The Subprime Crisis (12/9/2010) Econ 310-004

Definitions

- ***recession*** – two consecutive quarters where GDP falls
- ***depression*** – recession where unemployment hits 10%; recession where GDP falls 10%
- ***fixed rate mortgage*** – interest rate stays the same
- ***adjustable rate mortgage (ARM)*** – interest rate fixed initially, then adjusts to market rate later
- ***subprime loan*** – loan to people with bad credit (credit score below 640)
- ***NINJA loan*** – no income, no job, no assets
- ***mortgage backed securities (MBS)*** – break up mortgage into tiny pieces, then bundle many mortgages together to diversify risk and sell them off
- ***Greenspan put*** – using monetary policy to prevent asset price deflation (i.e., reflate asset bubbles)
- ***mark to market accounting (fair value accounting)*** – valuing assets based on their current market price rather than their historical price
- ***credit default swap (CDS)*** – bet on whether a loan will be repaid; type of insurance that allows hedging

Principles

- Our current financial crisis is called the Great Recession or the Subprime Crisis.
- According to the definitions, the recession began in December 2007 and ended in June 2009.
- Freddie Mac and Fannie Mae would implicitly guarantee mortgages from banks (moral hazard).
- Securitization created a moral hazard problem: the lending bank wouldn't suffer from defaults.
- Low interest rates by the Federal Reserve caused a housing bubble, which subsequently crashed.
    - In the early 2000's the federal funds rate was far below the Taylor Rule suggested level.
    - Adjustable rates were less than fixed rates, encouraging ARMs.
- Congress changed bankruptcy laws, so debtors began paying off credit cards rather than mortgages.
- Low down payments meant many people were underwater when home prices fell: they owed more on their mortgage than the house was worth. So they just walked away, defaulting.
- Government incentivized debt over equity funding, causing low equity cushions & high leverage ratios.
- With mark to market accounting a bank can become insolvent on paper even though it is not illiquid.
- Credit default swaps of MBSs allowed banks to hedge against the risk of mortgage default.
    - But models assumed housing prices would always go up.
    - Systemic risk wasn't taken into account and premiums were priced too low.
- In QE1 the Federal Reserve bought $1.2 trillion in mortgage backed securities.
- In QE2 the Fed plans to buy $600 billion of long term (30 year) treasury securities.
- The implicit guarantee that banks will be bailed out in the future encourages excessive risk taking.

causes of subprime crisis

- incentivized home ownership
- incentivized subprime lending
- wrong credit ratings
- ABCT boom/bust cycle
    - housing bubble
- pro-cyclical bank regulation
- misguided bailouts / stimulus
    - creates moral hazard

government response

- bailouts / stimulus spending
    - Federal Reserve
        - quantitative easing
        - quantitative easing 2
    - Treasury
        - Troubled Asset Relief Program (TARP)
- regulation
    - Financial Stability Act

home ownership

- advantages
  - building equity
    - collateral for later loans
    - disciplines savings
  - tax benefits
    - mortgage interest deduction
    - housing tax credit
- disadvantages
  - not diversified
  - limits labor mobility

government incentives

- mortgage interest deduction
- federal housing tax credit
- Community Reinvestment Act (CRA)
  - prohibited redlining
  - encourages sub-prime loans
- government guarantees
  - Freddie Mac, Fannie Mae
    - mortgage backed securities

bank issues

- moral hazard
  - implicit Fredie Mac guarantee
  - securitization of mortgages
  - FDIC insurance
- Community Reinvestment Act
  - prohibited redlining
  - encourages sub-prime loans
  - penalties for non-compliance
    - fines
    - prevented from merging

credit rating agencies

- no free market in ratings
  - government mandates top 3
    - S&P, Moodys, Fitch
- immune from lawsuits
  - no penalty for wrong ratings
  - first amendment
  - contrast: auditors can be sued
- conflicts of interest
  - also provide consulting

Austrian business cycle

- boom period
  - low interest rates 2002-2006
  - inflated housing bubble
- bust period
  - malinvestments discovered
  - recession 2007-2009

bursting the bubble

- bankruptcy law change
  - credit cards debt harder to avoid
  - pay credit card before mortgage
- mortgage payments increased
  - because interest rates rose
    - adjustable rate mortgages
  - mortgage defaults
    - lower housing prices
- mortgages underwater
  - mortgage defaults

bank insolvency

- banks were overleveraged
  - government promoted debt
    - double tax on dividends
    - deduction of bond interest
- mark to market accounting
  - assets valued at fire sale prices
  - pro-cyclical
- equity requirements for banks
  - must reduce leverage
    - sell off assets

credit default swaps

- bet on whether loan repaid
  - type of insurance
  - helped hedging risk
- models wrong
  - housing prices always up
  - premiums too low
- insurers defaulted on CDSs
  - AIG, Lehman Brothers