LIQUIDITY REGULATION, BANK CAPITAL, AND MONETARY POLICY

Testimony before the
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INTRODUCTION

I am pleased to be invited to testify today before the Senate Committee on Banking, Housing, and Urban Affairs on "Bank Capital and Liquidity Regulation." In response to the 2007-09 credit turmoil, regulators in the United States and abroad strengthened bank capital requirements and introduced two new regulations intended to manage liquidity risk: the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR). My remarks today will focus on the LCR because it is the first of the new liquidity regulations to be put into effect and is supposed to be fully phased in by 2017.

In the aftermath of the credit turmoil, the Basel Committee on Banking Supervision and the Dodd Frank Act recommended that bank regulators adopt a new short-term requirement to promote liquidity resilience. U.S. bank regulators announced the new liquidity coverage ratio requirement in September 2014.

The LCR requirement may be said to update reserve requirements as a liquidity management regulation in three ways. First, the LCR requirement can be satisfied with securities earning a market rate of interest, instead of bank reserves that historically have paid below market interest. Second, the LCR requirement can be satisfied with a wide range of securities appropriately rated and capped according to their perceived liquidity. Third, the LCR requirement mandates that banks hold a stock of so-called high-quality liquid assets (HQLA) sufficient to meet projected net cash outflows over a 30-day period. The ratio of HQLA over projected net cash outflows must exceed unity; hence, the regulation is known as the liquidity coverage ratio requirement.

The LCR requirement is being introduced to facilitate banking liquidity in two senses—on the asset side, to better pre-position liquid assets on bank balance sheets, and on the liability side, to better guard against liquidity risks due to the use of uninsured wholesale short-term funding of bank assets.

I make two broad points in this regard. First, modern monetary policy utilizing interest on reserves is far less burdensome and a more efficient alternative to LCR requirements as a means of pre-positioning liquid assets on bank balance sheets. Second, simple sufficiently-elevated bank capital leverage ratio requirements are far less burdensome and a more efficient alternative to LCR requirements as a means of guarding against wholesale liquidity funding risks.

Section 1 provides some perspective on the complexity of the rules involved in calculating LCR requirements that introduce significant new burdens of enforcement for regulators and compliance costs for banks.

Section 2 points out operational complications involved in employing the LCR over time to pre-position liquid assets on bank balance sheets in the manner of its reserve-requirement antecedent. It explains that, as a means of pre-positioning liquidity on bank balance sheets, monetary policy utilizing interest on reserves is preferable to the LCR because monetary policy can do so in the requisite quantity, without new rules and regulations, and without encumbering the reserve liquidity itself.

Section 3 addresses liquidity funding risks due to banks' reliance on uninsured short-term wholesale funding in money markets. It explains the recycling of funds from low interest retail deposits through money markets to wholesale funding, in part, as an arbitrage around costly bank regulations. Thus, simple sufficiently-elevated capital leverage ratio requirements that incentivize banks to manage their liquidity funding risks prudently, with minimally intrusive rules and regulations, are to be preferred to the more burdensome LCR requirement alternative.

1) LIQUIDITY COVERAGE RATIO REQUIREMENT RULES

The LCR is an extraordinarily complex regulation to implement. The complexity may be appreciated by the notice of the final LCR rule published in the *Federal Register*, which explains the final LCR rules in over 100 pages of response to around 300 comments on the initial proposal.[2] A presentation produced by Davis Polk and Wardwell LLP to help its clients comply with the LCR requirement incredibly takes 100 detailed slides to explain the final LCR rules.[3] There are 31 separate sections in the Davis Polk table of contents with headings such as: Which Organizations are Affected, When is the LCR Calculated, General Eligibility Criteria for HQLAs, Operational Requirements for Eligible HQLAs, HQLAs: Level 1 Assets, HQLAs: Level 2A Assets, HQLAs: Level 2B Assets, Denominator of LCR: Total Net Cash Outflow Amount, Prescribed Outflow and Inflow Rates, Falling Below 100% LCR During Periods of Stress, Basel Committee's Public Disclosure Standards for the LCR…

Large, internationally active, or otherwise systemically important banking organizations are required to calculate their LCR each business day, with lower degrees of compliance required of less systemically important banks. To appreciate the level of detail involved in the computation of the LCR, consider in turn the numerator and the denominator of the calculation.

With regard to the numerator, bank assets are sorted into numerous buckets with varying discounts and caps for qualifying as HQLA based on the perceived robustness of their liquidity. For instance, level 1 assets include bank reserves and U.S. Treasury securities; level 2A assets including certain securities issued by U.S. government sponsored enterprises get a 15% discount when counted as HQLA and are capped at 40% of total HQLA; level 2B assets including some liquid and marketable corporate securities and some publicly traded common stocks get a 50% discount and are capped at 15%, and so on...

The denominator is calculated by adding up a bank's obligations and means of funding, multiplying each by an applicable outflow or inflow rate set by regulators on the basis of a combination of experience during the 2007-09 credit turmoil, banks' internal stress scenarios, and pre-existing supervisory standards. There are numerous obligation and funding categories and multiplier rates. For example, stable and fully insured retail deposits are multiplied by a 3% outflow rate; wholesale funding secured by overnight Treasury repurchase agreements is multiplied by a 0% outflow rate; undrawn committed lines extended by a bank to a wholesale non-financial entity are multiplied by a 30% outflow rate; payments contractually payable to a

[2] "Liquidity Coverage Ratio: Liquidity Risk Measurement Standards; Final Rule," *Federal Register*, Volume 79, Number, 197, Friday October 10, 2014, Rules and Regulations, pp. 61440-541.
[3] "U.S. Basel III Liquidity Coverage Ratio Final Rule, Visual Memorandum," Davis Polk and Wardwell LLP, September 23, 2014

bank from non-bank wholesale counterparties are multiplied by a 50% inflow rate, provided that with respect to revolving credit facilities, the amount of the existing loan is not included in the unsecured wholesale cash inflow amount and the remaining undrawn balance is included in the outflow amount. The fraction of outflows that can be offset with potential inflows is capped at 75%. Such is the complexity of the LCR calculation.

2) PRE-POSITIONING LIQUIDITY ON BANK BALANCE SHEETS: LCR REQUIREMENTS VS MONETARY POLICY

The pre-positioning of liquid assets on bank balance sheets via LCR requirements shares well-known deficiencies of reserve requirements as a means of liquidity provision. The most fundamental problem in employing the LCR is how high to set the required liquidity coverage itself. Set too high, the requirement may bind too tightly in aggregate, routinely elevating the implicit yield on liquidity too much, or causing the value of liquidity to spike inordinately during periods of financial stress. The result being depressed prices of illiquid assets and depressed yields on liquid assets. On the other hand, set too low the requirement may bind too loosely, in which case the burdensome complexity, enforcement, compliance costs of the LCR would count for little.

A second problem is that LCR requirements will encumber liquid assets on bank balance sheets available otherwise for banks to utilize in distress. And banks will build up excess, usable liquidity above and beyond LCR requirements. Banks' willingness to hold excess or usable liquidity under LCR requirements might even fall somewhat from what it was without the LCR.

Acknowledging the "encumbrance problem," regulators "affirm the principle that a covered company's HQLA amount is expected to be available for use to address liquidity needs in a time of stress. The agencies believe that the proposed LCR shortfall framework would provide them with the appropriate amount of supervisory flexibility to respond to LCR shortfalls."[4]

It is easy to see, however, that discretionary regulatory shortfall allowances could create problems of their own. Will regulators be lenient or reluctant to grant such allowances? Banks will find it difficult to predict regulatory inclinations; regulators, therefore, will find it more difficult to understand bank liquidity decisions. And if inadvertently made public, allowing the LCR to fall below 100% could signal a bank's weakness.

Regulators will also adjust on a discretionary basis discounts and caps on assets in the computation of HQLA, as well as outflow/inflow rates on obligation and funding categories in computing net cash outflows. Such adjustments would tighten or loosen the LCR requirement for the banking system as a whole. These discretionary adjustments could create problems reminiscent of those described above, especially if used to tighten or loosen the LCR in response to aggregate liquidity conditions. Moreover, adjusting the detailed asset, obligation, and funding computations underlying HQLA or outflow/inflow rates, or even the possibility of doing so, could complicate pricing of assets and in financial markets. Finally, new assets, obligations, and

[4] "Liquidity Coverage Ratio: Liquidity Risk Measurement Standards; Final Rule," *Federal Register,* Volume 79, Number, 197, Friday October 10, 2014, Rules and Regulations, pp. 61517-8.

funding categories will evolve over time, partly for reasons of regulatory arbitrage in response to LCR regulation, complicating matters further.

For all the complexity and seeming comprehensiveness of the LCR, monetary policy remains the indispensable and most efficient provider of ultimate liquidity to the banking system in the form of reserve balances at the central bank. Monetary policy has long stabilized interest rates by accommodating the demand for required and excess reserves in periods of banking stress. Now for the first time in the U.S., Federal Reserve monetary policy utilizing the power to pay interest on reserves acquired in 2008 has the power to pre-position unencumbered excess reserves on banking balance sheets in large quantity at market interest without reserve requirements, even as the Fed targets interest rates for other monetary policy purposes.[5] Thus, in December 2015 the Fed began to raise interest rates (by raising interest on reserves from ¼% to ½%) with around $3 trillion of excess reserves still on its balance sheet as a result of the expansion during and following the 2008 credit turmoil. The Fed will no doubt shrink aggregate bank reserves substantially as it normalizes its balance sheet. Going forward, however, monetary policy utilizing interest on reserves would be far less burdensome and a more efficient alternative to LCR requirements as a means of pre-positioning liquid assets on bank balance sheets to promote financial resilience.

3) ENSURING BANK FUNDING LIQUIDITY: LCR REQUIREMENTS VS BANK CAPITAL LEVERAGE RATIO REQUIREMENTS

The LCR is designed in part to cover liquidity funding risks due to the use of uninsured and potentially unstable short-term wholesale liabilities. In the aggregate, short-term wholesale funding comes from money markets, which are funded, in part, by attracting retail deposits away from the banking system in the first place, so retail deposits can be repackaged for higher-interest wholesale funding at banks. In effect, the recycling of funds from retail to wholesale funding via the money market is a regulatory arbitrage. Banks readily pass intermediation and regulatory costs to retail depositors in lower retail deposit rates, but must pay higher interest when competing for institutional wholesale funding. Hence, the regulatory arbitrage is naturally perpetuated. Since institutional deposits are uninsured for the most part and managed professionally, they are more prone to being withdrawn at any sign of trouble. As a consequence, the banking system incurs ever greater liquidity funding risk.

As the economy and the financial system grow over time, retail funds are increasingly placed directly in money markets where they fund longer-term less liquid assets via “shadow banks.” Nevertheless, the money market continues to be a net supplier of funds to the banking system via wholesale funding, which continues to grow steadily as a share of overall bank funding.

[5] Before 2008 without the authority to pay interest on reserves, the Fed had to maintain a *scarcity* of reserves in the banking system sufficient to force banks to bid interest rates up to the Fed’s target by competing to borrow the scarce reserves. The abundant reserves created today do not depress interest rates below interest on reserves because banks will not lend below the rate they get on reserves at the Fed. See Marvin Goodfriend, “Interest on Reserves and Monetary Policy,” *Federal Reserve Bank of New York Economic Policy Review*, May 2002, Volume 8, Number 1, pp. 77-84.

The question is: what is the best way to handle the growing funding liquidity risk in the banking system? One option is to utilize LCR requirements with all their enforcement and compliance costs, regulatory discretion complications, and market distortions outlined above.

A second option is to internalize bank balance sheet risks using simple, sufficiently-elevated bank capital leverage ratio requirements. With enough of a bank's owners' capital at stake, a bank would have the incentive to manage prudently not only its credit and market risks but its liquidity risks too, so as not to jeopardize its solvency due to a temporary loss of short-term funding. A high-enough simple, leverage ratio requirement would obviate the need for more burdensome LCR requirements. Regulatory costs would be contained, as would the regulatory arbitrage that helps perpetuate the growth of wholesale funding of banks and its attendant liquidity risks.

Moreover, a tightly binding bank capital leverage ratio requirement would deter intermediation through the more lightly regulated money markets. This it would do by attaching an elevated equity capital cost to the expansion of bank balance sheets when banks take up wholesale funding. Wholesale funding of banks would then leave money market rates commensurately lower than otherwise to cover the added balance sheet cost. Relatively lower money market rates, in turn, would deter intermediation through the more lightly regulated money markets.

In conclusion, rules and regulations should be simple enough so that bankers can manage banks without being expert in complex financial regulations. Simple, sufficiently-elevated leverage ratio requirements offer the potential for regulatory relief. A high leverage ratio requirement wouldn't disadvantage banks that chose relatively riskless assets. Institutions with safe balance sheets should not be expected to earn much higher return on equity than safe assets themselves, excess returns would come from the value added of their financial services. On the other hand, if the required leverage ratio can be pushed high enough, then banks could be allowed to choose their risk assets with minimal regulations in return for a commensurably higher return on equity. The real question is: how high should the minimum leverage ratio be set, with adequate regulatory powers for monitoring and intervention, to justify the freedom for banks to fund and deploy assets efficiently?