Econ 201: Introduction to Economic Analysis

December 4 Lecture: Financial Crisis and the Great Recession

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Daily dose of The Far Side

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Preview of this class session

- Before 2008, housing market bubble and risky behavior by financial institutions set up conditions for collapse
- Failure of major financial institutions triggered panic
- There are several methods of resolving failed institutions
- Freezing of credit markets resulted from unknown counterparty risks
- U.S. financial crisis was transmitted to broader economy and to rest of world
- Policy options: 2008 vs. Great Depression
- Policies to prevent future crises

Before the crisis

- **Securitization**
  - Mortgage-backed securities and derivatives
  - Useful but opaque
- **Shadow banking** sector
  - Not really banks, but doing bank things
  - Not members of Fed or insured by FDIC
  - High "leverage" → high profit but low margin of safety
- **Housing boom**
  - Very lax lending standards because lenders could collect origination fees and sell off mortgages via MBSs
  - Mortgages are very safe as long as house prices do not fall…

Beginning of crisis: Subprime mortgages

- Goals of **bank regulation**
  - Safety of individual institutions and financial system
  - Encouraging lending to depressed areas and low-income borrowers
- **Subprime** and non-conforming mortgages
  - Conforming mortgages can be sold directly to GSEs for packaging into standard MBSs
  - Non-conforming and subprime do not qualify as "prime" mortgages: low credit rating, high loan-to-value ratio (>90%), high debt-to-income ratio
  - Subprime loans were usually packaged into MBS by banks themselves
- **Adjustable-rate** mortgages (ARMs)
  - Low "teaser" interest rate and payment for first few years, then rate adjusts to market rates
  - Not risky for lender if house price rises

Bursting of housing bubble

- Rise in housing prices was unsustainable
- Falling prices meant potential losses on defaulting mortgages
  - Repossessed houses were not worth as much as loan
- Losses passed through to MBSs and derivatives
- Opacity of structured derivative assets made it hard to assess default risk of individual institutions
- Banks vs. shadow banks
  - Banks fund lending through deposits that are insured to avoid contagion
    - FDIC regulates for safety to protect taxpayers from moral hazard
  - Shadow banks borrow short-term through commercial paper, no insurance
    - Much less regulation because deposits are not at risk
    - But contagion is still possible

Bank failures

- Failures of banks (and shadow banks)
  - **Illiquidity vs. insolvency**
  - "**Too big to fail**" and "Too interconnected to fail"
  - Alternative **resolution mechanisms**:
    - Forbearance: Often compounds the problem ("zombie" banks)
    - Liquidation: Very time-consuming and costly; "haircuts" for creditors
    - Purchase and assumption: Easiest option if a buyer can be found
- Bear Stearns (March 2008)
  - Resolved by acquisition facilitated by Fed loan
- GSEs (July 2008)
  - Forbearance and making government backing explicit

September 2008

- Merrill Lynch acquired
- AIG bailed out by Fed (eventually recovered and repaid)
- Lehman Brothers failed with no one willing to purchase, Fed unwilling to support
  - Biggest bank liquidation since Great Depression
- Washington Mutual, Wachovia sold to rivals
- Crisis of confidence in financial sector: Who was solvent and who was next to fail?
- **Counterparty risk**
  - Debts on financial markets are "cleared" at end of day
  - Would counterparty still be solvent?

Commercial paper market freezes

- Shadow banks funded lending by issuing short-term "**commercial paper**" and "repos" (repurchase agreements)
  - Repo: I sell you something and agree to buy it back for more in future
  - Effectively borrowing: I get money and repay (more) later
- Crisis of confidence in shadow banks
  - No one willing to roll over commercial paper
  - No one willing to buy repos
  - Equivalent to bank run with depositors demanding repayment
- Market for commercial paper freezes up
- No access to credit for non-financial firms to finance operations

Financial crisis → Great Recession

- Credit is essential to functioning of economy
- Reduced access to credit → investment falls
  - Credit was costly or unavailable for many companies through CP and bond markets
  - Bank losses forced reduction in lending, especially risky lending
  - Potential borrowers now looked riskier
- Lower household wealth → consumption falls
  - Stock market decline
  - Reduction in house values
- **Large fall in aggregate demand**
- Global financial markets transmitted a U.S. crisis to rest of world

Policy options

- **Fiscal policy**
  - Awkward timing with Bush Administration leaving and Obama coming in
  - Bush tax cuts left large fiscal deficit despite strong economy
  - Economic Stimulus Act of 2008 ($152b featuring household tax rebates)
  - American Recovery and Reinvestment Act of 2009 ($787b including tax rebates and spending programs)
  - Effects were positive, but smaller than optimal
- **Monetary policy**
  - Federal funds rate → 0 quickly
  - Massive **quantitative easing** (TARP, TALF, etc.)
    - Absorb impaired assets to restore liquidity to markets
    - Push other interest rates down

Bernanke, Romer, and the Great Depression

- Two primary policy leaders in 2009
  - **Ben Bernanke** as Fed Chair
  - **Christina Romer** as chair of Council of Economic Advisors
- Probably the two leading scholars of the Great Depression
- Although limited, stimulus was much greater than New Deal
- Fed's unorthodox policy and truly massive quantitative easing contrasts starkly with Fed policy in Great Depression
- Result: Severe and long recession, but not a depression
- Why the prolonged recovery?
  - Always happens with financial crises due to lost wealth that recovers only over time

Preventing the next crisis?

- **Dodd-Frank** Wall Street Reform and Consumer Protection Act (2010)
- Financial Stability Oversight Council
  - Assessment of "systemic risk" and increased regulation for such banks
    - "Stress tests" and required capital ratios
  - Extension of regulation to shadow banks and other financially important firms
- Consumer Financial Protection Bureau
  - Tighter regulation and monitoring of bank lending practices
- "Volcker Rule"
  - Restrictions on bank ownership of risky assets and proprietary trading
- Provisions have been weakened since 2017

Review

- The financial crisis started with the bursting bubble of an overpriced housing market
- Financial institutions with large exposures to defaulting mortgages began to fail in late 2008
- This led to widespread uncertainty about solvency of major financial firms and freezing of important markets
- Very aggressive fiscal and monetary policies avoided a second Great Depression, although it was still a long and painful recession

Daily diversion

I grew up in a small town in central Minnesota in an old, two-story house. When my mother moved out in the 1970s, it was purchased by a young man, who over the years has transformed the house into a Christmas shrine of electrical excess. Scary!

What comes next?

We have only one class remaining. There is no formal topic for Monday. Instead, I'd like each of you to think about what you learned this semester that:

- surprised you,
- especially interested you, or
- changed the way you thought about something.

We will have an open discussion about any and all topics from the course in Monday's conference.