Unintended Consequences of Financial Innovation and Regulation: A Comment on Gorton and Muir's "Mobile Collateral versus Immobile Collateral"

Randall S. Kroszner
University of Chicago, Booth School of Business
and NBER

June 2015

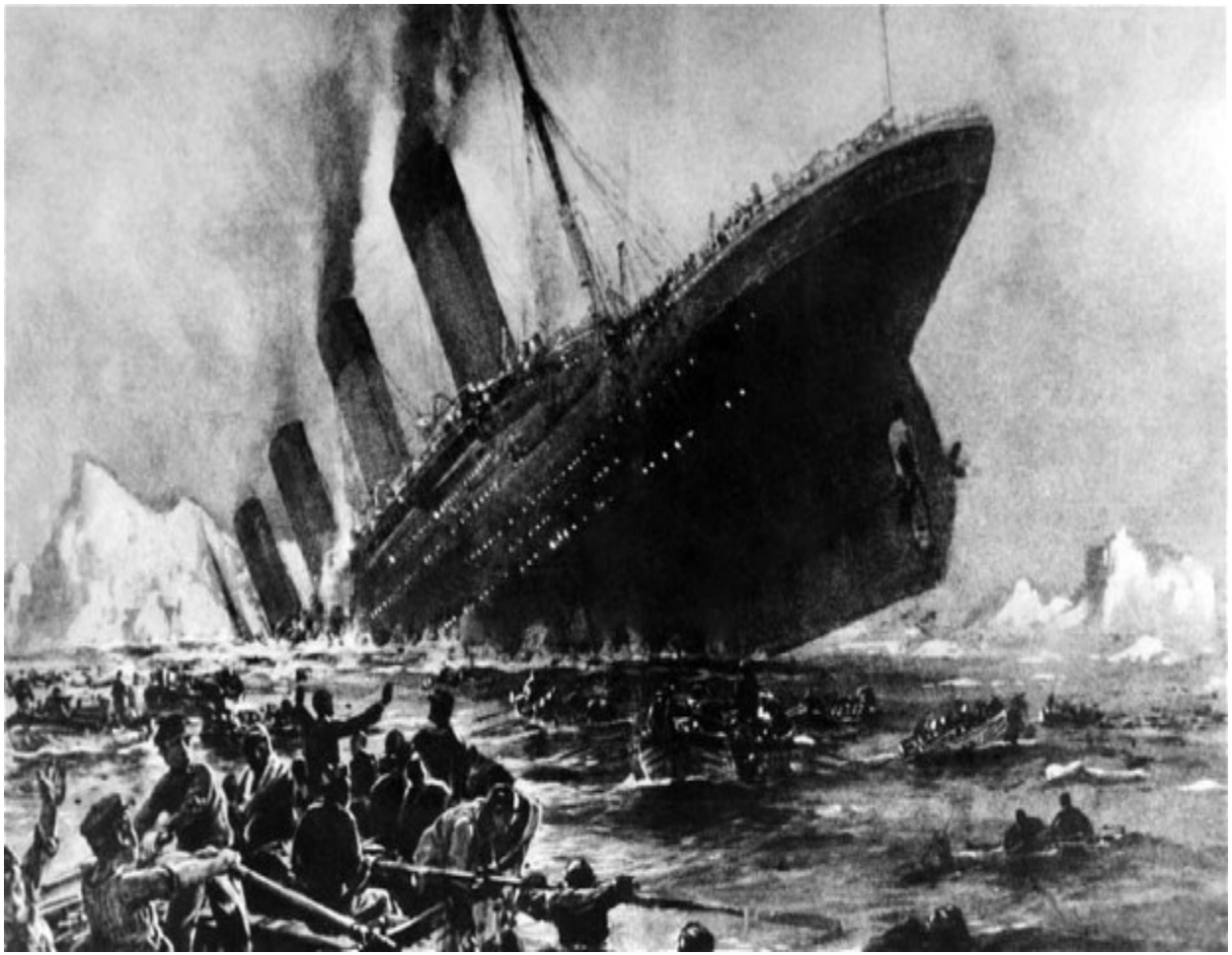
CHICAGO BOOTH

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?

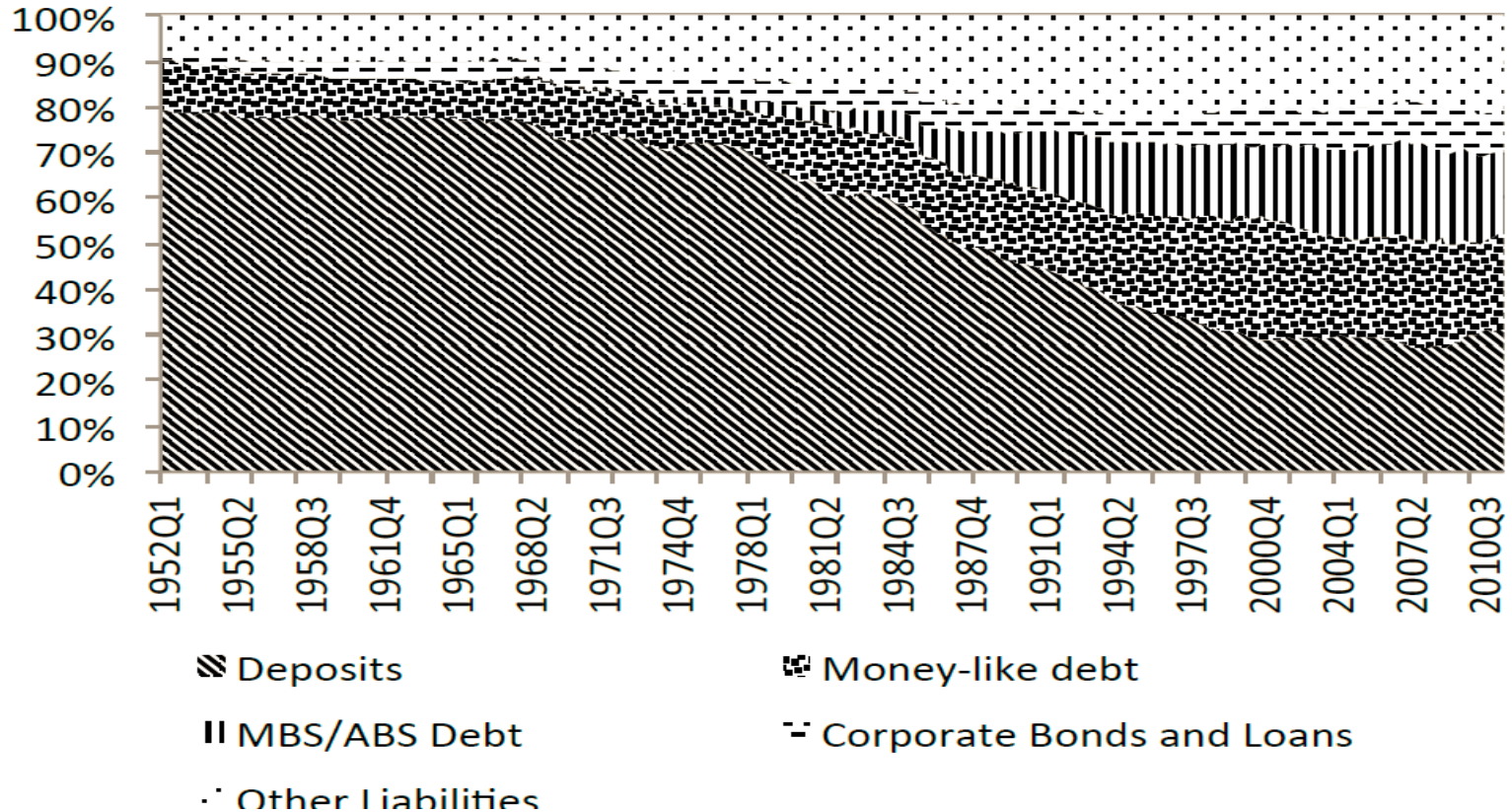
- Regulation Example: "Immobile" collateral and LCR
  - Require "high quality liquid assets" (HQLA) to back bank activity (private money creation in 19th century)
  - Provide insurance against liquidity shocks
    - Would have been valuable in recent financial crisis
  - But will this change correlations, 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)

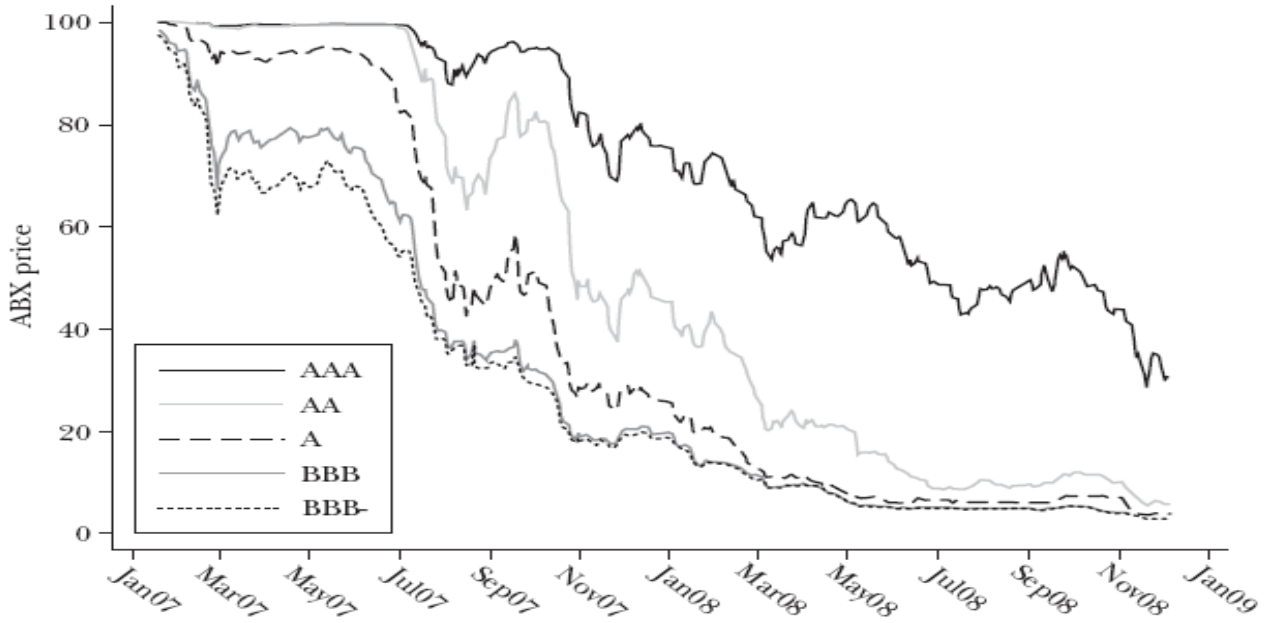


Perceptions of risk can change rapidly

Figure 1

Decline in Mortgage Credit Default Swap ABX Indices

(the ABX 7-1 series initiated in January 1, 2007)

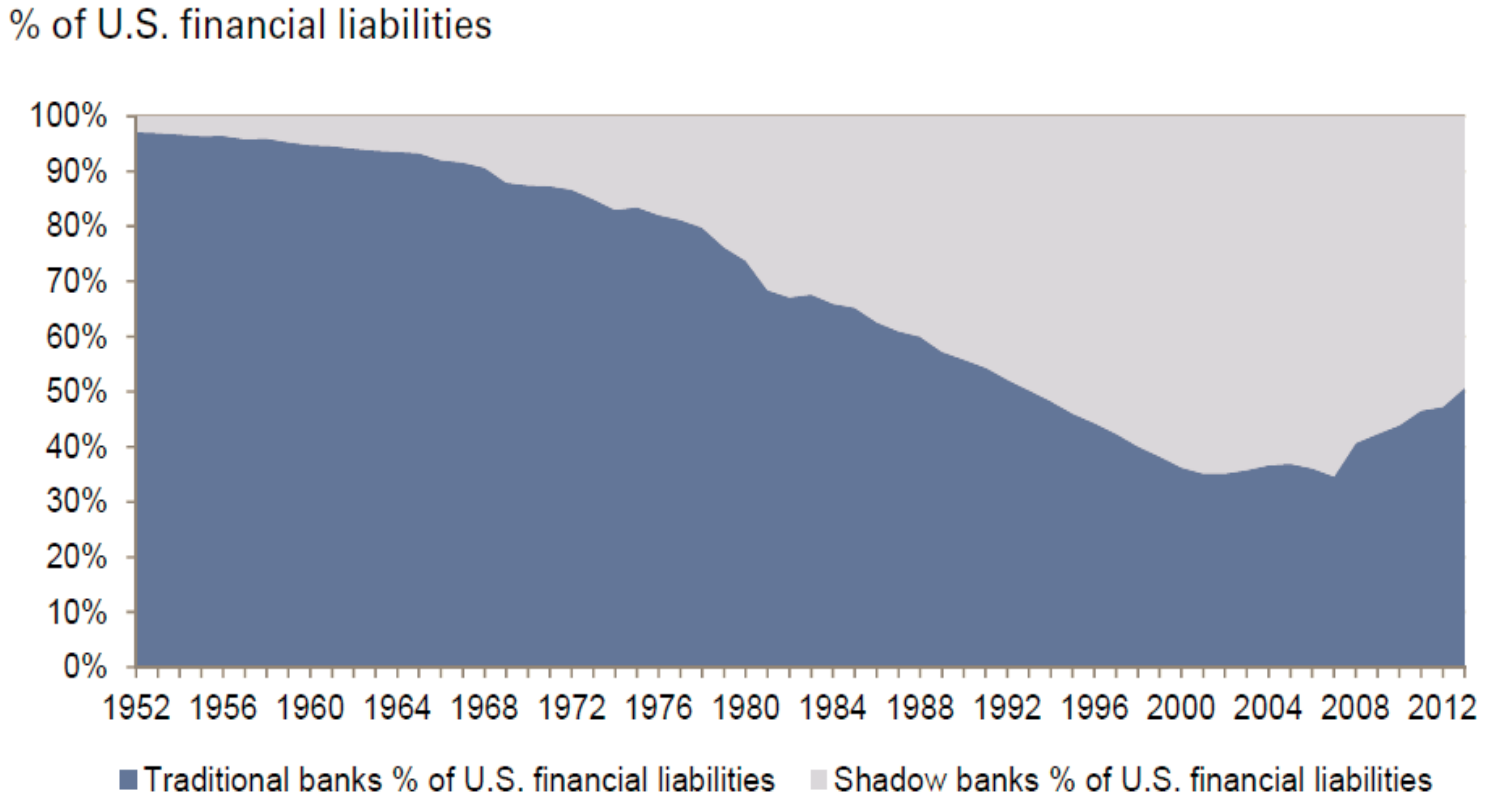


Source: LehmanLive.

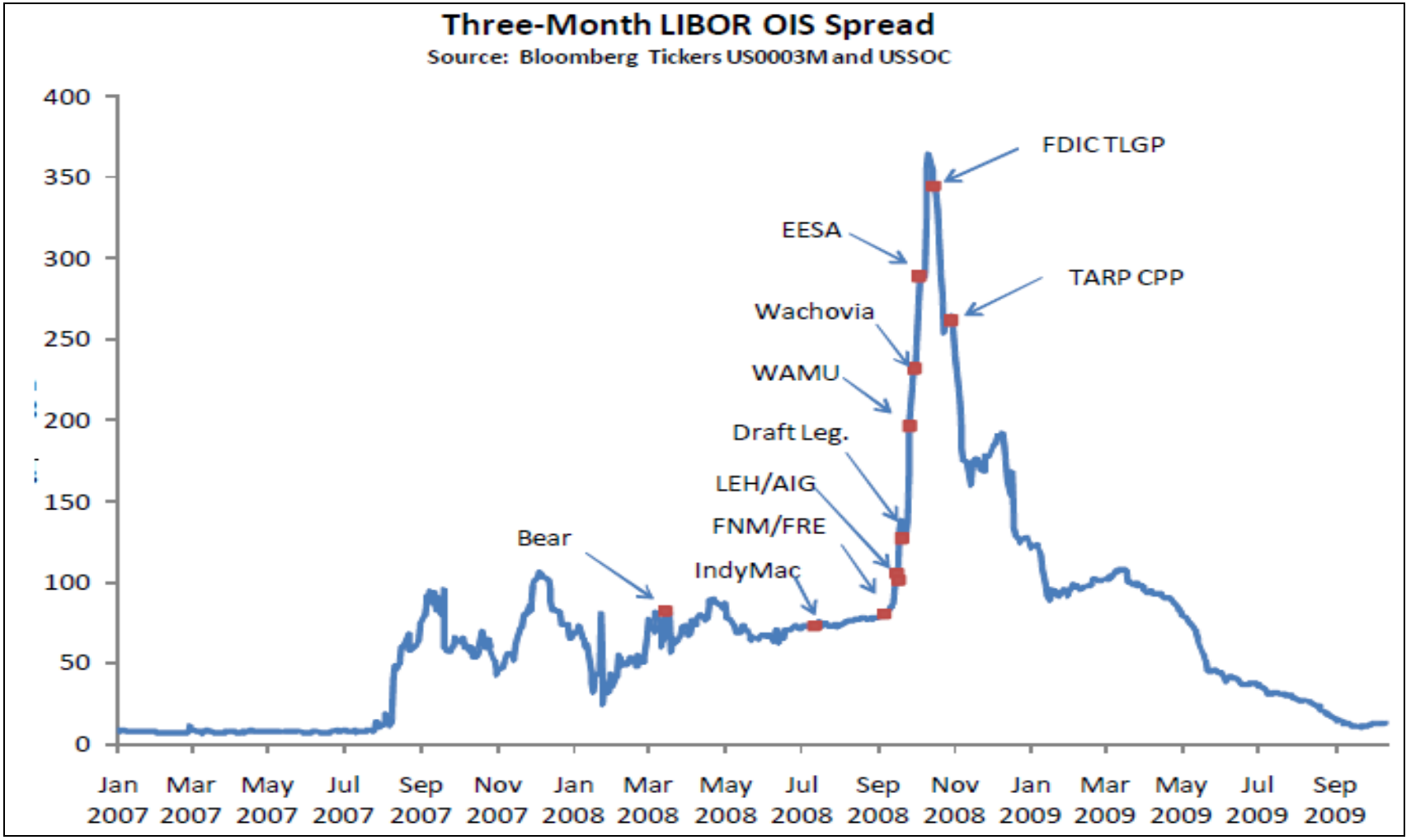
Note: Each ABX index is based on a basket of 20 credit default swaps referencing asset-backed securities containing subprime mortgages of different ratings. An investor seeking to insure against the default of the underlying securities pays a periodic fee (spread) which—at initiation of the series—is 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 – 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