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The Liquidity Coverage Ratio and the Net Stable Funding Ratio

Issue Overview

Federal bank regulators have issued final rules implementing the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR) for large banks. This *In Focus* explains the rationale behind these liquidity rules and how they work.

Liquidity

What Is Liquidity? Liquidity is a term that can apply to assets, markets, or firms. An asset is liquid if it is easily bought and sold (i.e., converted into cash). Markets are liquid if there are many ready buyers and sellers. A firm is liquid if it holds liquid assets or has ample access to cash, and it is illiquid if it cannot sell (or borrow against) assets to raise cash.

From a bank's perspective, holding liquid assets helps ensure that it will reliably meet cash flow needs, which may be variable and unpredictable. The cost of holding liquid assets is that they have a lower expected rate of return than less liquid assets, holding other characteristics constant. If the primary function of banks is to transform deposits into loans, the broader impact of requiring banks to hold more liquid assets is that they will hold fewer loans, which are generally illiquid. By contrast, requiring them to hold more deposits would not interfere with that primary function.

How Do Banks Access Liquidity? Banks may hold cash outright or as reserves at the Federal Reserve (Fed). Alternatively, banks can sell assets to meet cash-flow needs, but to do so quickly the assets must be liquid. Banks can also borrow to raise cash, in some cases by pledging their assets as collateral. Banks can borrow from private investors through repurchase agreements (repos) or by issuing commercial paper or bonds. Banks can also borrow from other banks (e.g., through the federal funds market). Short-term borrowing is inexpensive and therefore popular but can dry up quickly in a market downturn, causing a liquidity crisis. Alternatively, banks can borrow from public sources, such as by obtaining advances from a Federal Home Loan Bank or from the Fed's discount window. Borrowing from the Fed is minimal in normal conditions.

What Is the Difference Between Liquidity and Capital?

Banks hold capital to absorb unexpected losses, which cannot be borne by deposits or debt. If capital is entirely depleted, liabilities exceed assets and a bank is insolvent. Banks face liquidity risk because they fund long-term assets (e.g., loans) with short-term liabilities (e.g., demand deposits). Some funding sources are more stable than others, and stable sources are relatively more costly, holding other characteristics constant. If a bank cannot borrow or sell assets to meet cash needs, it is illiquid. A bank can be illiquid without being insolvent, although market concerns about the latter can cause the former.

Why Was Liquidity an Issue in the 2007-2009 Financial Crisis? Firms are unable to borrow if creditors believe, rightly or wrongly, that they will not be repaid on time and in full. If this happens widely, market demand for liquidity can exceed private supply. A key feature of the 2007-2009 financial crisis was the sudden inability of financial firms, particularly those reliant on short-term borrowing, to access private liquidity. As a result, some firms failed and others sold assets at "fire sale" prices, further depressing markets.

"The financial crisis provided a devastating reminder that liquidity distress at a large bank can quickly metastasize into broader fire sales and run dynamics.... [T]he resilience of the banking system during the COVID-19 crisis can be seen as a validation of the new capital and liquidity framework."
—Fed Governor Lael Brainard, October 20, 2020

Background on the Rules

Why Were These Rules Adopted? In response to acute liquidity shortages and asset "fire sales" during the crisis, 27 countries agreed in 2010 to modify the Basel Accords, which are internationally negotiated bank regulatory standards. "Basel III" included liquidity standards for the first time: the LCR to ensure that banks have enough liquid assets and the NSFR to ensure that banks have reliable funding sources in a stressed environment. The LCR addresses the asset side of the balance sheet, and the NSFR addresses the liability/equity side.

Basel III also includes capital requirements that the United States has already implemented. In addition, P.L. 111-203 (Dodd-Frank Act) requires heightened prudential standards, including liquidity standards, for large banks and non-banks that have been designated as "systemically important financial institutions."

Who Is Subject to the Rules? The rules apply to the largest U.S. bank holding companies and U.S. operations of foreign banks. A more stringent version applies to the nine most systemically important banks and any bank with over \$75 billion in weighted short-term wholesale funding (wSTWF). A less stringent version applies to other banks with over \$250 billion in assets. The least stringent version applies to banks with over \$100 billion in total assets and \$50 billion in wSTWF. The less stringent versions of the rules currently apply to 11 banks. Although regulators examine all banks to ensure sufficient liquidity, these rules do not apply to credit unions or community banks.

When Do the Rules Come Into Effect? The LCR came into effect January 1, 2015, and was fully phased in January 1, 2017. The NSFR comes into effect July 1, 2021.

Liquidity Coverage Ratio

How Does the LCR Work? The rule aims to require banks to hold enough “high-quality liquid assets” (HQLA) to match net cash outflows over 30 days in a hypothetical scenario of market stress where creditors are withdrawing funds. An asset can qualify as HQLA if it has lower risk, has a high likelihood of remaining liquid during a crisis, is actively traded in secondary markets, is not subject to excessive price volatility, can be easily valued, and is accepted by the Fed as collateral for loans. HQLAs must be “unencumbered.” For example, they cannot already be pledged as loan collateral.

Different types of assets are relatively more or less liquid, and there is disagreement on what the cutoff point should be to qualify as HQLA under the LCR. In the LCR, eligible assets are assigned to one of three categories. Assets assigned to the most liquid category are given more credit toward meeting the requirement, and assets in the least liquid category are given less credit.

What Types of Assets Can Be Used to Meet the Rule?

HQLAs include bank reserves, U.S. Treasury securities, certain securities issued by foreign governments and companies, securities issued by U.S. government-sponsored enterprises, certain investment-grade corporate debt securities, and equities that are included in the Russell 1000 Index. Securities issued by financial institutions do not qualify as HQLA, however, because regulators believe that they are susceptible to becoming illiquid in a financial crisis. Under P.L. 115-174, municipal bonds (issued by state and local governments) that are liquid and investment grade qualify in the least liquid category.

How Many Banks Already Met the LCR Rule?

According to a Fed memorandum, 70% of banks subject to the LCR already met its requirements at the time the rule was finalized. The Fed estimated that, overall, banks that did not meet the LCR faced a shortfall of \$100 billion.

Net Stable Funding Ratio

How Does the NSFR Work? The rule requires banks to have a minimum amount of stable funding backing their assets over a one-year horizon. Different types of funding and assets receive different weights based on their stability and liquidity, respectively, under a stressed scenario. The rule defines funding as stable based on how likely it is to be available in a stressed environment and classifies assets by type, counterparty, and time to maturity. Assets that do not qualify as HQLA under the LCR require the most backing by stable funding under the NSFR.

What Types of Funding Can Be Used to Meet the Rule?

Long-term equity gets the most credit under the NSFR, insured retail deposits get the next most, and other types of deposits and long-term borrowing get less credit. Borrowing from other financial institutions, derivatives, and certain brokered deposits cannot be used to meet the rule.

How Many Banks Already Meet the NSFR Rule?

According to a Fed memorandum, almost all 20 of the banks were already in compliance. For firms not already in

compliance, the regulators estimate a shortfall in stable funding of \$10 billion to 30 billion, and it would cost them \$80 million to \$250 million annually to come into compliance.

Policy Issues

Are the Rules Necessary? Because banks can always meet their liquidity needs by borrowing from the Fed (or a Federal Home Loan Bank), a case can be made that it is unnecessary to require banks to hold liquid assets. (Only depository subsidiaries can borrow from the Fed, whereas the rules also apply to the holding company. Therefore, this argument does not apply to the holding company.)

Furthermore, borrowing from the Fed does not restrict banks' capacity to hold loans, whereas the opportunity cost of holding liquid assets is that it reduces the amount of loans they can hold, all else equal. Both the Fed and other policymakers have sought to discourage Fed lending in normal market conditions, however. These rules reduce the likelihood that banks will need to borrow from the Fed.

Should the Rules Have Been Limited to Large Banks?

All banks—large and small—face liquidity risk, but these rules apply only to the largest banks. The argument that the rules would reduce the need for Fed lending is also applicable to small banks. In contrast, differences in the funding structure of small and large banks mean that the typical small bank has more stable funding than the typical large bank. According to Federal Deposit Insurance Corporation data, small banks generally rely more heavily on deposits, which are viewed as a stable source of funding, and less on “volatile liabilities” as a source of funding. (Not all deposits are equally stable, however.) Further, while banks of all sizes are susceptible to liquidity crises, crises at large banks are more likely to have spillover effects that could pose systemic risk. For those reasons, the benefits of exempting small banks from these rules may outweigh the costs, particularly if their compliance costs are higher. Even if policymakers agreed that small banks should be exempted, there is the issue of whether the statutory exemption level should have been raised from \$50 billion to \$250 billion, pursuant to P.L. 115-174. Policymakers debated whether exempting these banks was appropriate.

Could the Rules Have Unintended Consequences?

Failure to maintain the required ratios could trigger a run if creditors viewed it as a sign of weakness. Alternatively, if banks felt compelled (by regulators or for reputational reasons) to maintain the ratios during crises, it could result in “fire sales” of illiquid assets, which could have spillover effects for firms holding similar assets. Finally, if the overall supply of HQLA is limited, the LCR could cause banks to buy up a significant fraction of those assets, thereby reducing liquidity—and perhaps increasing volatility—in the markets for those assets. There have been a few (short-lived) episodes of asset market volatility since the rules were implemented, but observers disagree on whether they were caused by regulation.

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