# How Did We Get Here? The Credit Crisis And The Recession

Osher Lifelong Learning Institute at Berkeley February 10, 2009

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## Two issues confront us

- The financial crisis
  - "Credit crisis"
  - Banks & financial institutions unwilling to lend
- The macroeconomic crisis
  - A decline in spending . . .
  - ... that shows no sign of abating

## The Credit Crisis

- What is the crisis?
  - At its most essential: unwillingness to lend
- What caused the crisis?
  - Breakdown of trust fueled by risky behavior
- What do I watch for signs crisis is abating?
  - CNBC top banner: 1 & 3 month interest rates

## Why does credit matter?

- Credit = Lending & Borrowing
- Economy runs on credit

**Borrow \$** 

Repay \$

Pay for Inputs

**Sell Output** 

**Produce Output** 

Pay Workers

## Banks are important

- Lots of lending sources, but banks are key
- Normally, banks lend to each other
  - Federal Funds Rate
  - LIBOR (London Interbank Offered Rate)
- The crisis
  - Banks refused to lend even to each other
  - Flight to liquidity
    - Though US Federal Government bonds OK
  - The evidence
    - Interest rates

## Its Genesis: Subprime Lending

Home Loans

Prime Alt-A Sub-prime

No down payment? No problem.

Borrow \$300,000 at 4% \$1,000 / mo

Reset after 2 years to 10% \$2,664 / mo

Can't afford it? No problem!

Refinance at 5% \$1,610 / mo

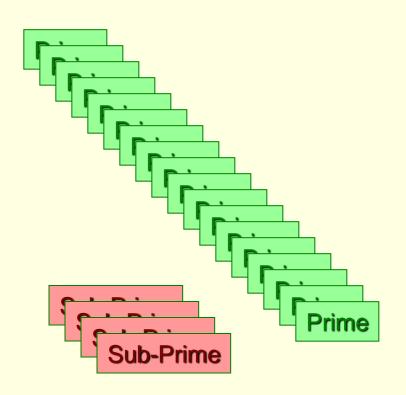
Worked fine so long as house prices rose

# But Then Prices Stopped Rising

- Unable to refinance?
  - Into default. Possible foreclosure.
- Prices stopped rising, started falling
  - Supply of houses up due to foreclosures
  - Supply up due to need to sell to avoid default
  - Demand down because less credit available
- Then Alt-A and Prime mortgages go bad too
- Estimate: 1 in 6 homeowners are now "upside down" or "under water"
  - Half of people who bought since 2003

## Problem: Mortgage Backed Securities

Bundle together mortgages; sell shares



Mortgage Backed Security

## Who Bought MBS?

- Good question
  - Banks
  - Central Banks
  - Hedge Funds
  - Any Financial institution you can name
  - Insurance Companies
  - Pension funds
- Everywhere!

## Credit Crisis Peaks September 2008

- First alarm:
  - August 2007: European Central Bank
- Sept 2008: Merrill Lynch, Lehman, AIG fail
- Bernanke & Paulson sound the alarm
- Treasury rates hit 0.01%
- Bank lending halted
- And then the stock market tanked

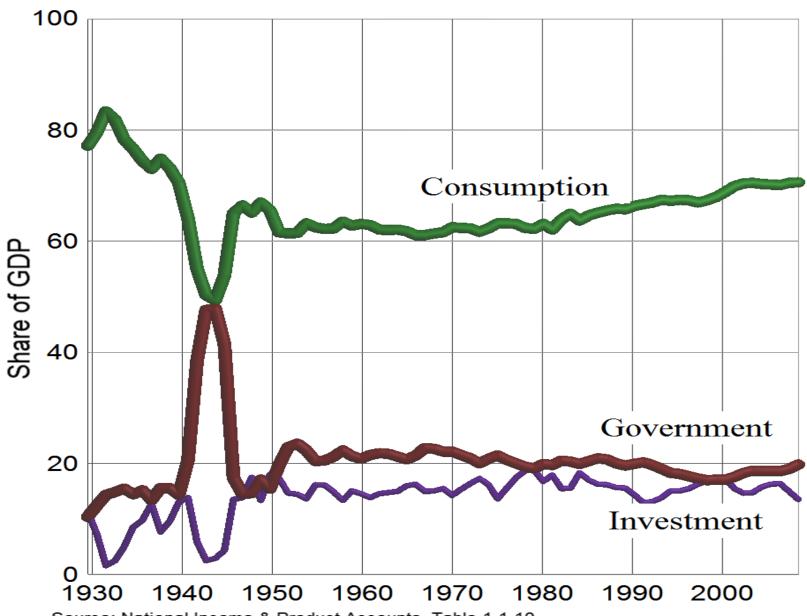
## The Macroeconomic Crisis

- The financial crisis distracts from big problem
  - (And contributes to that problem)
  - Solving the financial crisis is "necessary but not sufficient" to solving the macro crisis
- Big problem: lack of spending
  - And no obvious way to restore spending
- Recent evidence
  - Jobs & unemployment report
  - Declaration recession began December 2007

# Macro Principles 101

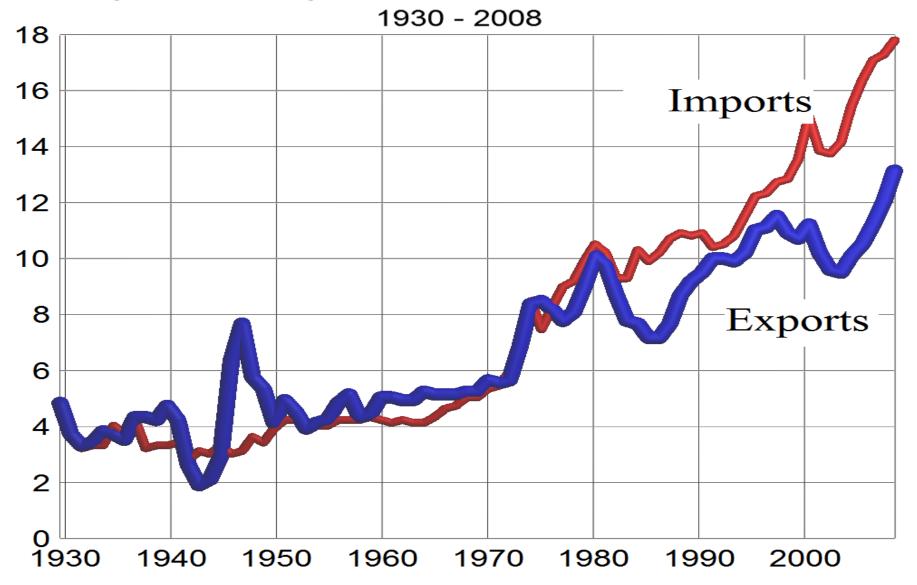
- Businesses produce what will be sold
  - So "aggregate demand" matters
- Aggregate demand (total spending) is by
  - Households: Consumption spending (C)
  - Businesses: Investment in equipment & structures (I)
  - Government: Government purchases of goods & services (G)
  - Rest of the world: Net exports (NX) = Exports from U.S. – Imports into U.S.

#### Distribution of Aggregate Spending, 1930-2008



Source: National Income & Product Accounts, Table 1.1.10

#### Imports & Exports as a share of U.S. GDP



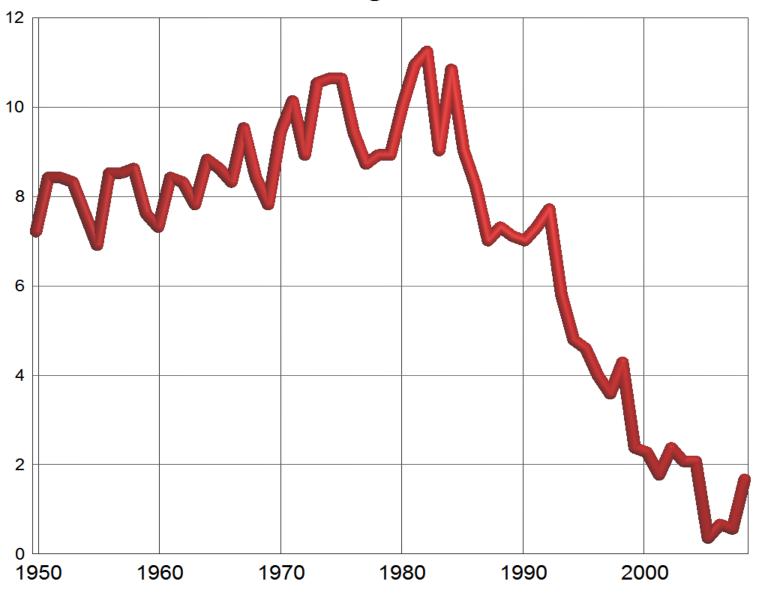
Source: U.S. BEA (bea.gov), National Income & Product Accounts, Table 1.1.10

## Consumption Spending

Consumption rose from 62 to 70% of total

- Consumers have sustained the economy and led the way out of recession for decades
- No more.
- Credit availability is why
- This is why this recession will be lengthy

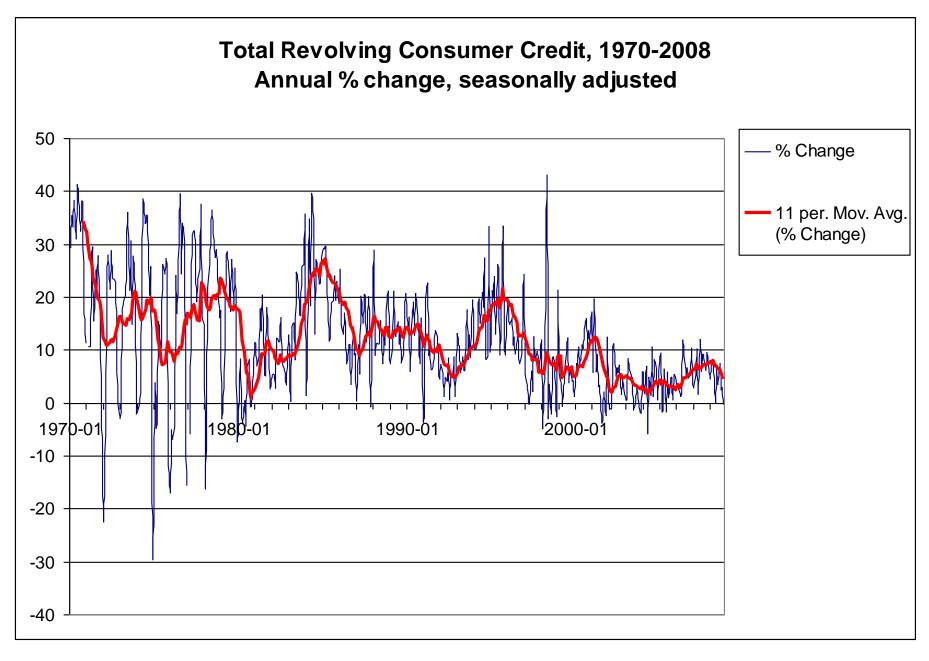
#### Personal Saving Rate, 1950-2008



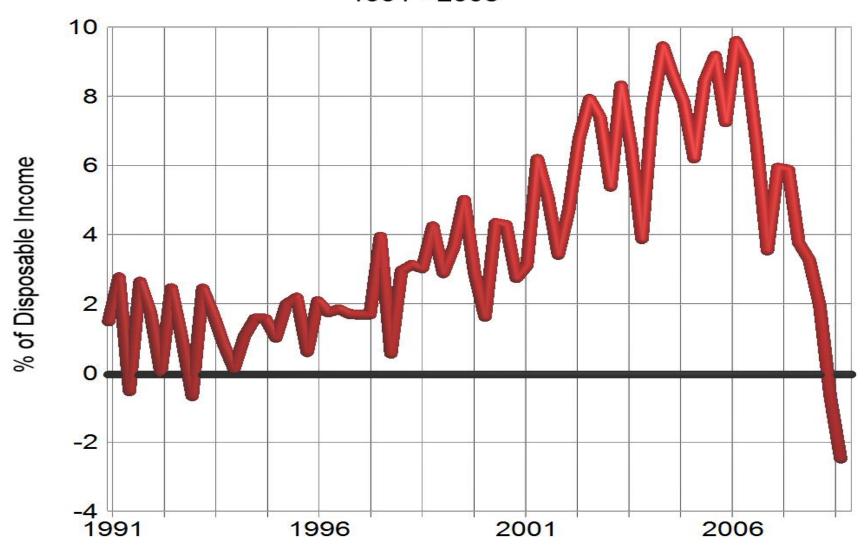
Source: U.S. Bureau of Economic Analysis, National Income and Product Accounts Table 2.1. Accessed 2/2/2009

# Collectively, we save nothing

- But many people are saving for retirement
- Some even have a 3-month emergency fund
- So how could we save nothing?
- Credit.
  - Credit cards are minor part of the story
  - Home equity lines of credit are the key



#### Net Equity Extraction as a Percent of Disposable Income 1991 - 2008



Source: Federal Reserve, private correspondence

## Investment Spending

- Structures residential & non-residential
  - Lack of funding
  - Lack of demand
- Equipment & producer durable goods
  - Lack of funding
  - Lack of demand

## Net Exports

- For recovery, we need exports to grow faster than imports
- Exports grow when world income rises
- . . . And when dollar is weaker
  - But U.S. borrowing makes dollar stronger
- Policy needed: let dollar depreciate
  - Unlikely to happen

# Government Spending

- Key: purchases of goods & services
  - Employment and government contracts
- State & local cuts; federal spending can rise
- Smart spending has long-run gains too
  - Infrastructure
  - Education
  - Anything that boosts productivity
- But requires political appetite for deficits
  - And willingness of world to lend to U.S.

# Don't believe anyone's models

- All forecasting models are fancy versions of "the future will look a lot like the past"
- But once-in-a-century events are not (well) predicted by these models
- And so recovery can't be predicted either

I wouldn't necessarily believe anyone who says "In each of the past X recessions, . . ."

## Lessons from the 1930s

- Monetary policy can help, wasn't used well in the 1930s
  - But did lead economy into post-1933 recovery
  - Alas, their quiver is currently about empty
- Fiscal policy can help, wasn't used much in the New Deal
  - Lots of political pressure to balance budgets
- Dying firms die faster in a recession
- When the "perfect storm" hits, recovery takes a long time