

EVALUATING THE INTEGRATION OF LIQUIDITY  
NORMS INTO SURVEILLANCE OF BANK CAPITAL

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## STEPS IN TODAY'S TALK

1. **THEORY:** Define 'financial innovation' in terms of its impact on **liability structure**; insist on a **robust and dynamic definition** of liability structure that emphasizes concerns about **firm funding and asset market liquidity, refinancing risk, and short-term funding**.
2. **ASSERTION:** (i) Bank regulators are trying to elevate the status of **liquidity management** in asset-liability regime for banks (proxies = short-term debt); (ii) it is a **good idea**; and (iii) they will have only **limited success**.
3. **EXAMPLES/EVIDENCE**
  - **Substitutability:** Some regulators are viewing capital adequacy and liquidity as somewhat interchangeable standards.
  - **Liability structure in financial reform:** Highlight parts of the Dodd-Frank Act that target liability structure and short-term debt.
  - **Basel Liquidity Coverage Ratio and the Net Stable Funding Ratio:** A statement of cash flows approach; mandate for hedge finance.

# INNOVATION AS LIABILITY STRUCTURE (THEORY)

Hyman Minsky, “Financial Intermediation in the Money and Capital Markets” (1967)

*“Capitalism is essentially a financial system”.*

*“What ‘finance’ properly means is that the decision to invest is also a decision to emit particular liabilities.”*

*“It is impossible to draw a meaningful investment demand function without simultaneously specifying the liabilities that will be emitted.”*

# WHY DOES LIABILITY STRUCTURE MATTER SO MUCH?

**BUSINESS MODEL CONSTRAINTS:** Liability structure is a firm's 'short-run' because it imposes constraints that will drive the firm's actions.

*“Each liability emitted by a firm carries with it an explicit contractual or a contingent payment commitment. To the decision-maker, the price for not meeting these commitments, the cost of default or of a forced reduction in dividends, is high.” (HM)*

**CREDITOR PROTECTION:** Losses financed by debt are more serious from a stability perspective than losses 'pre-funded' by equity set aside to cover (expected) unexpected losses.

# CONCEPTUAL ROLE OF LIABILITY STRUCTURE

*Capitalism > Finance > Financial firms > Their liability structure > Particular liabilities*

**FOREST**

Financial instability

**TREES**

Financial intermediaries

**BRANCHES**

**Liability structure**

**LEAVES**

Hedged/speculative/Ponzi

**LIQUIDITY REGULATION MAP OF BANK FUNDING**

<b>ASSETS</b>		<b>LIABILITIES</b>	
<u>Reserve requirements</u>		<b>Demand deposits</b>	
		<u>Limits on inter-bank liabilities</u>	
		<u>Brokered deposit limits</u>	
		<u>Warnings and prudential advisories</u>	
		<u>Conversion to on-balance sheet credit equivalent</u>	
		<b>EQUITY</b>	
		<u>Regulatory capital regime</u>	
		<u>Individual bank restraints: capital restoration plans; limits on asset growth; increased oversight.</u>	

Subjective assessments by examiners about liquidity and interest mismatches

## **INNOVATION IMPLICATION**

*Bank run*

*Deregulation*

- *S and L Crisis (1980s/90s)*

- *Disintermediation*

*New Products*

-*Securitization*

-*Enron (2001)*

-*AIG (2008)*

*Collateral market*

-*Bear Stearns (2008)*

## **LIABILITY**

Sudden debt maturity

Asset-liability mismatch

Deposit run-off/reliance  
on wholesale funding

Inadvertent recourse

OBS risk

Cont. swap liabilities

Run on repo market creates

# WHAT IS DIFFERENT ABOUT THE NEW LIQUIDITY APPROACH?

Regulators **did** take note of the liquidity and leverage dynamics that the last crisis revealed.

Expression of new awareness:

- (i) willingness to impose holistic **bright-line liquidity ratios** (rather than subjective assessments) on the balance sheet as a whole;
- (ii) attempts to test the **quality** of balance sheet capital (not just the quantity); and
- (iii) expanded use of **liability structure metrics** in regulation

However, the **political will** to give effect to the learning about leverage and liquidity probably cannot overcome industry resistance through lobbying.

# SUBSTITUTABILITY BETWEEN LIQUIDITY AND CAPITAL ADEQUACY

Recent proposals by central banks designed to encourage lending by private banks reflect an integration of liquidity and capital.

*Trade capital for liquidity* - Fed Governor Dan Tarullo: Fed might be willing to relax capital requirements for banks that maintained an adequate liquidity buffer.

*Trade liquidity for capital* - Bank of England Governor Mark Carney: banks with adequate capital could lower holdings of liquid investments so as to invest in higher-yielding securities.

# DODD-FRANK ACT

- 1. Liability 'internalities'**: Adds non-deposit liabilities to deposit insurance assessment base; expands notion of credit exposure in Bank Holding Company Act; off-balance sheet liabilities considered more fully for capital and systemic risk decisions.
- 2. Using liability structure to determine which nonbank firms pose systemic risks**: Four of the 11 factors used to determine whether a non-bank financial company poses a threat to financial stability are different aspects of liability structure (§113(a)):
  - 'extent of leverage'
  - extent and nature of the off-balance sheet exposures,'
  - 'amount and types of the liabilities'
  - 'amount and nature of financial assets'

## DODD-FRANK ACT (cont.)

3. Limits **short-term debt** of systemically relevant firms.
4. **Liquidity war games:** stress-testing requirements for large banking organizations
5. **Elaboration and extension** of regulatory capital framework
  - More **nonbank financial institutions** in the net of regulatory capital and liquidity requirements
  - Establishes **new floor** for minimum capital requirements
  - Mandates that capital requirements take account of **systemic risk**
  - Mandates that capital requirements be made **counter-cyclical** so as to mitigate financial cycles
  - Disqualifies **trust-preferred securities** from regulatory capital status

## BRIEF CONCEPTUAL HISTORY OF REGULATORY CAPITAL (U.S.)

- Before 1985:** subjective assessments by regulators of capital adequacy; Fed experiments with risk-based framework.
- 1985:** Uniform guidelines adopted by U.S. regulators; rise of regulatory capital balance sheet based **ratios** and **hierarchy of loss-bearing instruments**.
- 1988/1991:** Basel I and the Federal Deposit Insurance Corporation Improvement Act; institutionalize **risk-based capital** for all banks (not just global banks); accounting for OBS items; **risk-weighting** of assets; focus on **credit risk**.
- 1996:** **Market risk** amendment to Basel I; introduction of bank **self-assessment** of risk.
- 2004:** Basel II: **internal models**; expansion of self-assessment; **operational risk**.
- 2010:** Basel III: **leverage ratio**; new capital buffers; **liquidity and funding** rules

# CONTEXT FOR REGULATORY CAPITAL

1. The traditional difference in **regulatory capital requirements based on business model** – broker-dealer, commercial bank, or insurance company - is giving way to norms that attempt to generalize risk-based capital notions across business model.
2. As part of that breakdown, **bank risk-based capital rules** are increasingly influential even as the business of banking is changing.
3. The emphasis on **liquidity-related concerns** is the latest unpacking of financial risk.

# **NEW STANDARDS TO PROMOTE FUNDING STABILITY**

Basel III proposes two new requirements designed to promote stability in a **bank's short-term funding** - a Liquidity Coverage Ratio ('LCR') and a Net Stable Funding Ratio ('NSFR').

## **LCR: asset-side constraint**

- Immediate-term, i.e., 30 days.
- Liquidity tax

## **NSFR: liability-side constraint**

- Short-term, i.e., one year; money market maturity
- Maturity tax

# LCR (BEAR STEARNS PROVISION)

**Goal:** Ensure that bank has enough liquid assets on-hand in order to honor its obligations for 30 days, without access to refinancing.

## Method

1. **Identify liquidity gap:** calculate the amount by which liquidity outflows exceed 75% of liquidity inflows on a monthly basis.
2. Cover that gap by holding **highly liquid assets**.
3. **Classify assets** by their degree of liquidity

# LIQUIDITY CLASSIFICATION OF ASSETS

- **Cash, deposits at central banks, and some sovereign obligations** would qualify as highly liquid assets.
- Assets eligible as collateral with central bank or exchange-traded instruments.
- Most assets issued by commercial banks, investment firms, financial holding companies, insurance companies would **not** qualify as highly liquid assets; neither would assets issued by a parent or subsidiary of the bank.
- **Asset ‘haircuts’**: The compliance value of particular assets is discounted, probably influenced by the SEC’s net capital rule approach.

# DILUTION OF LCR THROUGH INDUSTRY RESISTANCE

## INDUSTRY RESPONSE

There is a shortage of liquid assets.

## RESULTING COMPROMISE

- A **wider range of assets** will qualify as ‘highly liquid,’ including equities and mortgage-backed securities, as haircut.
- **Lower estimate of run-off rates** will reduce the volume of liquidity outflows, hence reducing the amount of highly liquid assets needed.
- The requirements are phased in **incrementally** so that the standard enter into force gradually, starting at 60% in 2015 and rising to 100% only in 2019.

# NSTF CALCULATION

1. **Classifies assets** how much of their value could **NOT** be converted into cash through sale or loan.
1. The sum of those amounts (**illiquidity charges**) is summed to generate the amount of 'required stable funding.'
2. Determines the stability of funding in terms of its permanence, callability, and the identify of the provider.
3. **Discounts** funding by run-off risk.
  - 100% credit:** Tier 1 and 2 capital plus preferred stock with a maturity of over one year.
  - 90% credit:** demand deposits
  - 50% credit:** unsecured funding provided by non-financial corporations or central banks
  - 0% credit:** funding provided by another financial institution counts.

# NSTF CALCULATION

$$\frac{\text{REQUIRED STABLE FUNDING}}{\text{AVAILABLE STABLE FUNDING}} > 100\%$$

## CORE CHANGE IN ASSET LIABILITY STRUCTURE?

- **Illiquid by design:** Designed to be illiquid, banks have traditionally borrowed funds at **short-terms** (whose rollover would expose the bank to interest-rate and funding risk) and lent funds at longer-terms often at fixed rates.
- Taken together, the LCR and the NSFR suggest the possibility of altering the traditional asset-liability structure of banks.
- Impairment of **liquidity and maturity transformation?**

**THANK YOU**