedule.
50 (b)	Eligibility of central bank reserves	MAS has adopted the same language as that used in the Basel III LCR document in MAS Notice 649. Reserves held with MAS and other central banks, to the extent that MAS's and the central banks' policies allow them to be drawn down in times of stress, can be included as HQLA. In this context, reserves would include banks' overnight deposits with the central bank, and term deposits with the central bank that: (i) are explicitly and contractually repayable on notice from the depositing bank; or (ii) that constitute a loan against which the bank can borrow on a term basis or on an overnight but automatically renewable basis (only where the bank has an existing deposit with the relevant central bank). Other term deposits with central banks are not eligible as liquid assets; however, if the term expires within 30 days, the term deposit could be considered as an inflow as per paragraph 100.
50 (c)	Marketable securities that are assigned a 0% risk weight under the Basel II standardised approach for credit risk	MAS has adopted the same language as that used in the Basel III LCR document in MAS Notice 649. MAS allows banks to include as Level 1 HQLA any marketable security representing a claim on or guaranteed by a sovereign, a central bank, a PSE, the Bank for International Settlements, the International Monetary Fund, the European Central Bank, the European Community or a multilateral development bank, which satisfies the following conditions: (i) it is assigned a 0% risk weight under MAS Notice 637 (which is aligned with the Basel II standardised approach for credit risk in this respect); (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 under stressed market conditions; and iv) it is not an obligation of a financial institution or any of its related corporations.
53–54	Eligible Level 2B assets	MAS recognises the list of Level 2B assets prescribed in the Basel III LCR document. However, on top of the 40% and 15% caps placed, respectively, on Level 2 and Level 2B assets as prescribed under the Basel III LCR standard, MAS has imposed an additional 5% cap on most Level 2B assets, namely equities and residential mortgage-backed securities as well as sovereign, central bank and non-financial corporate debt securities rated between

		BBB+ and BBB–. This prevents banks from being overly reliant on lower-quality assets.
54 (a)	Provision relating to the use of restricted committed liquidity facilities (RCLF)[8]	RCLF are not accepted as HQLA in Singapore, except as ALA accepted in other jurisdictions.
55 (f)	Treatment of jurisdictions with insufficient HQLA (subject to separate peer review process)	As a jurisdiction, Singapore has sufficient HQLA in its domestic currency to meet the aggregate demand of banks with significant exposures in the currency.
68	Treatment of sharia-compliant banks	In Singapore, there are no sharia-compliant banks although there are banks that run Islamic finance windows that engage in sharia-compliant Islamic finance businesses.
78	Treatment of deposit insurance	The current cash outflow rate for stable deposits fully insured by the SDIC is 5%. This may change to 3% when the insurance scheme meets the following additional criteria: (i) the insurance scheme is based on a system of prefunding via the periodic collection of levies on banks with insured deposits; (ii) the scheme has adequate means of ensuring ready access to additional funding in the event of a large call on its reserves, eg an explicit and legally binding guarantee from the government, or a standing authority to borrow from the government; and (iii) access to insured deposits is available to depositors within no more than seven business days once the deposit insurance scheme is triggered.
79 (f)	Categories and run-off rates for less stable deposits	MAS conducts an annual policy review of whether additional deposit categories with higher run-off are required, eg foreign currency and/or large deposits. Currently, MAS does not see a need to impose any additional deposit categories.
123	Market valuation changes on derivatives transactions	MAS has adopted the same language as that used in the Basel III LCR document in MAS Notice 649. A bank shall include any outflow generated by increased needs related to market valuation changes in its calculation of the LCR by identifying the largest absolute net 30-day collateral flow realised during the preceding 24 months. The absolute net collateral flow is based on both realised outflows and inflows. The largest absolute net 30-day collateral flow shall be assessed on a portfolio level. The bank shall compute the contingent outflow resulting from market valuation changes in accordance with the relevant contract governing the transactions.
134–140	Run-off rates for other contingent funding liabilities	For contingent funding obligations stemming from trade finance instruments, a cash outflow rate of 3% will apply. For other contingent funding obligations, banks are expected to develop methodology to determine the amount that will materialise and apply a 100% outflow factor for this amount.
160	Weight assigned to other contractual inflows	Other contractual cash inflows shall receive a cash inflow rate of 0%.
164–165	Determination of the scope of application of the LCR (whether to apply beyond	MAS's LCR rules apply to all internationally active banking banks/groups headquartered in Singapore but

8 See www.bis.org/publ/bcbs274.htm.

	"internationally active banks" etc) and the scope of consolidation of entities within a banking group	not to bank holding companies. A subsequent Notice (to be published in due course) will set out the LCR requirements for financial holding companies.
168–170	Differences in home/host liquidity requirements due to national discretions	For the three local banking groups, all parameters will follow the home regulations in MAS 649 except for the treatment of retail/small business deposits that follow the relevant parameters adopted in host jurisdictions in which the entities (branch or subsidiary) operate.
Annex 2	Principles for assessing eligibility for ALA	ALA are not required in Singapore, but banks are allowed to include as HQLA ALA assets from jurisdictions where ALA are adopted. In such cases, the principles for assessing eligibility for ALA would be followed by the host jurisdictions adopting ALA.