
Liquidity Coverage Ratio:

A Quick Reference

February 2015

The Liquidity Coverage Ratio (the “LCR” or the “rule”) adopted by the Office of the Comptroller of the Currency (the “OCC”), the Board of Governors of the Federal Reserve System (the “Board”) and the Federal Deposit Insurance Corporation (the “FDIC) (collectively, the “agencies”) requires covered institutions to maintain a stock of high-quality liquid assets (“HQLAs”) sufficient to satisfy their projected net cash outflows over a 30-day period as computed under the rule.

Over time, covered institutions will find that modifications to the structure and terms of their assets and liabilities, coupled with educated choices about which HQLAs they hold to cover the gap between calculated outflows and inflows, can both improve their ability to withstand liquidity pressures and minimize any adverse effects on revenues that may result from holding the necessary level of HQLAs. The following analysis of the LCR is designed to help covered institutions achieve compliance with the rules and to help them start the process of making that compliance more efficient.

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I. LCR COVERAGE AND TIMING

There are two forms of the LCR. There is a version for large, internationally active banking organizations with \$250 billion or more in total consolidated assets or \$10 billion or more in on-balance sheet foreign exposure, and for consolidated depository institution subsidiaries of these companies with \$10 billion or more in total consolidated assets. There is also a modified LCR (the "Modified LCR") that is somewhat less stringent. The Modified LCR applies to bank holding companies and savings and loan holding companies without significant insurance or commercial operations that have \$50 billion or more in total consolidated assets.

The effective dates and calculation requirements for covered companies differ based on the size of the institution. The following tables lay out the relevant requirements:

Transition Period for the Liquidity Coverage Ratio

Time Period	Liquidity Coverage Ratio
Calendar year 2015.....	.80
Calendar year 2016.....	.90
Calendar year 2017 and thereafter.....	1.00
Calculation Frequency	
For covered depository institution holding companies with \$700 billion or more in total consolidated assets or \$10 trillion or more in assets under custody, and any depository institution that is a consolidated subsidiary of such depository institution holding companies that has total consolidated assets equal to \$10 billion or more:	
Last business day of the calendar month.....	Beginning January 1, 2015
Each business day.....	Beginning July 1, 2015
All other covered companies:	
Last business day of the calendar month.....	Beginning January 1, 2015
Each business day.....	Beginning July 1, 2016

Transition Period for the Modified Liquidity Coverage Ratio

Time Period	Liquidity Coverage Ratio
Calendar year 2016.....	.90
Calendar year 2017 and thereafter.....	1.00
Calculation Frequency	
Last business day of the calendar month beginning January 1, 2016.	

II. THE LIQUIDITY COVERAGE RATIO

Conceptually, the LCR is relatively simple and can be expressed by the following formula: $HQLAs/Total\ Net\ Cash\ Outflow\ Amount \geq 1$. In other words, an institution must calculate its total net cash outflows over a 30-day measurement period, and if the result of that calculation is a number greater than zero, the institution must hold a commensurate amount of HQLAs that can be liquidated to meet the assumed outflows. The equation requires unpacking to fully appreciate the complexity involved in its calculation.

First, the LCR must be calculated and maintained on a daily basis, except for those institutions subject to the Modified LCR, which need only calculate the LCR on the last day of each calendar month.

Under the rule, HQLAs are subdivided into three classes: Level 1, Level 2A and Level 2B assets. Level 1 assets receive 100% credit. Level 2A assets receive 85% credit and Level 2B assets receive 50% credit. Level 2 assets are capped at 40% of total HQLAs and Level 2B assets are capped at 15% of total HQLAs. The LCR also requires that HQLAs be “eligible,” such that they can be easily liquidated, from an operational standpoint, within the 30-day measurement period. In addition, HQLAs are subject to an adjustment that “unwinds” specific types of secured transactions that mature within 30 days of the calculation date.

A covered company's total net cash outflow amount is derived by adding up total cash outflows over a 30-day period, subtracting total cash inflows over the same period and then applying a maturity mismatch add-on. Total cash inflows under the rule are subject to a 25% haircut, so that even if a covered company's total cash inflows matched its total cash outflows, it would still need to maintain a cushion of HQLAs. In order to calculate the amount of its cash inflows and outflows, a covered institution must determine the maturity and type of each of its transactions. The rule provides a prescribed set of maturity assumptions. Outflow and inflow rates can be assigned once the maturity and the type of each transaction are determined under the rule. The maturity assumptions generally presume that all contingencies, such as the exercise of a put or call option, are realized to the disadvantage of covered institutions (i.e., maturities for outflows will be shortened and maturities for inflows will be extended). The result of these various maturity assumptions, transaction classifications and corresponding outflow and inflow rates is a complex matrix of fund flows that will ultimately shape institutions' preferences for certain types of transactions based on the effect of those transactions on the LCR calculation.

III. HIGH-QUALITY LIQUID ASSETS

HQLAs are divided into three tiers based on the agencies' perception of the ease with which various assets can be sold, while maintaining a minimum level of price integrity, during a time of market stress. The agencies also endeavor to ensure that covered institutions have the practical and operational ability to convert their HQLAs into cash in time to meet projected liquidity demands.

Level 1

Level 1 assets are those assets in which the agencies have the highest confidence. They are the only HQLAs that can be counted at their undiscounted fair value, although they are subject to a deduction for any applicable reserve requirement. Level 1 assets consist of:

1. Reserve balances, both domestic and foreign, that are withdrawable without restriction;¹
2. Securities issued or guaranteed by the U.S. Treasury;

¹ Domestic reserve requirements are deducted from Level 1 assets in calculating the HQLA amount. This deduction is based on balances maintained at Federal Reserve Banks and excludes reserve requirements to the extent that they are met with vault cash.

3. Securities issued or guaranteed by other U.S. government agencies that are backed by the full faith and credit of the U.S. government and that are liquid and readily-marketable;²
4. Securities, issued or guaranteed by a foreign government, central bank, the Bank for International Settlements, the International Monetary Fund, the European Central Bank, the European Community or a multilateral development bank, that have a zero percent risk weight under the agencies' risk-based capital rules, are liquid and readily-marketable, and are issued by an entity outside of the financial sector whose securities have a demonstrated record as a reliable source of liquidity in repurchase or sales markets during stressed market conditions; and
5. Securities issued by a sovereign entity (i.e., a foreign central government or central bank) that do not have a zero percent risk weight under the agencies' risk-based capital rules, but that are liquid and readily-marketable, issued in the currency of the sovereign and held to meet net cash outflows in the jurisdiction of the sovereign.

Level 2A

Level 2A assets are discounted to 85% of fair value. Level 2A assets must be liquid and readily-marketable and consist of:

1. U.S. government-sponsored enterprise ("GSE") securities that are investment grade under 12 CFR part 1 and are senior to preferred stock; and
2. Securities issued by a sovereign entity or a multilateral development bank that are not Level 1 assets, but that have no higher than a 20% risk weight under the agencies' risk-based capital rules, and are issued by an entity outside of the financial sector whose securities have a demonstrated record as a reliable source of liquidity in repurchase or sales markets during stressed market conditions. The liquidity of these securities must be demonstrated by a record of market prices declining and collateral haircuts increasing by no more than 10% during a 30-calendar day period of significant stress.

Level 2B

Level 2B assets are discounted to 50% of fair value. Level 2B assets must be liquid and readily-marketable and consist of:

1. Corporate debt that is investment grade under 12 CFR part 1, and that is issued by an entity outside of the financial sector whose securities have a demonstrated record as a reliable source of liquidity in repurchase or sales markets during stressed market conditions. The liquidity of these securities must be demonstrated by a record of market prices declining and collateral haircuts increasing by no more than 20% during a 30-calendar day period of significant stress; and
2. Publicly traded common equity securities that are:
 - a. included in the Russell 1000 Index or an index recognized, for the purposes of the LCR rules, by a foreign regulator for securities held in that foreign jurisdiction;
 - b. issued in U.S. dollars or in the currency where the security is held to cover net outflows in that jurisdiction;

² A security is liquid and readily-marketable if it is traded in an active secondary market with more than two committed market makers, a large number of other participants on both the buy- and sell-side of the market, timely and observable market prices and a high trading volume.

- c. issued by an entity outside of the financial sector whose securities have a demonstrated record as a reliable source of liquidity in repurchase or sales markets during stressed market conditions. The liquidity of these securities must be demonstrated by a record of market prices declining and collateral haircuts increasing by no more than 40% during a 30-calendar day period of significant stress;
- d. not acquired by a depository institution due to debt previously contracted; and
- e. held by a consolidated subsidiary of a depository institution, but only if they are used to cover net outflows by that subsidiary.

Amount and Eligibility

In calculating its HQLAs under the rule, a covered company must account for the haircuts on Level 2A and Level 2B assets, the cap on the total amount of Level 2 assets of 40% of total HQLAs and the cap on Level 2B assets of 15% of total HQLAs. The caps are calculated both before and after a simulated unwind of the following transactions that involve the exchange of HQLAs between the covered company and its counterparty and mature within 30 days of the calculation date: 1) secured funding transactions other than collateralized deposits, 2) secured lending transactions, 3) asset exchanges, and 4) collateralized derivative transactions. The calculation that results in the smaller value for the capped assets is used to calculate the total amount of HQLAs.

HQLAs must also be available for use by a covered institution to meet liquidity requirements, or “eligible,” to be included in the amount of HQLAs.

To be eligible, assets:

1. Must be unencumbered;
2. Must not be client pool securities from a separate account;
3. If held by a consolidated subsidiary, must be used to cover outflows at the consolidated subsidiary and then be available for transfer to the parent in times of market stress without statutory, contractual, regulatory or supervisory restrictions;
4. Cannot be subject to withdrawal by a counterparty or beneficial owner during the 30-day period; and
5. Cannot be designated to cover operational costs.

To be eligible, assets must also meet certain operational requirements:

1. The covered company must demonstrate that it can monetize the asset by implementing appropriate procedures and systems and periodically monetizing a sample of assets;
2. The assets must be demonstrably under the control of the liquidity risk management function at the covered institution;
3. The value of the assets must be reduced by the costs of terminating related hedging transactions; and
4. The covered institution must have policies and procedures to consistently identify eligible HQLAs and to appropriately diversify its HQLAs.

IV. NET OUTFLOWS

Measurement

A covered company's total net cash outflows is equal to 1) the sum of the outflow amounts calculated under the rule, 2) minus the lesser of (a) the sum of the inflow amounts, and (b) 75% of the cumulative outflow amount, 3) plus a maturity mismatch add-on that accounts for the possibility that outflows may occur prior to inflows during the 30-day period. The add-on is equal to the difference between the net cumulative outflow amount at the end of the 30-day period and the peak net cumulative outflow amount during the 30-day period.

Because both cash and HQLAs go into the calculation of the LCR, outflows of both cash and HQLAs are considered in arriving at the final ratio.

Maturity

For the purpose of calculating outflows, covered institutions must assume the earliest possible maturity date for their obligations. Except for two special cases, covered institutions must assume that all options to shorten maturities are exercised regardless of whether the option is a put to the institution or a call by the institution. Notice periods for options are disregarded for the purpose of measuring maturity. The exceptions to the rule of thumb for outflow-related maturity assumptions are 1) obligations with an original maturity of greater than one year where the institution has a call option that does not go into effect for 180 days following the issuance of the obligation and 2) where the counterparty is a sovereign entity, a GSE or a public sector entity.

For purposes of calculating inflows, covered institutions must assume the latest possible maturity date and that options will always be exercised to extend, rather than shorten, the maturity date. The institution must also assume that any notice period will be enforced by a counterparty.

Notwithstanding these general rules, in an exercise of judgment, the agencies have tailored certain rules for specific types of transactions. For secured lending transactions and asset exchange transactions that are secured by collateral that is then pledged in a secured funding transaction or another asset exchange transaction, the maturity date is the later of the maturity dates of the linked transactions. For the following transactions that have no maturity date and are not operational deposits, the maturity date under the rule is the day after the calculation date: 1) on the outflow side, (a) secured funding transactions, (b) asset exchanges, (c) foreign central bank borrowing, and (d) specified unsecured wholesale funding transactions; and 2) on the inflow side, (a) unsecured wholesale funding, (b) secured lending transactions and (c) asset exchange transactions. Any other outflow with no maturity date is considered to mature within 30 days of the calculation date. Other inflows with no maturity date are not counted as inflows for the purpose of the net cash outflow calculation. Finally, for broker-dealer segregated account inflows, the maturity date is the date of the next calculation of the amount required for the protection of customer assets.

V. OUTFLOWS BY TRANSACTION TYPE

The rule identifies classes of outflows and specific outflow rates for numerous sub-classifications of transactions within these classes. While there is some consistency in the judgments underlying these individual outflow rates, the rates do not lend themselves to simple rules of thumb. The following table identifies the LCR outflow rates by class and subclass. Unless otherwise specified, transactions mature within 30 days of the calculation date. Outflows exclude transactions with and between consolidated subsidiaries of the covered institution.

Outflows

TRANSACTIONS	OUTFLOW RATES
Retail Funding	
Stable retail deposits	3%
Other retail deposits	10%
Fully insured non-brokered third-party deposits	20%
Non-brokered third-party deposits that are not fully insured	40%
Other retail funding that is not a retail deposit, brokered deposit or debt instrument	40%
Structured Transactions	
Non-consolidated issuer and sponsored by the covered institution	The greater of a) 100% of the obligations that mature within 30 days and b) the maximum funding obligation of the covered institution to the issuer over the next 30 days
Derivatives-Net	
Net payments under master netting agreements	100%
Net payments in principal exchanges in FX transactions	100%
Mortgage Commitments	
Retail mortgage commitments that can be drawn within 30 days	10%
Other Commitments	
	Undrawn amount is the unused amount of the facility that could be drawn upon within 30 calendar days minus the amount of eligible Level 1 and Level 2A assets securing the facility that have not otherwise been counted as HQLAs
Credit and liquidity facilities for an affiliated depository institution subject to the rule	0%
Credit and liquidity facilities for retail customers	5%
Credit facilities for wholesale customers that are not in the financial sector	10%
Liquidity facilities for wholesale customers that are not in the financial sector	30%
Credit and liquidity facilities for depository institutions, depository	50%

institution holding companies and foreign banks	
Credit facilities for financial sector entities	40%
Liquidity facilities for financial sector entities	100%
Credit and liquidity facilities for special purpose entities that are used to finance purchases or operations	100%
Other credit or liquidity facilities	100%
Collateral	
Additional amounts the institution could be required to pledge due to changes in its financial condition	100%
Fair value of collateral that is not a Level 1 asset and that is pledged to secure derivative transactions	20%
Absolute value of the largest 30-day mark-to-market collateral inflow or outflow for a derivative transaction in the last 24 months	100%
Excess collateral due to a counterparty	100%
Not yet pledged collateral due to a counterparty	100%
Level 1 assets pledged to the institution where other Level 1 assets can be substituted	0%
Level 1 assets pledged to the institution where Level 2A assets can be substituted	15%
Level 1 assets pledged to the institution where Level 2B assets can be substituted	50%
Level 1 assets pledged to the institution where non-HQLAs can be substituted	100%
Level 2A assets pledged to the institution where Level 1 or Level 2A assets can be substituted	0%
Level 2A assets pledged to the institution where Level 2B assets can be substituted	35%
Level 2A assets pledged to the institution where non-HQLAs can be substituted	85%
Level 2B assets pledged to the institution where other HQLAs can be substituted	0%
Level 2B assets pledged to the institution where non-HQLAs can be substituted	50%
Brokered Deposits-Retail	
General retail brokered deposits that mature within 30 days	100%

General retail brokered deposits with a maturity of more than 30 days	10%
General retail brokered deposits fully covered by deposit insurance with no maturity date	20%
General retail brokered deposits that are not fully insured with no maturity date	40%
Reciprocal brokered deposits that are fully insured	10%
Reciprocal brokered deposits that are not fully insured	25%
Brokered sweep deposits received from an affiliate that are fully insured	10%
Brokered sweep deposits that are not received from an affiliate that are fully insured	25%
Brokered sweep deposits that are not received from an affiliate and are not fully insured	40%
Unsecured Wholesale Funding	
General unsecured wholesale funding that is fully insured	20%
General wholesale funding that is not fully insured or is a brokered deposit	40%
General wholesale funding that is brokered	40%
Other general wholesale funding, including funding from affiliates and retail debt instruments	100%
Operational deposits, other than escrow accounts, that are fully insured	5%
Other operational deposits	25%
Other wholesale funding	100%
Debt Security Buybacks	
Non-structured debt securities with a maturity of more than 30 days for which the covered institution or a consolidated subsidiary is the primary market maker	3%
Structured debt securities with a maturity of more than 30 days for which the covered institution or a consolidated subsidiary is the primary market maker	5%
Secured Funding	
	In some cases, unsecured funding outflow rate may be used
Secured by Level 1 assets	0%

Secured by Level 2A assets	15%
Funds received from sovereign entities, multilateral development banks and GSEs with a 20% risk weight under the agencies' capital rules that are not secured by Level 1 or Level 2A assets	25%
Secured by Level 2B assets	50%
Funds received to secure customer short positions that are covered by other customers' non-HQLA collateral	50%
Other secured funding transactions that are not secured by HQLAs	100%
Asset Exchanges	
Give Level 1 assets get Level 1 assets	0%
Give Level 1 assets get Level 2A assets	15%
Give Level 1 assets get Level 2B assets	50%
Give Level 1 assets get non-HQLAs	100%
Give Level 2A assets get Level 1 or Level 2A assets	0%
Give Level 2A assets get Level 2B assets	35%
Give Level 2A assets get non-HQLAs	85%
Give Level 2B assets get HQLAs	0%
Give Level 2B assets get non-HQLAs	50%
Covered institution will receive Level 1 assets but has rehypothecated the counterparty's collateral and the collateral will not be returned within 30 days	0%
Covered institution will receive Level 2A assets but has rehypothecated the counterparty's collateral and the collateral will not be returned within 30 days	15%
Covered institution will receive Level 2B assets but has rehypothecated the counterparty's collateral and the collateral will not be returned within 30 days	50%
Covered institution will receive non-HQLAs but has rehypothecated the counterparty's collateral and the collateral will not be returned within 30 days	100%
Foreign Central Bank Borrowings	
	As specified in the liquidity standards of the foreign jurisdiction. If there are none, then it is treated as a secured funding transaction.

Other Outflows	
Other outflows excluding operating expenses	100%

VI. INFLOWS BY TRANSACTION TYPE

The rule identifies classes of inflows and specific inflow rates for numerous sub-classifications of transactions within these classes. While there is some consistency in the judgments underlying these individual inflow rates, the rates do not lend themselves to simple rules of thumb. The following table identifies the LCR inflow rates by class and subclass. Unless otherwise specified, transactions mature within 30 days of the calculation date.

Inflows exclude:

1. Transactions with consolidated subsidiaries of the institution and between consolidated subsidiaries of the institution;
2. Amounts held in operational deposits at other regulated financial institutions;
3. Amounts due on forward sales of mortgage loans and derivatives that are mortgage commitments;
4. Amounts available from credit or liquidity facilities;
5. The amount of any eligible HQLA and any amount payable to the institution with respect to that HQLA;
6. Amounts payable on nonperforming assets and assets that the institution has reason to believe will become nonperforming within 30 days; and
7. Amounts with no maturity date or that mature more than 30 days after the calculation date.

Inflows

TRANSACTIONS	INFLOW RATES
Derivatives-Net	
Net receipts under master netting agreement	100%
Net receipts in principal exchanges in FX transactions	100%
Retail	
Payments due from retail customers	50%
Unsecured Wholesale Funding	
Payments due from financial sector entities	100%
Payments due from non-financial sector entities (excludes payments on revolving credit facilities)	50%

Securities	
Payments due on securities owned that are not eligible HQLAs	100%
Secured Lending	
Payments due where the collateral has been rehypothecated and will not be returned within 30 days	0%
Payments due where collateral is not HQLAs and it is still held by the covered institution	100%
Other secured lending transactions secured by Level 1 assets	0%
Other secured lending transactions secured by Level 2A assets	15%
Other secured lending transactions secured by Level 2B assets	50%
Other secured lending transactions secured by non-HQLAs	100%
Asset Exchanges	
Covered institution will receive assets but has rehypothecated the counterparty's collateral and the collateral will not be returned within 30 days	0%
Give Level 1 assets get Level 1 assets	0%
Give Level 1 assets get Level 2A assets	15%
Give Level 1 assets get Level 2B assets	50%
Give Level 1 assets get non-HQLAs	100%
Give Level 2A assets get Level 1 or Level 2A assets	0%
Give Level 2A assets get Level 2B assets	35%
Give Level 2A assets get non-HQLAs	85%
Give Level 2B assets get HQLAs	0%
Give Level 2B assets get non-HQLAs	50%
Broker-Dealer Segregated Accounts	
Projected amount to be released based on assuming inflows and outflows under the rule	100%
Other Inflows	
Other inflows not specified above	0%

VII. MODIFIED LIQUIDITY COVERAGE RATIO

Depository institution holding companies that are not covered by the standard LCR but that have total consolidated assets of \$50 billion or more must calculate the LCR on the last day of each calendar month, rather than on a daily basis. In addition, for these holding companies, the applicable total net cash outflow amount is only 70% of its otherwise calculated net cash outflow amount.

VIII. SHORTFALLS

Covered institutions must report shortfalls in their LCR to their regulators. For monthly calculators, each shortfall must be reported and the institution must consult with the regulator to determine whether a plan for achieving compliance will be required. For daily calculators, a compliance plan is required if the shortfall continues for three consecutive days.

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