

Liquidity Coverage Ratio ("LCR") Qualitative/Quantitative Disclosures for the year ended 2017

Monetary Authority of Singapore ("MAS") had designated Citibank ("Citi") as a Domestic Systemically Important Banks ("D-SIB") in Singapore, and is subjected to MAS Notice 649 Liquidity Coverage Ratio ("LCR") framework with effect from 01 January 2016. MAS granted approval for Citi to comply with this Notice on a country-level group basis (consisting of Citibank N.A. Singapore branch, Citibank Singapore Limited, and Citicorp Investment Bank (Singapore) Limited). The LCR framework is meant to ensure that the Bank has sufficient unencumbered High Quality Liquid Assets ("HQLA") to meet its liquidity needs for a 30 calendar day liquidity stress scenario. As a measurement, Citi is required to maintain daily LCR ratio on ALL-Currency ("All-Ccy") and SGD-Currency ("SGD-Ccy") level to be above 50% and 100% respectively. For cautionary measure, Citi has, based on observed movements, set internal LCR triggers as forewarning of breaching the regulatory ratios in addition to the LCR being actively managed, as well as closely monitored, that it is within the ratio requirement.

The following disclosure is made pursuant to MAS Notice 651 – LCR Disclosure, and in compliance with the requirements in MAS Notice 649 at country-level group basis.

In the first quarter of 2017, Citi average All-Ccy LCR and SGD-Ccy LCR were 224% and 180% respectively, above the respective regulatory minimum requirements of 50% and 100%.

The average All-Ccy in the second quarter of 2017 decreased to 145%; the increase in net cash outflows is a combination of an overall increase in total Deposits which partly funded the Quarter-on-Quarter ("QoQ") growth in total 3rd party loans (both within and more than 30 days), and partly placed with MAS to maintain HQLA as some of the securities assets were switched from HQLA to Non-HQLA. In addition, there were movements arising from Business As Usual ("BAU") activities on Intercompany placement maturity shift to maximize the use of surplus liquidity. For the same quarter, SGD-Ccy LCR climbed to 216% largely driven by an increase in SGD-Ccy Derivative assets exposures over the 30-day tenor.

In the third quarter, All-Ccy LCR decreased by another 22% to 123% as a result of an enhancement to the methodology for operational deposits computation – the approved changes involve applying excess deposit ratios at a more granular level and hence more responsive to clients' behavior. For the same quarter, SGD-Ccy LCR came down from 216% to 156% and was mainly due to an increase in SGD-Ccy Derivative liabilities exposures across the 30-day tenor.

The fourth quarter saw both All-Ccy and SGD-Ccy climbed to 130% and 194% respectively. All-Ccy LCR went higher mainly due to fall in short-term (within 30 days) Deposits offset by fall in long-term Placements whilst the increase in long-term Deposits (more than 30 days) was largely used to fund short-term Loans. Increase in SGD-Ccy LCR was primarily driven by an increase in SGD-Ccy Derivative assets exposures.

Citi continues to maintain a higher than the set requirement by focusing on keeping a stable balance sheet structure.

Footnote: LCR is not adjusted for Intercompany ratio whose requirements are not asset specific

Country Average All-Currency LCR for Quarter 1, 2017
(Number of data points used for the calculation : 90)

Group – ALL Currency (in S\$ millions)		TOTAL UNWEIGHTED VALUE (average)	TOTAL WEIGHTED VALUE (average)
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		22,329
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	36,006	3,081
3	Stable deposits	7,154	207
4	Less stable deposits	28,852	2,874
5	Unsecured wholesale funding, of which:	34,934	16,295
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	21,167	5,271
7	Non-operational deposits (all counterparties)	13,767	11,025
8	Unsecured debt	0	0
9	Secured wholesale funding		0
10	Additional requirements, of which:	3,229	818
11	Outflows related to derivative exposures and other collateral requirements	498	498
12	Outflows related to loss of funding on debt products	0	0
13	Credit and liquidity facilities	2,731	320
14	Other contractual funding obligations	484	484
15	Other contingent funding obligations	1,917	58
16	TOTAL CASH OUTFLOWS		20,736
CASH INFLOWS			
17	Secured lending (eg reverse repos)	92	0
18	Inflows from fully performing exposures	14,082	9,968
19	Other cash inflows	960	583
20	TOTAL CASH INFLOWS	15,134	10,552
		TOTAL ADJUSTED VALUE	
21	TOTAL HQLA		22,329
22	TOTAL NET CASH OUTFLOWS		10,184
23	LIQUIDITY COVERAGE RATIO (%)		224%

Country Average All-Currency LCR for Quarter 2, 2017
(Number of data points used for the calculation : 91)

Group – ALL Currency (in S\$ millions)		TOTAL UNWEIGHTED VALUE (average)	TOTAL WEIGHTED VALUE (average)
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		22,473
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	36,007	3,074
3	Stable deposits	7,254	209
4	Less stable deposits	28,753	2,865
5	Unsecured wholesale funding, of which:	40,742	22,121
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	21,106	5,257
7	Non-operational deposits (all counterparties)	19,636	16,864
8	Unsecured debt	0	0
9	Secured wholesale funding		0
10	Additional requirements, of which:	3,504	978
11	Outflows related to derivative exposures and other collateral requirements	655	655
12	Outflows related to loss of funding on debt products	0	0
13	Credit and liquidity facilities	2,849	322
14	Other contractual funding obligations	442	442
15	Other contingent funding obligations	2,208	66
16	TOTAL CASH OUTFLOWS		26,680
CASH INFLOWS			
17	Secured lending (eg reverse repos)	73	1
18	Inflows from fully performing exposures	15,007	10,519
19	Other cash inflows	798	597
20	TOTAL CASH INFLOWS	15,879	11,118
		TOTAL ADJUSTED VALUE	
21	TOTAL HQLA		22,271
22	TOTAL NET CASH OUTFLOWS		15,563
23	LIQUIDITY COVERAGE RATIO (%)		145%

Country Average All-Currency LCR for Quarter 3, 2017
(Number of data points used for the calculation : 92)

Group – ALL Currency (in S\$ millions)		TOTAL UNWEIGHTED VALUE (average)	TOTAL WEIGHTED VALUE (average)
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		21,689
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	34,254	2,998
3	Stable deposits	6,287	209
4	Less stable deposits	27,966	2,789
5	Unsecured wholesale funding, of which:	40,343	23,515
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	15,631	3,892
7	Non-operational deposits (all counterparties)	24,713	19,622
8	Unsecured debt	0	0
9	Secured wholesale funding		0
10	Additional requirements, of which:	5,307	1,465
11	Outflows related to derivative exposures and other collateral requirements	969	969
12	Outflows related to loss of funding on debt products	0	0
13	Credit and liquidity facilities	4,338	496
14	Other contractual funding obligations	544	544
15	Other contingent funding obligations	2,013	60
16	TOTAL CASH OUTFLOWS		28,582
CASH INFLOWS			
17	Secured lending (eg reverse repos)	76	1
18	Inflows from fully performing exposures	14,676	10,367
19	Other cash inflows	1,309	929
20	TOTAL CASH INFLOWS	16,060	11,297
		TOTAL ADJUSTED VALUE	
21	TOTAL HQLA		21,028
22	TOTAL NET CASH OUTFLOWS		17,285
23	LIQUIDITY COVERAGE RATIO (%)		123%

Country Average All-Currency LCR for Quarter 4, 2017
(Number of data points used for the calculation : 92)

Group – ALL Currency (in S\$ millions)		TOTAL UNWEIGHTED VALUE (average)	TOTAL WEIGHTED VALUE (average)
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		21,855
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	33,794	2,942
3	Stable deposits	6,381	208
4	Less stable deposits	27,413	2,734
5	Unsecured wholesale funding, of which:	40,221	23,119
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	15,914	3,963
7	Non-operational deposits (all counterparties)	24,308	19,156
8	Unsecured debt	0	0
9	Secured wholesale funding		0
10	Additional requirements, of which:	4,715	1,288
11	Outflows related to derivative exposures and other collateral requirements	858	858
12	Outflows related to loss of funding on debt products	0	0
13	Credit and liquidity facilities	3,856	429
14	Other contractual funding obligations	437	437
15	Other contingent funding obligations	1,642	49
16	TOTAL CASH OUTFLOWS		27,835
CASH INFLOWS			
17	Secured lending (eg reverse repos)	50	0
18	Inflows from fully performing exposures	15,176	10,714
19	Other cash inflows	1,302	787
20	TOTAL CASH INFLOWS	16,528	11,501
		TOTAL ADJUSTED VALUE	
21	TOTAL HQLA		21,143
22	TOTAL NET CASH OUTFLOWS		16,334
23	LIQUIDITY COVERAGE RATIO (%)		130%

Country Average SGD-Currency LCR for Quarter 1, 2017
(Number of data points used for the calculation : 90)

Group – SGD Currency (in S\$ millions)		TOTAL UNWEIGHTED VALUE (average)	TOTAL WEIGHTED VALUE (average)
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		14,237
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	14,564	1,115
3	Stable deposits	5,372	207
4	Less stable deposits	9,192	908
5	Unsecured wholesale funding, of which:	10,050	5,373
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	5,167	1,271
7	Non-operational deposits (all counterparties)	4,884	4,102
8	Unsecured debt	0	0
9	Secured wholesale funding		0
10	Additional requirements, of which:	8,942	8,246
11	Outflows related to derivative exposures and other collateral requirements	8,193	8,193
12	Outflows related to loss of funding on debt products	0	0
13	Credit and liquidity facilities	748	53
14	Other contractual funding obligations	3	3
15	Other contingent funding obligations	269	8
16	TOTAL CASH OUTFLOWS		14,745
CASH INFLOWS			
17	Secured lending (eg reverse repos)	90	0
18	Inflows from fully performing exposures	1,520	937
19	Other cash inflows	5,464	5,460
20	TOTAL CASH INFLOWS	7,074	6,397
		TOTAL ADJUSTED VALUE	
21	TOTAL HQLA		14,237
22	TOTAL NET CASH OUTFLOWS		8,347
23	LIQUIDITY COVERAGE RATIO (%)		180%

Country Average SGD-Currency LCR for Quarter 2, 2017
(Number of data points used for the calculation : 91)

Group – SGD Currency (in S\$ millions)		TOTAL UNWEIGHTED VALUE (average)	TOTAL WEIGHTED VALUE (average)
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		14,467
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	14,350	1,108
3	Stable deposits	5,261	209
4	Less stable deposits	9,090	899
5	Unsecured wholesale funding, of which:	9,698	5,081
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	5,071	1,248
7	Non-operational deposits (all counterparties)	4,627	3,833
8	Unsecured debt	0	0
9	Secured wholesale funding		0
10	Additional requirements, of which:	10,137	9,465
11	Outflows related to derivative exposures and other collateral requirements	9,413	9,413
12	Outflows related to loss of funding on debt products	0	0
13	Credit and liquidity facilities	724	53
14	Other contractual funding obligations	7	7
15	Other contingent funding obligations	342	10
16	TOTAL CASH OUTFLOWS		15,672
CASH INFLOWS			
17	Secured lending (eg reverse repos)	66	0
18	Inflows from fully performing exposures	1,540	917
19	Other cash inflows	7,672	7,681
20	TOTAL CASH INFLOWS	9,278	8,597
		TOTAL ADJUSTED VALUE	
21	TOTAL HQLA		14,467
22	TOTAL NET CASH OUTFLOWS		7,075
23	LIQUIDITY COVERAGE RATIO (%)		216%

Country Average SGD-Currency LCR for Quarter 3, 2017
(Number of data points used for the calculation : 92)

Group – SGD Currency (in S\$ millions)		TOTAL UNWEIGHTED VALUE (average)	TOTAL WEIGHTED VALUE (average)
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		14,162
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	13,099	1,054
3	Stable deposits	4,567	209
4	Less stable deposits	8,533	846
5	Unsecured wholesale funding, of which:	9,223	5,216
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	3,627	892
7	Non-operational deposits (all counterparties)	5,596	4,324
8	Unsecured debt	0	0
9	Secured wholesale funding		0
10	Additional requirements, of which:	12,056	11,260
11	Outflows related to derivative exposures and other collateral requirements	11,189	11,189
12	Outflows related to loss of funding on debt products	0	0
13	Credit and liquidity facilities	867	71
14	Other contractual funding obligations	12	12
15	Other contingent funding obligations	341	10
16	TOTAL CASH OUTFLOWS		17,552
CASH INFLOWS			
17	Secured lending (eg reverse repos)	75	0
18	Inflows from fully performing exposures	1,462	866
19	Other cash inflows	7,484	7,479
20	TOTAL CASH INFLOWS	9,021	8,345
		TOTAL ADJUSTED VALUE	
21	TOTAL HQLA		14,162
22	TOTAL NET CASH OUTFLOWS		9,207
23	LIQUIDITY COVERAGE RATIO (%)		156%

Country Average SGD-Currency LCR for Quarter 4, 2017
(Number of data points used for the calculation : 92)

Group – SGD Currency (in S\$ millions)		TOTAL UNWEIGHTED VALUE (average)	TOTAL WEIGHTED VALUE (average)
HIGH-QUALITY LIQUID ASSETS			
1	Total high-quality liquid assets (HQLA)		14,235
CASH OUTFLOWS			
2	Retail deposits and deposits from small business customers, of which:	13,011	1,042
3	Stable deposits	4,599	208
4	Less stable deposits	8,412	834
5	Unsecured wholesale funding, of which:	9,159	5,016
6	Operational deposits (all counterparties) and deposits in networks of cooperative banks	3,791	932
7	Non-operational deposits (all counterparties)	5,368	4,084
8	Unsecured debt	0	0
9	Secured wholesale funding		0
10	Additional requirements, of which:	12,971	12,160
11	Outflows related to derivative exposures and other collateral requirements	12,087	12,087
12	Outflows related to loss of funding on debt products	0	0
13	Credit and liquidity facilities	883	73
14	Other contractual funding obligations	3	3
15	Other contingent funding obligations	341	10
16	TOTAL CASH OUTFLOWS		18,232
CASH INFLOWS			
17	Secured lending (eg reverse repos)	50	0
18	Inflows from fully performing exposures	1,633	980
19	Other cash inflows	9,120	9,115
20	TOTAL CASH INFLOWS	10,803	10,095
		TOTAL ADJUSTED VALUE	
21	TOTAL HQLA		14,235
22	TOTAL NET CASH OUTFLOWS		8,137
23	LIQUIDITY COVERAGE RATIO (%)		194%

Additional LCR Qualitative/Quantitative Disclosures for the year ended 2017

Citi has a single set of Liquidity Risk Management Policy that establishes frameworks for defining, measuring, limiting, and reporting liquidity risk to ensure transparency and comparability of liquidity risk-taking activities. The same policy also provides for the establishment of an appropriate risk appetite and liquidity risk management strategies.

Citi manages via a centralized treasury model where the overall balance sheet is overseen by Treasury through Global Franchise Treasurers and Regional Treasurers. Treasury has authority over the Citigroup balance sheet and has the right to monetize or otherwise liquidate any eligible, unencumbered assets for the purpose of managing the firm's liquidity during stress and non-stress periods. In Singapore, both Singapore Country Treasurer and Citibank Singapore Limited ("CSL") Treasurer have authority and responsibility for the respective legal entity liquidity risk management and balance sheet management activities while oversight is provided by Global Liquidity Management ("GLM") and Citi Treasury Chief Risk Officer ("Treasury CRO"). Singapore Country Asset and Liability Committee ("ALCO") will be the primary governance committee for the balance sheet to ensure appropriate oversight supported by the ALCO Framework for Citigroup which outlines the standards for the function and composition of the ALCO.

Annually, Citi Singapore prepares both Country- and Entity-Level Balance Sheet Funding and Liquidity Plan ("FLP") which considers forecast of future business activities for the following year. This would also include the current limits and triggers for liquidity metrics, as well as where applicable any updates for the coming year, to which Country ALCO, GLM, Citi/CBNA Treasurer and Treasury CRO has to review and approve prior to implementation. The purpose of the FLP is to address strategic liquidity risks and establish the parameters for identifying, measuring, monitoring, and limiting liquidity risk including intraday liquidity needs and set forth key assumptions for liquidity risk management.

In addition to LCR and Net Stable Funding Ratio ("NSFR") monitoring, Citi uses liquidity stress tests, liquidity ratios, and liquidity market triggers to identify, monitor and manage liquidity risks at Country, as well as Entity, level either on a daily or monthly basis to validate the ability to meet both expected and unexpected current and future cash flow and collateral needs. The following liquidity metrics (and its result) are reviewed in the monthly Country ALCO meeting to assess compliance with the limits established through the framework.

- (a) Liquidity Stress Tests – perform either on a daily and/or monthly basis with the intention to quantify the likely impact of an adverse event on the balance sheet and liquidity position, and to identify viable alternatives in such an event
 - i. S2 (Highly Stressed Market Disruption Scenario) Report
 - Perform at both Country- and Entity-Level to assess cashflow in each tenor bucket within the 12 month horizon
 - ii. S2 (Highly Stressed Market Disruption Scenario) with Stressed Intercompany Ratio
 - To validate both Country- and Entity-Level are above the stipulated ratio requirement
 - iii. Resolution Liquidity Adequacy & Positioning ("RLAP") Ratio
 - Severe market disruption stress scenario to ascertain that both Country- and Entity-Level are maintaining positive cashflow in each day within the 30 day horizon
- (b) Liquidity Ratios and Concentration Exposure – monitor on a monthly basis and meant for management discussion of the underlying balance sheet, business, and market trends
 - i. Deposits to Loans ratio
 - ii. Short-Term Contractual Funding ratio to measure, monitor and limit concentration risks on short-term contractual funding
 - iii. Percentage of Large Fund Providers to establish the level of large concentrations of funding sources