

Recognizing The Value Of The Central Bank As A Liquidity Backstop

Bill Nelson
June 2019

Motivation

“In current exceptional conditions, where central banks stand ready to provide extraordinary amounts of liquidity, against a wide range of collateral, the need for banks to hold large liquid asset buffers is much diminished, and I hope regulators around the world will take note.”

Mervyn King
Mansion House speech, 14 June 2012

- The liquidity of a bank depends in part on the liquidity support provided by its central bank.
- An accurate assessment of the liquidity of a bank must take that liquidity support into account.

Central banks should establish arrangements under which banks can borrow at a penalty interest rate and hold the funds in matching reserve accounts that pay a slightly lower interest rate.

Economically, the arrangement would look exactly like a line of credit with a fee equal to the difference between the two rates, but the reserves would count as level 1 HQLA under the LCR.

The arrangement would require no change to the current regulatory standard.

The liquidity coverage ratio

$$LCR = \frac{HQLA}{30 \text{ day cash outflow} - 30 \text{ day cash inflow}} > 1$$

- The liquidity coverage ratio (LCR) is a numerical liquidity standard included in Basel III, the post-crisis regulatory reforms.
- The standard requires banks to have high quality liquid assets (HQLA) sufficient to cover projected net cash outflows after 30-days of severe idiosyncratic and systemic stress.
- HQLA is defined as government securities, excess reserves, and some dogs and cats.

Capacity to borrow from central bank (1)

- How should the capacity to borrow at the central bank be treated in a liquidity requirement?
 - Central banks were established in large to provide liquidity in a crisis.
 - But many view LCR as intended to prevent borrowing from the central bank.
 - See Carlson, Duygan-Bump, and Nelson (2015) for discussion.
 - Tough question; last piece of LCR decided on by GHOS.
 - BCBS initially focused on whether pledgable assets should be HQLA, but borrowing capacity depends on central bank lending terms.

Capacity to borrow from central bank (2)

- LCR addresses borrowing capacity in four ways
 - Pledgeability to the central bank desired feature of HQLA.
 - 100 percent of loans from the central bank collateralized by non-HQLA assumed to rollover (0 percent rollover from private counterparties).
 - Committed lending facilities (CLFs) from central bank count as HQLA in countries with a shortage of government debt (Australia, South Africa)
 - Other jurisdictions can also count CLFs but only to a limited extent and on onerous terms.

Other calls for committed lines to count as HQLA

- Several researchers and policymakers have suggested CLFs should count as HQLA with fewer restrictions.
 - McAndrews and Nelson (2011) “Supply and Demand for Liquidity under the LCR”
 - Stein (2013) “Liquidity Regulation and Central Banking”
 - Mervyn King (2016) “pawnbroker of last resort.”
 - All runnable liabilities of a bank should be backed by collateral prepositioned at the central bank.
 - The “projected net cash outflows” of the LCR is similar to “all runnable liabilities.”

Synthetic Contingent Liquidity Facility (SCLF) – Illustrative terms

| | |
|--------------------|--|
| Objective | Recognizing discount window borrowing capacity as a high quality liquid asset (HQLA) in the liquidity coverage ratio (LCR) |
| Description | The facility pairs a Federal Reserve discount window lending facility and a deposit facility to create an effective line of credit from the Federal Reserve in a manner that counts as level 1 HQLA under the LCR. |
| Eligibility | Depository institutions (DIs) (banks, thrifts, credit unions, U.S. branches and agencies of foreign banks) that qualify for primary credit (that is, they are financially sound) only. |
| Size | The maximum of one half of prepositioned discount window collateral and one quarter of the bank's HQLA used to satisfy the LCR. |
| Fee | 15 bp (the difference between the lending rate and the deposit rate.) |

SCLF Lending facility (illustrative terms)

| Lending facility | |
|------------------|---|
| Authority | Standard discount window lending authority (section 10B of the Federal Reserve Act) |
| Collateral | Standard discount window collateral: essentially, all loans and securities. |
| Term | 31 days, renewed daily at the Federal Reserve Bank's discretion |
| Interest rate | Target federal funds rate plus 100 bp |
| Maximum amount | The maximum of one half of prepositioned discount window collateral and one quarter of the bank's HQLA used to satisfy the LCR. (Any of a bank's remaining lendable value not deployed under the facility would remain eligible to back traditional discount window loans.) |

SCLF – deposit facility (illustrative terms)

| | |
|-----------------------|--|
| Authority | Standard authority for the Federal Reserve to offer DIs interest-bearing DI deposits accounts (Section 19 of the Federal Reserve Act) |
| Term | Funds available on demand |
| Interest rate | Target federal funds rate plus 85 bp. (N.B. The difference between the lending rate and the deposit rate is the fee for the undrawn line.) |
| Maximum amount | The amount borrowed from the lending facility |

Benefits (1)

- *The facility would allow the central bank to charge banks for the contingency funding arrangement, reducing moral hazard and raising funds for taxpayers.*
- *The facility would promote economic growth by increasing lending to businesses and households. Using BIS analysis, GDP could be increased by $\frac{1}{4}$ to $\frac{3}{4}$ percent.*
- *The facility would promote a more level international playing field. Any central bank that is providing ongoing lending against non-HQLA collateral at an interest rate only slightly above its deposit rate is already essentially providing this facility.*
- *The facility would increase HQLA usability because supervisors could depend more on price incentives and less on badgering to encourage banks to build HQLA back up. The problem closely resembles discount window stigma.*

Benefits (2)

- *The central bank could use the facility to limit liquidity transformation in the shadow banking system, promoting financial stability. The fee is the price a bank can convert illiquid assets into liquid assets and so should be a cap on the money premium.*
- *The facility would strengthen the ability of the central bank to respond to a crisis. In advance of a crisis, the facility would encourage banks to preposition collateral and reduce discount window stigma. In a crisis, the central bank could increase the fraction of lendable value of pledged collateral that is eligible. Moreover, using the facility would simply require spending reserves, not borrowing, so stigma should not inhibit use.*
- *The facility would facilitate the conduct of monetary policy. Bech and Keister (2014) show that the demand for reserves created by the LCR can interfere with the demand for reserves to meet required reserves or avoid overdrafts. Intuitively, a CLF would give the central bank a separate tool to address the two different sources of demand. Moreover, by reducing discount window stigma, the facility should improve the effectiveness of the discount window as a monetary policy tool.*

(Misplaced) Concerns (1)

- *The facility would weaken the LCR. As noted, the facility is effectively the same as providing banks funding against non-HQLA at near the deposit rate, something already done by several major central banks. Plus, because the banks are charged a fee for the facility, they will continue to have an incentive to reduce liquidity risk.*
- *Banks would sign up but not use the facility. While this is a serious concern about committed liquidity facilities, it should not be a concern for the facility proposed here because the borrowing takes place in advance.*
- *The central bank would not be willing to enforce the financial soundness criteria in a crisis. Spending HQLA to pay off short-term creditors has the same implications for the deposit insurance fund and for remaining creditors with or without the facility. The need for prompt corrective action, and the incentives to delay, are unaffected. Efforts to promote resolvability should help.*
- *The facility would enable banks to shift risk away from short-term creditors. Unlike paying short-term creditors by borrowing from the central bank or running down HQLA, borrowing under the facility takes place in advance and so should be transparent to other creditors.*

(Misplaced) Concerns (2)

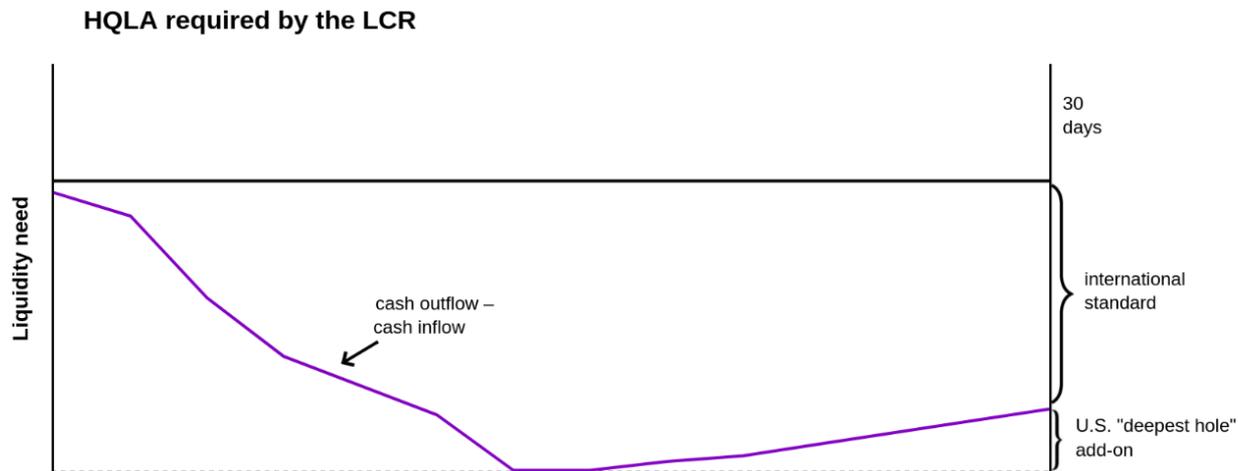
- *The facility would increase moral hazard. In fact, the facility would reduce moral hazard by forcing banks to pay for central bank liquidity support in advance, by making the liquidity support more transparent allowing longer-term creditors and the deposit insurer to adjust, and by including an above-market rate on the central bank loan to encourage prompt repayment.*
- *Banks that are bound by the leverage ratio would find the facility uneconomic. Because a bank using the facility would use the reserve balances to replace existing HQLA, a banks' leverage ratio would not change.*
- *The added reserves would complicate monetary policy. Almost all the time, the additional reserves would be matched by additional discount window loans, so the central bank balance sheet, and monetary policy, would not be effected. If a bank spent the reserves, the impact would be the same as a bank borrowing from the discount window, a contingency central banks are already able to handle.*

Monetary policy implementation framework considerations

- *A Synthetic CLF would present advantages and disadvantages as part of a monetary policy implementation framework.*
- *Advantages*
 - *Could be a stigma-free way to put a ceiling on a policy corridor*
 - *Would allow the central bank to adopt a corridor system while still providing abundant liquidity*
- *Disadvantages*
 - *Would not reduce size of the central bank's balance sheet*
 - *Would require a large amount of ongoing discount window lending*

A modest FCLF-like proposal

- The LCR Basel standard requires banks to hold enough HQLA to cover net cash outflows after 30 days.
- In the United States, banks are required to hold enough HQLA to make it to 30 days.
- The U.S. banking agencies could apply the Basel standard if the bank has enough collateral pledged to cover the difference.
- Implicitly, the bank would be anticipating borrowing from the discount window for some part of the 30 days but repaying all discount window loans by the end of 30 days.



References

Bech, Morton and Todd Keister (2014), "On the economics of committed liquidity facilities," BIS working paper No. 439, January 2014. <http://www.bis.org/publ/work439.pdf>

Carlson, Mark, Burcu Duygan-Bump, and William Nelson (2015), "Why Do We Need Both Liquidity Regulations and a Lender of Last Resort? A Perspective from Federal Reserve Lending during the 2007-09 U.S. Financial Crisis," Finance and Economics Discussion Series 2015-011. Washington: Board of Governors of the Federal Reserve System. <http://dx.doi.org/10.17016/FEDS.2015.011>.

King, Mervyn (2016), "The End of Alchemy: Money, Banking, and the Future of the Global Economy," W. W. Norton & Company.

McAndrews, James and William Nelson (2011), "Supply and Demand for Liquidity under the LCR," presented at a Federal Reserve Board conference on November 2, 2011.

Nelson, William, "Recognizing the value of the central bank as a liquidity backstop," TCH staff working paper 2017-1, January 2017. <https://www.theclearinghouse.org/-/media/tch/documents/research/articles/2017/01/2017-01-staff-working-paper.pdf>

Stein, Jeremy (2013), "Liquidity Regulation and Central Banking," speech at the "Finding the Right Balance" 2013 Credit Markets Symposium sponsored by the Federal Reserve Bank of Richmond, Charlotte, North Carolina, April 19, 2013. <https://www.federalreserve.gov/newsevents/speech/stein20130419a.htm>