Liquidity Requirements for Banks: History, Theory, and Policy

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History of Bank Liquidity Regulation

- **National Banking Era**: Macro-Prudential approach, uses cash reserves (interbank deposits) where ratio depends on position in the network (25% at top of pyramid).
- **Founding of Fed** continues this approach.
- **Reserve ratios remain important in many countries** (Vegh), but were cut in U.S. after disintermediation of 70s in U.S., and capital ratios were instituted in 1981 (reserve interest would have avoided disintermediation).
- **Basel III**: Liquidity requirements

Theory of Liquidity Regulation

- Basel Liquidity requirements are flawed
  - Based on model of independent liquidity shocks, which is not empirically valid.
  - Treats less short-term debt as equal to more cash, which is not theoretically correct (Calomiris, Heider and Hoerova).
  - Neglects importance of integrating liquidity and capital requirements within same framework.
- CHH model: focus on cash/debt ratio requirement, where role of cash alongside equity is to manage default risk optimally, as well as exogenous liquidity risk.

Theory of Liquidity Regulation (Cont'd)

- Cash has key advantages over book equity for prudential purposes which makes it a key regulatory tool:
  - It is not an accounting fiction
  - It raises lower bound of liquidation value, which has positive incentive effects on risk management
  - It has option value in bad states (when debt capacity can abruptly disappear)

Getting Real About Systemic Risk

- The 2007-2009 crisis wasn't much about derivatives clearing and settlement problems. Neither was it about "daisy chains" or nodes or networks.
  - These are politically convenient distractions, which are also great play toys for economists working for regulators.
- The politically inconvenient truth is that the crisis was mainly about **real estate risk concentration (mainly risky MBS initially)**, reflecting political push for risky mortgage finance.
  - Non-diversifiable risk, central to business cycle, hard to liquidate in a serious downturn.
- Interbank market collapsed from allowing declines in banks' economic capital to go unchecked => intolerable increases in counterparty risk over two years. Lehman was a match in a tinder box.
- Further propagation via other real estate exposures.

Real Regulatory Reform

- **Higher book equity:** 10% of assets for large banks, 7% for small, and commensurately higher RWA ratios (e.g., 15% and 10%).
- **CoCos for large banks:** In addition to book equity requirements, link dilutive CoCo conversion to economic (market-based) measures of capital ratios at a high trigger, with CoCos required to be 10% of assets (Calomiris and Herring proposal).
- **Cash requirements:** Impose a significant minimum cash assets /debt requirement.
- **RE Risk concentration limits:** As we used to do, limit banks' exposure to real estate risk (MBS and loans). Eliminate subsidies for risk in mortgage finance.

Getting Real About Systemic Risk

All Domestic U.S. Banks (First Week of Year)

	Cash+Treasuries/Assets	Real Estate Loans/Assets
1973	27.5%	15.7%
1980	23.5%	19.7%
1987	23.2%	21.9%
1994	30.1%	30.4%
2001	20.0%	33.2%
2008	**15.8%**	**42.7%**
2015	32.2%	32.5%

Getting Real About Systemic Risk

Large U.S. Banks (First Week of Year)

	Cash+Treasuries/Assets	Real Estate Loans/Assets
1973	NA	NA
1980	NA	NA
1987	19.9%	20.0%
1994	25.8%	26.8%
2001	17.2%	26.1%
2008	**13.5%**	**32.6%**
2015	30.4%	22.8%

Getting Real About Systemic Risk

Small U.S. Banks (First Week of Year)

	Real Estate Loans/Assets
1973	15.7%
1980	19.7%
1987	29.6%
1994	47.9%
2001	52.4%
2008	**74.0%**
2015	64.6%

Reinstate Cash Asset Requirements and Real Estate Loan Limits: <u>A Start</u>

For large banks: 25% required reserve at Fed, paying fed funds rate (10 bps less on excess). (**Not binding and helps hugely with Fed's exit problem**.)

For large banks: 25% of assets cap on real estate loans and MBS (phased in, not very binding.)

For small banks: 20% required reserve. (**Not binding**.)

For small banks: 50% cap (still way too high) on real estate lending and real estate-related securities (requires phased in downward adjustment of ratio).

Pushes some real estate funding into capital markets, insurance companies that rely on long-term debt, and results in greater diversification, separates RE from payments and commercial credit systems.

What About Political Reality?

The reason we pushed banks and GSEs into real estate finance was that they can be manipulated politically (chartered and regulated). How could we satisfy political constraints with more stability?

Along with limits on bank real estate exposures, eliminate credit risk subsidies (cruel and destabilizing lottery-tickets for poor) by winding down FHA, FHLBs, and F & F.

Down-payment matching payments targeted to low-income first-time home buyers would be stabilizing, effective, with desirable consequences for less distortions of leverage and home prices.