Lecture 16: Gorton, Part II

ECON 43370: Financial Crises

Prof. Eric Sims

University of Notre Dame

Fall 2026

The Timing of Crises

In National Banking Era, crises followed business cycle peaks in a systematic way

Leading indicator: liabilities of failed businesses

- Why? These liabilities are assets for banks
- When banks assets turn bad, people start to get nervous

Post-Fed Crises

Crises are slower and less visible

Traditional dating: there should have been a panic in 1920 based on correlations from National Banking Era

- There was a recession in 1920-21
- But no financial crisis

Traditional signal would have predicted a crisis in December 1929

- But panics didn't start until Fall of 1930

People wait

Stigma

Banks fear that borrowing from the Fed will be interpreted as a sign of weakness

Stigma: banks are willing to pay higher rates to avoid using the discount window

Fed really didn't understand this stigma in the Great Depression

Ways to deal with stigma:

- Force everyone to take money (TARP 2008)
- Extend credit via scheduled auctions with many participants (e.g., Term Auction Facility)

Lucas Critique

"Given that the structure of an econometric model consists of optimal decision rules of economic agents, and that optimal decision rules vary systematically with changes in the structure of series relevant to the decision maker, it follows that any change in policy will systematically alter the structure of econometric models." (Lucas 1976)

Applications:

- Forecasting panics
- The Phillips Curve (i.e., $\pi_t = -\theta\left(u_t - u_t^*\right) + \pi_{t+1}^e$)

Debt During Crises

Livingston Doctrine (1857): systemic crises are exceptional circumstances

Debt should be treated differently during a crisis: debt contracts should not be enforced

One wants to discourage this (e.g., penalty interest rates or not allowing dividend payments during suspension)

Part of the reason why: during crises, it is hard to figure out who is (and isn't) solvent. During fire sales, market prices may not reflect fundamentals

Section 13(3)

Added to the Federal Reserve Act in 1932: allow Fed to extend emergency credit to individuals, partnerships, and corporations in unusual and exigent circumstances

- Doesn't exactly define a crisis, other than "unusual and exigent."
- Allows for Fed to serve as lender of last resort beyond the traditional banking system
- Some restrictions were loosened in early 1990s

Modified due to Dodd-Frank (2010): required programs to have "broad-based" eligibility and required Treasury Secretary approval

The Quiet Period: 1934-2007

Stable era without any systemic financial crises in US

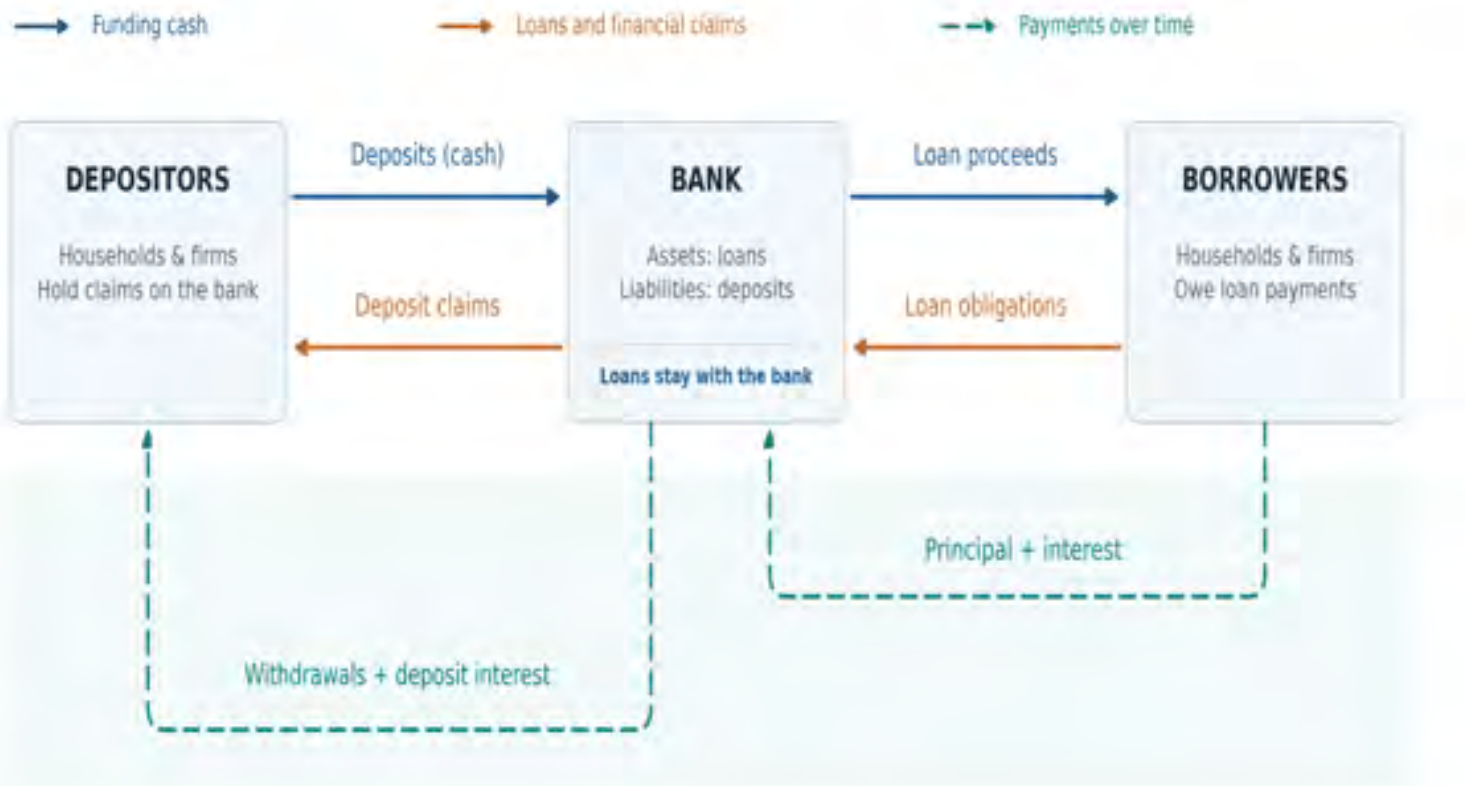
Traditional, "originate to hold" intermediation

Deposit insurance, supervision, and regulation shaped the system

Traditional banking

Originate and hold

Deposits fund the bank; the bank holds the loans on its balance sheet.



Stylized funding relationships; capital, reserves and other bank activities are omitted.

The arrows do not impose a timing sequence: bank lending can itself create deposits.

Sources: Gorton & Metrick (2010), Regulating the Shadow Banking System; Bank of England (2014), Money creation in the modern economy.

Why the Quiet Period Worked

Deposit insurance: discouraged runs

Limits to competition protected profits and create charter value

Charter value discouraged excessive risk-taking

Charter Value

"The history of banking in the United States implicitly revolves around a conflict between charter value, which creates an incentive for banks to not become too risky, and competition, which creates risk. If a bank is deemed insolvent, it loses its charter and the protections that come with it, so the higher a bank's charter value, the higher the incentive it has to avoid risk. But as companies without bank charter compete with banks by offering the same services, the value to a bank of having a charter decreases, and to compete and stay afloat, a bank must take on more risk." (pg. 126-27)

Why the Quiet Period Broke

High inflation/interest rates undermined interest rate caps

New competition from non-bank intermediaries (e.g., MMFs)

Institutional investors and non-financial firms need safe, liquid, interest-bearing deposit-like instruments

In a sense, banking outgrew its traditional protections

"This new banking system followed the 3-6-3 paradigm, but it was not the old banking tradition. So their liabilities were not insured and they were vulnerable to panic." (pg. 133)

Why traditional banking became modern banking

Demand and supply behind the rise of securitized banking



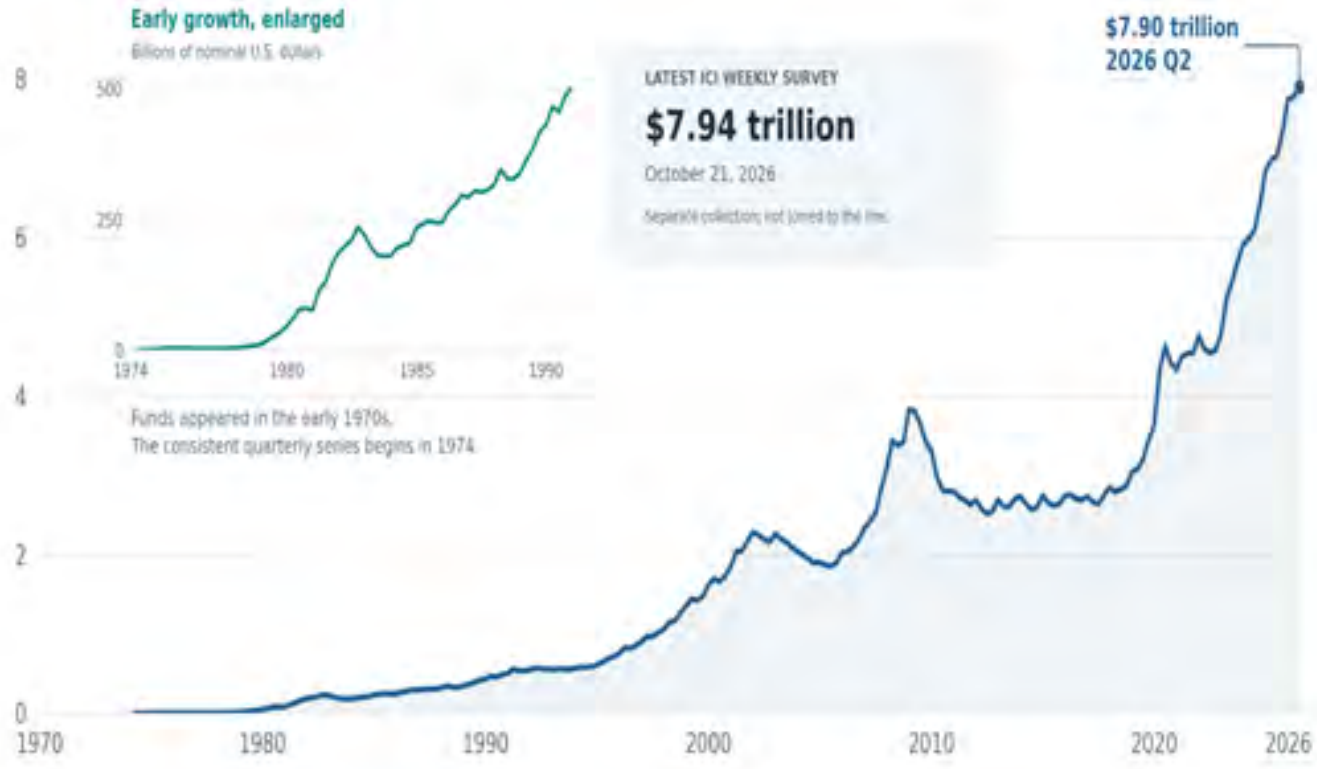
Money market funds appear on both sides: they invest cash and compete with bank deposits.

Chapter 9 framework: Gorton, Misunderstanding Financial Crises. Supporting analysis: Gorton & Metrick (2010); Gorton (2010, 2013) interviews.

The growth of U.S. money market mutual funds

Total assets of publicly offered funds | Quarterly history, 1974-2026

Trillions of nominal U.S. dollars



Source: Federal Reserve Financial Accounts via FRED, BOGZ1FL634090073Q; ICI weekly release, October 22, 2026.

Line: quarter-end financial assets, excluding nonpublic private placements. Includes government, prime, and tax-exempt funds.

Quarterly observations run from 1974 Q1 to 2026 Q2. Earlier FRED zeros are omitted because they predate consistent coverage.

The latest weekly survey uses a different collection method and is shown separately. Dollar values are not adjusted for inflation.

Data retrieved October 28, 2026

The rise of securitization relative to bank lending

Credit in securitization pools / loans held by U.S. depository institutions | Quarterly, 1970-2026

Percent of depository loans



Source: Federal Reserve Financial Accounts (September 11, 2026 release), via FRED; calculations from five quarterly stock series.

Numerator: agency/GSE mortgage pools + consolidated GSE securitization trusts + loans held by ABS issuers; a proxy for securitized credit.

Denominator: private-depository loans (banks, thrifts, credit unions, etc.); excluding federal funds and repos. This is a stock ratio, not a share of total credit.

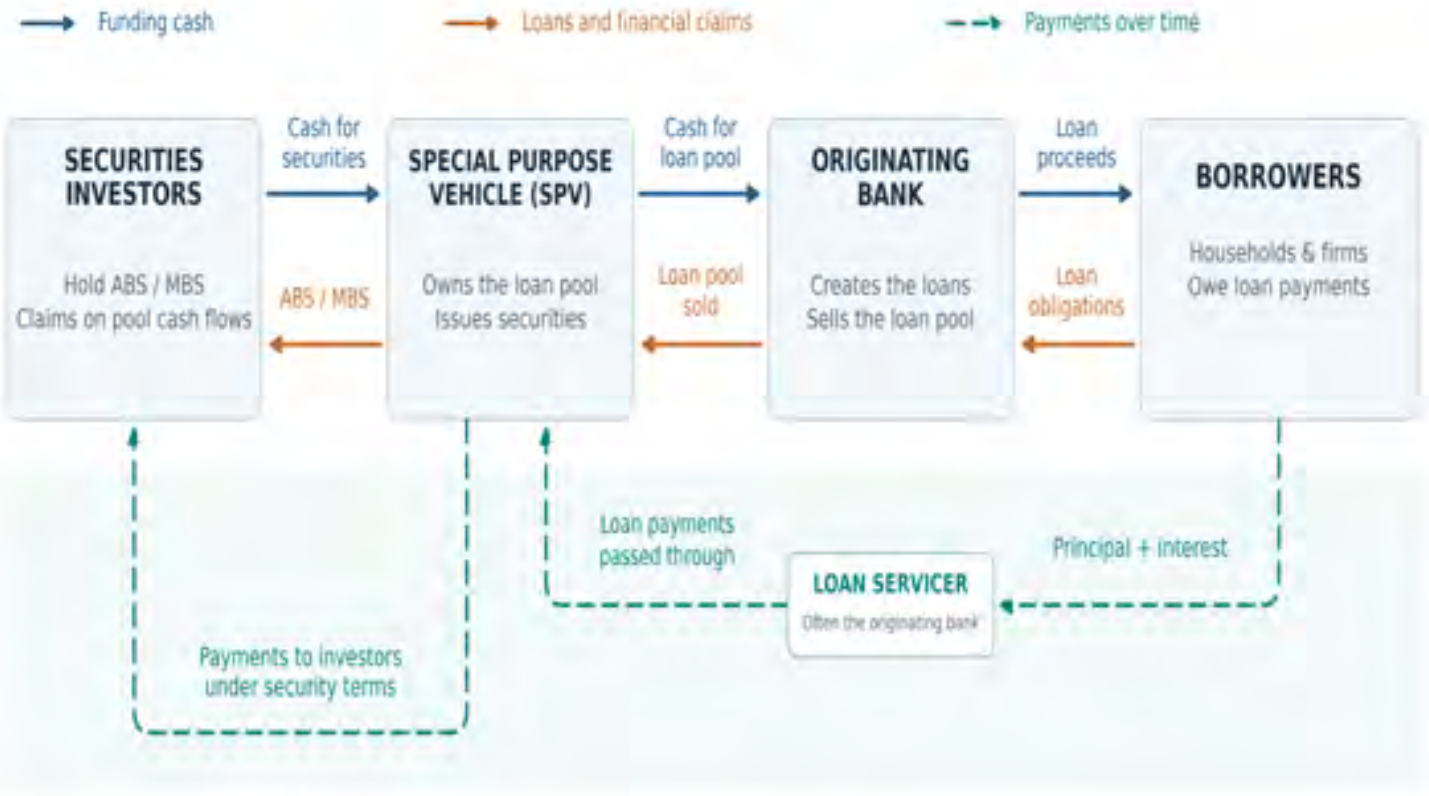
Nonagency trusts consolidated onto sponsors are excluded. The 2010 decline partly reflects accounting; the GSE-pool reclassification is corrected.

Data retrieved October 26, 2026

Modern banking: securitization

Originate and distribute

The bank originates loans, sells them to an SPV, and the SPV finances the pool by issuing securities.



ABS = asset-backed securities; MBS = mortgage-backed securities. The securities are backed by the SPV's loan pool.

Stylized true-sale securitization: the bank initially funds origination and may retain servicing or some credit exposure.

Sources: Gorton & Metrick (2010); Regulating the Shadow Banking System; SEC Investor.gov, Mortgage-Backed Securities.

“3-6-3” banking in a new guise

Hypothetical securities dealer + affiliated ABCP conduit, combined for illustration

BALANCE SHEET

$ billions | Interest rates are annual and hypothetical

ASSETS

Mortgage-backed securities (MBS) — **$100**

Claims on longer-term mortgage cash flows

6% annual yield

The intermediary holds the MBS on its balance sheet.

TOTAL ASSETS — **$100**

LIABILITIES + EQUITY

Repo borrowing — **$70**

3% rate | Overnight, collateralized by MBS

ABCP issued by the conduit — **$25**

3% rate | Assumed 30-day maturity

Equity capital — **$5**

Shareholders absorb losses first

TOTAL LIABILITIES + EQUITY — **$100**

ANNUAL NET INTEREST INCOME

$100 × 6% - ($70 + $25) × 3% = $3.15 billion

LEVERAGE

20× assets / equity

Same spread business: borrow short at 3%, hold longer-term assets yielding 6%.

Repo and ABCP must be renewed. Refusal to roll over funding can force MBS sales.

ABCP = asset-backed commercial paper. Repo and ABCP finance separate asset pools; haircuts and liquidity backstops are omitted.

Net interest assumes constant balances and rates, before credit losses, operating expenses and hedging costs. Other assets and business lines are omitted.

Sources for the mechanism: Gorton, Federal Reserve Bank of Minneapolis Interview (2010); Federal Reserve, Trading and Capital-Markets Activities Manual, §4105.1.

Deposit Insurance and Moral Hazard

Deposit insurance had been tried in the US before the FDIC at the state level (e.g., Oklahoma)

Concern was moral hazard: being insured, depositors wouldn't monitor banks

But the existence of insurance "sets in operation powerful social forces" of examination and monitoring

- By the government (the insurer)
- By other banks (in the case of private Clearinghouses)
- By the insured (to protect charter value)

Too-Big-To-Fail

Livingston Doctrine: rules are different during a crisis $\Rightarrow$ offer large, interconnected banks bailouts

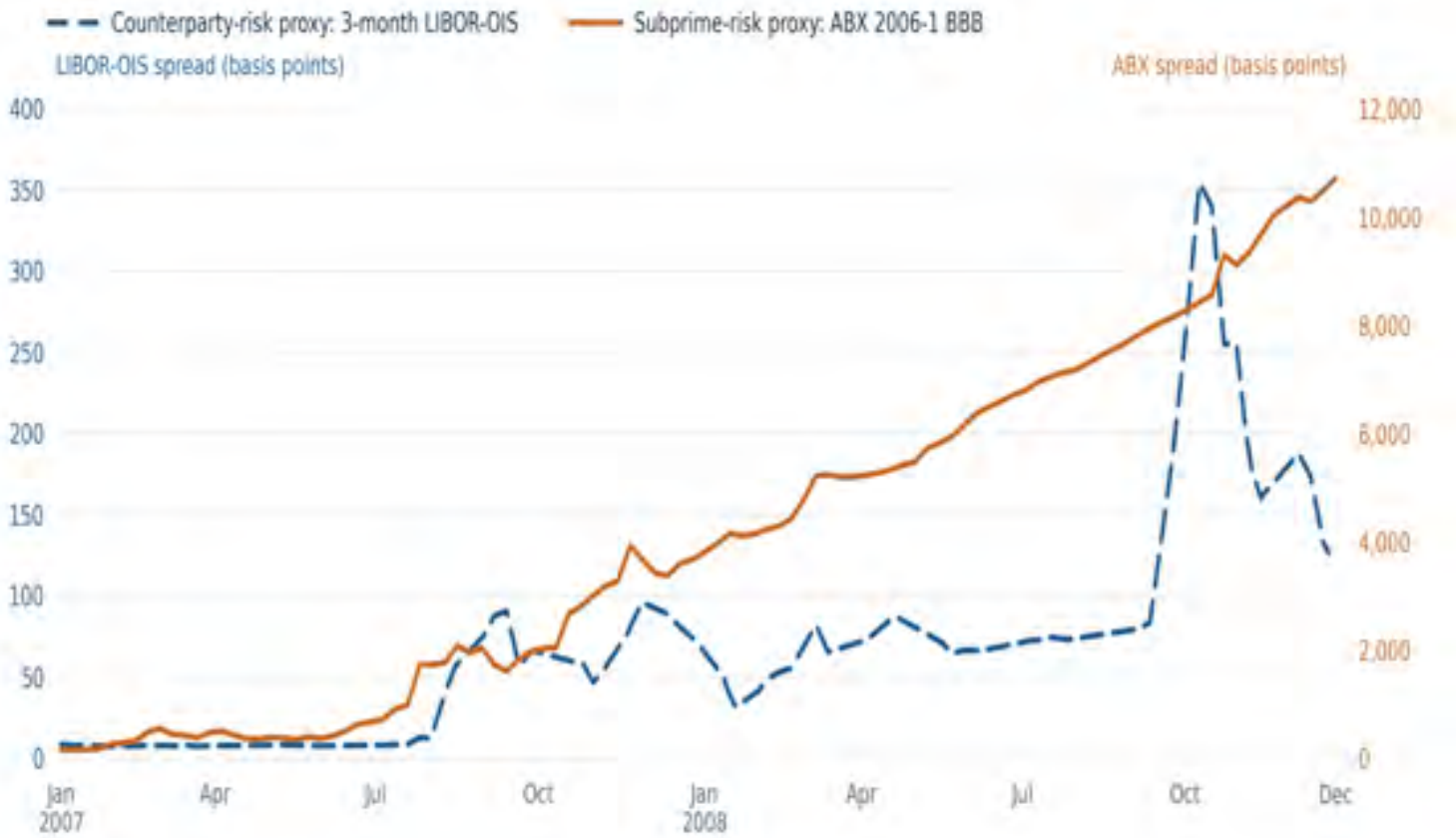
But what if the failure of a single bank would cause a systemic crisis?

Bail it out and no crisis: looks like a violation of Livingston Doctrine (Metropolitan National Bank, 1884; Continental Illinois, 1984). The problem of the counterfactual

No bail out and worsening crisis: Knickerbocker Trust (1907), Lehman (2008)

Subprime risk and counterparty risk

Reconstruction of the published ABX and LIBOR-OIS comparison, 2007-2008



Source: Gorton and Metrick, Securitized Banking and the Run on Repo (2012). Figure 8. DOI: 10.1016/j.jfineco.2011.03.016.

Approximate values digitized from the published curves. Original LIBOR-OIS dash gaps are interpolated. The authors' original data were not obtained.

Left: 3-month USD LIBOR minus 3-month OIS. Right: ABX.HE 2006-1 BBB spread. Separate scales; 100 basis points = 1 percentage point.

LIBOR-OIS reflects liquidity risk as well as counterparty risk. Reconstruction: October 29, 2026.