Lecture 20: Mian & Sufi, Part III

ECON 43370: Financial Crises

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Bailouts vs. Last-Resort Lending

"Bailouts" and "lender of last resort" are often used synonymously, but they are conceptually distinct

- Loans from the Fed require posting of acceptable collateral and charge interest
- In theory, the Fed is not legally allowed to incur credit risk – they can only lend to solvent but illiquid institutions (though impossible to know ex-ante)
- The idea of making loans in a crisis is to increase liquidity, calm fears, and get things back to normal
- At which point the loans will be paid back
- In theory, this lending comes at no cost to taxpayers

The Fed Actually Turned a Profit

Estimates are that the Fed actually turned a profit from its various liquidity facilities from 2007-09

- Approximately $13 billion in net income

All TALF loans were repaid with interest

Also turned a profit on the rescues of Bear Stearns and AIG!

- Fed created three limited liability companies (Maiden Lane I, II, and III)
- Essentially, the Fed lent to these companies, who then used the funds to purchase assets from failing companies. There was also some (smaller) private lending (e.g., JP Morgan)
- Altogether, the Fed made nearly $20 billion on these LLCs!

Bailouts

A "bailout" is public support for a distressed firm or its creditors that uses public funds or government backing to prevent failure and protect private stakeholders from losses they would otherwise face

Exposes or incurs a potential fiscal loss (unlike lending)

- Equity injections (e.g., TARP)
- Guarantees (e.g., guaranteeing money market funds)
- Asset purchases on favorable terms (e.g., how TARP was initially envisioned)
- Emergency loans (not from the Fed, potentially subject to credit risk)
- Debt forgiveness

TARP

TARP was a financial rescue package (i.e., a bailout) that had the following pillars:

- Capital injections into banks
- Was part of the AIG rescue
- Provided loans and equity to the auto industry
- Funded programs that modified mortgages and provided assistance to struggling homeowners

Where Did TARP Funds Go?

Treasury was initially authorized to use up to $700 billion for TARP; Dodd-Frank reduced it, and Treasury ended up using about $450 billion

About half of TARP funding went to bank capitalization ($250 billion)

About 20 percent ($80 billion) went to the auto industry

About 7 percent ($30 billion) went to homeowner assistance

The Cost of TARP

The final program cost was about $30 billion (less than 10 percent of the package)

Bank capital injection programs actually turned a profit! Approximately $20 billion

Auto industry and homeowner assistance lost money (i.e., these were legit transfers)

Rationales for Intervention

Standard economic reasoning: there is a role for government to intervene if there is some sort of market failure

Externalities are a type of market failure

- One bank failing causes confidence in the banking system to collapse, leading to other, healthy banks failing
- One house going into default and being foreclosed upon lowers house prices in the area, resulting in more defaults

Interventions aimed at rescuing banks/households in these kinds of situations may induce moral hazard

- "When a patient is dying of a heart attack, it is not the best time to explain that he should've eaten less red meat." (pg. 150-151)

Debt Forgiveness

Mian and Sufi argue that some form of debt forgiveness should have been tried on a much larger scale

Forgiveness can take the form of principal write down, restructured payments, and/or lengthened loan terms

They provide examples where they think this was tried and worked

- Panic of 1819
  - Many states passed "stay laws" that temporarily delayed debt collection and foreclosure
  - Federal government (Relief Act of 1821) forgave accrued interest and extend repayment who owed the federal government money for land purchase
- Home Owners' Loan Corporation (HOLC) in the wake of the Great Depression

Better for Both Parties?

Holding everything else fixed, restructuring is a transfer from lenders to borrowers

In aggregate, this can be good because MPCs of borrowers are higher

Further, M&S argue that restructuring and/or forgiveness can be better for both borrowers and lenders

- Houses in foreclosure often sell at a sharp discount
- Lender would likely prefer (modest) principal reduction to foreclosure. Revealed preference suggests they do
- Specifics of securitization made renegotiation difficult

Renegotiation / principal reduction could actually free borrowers to sell distressed properties without going into foreclosure

Fiscal vs. Monetary Policy

Consensus: the Fed is quick and agile, Congress is not. The Fed is therefore the first line of defense in fighting recessions

- In practice, we usually end up with fiscal assistance in major crises
- Some possibility this is particularly effective in deep crises (e.g., the ZLB)

Fiscal policy is inexorably distributional:

- Relative winners (e.g., bailouts)
- Someone has to pay (often future generations)

Line is blurry – and it got blurrier – but monetary policy, while it might have distributional consequences, is not supposed to make redistribution or preferential support an objective of policy

Limits to Monetary Policy

Fed's standard line of defense: cut short-term interest rates in recessions

M & S argue that this may be ineffective in a crisis: the problem was debt to begin with, and it seems odd to encourage more debt

"Pushing on a String": the problem is banks don't want to lend and people don't want to borrow. How does lowering rates fix the problem?

Macro models often suggest irresponsible behavior (i.e., creating inflation) can be effective

- Redistributes from creditors (low MPC) to debtors (high MPC)
- Lowers real interest rates at ZLB ($r_t \approx i_t - \pi^e$)



Helicopter Drops

A "helicopter drop" is figuratively a drop of cash to people

This is not monetary policy in the conventional sense

It is really fiscal policy

- Monetary policy exchanges reserves for assets
- There is no (direct) impact on the central bank's net worth nor on the net worth of the other side of the transaction
- A helicopter drop is a net liability for the central bank and a net asset for the recipient
    - This is more like a tax cut! But it's funded by money creation. So it's a "money-financed" fiscal program

M& S: Debt is the Problem

Individuals who finance assets with debt bear the most risk

- Price goes down, they lose equity
- Price goes up, they gain equity

Leverage maximizes this risk (on both sides)

Lender doesn't have exposure to the upside. Has limited exposure on the downside (asset price decline has to be very big for the lender to get in trouble)

M&S argue this is bad risk management: it is concentrating risk on debters (who can least afford the risk, and how have relatively high MPCs)

What Would It Look Like to Buy a Home with Equity?

One could finance a home by "selling shares"

- Suppose house is worth \$150,000. Create 150 shares, initially valued at \$1000 each
- Suppose household has 50 shares, bank has 100
- Household would have to agree to buy back shares over time, all at one time, or maybe never. If never, the household could pay the equivalent of rent month to month (hybrid rental vs. ownership)
- But any share buybacks would have to be based on market prices

Extreme version: an arrangement where the household has 0 shares and agrees to make constant monthly payments is pure renting

Costs and Benefits

Suppose the agreement is to buy back shares over time

If price of the home goes down, the household buys back shares at a lower price

The household's existing equity is worth less, but so is the bank's, and the household's payments go down

But this would be very complicated

- Who (household or bank) can decide when or if to sell?
- Who pays for home improvements?
- Who does one decide what the shares are worth?
- Moral hazard: if household is only a part equity owner, has less incentive to take care of the house

Debt vs. Equity

These costs are why debt contracts are prevalent

When a bank makes a loan:

- It doesn't care what the price of the home is so long as it gets paid
- Household has stronger incentive for care and uptake
- No complicated legal issues about selling

This is essentially the costly state verification (CSV) motivation for debt contracts – all of these things are costly

The benefit of equity is more equal risk sharing

Shared-Responsibility Mortgages

More "equity-like" but still debt

- Household obligations automatically adjust when housing conditions deteriorate
- Mortgage balances and payments would adjust downward with a local house price index. A 20 percent decline in prices would reduce monthly payments by 20 percent
- This would be asymmetric: payments would never rise above initial payment
- Lender would get a share of the upside: when selling or refinancing, the lender would be due something like 5 percent of the capital gain

What have the effect of renegotiation in severe downturns, but would be specified up front and automatic

Evaluating Mian & Sufi

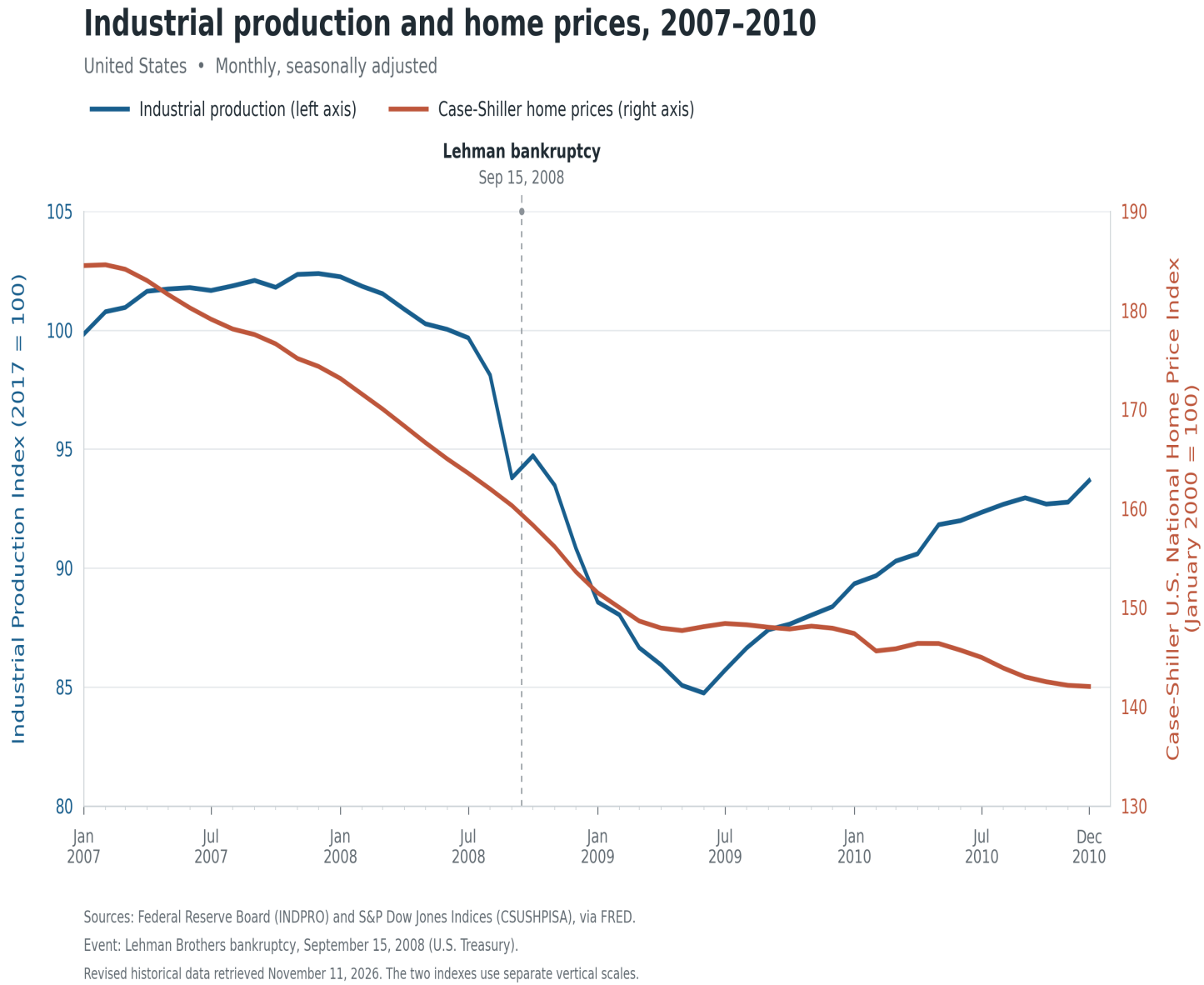
Basic gist: the housing crisis directly caused and worsened the Great Recession

The banking crisis was a bit of a sideshow. It needed help, but the Fed largely did its job

Policy was too focused on banks and not enough on indebted households

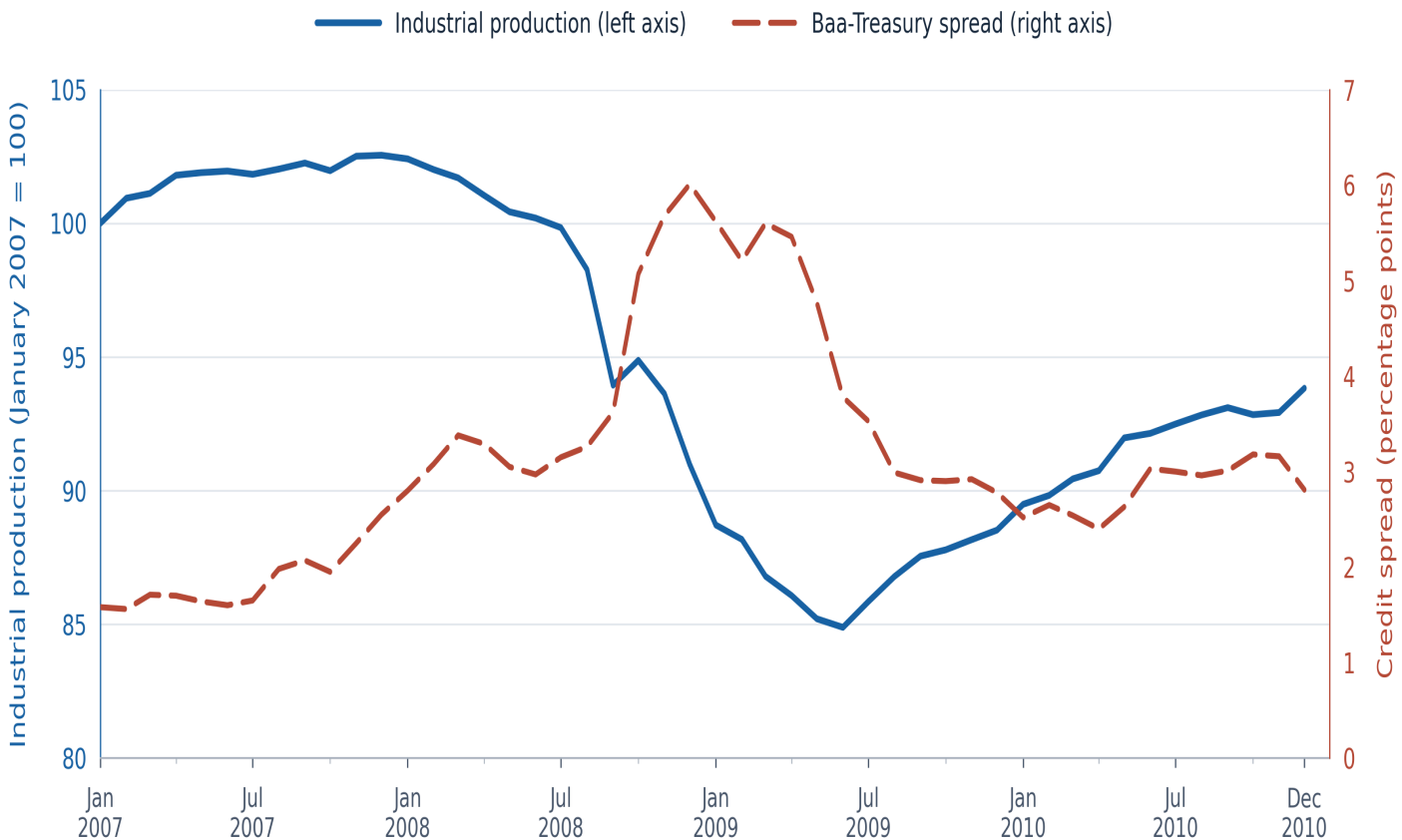
Critiques:

- Must be careful with extrapolating from cross-section evidence to macro conclusions
- Counterfactual problem with the policy critique: what would have happened if we hadn't saved the banks?
    - The timing of recovery suggests to me that "saving the banks" mattered


Industrial production and home prices, 2007–2010
United States • Monthly, seasonally adjusted
Industrial production (left axis)
Case-Shiller home prices (right axis)
Lehman bankruptcy
Sep 15, 2008
Industrial Production Index (2017 = 100)
Case-Shiller U.S. National Home Price Index (January 2000 = 100)
105
100
95
90
85
80
190
180
170
160
150
140
130
Jan 2007
Jul 2007
Jan 2008
Jul 2008
Jan 2009
Jul 2009
Jan 2010
Jul 2010
Dec 2010
Sources: Federal Reserve Board (INDPRO) and S&P Dow Jones Indices (CSUSHPISA), via FRED.
Event: Lehman Brothers bankruptcy, September 15, 2008 (U.S. Treasury).
Revised historical data retrieved November 11, 2026. The two indexes use separate vertical scales.

U.S. Industrial Production and Credit Spreads

January 2007-December 2010 | Monthly observations



IP is seasonally adjusted. Spread = Moody's Baa corporate yield minus the 10-year Treasury yield.

Sources: Federal Reserve Board and Federal Reserve Bank of St. Louis via FRED (INDPRO, BAA10YM).

Data retrieved November 11, 2026. Credit spread observations are monthly averages, not seasonally adjusted.

My Own View

Housing collapse (levered losses) and banking view are complements, not substitutes

- The recession started due to declines in home prices falling on indebted households
- Falling home prices led to financial strain that significantly worsened things
- Things got very bad in the fall of 2008 and early part of 2009
- Economy recovered once the financial system started working again, even though home prices continued to decline
- Banking problems exacerbated the recession, and fixing the banking problems were key to recovery. Recovery might have been stronger had there been more direct aide to households