Unintended Consequences of Financial Innovation and Regulation: A Comment on Gorton and Muir’s “Mobile Collateral versus Immobile Collateral”

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Overview: Historical Parallels to Today

• Challenges to understand consequences of financial innovation
  – Demand deposits versus currency in 19th century
  – Securitization and convenience yield of “safe” assets

• Unintended consequences of “good” regulation
  – Treasury-bond backing of private money ties up “safe” collateral to reduce bank panics
  – But how does market respond to “immobilizing” safe collateral?
  – Is there an offset to an “artificial scarcity” of safe collateral that could reduce the safety of the system?
Parallels to Response to Titanic

• International Convention for Safety of Life at Sea
• Regulatory response: “Lifeboats for all”
Unintended consequence

- Eastland disaster, Chicago, 1915
How to assess financial innovation and regulation?

• Innovation as well as regulation can change correlations and behavior
  – 1) Can change historical correlations so there may be less relevant data than there appears to do risk modeling
  – 2) Can result in new interconnections and/or regulatory incentives that make the system more vulnerable to a common risk factor

• Thus, should evaluate innovation and regulation from these perspectives (see Kroszner 2012)
How to assess financial innovation and regulation?

• Innovation Example: Mortgage Securitization
  – Securitization helped to create a national housing market out of a “autarkic” local markets
    • “Completing” the market
  – But the benefits of geographical diversification were lower in an integrated market
    • Changed correlations
  – And greater vulnerability to common shock
    • Created fragile interconnections
• ➔ Illusion of safety and liquidity
How to assess financial innovation and regulation?

- Regulation Example: “Immobile” collateral and LCR
  - Require “high quality liquid assets” (HQLA) to back bank activity (private money creation in 19th century)
  - Provide insurance against liquidity shocks
    - Would have been valuable in recent financial crisis
  - But will this change correlations, behavior, and the usefulness of eligible assets as liquidity insurance?
    - Tie up safe collateral so provide incentives to produce privately apparently “safe” assets to offset artificial “scarcity”
    - Cause common “firesale” of assets designated has HQLA in stress times

- Illusion of safety and liquidity
What is a “safe” asset?

• Government securities?
  – Safety can change over time

• Can the private sector produce safe assets?
  – Deposits (backed by loans but with government deposit insurance)
  – AAA-rated corporates
  – AAA-rated MBS/ABS “structured products”
  – Money-like debt (Repo, CP, MMFs)
  – ➔ “Shadow banking” safe?
  – ➔ What to include as high quality liquid assets (HQLA)?
  – ➔ Illusion of safety? Illusion of liquidity?
Definition from Gorton-Muir and Gorton-Lewellen-Metrick

Figure 1: Composition of Privately-Produced Safe Debt (% of Total Privately-Produced Safe Debt)
Perceptions of risk can change rapidly

**Figure 1**
Decline in Mortgage Credit Default Swap ABX Indices
*(the ABX 7-1 series initiation in January 1, 2007)*

*Source: LehmanLive.*

*Note: Each ABX index is based on a basket of 20 credit default swaps referencing asset-backed securities containing subprime mortgages of different ratings. An investor seeking to insure against the default of the underlying securities pays a periodic fee (spread) which—at initiation of the series—is set to guarantee an index price of 100. This is the reason why the ABX 7-1 series, initiated in January 2007, starts at a price of 100. In addition, when purchasing the default insurance after initiation, the protection buyer has to pay an upfront fee of \((100 - \text{ABX price})\). As the price of the ABX drops, the upfront fee rises and previous sellers of credit default swaps suffer losses.*
“Shadow banking” grew post-WWII, but traditional banking is reviving post-crisis (see Pozar et al. 2012, Goldman Sachs 2015, and Kroszner 2015)
Importance of Temporary Liquidity Guarantee Program (TLGP) in easing Crisis
Summary Policy Implications

• Crucial to consider changes in correlations and behavior that are associated with financial innovation and regulation changes
  – 1) How relevant are the pre-innovation or pre-regulatory reform data for assessing impacts?
  – 2) How do these changes affect interconnections and vulnerabilities to a common shock?
  – 3) What are the incentives to “offset” regulatory changes, e.g., private production of seemingly “safe” assets that can reduce rather than increase soundness of the system?

• Try to avoid unintended consequences -- the Eastland