

# *U.S. Subprime Crisis*



# *Outline*

- Where are we?
- How did we get here?
- Government measures to stop the crisis
- Have government measures work?
- What alternatives do we have?



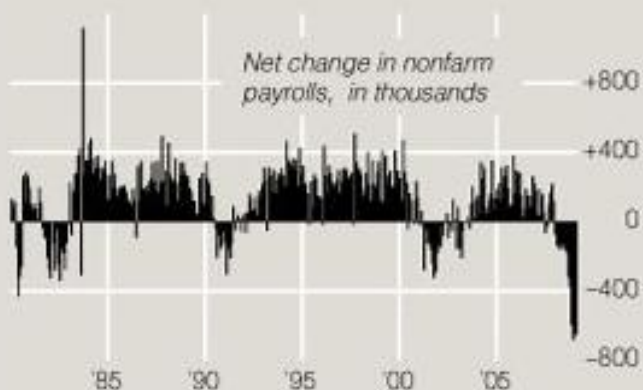
# *Where are we?*

- Worst postwar U.S. recession— longest, deepest
  - Unemployment
  - Business bankruptcies
- Collapse in asset prices: stocks and real estate
- Credit market and bank crisis
- Worldwide downturn
- Government fiscal stress



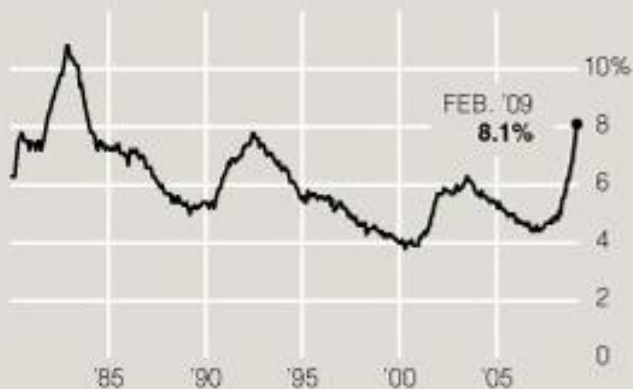
## JOB GAINS AND LOSSES

In February, the economy shed 651,000 jobs, and the government revised some recent months to include more losses than previously thought, for a total of 4.4 million since December 2007.



## UNEMPLOYMENT RATE

The losses pushed the unemployment rate to 8.1 percent, its highest level since March 1983. But this does not take into account those who have given up looking for work or those who are working part time but want full-time work.



## JOB LOSSES IN RECENT DOWNTURNS

During the current downturn, more jobs have been lost faster than in any period since 1974, as measured from peak employment. The economy has now lost 3.2 percent of its jobs since December 2007. It lost 3.1 percent between the summer of 1981 and the end of 1982.



# Dow Jones Industrial Average

*Oct 8, 2007:*

*14,093*



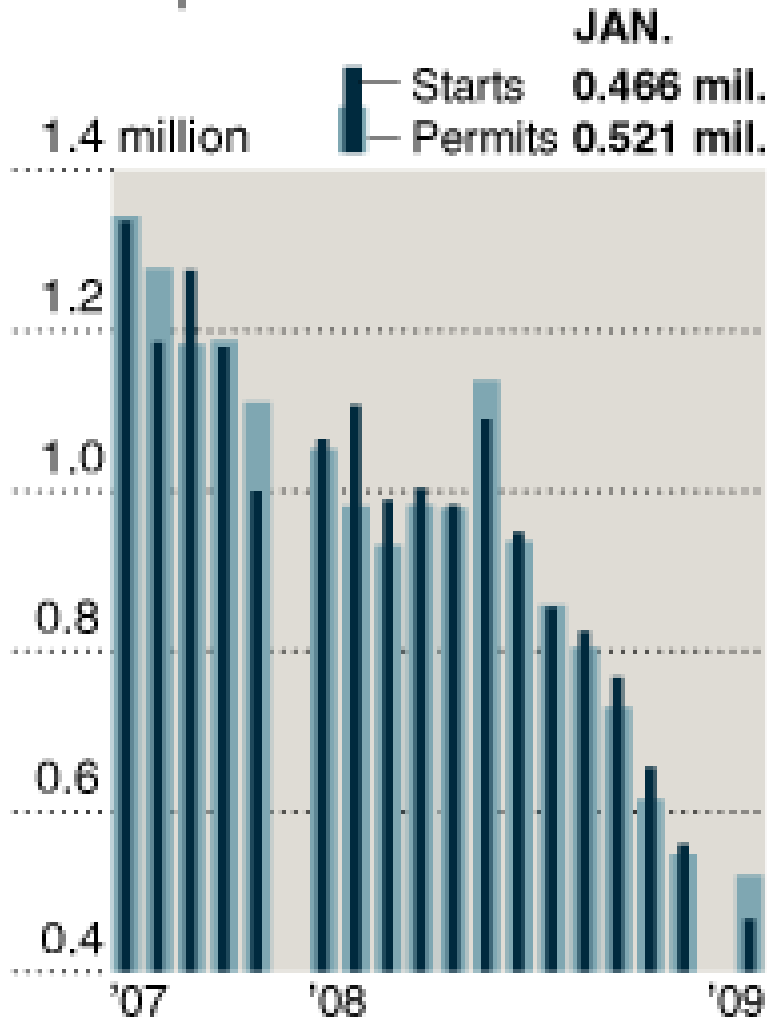
*March 6,  
2009:*

*6626*



# Housing Construction

New private housing starts and permits authorized during the month, at a seasonally adjusted annual pace.



Source: Commerce Department





# *Financial Crisis*











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1



# *Financial Crisis*

1  
2

- Bank Bankruptcies, Mergers, Acquisitions
- End of Investment Banks
  - ◆ Morgan Stanley, Bear Sterns, Lehman Bros., Merrill Lynch
- Government Owned Financial Sector?
- Seizing up of credit markets
  - ◆ Interbank and commercial paper
  - ◆ Mortgage Bank Securities, Asset Bank Securities, CDOs...

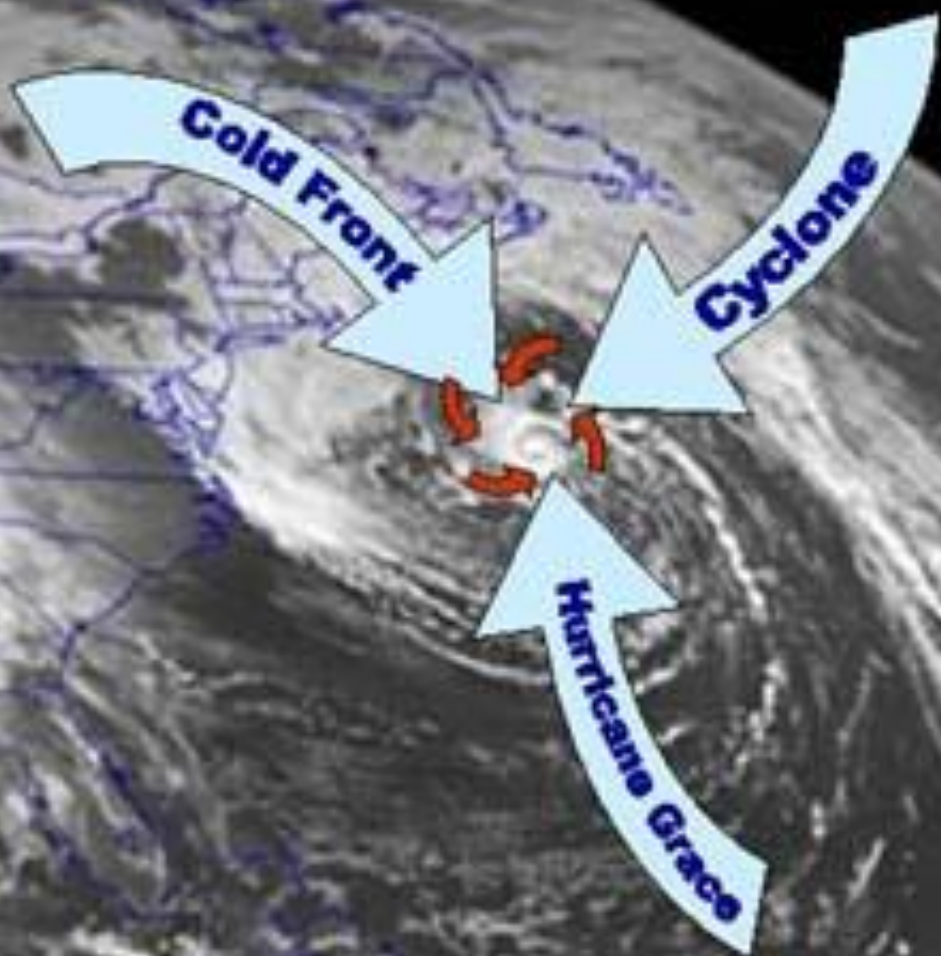


*How did we get here?*

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THE  
**PERFECT STORM**



# Perfect Storm of Financial Disruption

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# *Examples: Lehman Bros. and AIG*

- Lehman set up hedge funds
  - Lent “borrowed” money to hedge funds
  - Hedge funds invested in sub-prime mortgage based securities (MBS)
  - Highly leveraged
  - Other risky derivative asset investments
  - Home prices fell, mortgages default, MBS declined, no equity backup

- AIG: Credit Default Swaps
  - Sold \$440b of debt insurance
  - CDS: “insurance” to bondholders (financial institutions) against default on MBS and corporate loans
  - Interest Rate Swap: “insurance” against interest rate risk
  - High leverage, risky positions: Market Value of AIG before collapse: \$200b
  - Main customers: European banks and US investment banks





# *Asleep at the switch? No. Actively stopping tighter regulations.*

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*On CBS 60 Minutes program former Fed Chairman “Maestro” Alan Greenspan stated that did not see the subprime crisis coming until it was too late - despite evidence of questionable lending practices, securitization, derivatives and high-leverage of financial institutions.*

"I was aware a lot of these practices were going on, I had no notion of how significant they had become until very late. I didn't really get it until very late in 2005-2006," he said.

Alan Greenspan, September 16, 2007



# *Not a natural disaster!*

- Economies are social institutions
- Financial crises are “man made”...not natural disasters
- Policy can avert and help solve a financial crisis



# Riding Out the Storm



# Government Didn't Prevent Crisis, but will it rescue financial system?

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*Another  
Katrina?*



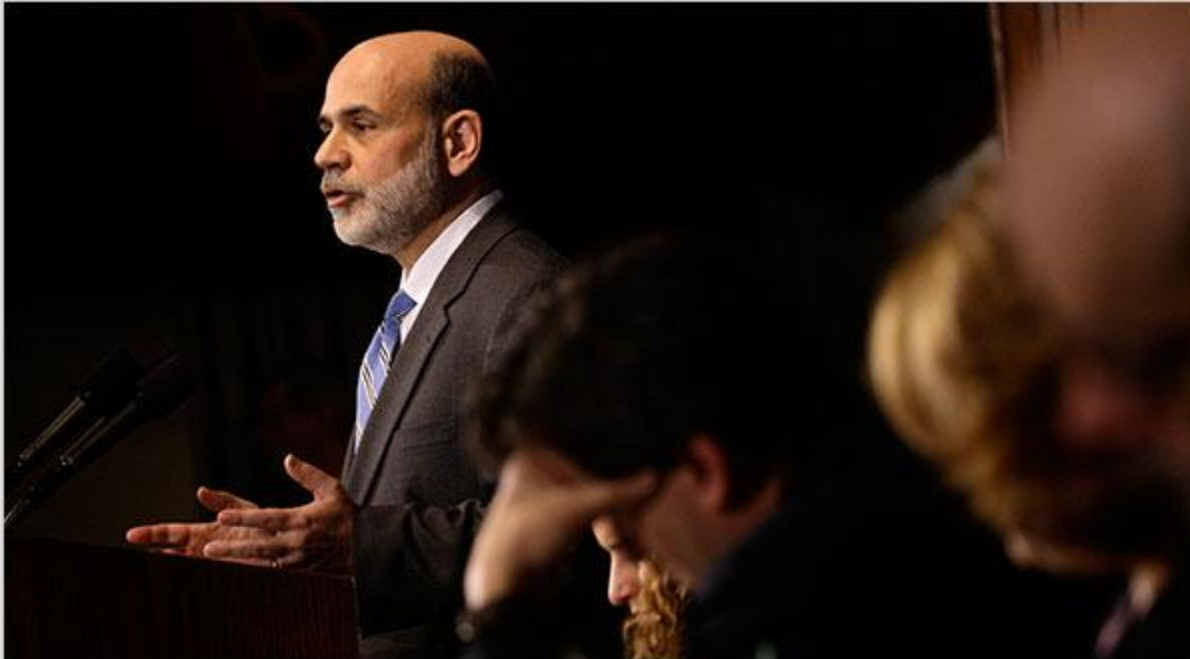
# *Government Measures to Stop the Crisis*

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2





# *The Feds ...*







U.S. DEPARTMENT OF THE  
**TREASURY**

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## *Treasury Man...*



*At the start, it appeared  
government was adrift...*

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6



*A New Plan Every Week... adrift? or were  
they simply flexible, adjusting to new  
circumstances as they arose?*



# *U.S. Treasury and other government agencies*

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- TARP (Troubled Asset Relief Program)
- Equity in Financial institutions
  - AIG (indirectly covering losses of US and European banks)
  - Banks...Citi, Chase, Bank of America...hundreds!
  - Investment banks...
  - Direct Mortgage Loan Support to Households
    - ◆ Incentives to banks to re-contract mortgages



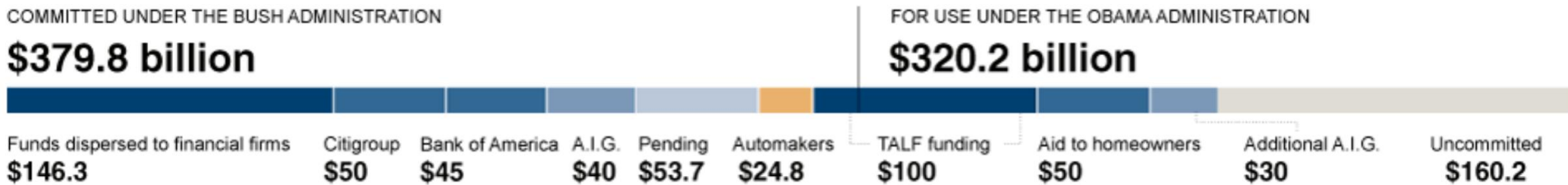
# *Federal Reserve System*

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- Aggressive moves to support banks and credit markets
- Massive expansion of balance sheet
- Key measures:
  - Term Auction Facilities— lending to financial institutions accepting broader range of collateral
  - Direct lending to AIG, Bear Stearns, others
  - TALF (Term Asset-Backed Securities Loan Facility)
    - ◆ Loans to issuers of ABS of auto, student, credit card loans (\$200b)
  - Money Market Facility
  - Interbank loan market (direct lending)
  - Swaps with foreign central banks (\$1 trillion)



# Tracking the \$700 Billion Bailout



Amounts below are in millions. The Texas ratio is a ratio of each bank's nonperforming loans to cash on hand. The higher the number, the worse the bank's health.



# Adding Up the Government's Total Bailout Tab

Beyond the \$700 billion bailout known as TARP, which has been used to prop up banks and car companies, the government has created an array of other programs to provide support to the struggling financial system. **Through March 2**, the government has made commitments of nearly \$9 trillion and spent \$2.1 trillion. Here is an overview, organized by the role the government has assumed in each case.

## THE GOVERNMENT AS INVESTOR

### \$4.6 trillion

SPENT: \$1.2 TRILLION

Includes direct investments in financial institutions, purchases of high-grade corporate debt and purchases of mortgage-backed securities issued by Fannie Mae, Freddie Mac and Ginnie Mae.

### Commercial paper

The Federal Reserve has become the buyer of last resort in the \$1.6 trillion commercial paper market.

Committed: **\$1.6 trillion**

Spent: \$240 billion

### Public-private investment fund

This fund, which is not operational yet, will seek private investors and use a combination of private and public money to buy nonperforming assets from banks.

**\$1.0 trillion**

\$0 billion

### Troubled Asset Relief Program (TARP) | [See TARP recipients »](#)

In return for bailout cash, the Treasury now owns stock in hundreds of banks, General Motors, Chrysler and the insurer A.I.G. Two of the largest recipients are Bank of America (\$45 billion) and Citigroup (\$45 billion cash and \$5 billion in support of a loan guarantee).

**\$700 billion**

\$540 billion

## THE GOVERNMENT AS LENDER

### \$2.3 trillion

SPENT: \$688 BILLION

A significant expansion of the government's traditional overnight lending to banks, including extending terms to as many as 90 days and allowing borrowing by other financial institutions.

### Federal Home Loan Bank securities

The Treasury and the Federal Reserve have begun buying debt and mortgage-backed securities from Fannie Mae, Freddie Mac and Ginnie Mae.

**\$600 billion**

\$284 billion

### Money market funds

The Treasury originally guaranteed these accounts up to \$50 billion, but the program has been extended by the Federal Reserve, which has, in a few cases, had to step in and buy some illiquid assets of some funds to help them meet their obligations.

**\$600 billion**

\$10 billion

## THE GOVERNMENT AS INSURER

### \$2.1 trillion

SPENT: \$279 BILLION

Includes insuring debt issued by financial institutions and guaranteeing poorly performing assets owned by banks and Fannie Mae and Freddie Mac.

### A.I.G.

The Federal Reserve has provided seed money to create investment vehicles to buy, hold and possibly dispose of bad securities held or insured by A.I.G.

**\$53 billion**

\$43 billion

### Bear Stearns

The Federal Reserve bought distressed assets from Bear Stearns to facilitate its sale to JPMorgan Chase.

**\$29 billion**

\$29 billion

### Reserve U.S. Government Fund

Despite the name, this was a private fund, not part of the government. It was the first big money market fund to experience liquidity problems, and the Treasury eventually bought some high-quality assets to help the fund unwind.

**\$4 billion**

\$4 billion

# *Will these measures work?*

- The Good, the Bad and the Ugly
- ...banking crisis precedents...



# *The Bad: Japan and the Lost Decade*

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Source: Bloomberg

THE NEW YORK TIMES



# The Ugly: Great Depression

11,000 banks closed in the United States 1930-33

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3



# Farm Bankruptcies “Fire Sales” Midwest 1930s 3



# *The Good: Resolution of Swedish Bank Crisis*

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- Housing bubble, easy lending, high risk...banking crisis when bubble burst
- Quickly nationalized banks in trouble
- Largest bank didn't accept government terms, and got private capital
- Ran banks for several years, selling off troubled assets, recouped most of losses
- Non-political, few banks, no derivatives or other complications



# *Progress to Date: Optimisim*

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- Government took huge equity positions in the financial sector...outright nationalizing Fannie Mae and Freddie Mac (biggest home loan companies)...and we either took equity positions, loaned money to or insured large segments of the the banking sector...
- but these positions are now being unwound (Goldman, AIG...) and it turns out that the cost is much less than anticipated (because banks are making huge profits in 2010 and are able to pay back government)
- Fannie Mae and Freddie Mac are likely to remain the biggest drain on taxpayers

