Banks, Central Banks and Financial Market Infrastructure

“Turbulent Markets: Clearing, Settlement, and Counterparty Risk”

Loyola University Chicago, Center for Integrated Risk Management and Corporate Governance

October 30, 2008

Robert S. Steigerwald
Financial Markets Group
Federal Reserve Bank of Chicago
Banks, Central Banks and Financial Market Infrastructure

“Turbulent Markets: Clearing, Settlement, and Counterparty Risk”

Loyola University Chicago, Center for Integrated Risk Management and Corporate Governance

The opinions expressed herein are solely those of the author and not necessarily those of the Federal Reserve Bank of Chicago or the Board of Governors of the Federal Reserve System.
Financial Market Infrastructure

- FINANCIAL CONTRACT SETTLEMENT
Financial Market Infrastructure

- FINANCIAL CONTRACT SETTLEMENT
- ACCESS TO CENTRAL BANK ACCOUNT SERVICES
Financial Market Infrastructure

- FINANCIAL CONTRACT SETTLEMENT
- ACCESS TO CENTRAL BANK ACCOUNT SERVICES
- POLICY TRADE-OFFS
Financial Market Infrastructure

- **FINANCIAL CONTRACT SETTLEMENT**
  - The “value chain” of trade execution and post-trade processes
Financial Market Infrastructure

- FINANCIAL CONTRACT SETTLEMENT
  - The “value chain” of trade execution and post-trade processes

Trade Execution
Financial Market Infrastructure

- FINANCIAL CONTRACT SETTLEMENT

- The “value chain” of trade execution and post-trade processes
Financial Market Infrastructure

- **FINANCIAL CONTRACT SETTLEMENT**
  - The “value chain” of trade execution and post-trade processes
Financial Market Infrastructure

- **FINANCIAL CONTRACT SETTLEMENT**
  - The “value chain” of trade execution and post-trade processes
    - Settlement
Financial Market Infrastructure

- FINANCIAL CONTRACT SETTLEMENT

  - The “value chain” of trade execution and post-trade processes

    - Settlement = Discharge
Financial Market Infrastructure

- **FINANCIAL CONTRACT SETTLEMENT**
  - The “value chain” of trade execution and post-trade processes
  - Settlement = Discharge = Payment
Financial Market Infrastructure

**FINANCIAL CONTRACT SETTLEMENT**

- The “value chain” of trade execution and post-trade processes
  - Settlement = Discharge = Payment = Transfer of a “Settlement Asset”
Financial Market Infrastructure

- FINANCIAL CONTRACT SETTLEMENT
  - The “value chain” of trade execution and post-trade processes
  - What is a “Settlement Asset?”
    
    “[A]n asset used for the discharge of settlement obligations as specified by the rules, regulations or customary practice for a payment system.”

Financial Market Infrastructure

**FINANCIAL CONTRACT SETTLEMENT**

- The “value chain” of trade execution and post-trade processes
  - Bank credit as a settlement asset
Financial Market Infrastructure

**FINANCIAL CONTRACT SETTLEMENT**

- The “value chain” of trade execution and post-trade processes
  - Bank credit as a settlement asset

“Contemporary monetary systems are based on the mutually reinforcing roles of *central bank money* and *commercial bank monies.*”

Financial Market Infrastructure

**FINANCIAL CONTRACT SETTLEMENT**

- The “value chain” of trade execution and post-trade processes
  - Bank credit as a settlement asset

“The widespread use of central bank money as a settlement asset reflects its overall qualities of safety, availability, efficiency, neutrality and finality.”

Financial Market Infrastructure

**FINANCIAL CONTRACT SETTLEMENT**

- The “value chain” of trade execution and post-trade processes
  - Bank credit as a settlement asset
    - Core Principle VI
Financial Market Infrastructure

**FINANCIAL CONTRACT SETTLEMENT**

- The “value chain” of trade execution and post-trade processes

- Bank credit as a settlement asset

  “Assets used for settlement should *preferably be a claim on a central bank*; where other assets are used, they should carry little or no credit risk and little or no liquidity risk.”

CPSS, *Core principles for systemically important payment systems* (2001)
Financial Market Infrastructure

- **FINANCIAL CONTRACT SETTLEMENT**
  - The “value chain” of trade execution and post-trade processes
    - Bank credit as a settlement asset
  - Alternative standards
Financial Market Infrastructure

- **FINANCIAL CONTRACT SETTLEMENT**
  - The “value chain” of trade execution and post-trade processes
    - Bank credit as a settlement asset
      - Relationship to account access policies
Financial Market Infrastructure

- ACCESS TO CENTRAL BANK ACCOUNT SERVICES
Financial Market Infrastructure

- **ACCESS TO CENTRAL BANK ACCOUNT SERVICES**

  - **LIMITED ACCESS**
    - Hong Kong,
    - United Kingdom,
    - United States

  - **EXPANDED ACCESS**
    - Eurozone Countries
      - (Belgium, Germany, and Luxembourg),
      - and Switzerland

  - **BROAD ACCESS**
    - Canada
    - Japan
Financial Market Infrastructure

**ACCESS TO CENTRAL BANK ACCOUNT SERVICES**

- Limited access (U.S.)

  - “Depository institutions” (Federal Reserve Act)

  “Individuals and institutions that do not take deposits are not generally permitted direct access to Federal Reserve payment services. . . .”

Financial Market Infrastructure

- ACCESS TO CENTRAL BANK ACCOUNT SERVICES

  - Limited access (U.S.)
    - “Depository institutions” (Federal Reserve Act)
      - Securities market clearing and settlement institutions
        - Depository Trust Company and affiliates
Financial Market Infrastructure

- ACCESS TO CENTRAL BANK ACCOUNT SERVICES
  - Limited access (U.S.)
    - “Depository institutions” (Federal Reserve Act)
      - Special-purpose clearing and settlement institutions
        - CLS Bank International (FX settlements)
Financial Market Infrastructure

- ACCESS TO CENTRAL BANK ACCOUNT SERVICES
  - Limited access (U.S.)
    - “Depository institutions” (Federal Reserve Act)
      - Derivatives market clearing and settlement institutions
        - CME Clearing House Division
        - The Options Clearing Corporation
Financial Market Infrastructure

- ACCESS TO CENTRAL BANK ACCOUNT SERVICES
  - The growing importance of non-bank financial institutions and clearing and settlement institutions
Financial Market Infrastructure

ACCESS TO CENTRAL BANK ACCOUNT SERVICES

- The growing importance of non-bank financial institutions and clearing and settlement institutions

“... it is widely accepted that exchanges, CCPs [central counterparties], and CSDs [central securities depositories], do form the infrastructure underlying the operation of financial markets throughout the world, not least because of their importance to the functioning of the markets.”

Ruben Lee, Managing Director, Oxford Finance Group, Market infrastructure institutions: Definitions and governance matters
Financial Market Infrastructure

- **ACCESS TO CENTRAL BANK ACCOUNT SERVICES**
  - The growing importance of non-bank financial institutions and clearing and settlement institutions
  - 1987 Market Break
Financial Market Infrastructure

- ACCESS TO CENTRAL BANK ACCOUNT SERVICES
  - The growing importance of non-bank financial institutions and clearing and settlement institutions
    - 1987 Market Break
    - 1989 Drexel Burnham Lambert
Financial Market Infrastructure

- ACCESS TO CENTRAL BANK ACCOUNT SERVICES

- The growing importance of non-bank financial institutions and clearing and settlement institutions
  - 1987 Market Break
  - 1989 Drexel Burnham Lambert
  - 2008 Bear Stearns, Lehman Brothers, AIG . . . .
Financial Market Infrastructure

- Policy Trade-offs
Financial Market Infrastructure

- POLICY TRADE-OFFS
  - Financial stability
Financial Market Infrastructure

- POLICY TRADE-OFFS
  - Financial stability
  - Moral hazard and related policy considerations
Financial Market Infrastructure

- **POLICY TRADE-OFFS**
  - Financial stability
  - Moral hazard and related policy considerations
  - Competitive implications
Financial Market Infrastructure

- Policy Trade-offs
  - Financial stability
  - Moral hazard and related policy considerations
  - Competitive implications
  - Efficiency
Financial Market Infrastructure

- Policy Trade-Offs
  - Financial stability
  - Moral hazard and related policy considerations
  - Competitive implications
  - Efficiency
  - Practicality, cost
Banks, Central Banks and Financial Market Infrastructure

“Turbulent Markets: Clearing, Settlement, and Counterparty Risk”

Loyola University Chicago, Center for Integrated Risk Management and Corporate Governance

October 30, 2008

Robert S. Stegerwald
Financial Markets Group
Federal Reserve Bank of Chicago