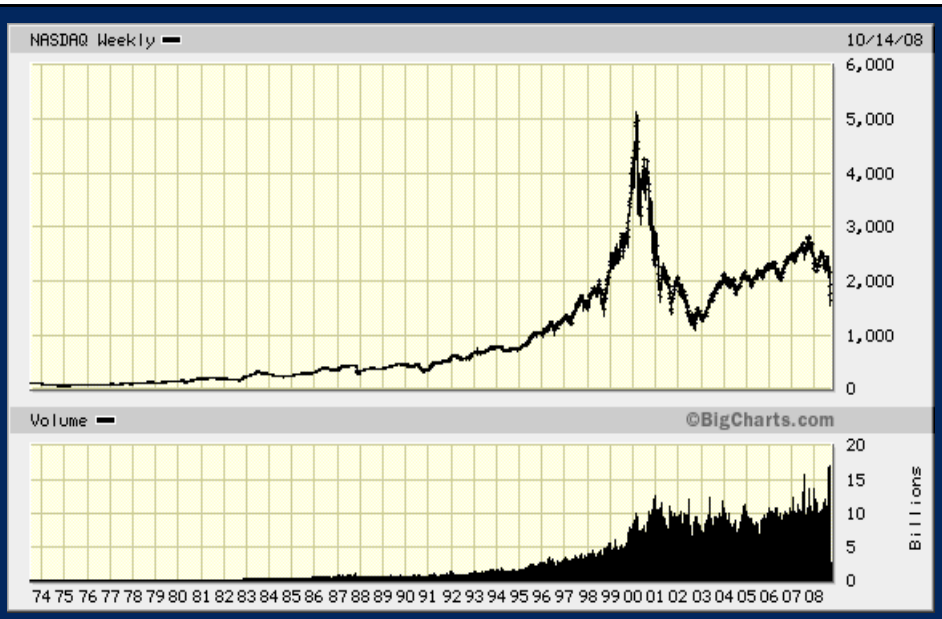
THE GREAT RECESSION

Elliott Parker, Ph.D.
Professor of Economics
University of Nevada, Reno
eparker@unr.edu

Business is more than you think
COLLEGE OF BUSINESS
www.business.unr.edu

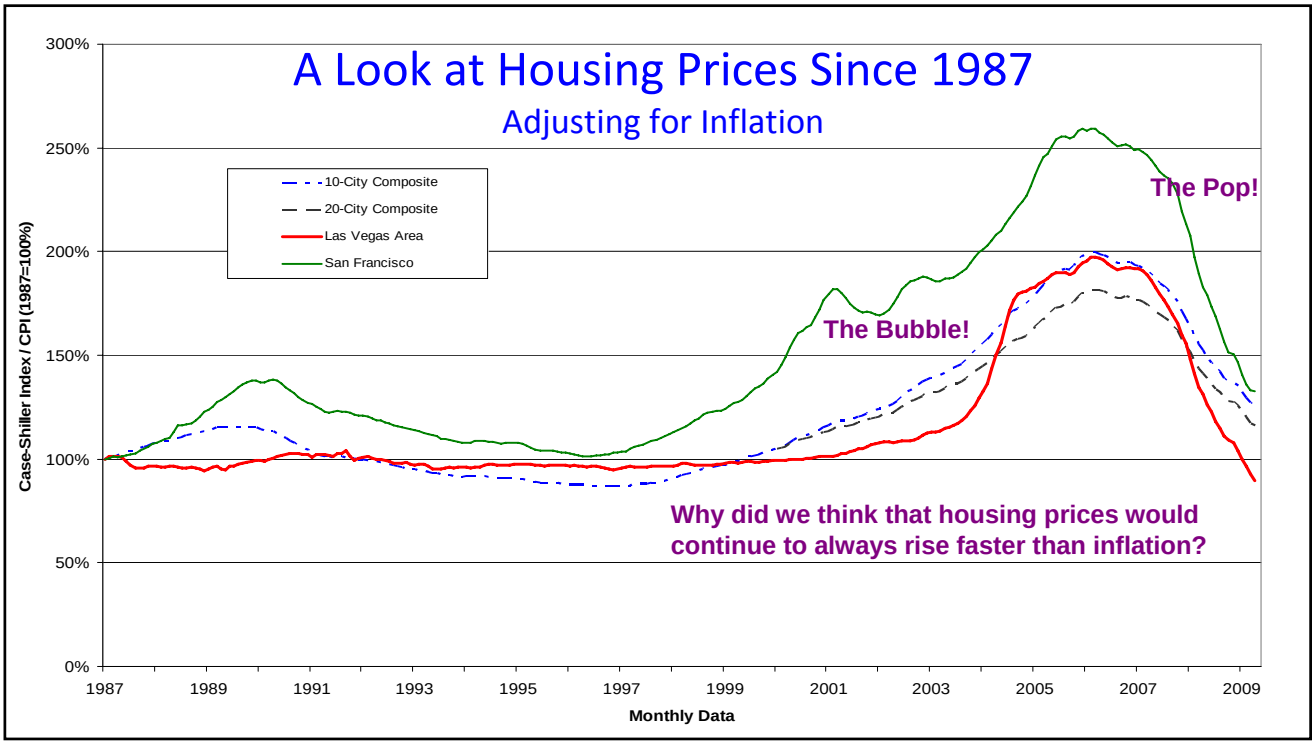
A Look at the DJIA – Adjusting for Inflation (1949-2009 Monthly Close)



Remember the Bubble in NASDAQ?

Remember the Enron scandal?

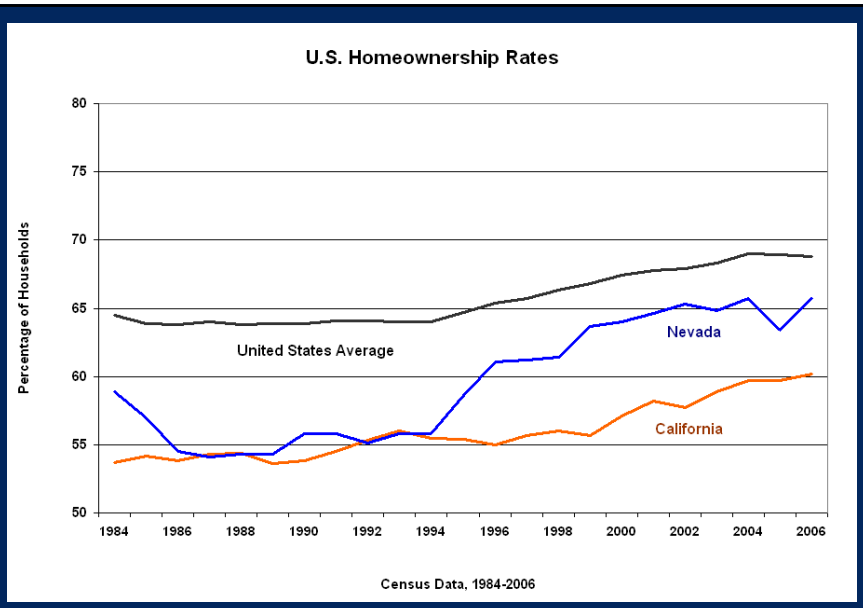
How did we become so forgetful?

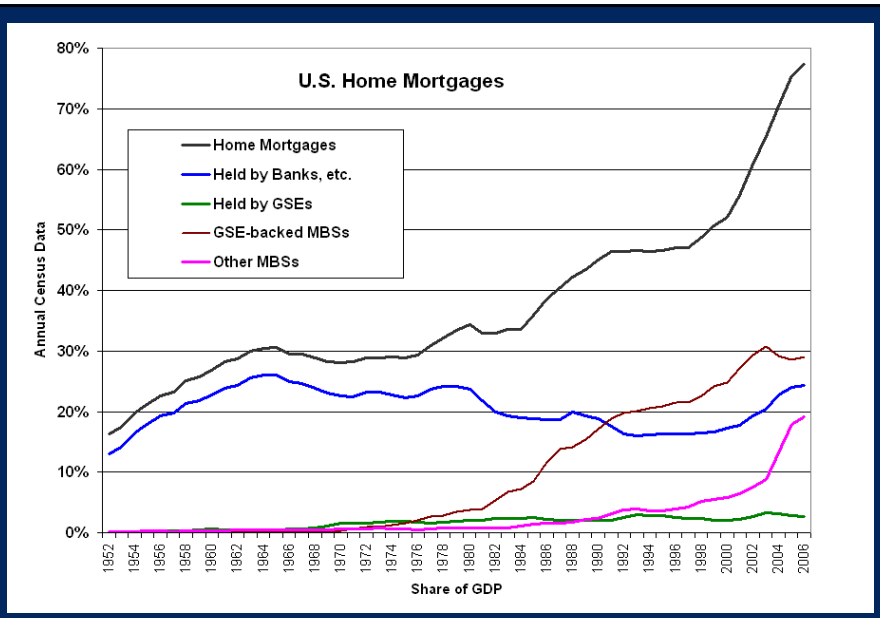


The "Ownership Society"

Between 1994-2004:

- Est. 15 million new homes owned,
- 9 million at trend, plus
- 6 million more (5% rise).
- California and Nevada started catching up to rest of the country.





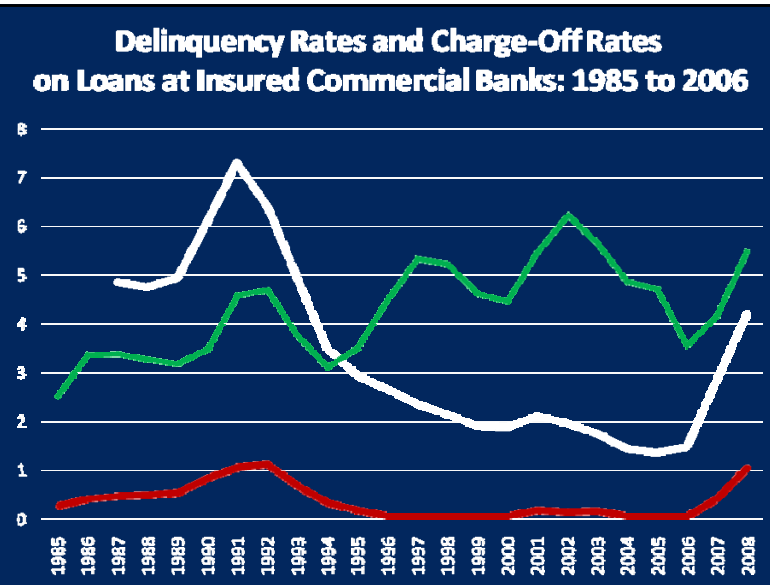
Mortgage debt grew MUCH faster than either income or home ownership

First Wave (1950s)
- commercial banks

Second Wave (1980s)
- GSE-guaranteed securities

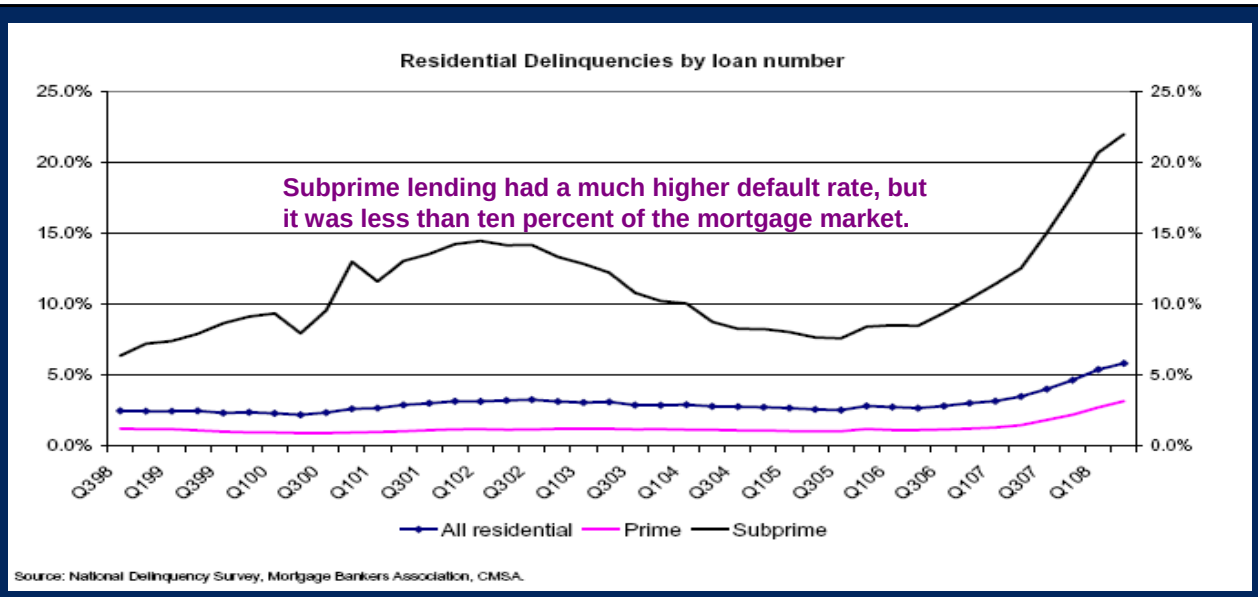
Third Wave (>2002)
- other mortgage-backed securities

Business is more than you think
COLLEGE OF BUSINESS
www.business.unr.edu

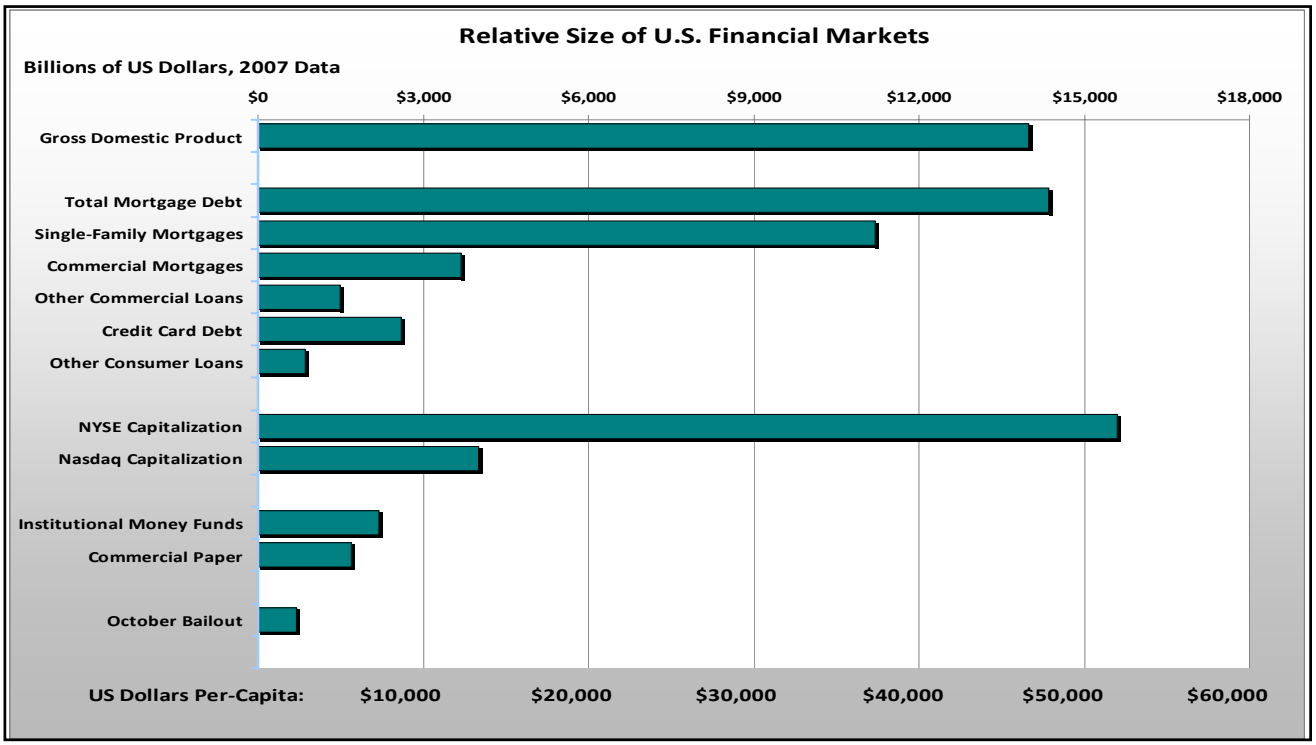


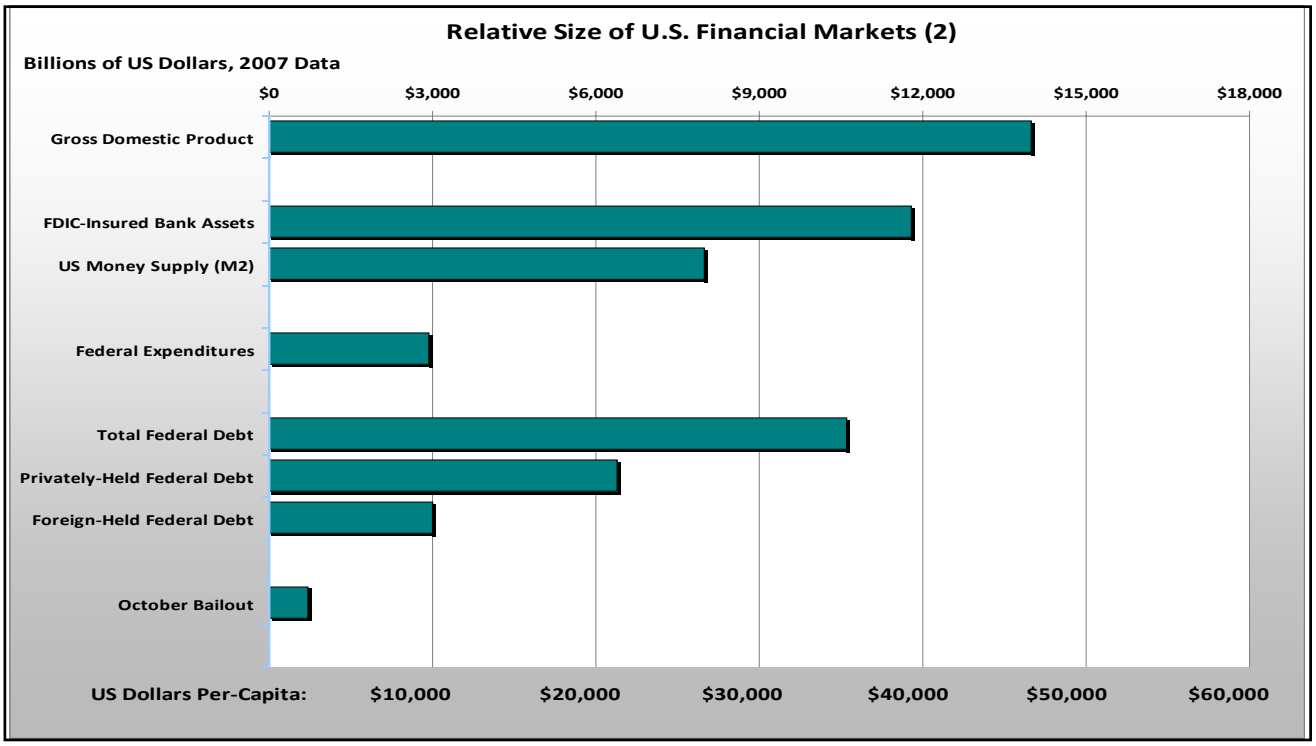
Real estate mortgages seemed like such good investments

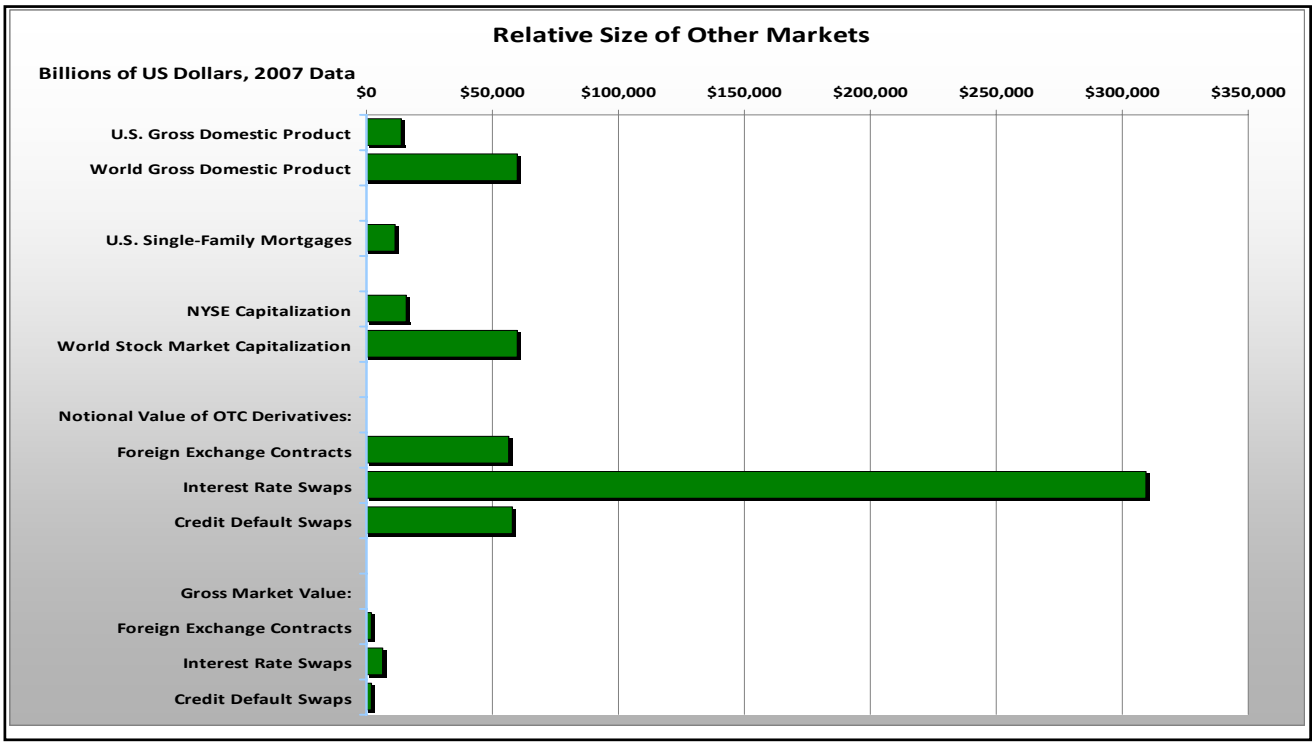
Real Estate Loan Delinquency
Real Estate Loan Charge-offs
Credit Card Charge-offs



Business is more than you think
COLLEGE OF BUSINESS
www.business.unr.edu


Relative Size of U.S. Financial Markets
Billions of US Dollars, 2007 Data
$0
$3,000
$6,000
$9,000
$12,000
$15,000
$18,000
Gross Domestic Product
Total Mortgage Debt
Single-Family Mortgages
Commercial Mortgages
Other Commercial Loans
Credit Card Debt
Other Consumer Loans
NYSE Capitalization
Nasdaq Capitalization
Institutional Money Funds
Commercial Paper
October Bailout
US Dollars Per-Capita:
$10,000
$20,000
$30,000
$40,000
$50,000
$60,000


Relative Size of U.S. Financial Markets (2)
Billions of US Dollars, 2007 Data
$0
$3,000
$6,000
$9,000
$12,000
$15,000
$18,000
Gross Domestic Product
FDIC-Insured Bank Assets
US Money Supply (M2)
Federal Expenditures
Total Federal Debt
Privately-Held Federal Debt
Foreign-Held Federal Debt
October Bailout
US Dollars Per-Capita:
$10,000
$20,000
$30,000
$40,000
$50,000
$60,000



What Caused all this Lending?

- New homebuyers, existing homeowners, and speculators.
- Mortgage brokers and predatory lenders.
- Financial market consolidation.
- Firms competing for highest returns.
- Short-term incentives for financial managers.
- Investment banks, rating agencies, and hedge funds.

Let's not forget Hubris.

- Some risks are not diversifiable.

What are Derivatives?

A derivative is a financial asset whose value is derived from *other* financial assets (e.g., futures, options, swaps).

- A derivative is financial insurance against price changes: a risk-averse person pays another party to take their risk from them.
- The most common type of derivative is an interest rate swap, but there are more types of derivatives than bets in a casino.

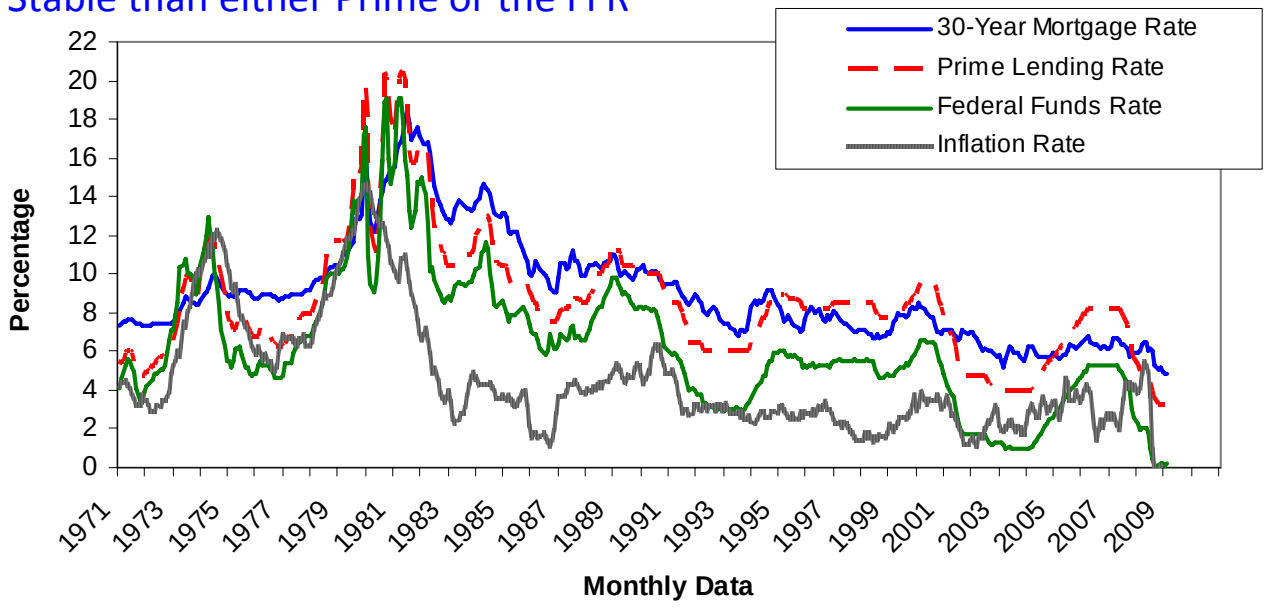
Why are Derivatives a Problem?

- Insurance markets are regulated to make sure the insurer has adequate capital. Derivative markets are not.
- Derivative markets can be complex, and traders on both sides may not realize what they are doing.
- Derivatives are not transparent, often off-book, and huge.
- You don't have to own the asset to buy insurance on it. This can leads to pyramiding of side bets. There are also often multiple generations far removed from the asset.
- All insurance markets have problems of moral hazard.

What Else Caused It?

- Fannie Mae (FNMA) and Freddie Mac (FHLMC)
  - Privately-owned, government-sponsored enterprises responsible for the mortgage-backed securities market for conforming loans. These were latecomers to the subprime debacle, but they also may have led many mortgage brokers to believe they would guarantee bad loans.
- Federal Reserve Bank
  - Monetary policy made cheap credit available, creating incentive for combining short-run borrowing and long-term lending. Twelve FRBs are controlled by member banks, and failed to regulate bank involvement in the derivatives markets.

Mortgage Rates have been much more Stable than either Prime or the FFR



Let's Not Forget the Federal Government

- Encouraged more people to buy homes, and pushed lenders to devote some portion of their lending for those who would normally not get loans.
- Removed regulations on lending practices and on derivative markets, and negligent in enforcing existing regulations. Pressure to turn a blind eye to emerging problems.
- Allowed financial mergers that made these firms too big to fail.

The role of campaign contributions from financial sector…

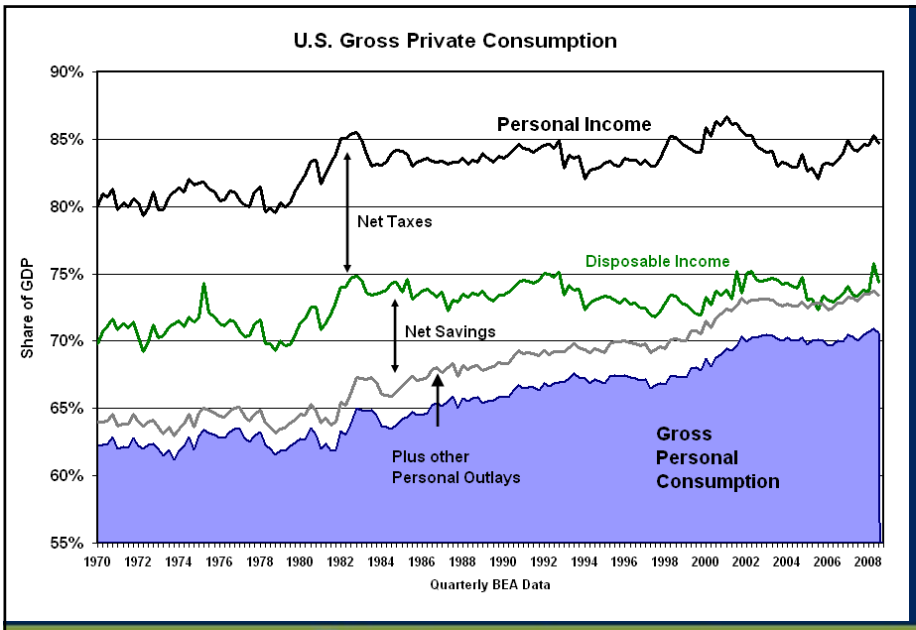
Financial Markets are Prone to Market Failure

- Market economies are most efficient when (1) there is competition, (2) everybody knows what they are buying and selling, and (3) external spillover effects are minimal.
- Finance fails on at least two: information and contagion.
- Basic problem: banks are lending somebody else's money.
- Government insurance (FDIC) and private insurance (CDOs) both lead to moral hazard, excessive risk-taking for short-run profit. Bailouts are just an extreme form of insurance.

Prior Financial Crises

- There have been financial panics in the U.S. even before the Great Depression: 1816-1819, 1825, 1837, 1857, 1873, 1893, and 1907. Most resulted in recessions.
- Prior "depressions" included 1837, 1873, 1893, 1907, and 1920-21.
- Government intervention was very limited – there was not even a central bank until 1913.

Business is more than you think
COLLEGE OF BUSINESS
www.business.unr.edu



A Major Cause/Effect is Household Spending

Over the last decade:

- a sharp rise in consumption
- A fall in personal domestic savings

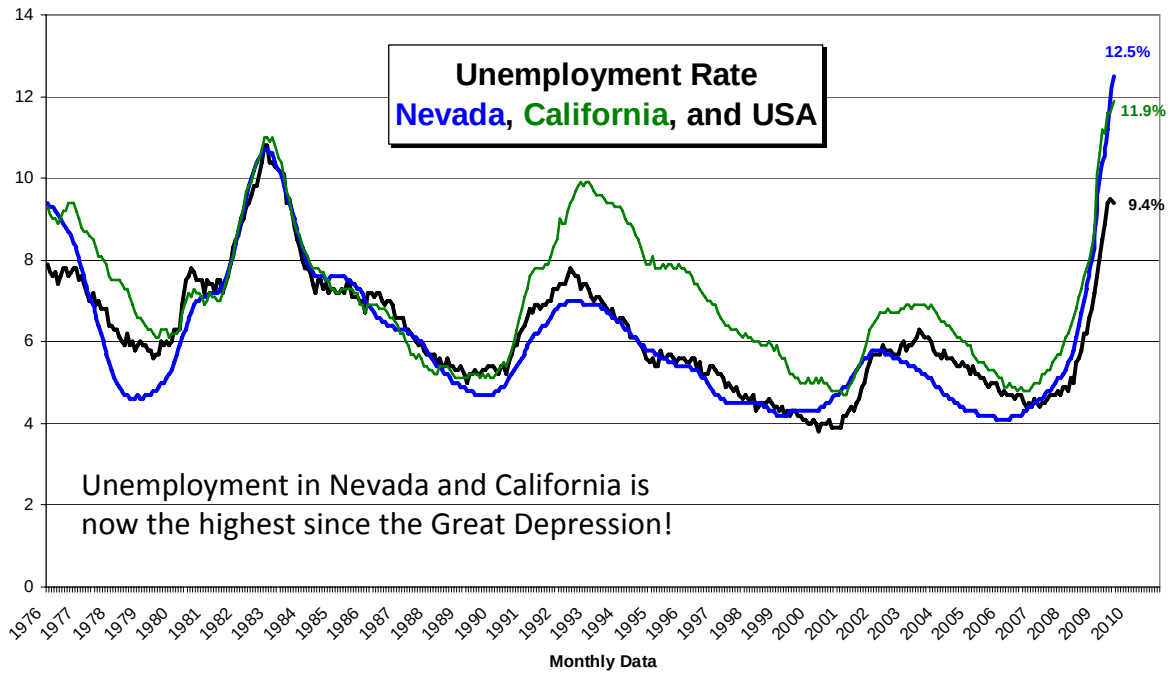
What are the Global Implications?

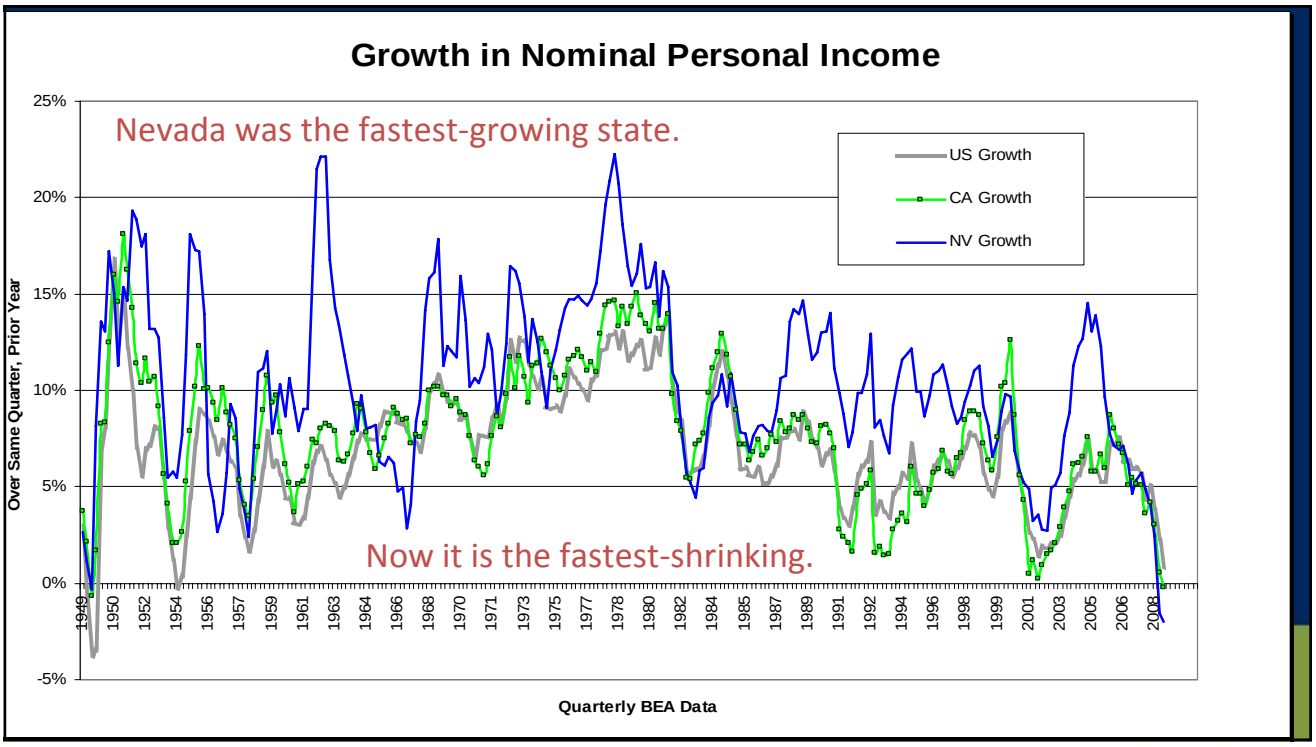
- Much of the savings being lent to Americans came from foreign sources.
- Housing bubbles occurred in dozens of countries.
- Many foreign banks engaged in the same practices as U.S. firms.
- Markets for derivatives are often offshore.
- Foreign markets rely on exports to American consumers.

Business is more than you think
COLLEGE OF BUSINESS
www.business.unr.edu

The Great Recession

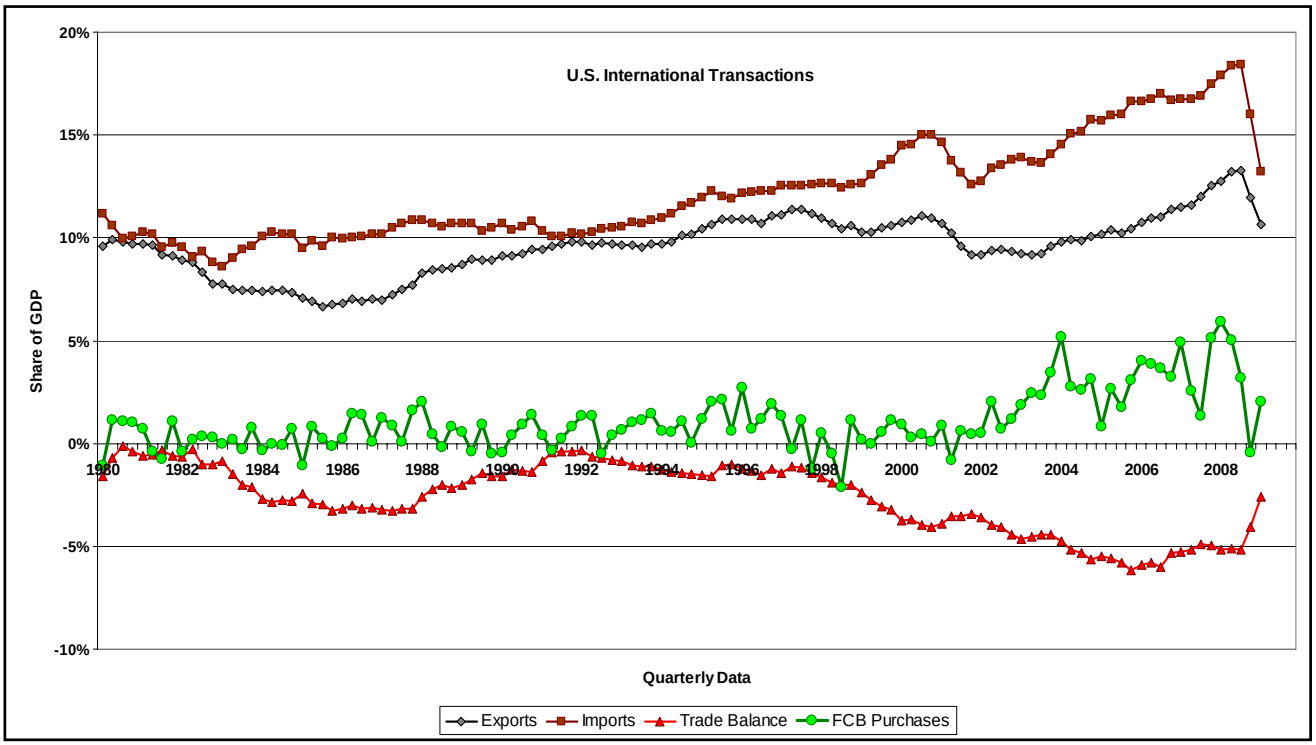
- This recession is estimated to be the biggest worldwide since the Great Depression.
- In the last four quarters, OECD says GDP has fallen by:
  - 2.5% in the United States, 2.1% in Canada
  - 13.7% in Turkey
  - 8.5% in Japan, 8.6% in Mexico, 8.4% in Ireland
  - 3.3% in Iceland, 4.9% in United Kingdom
  - 4.8% in Euro area, including 6.9% in Germany





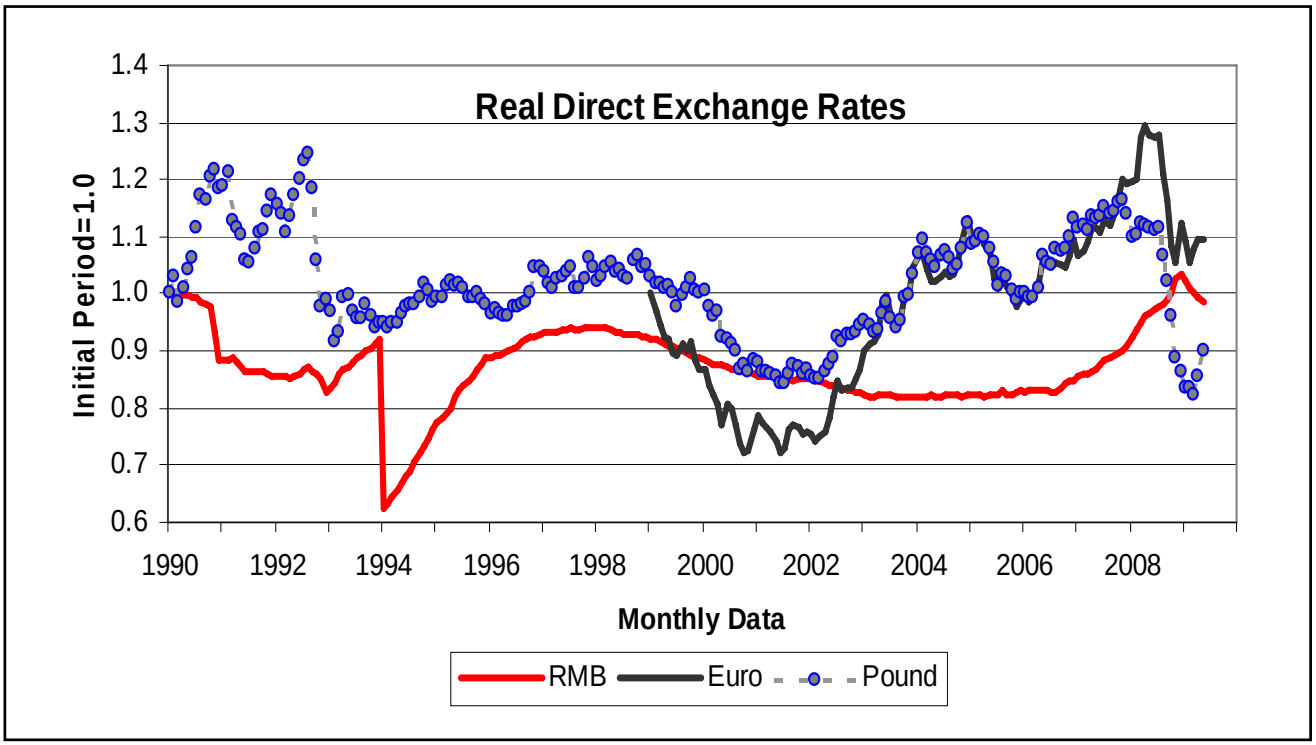
Good News?

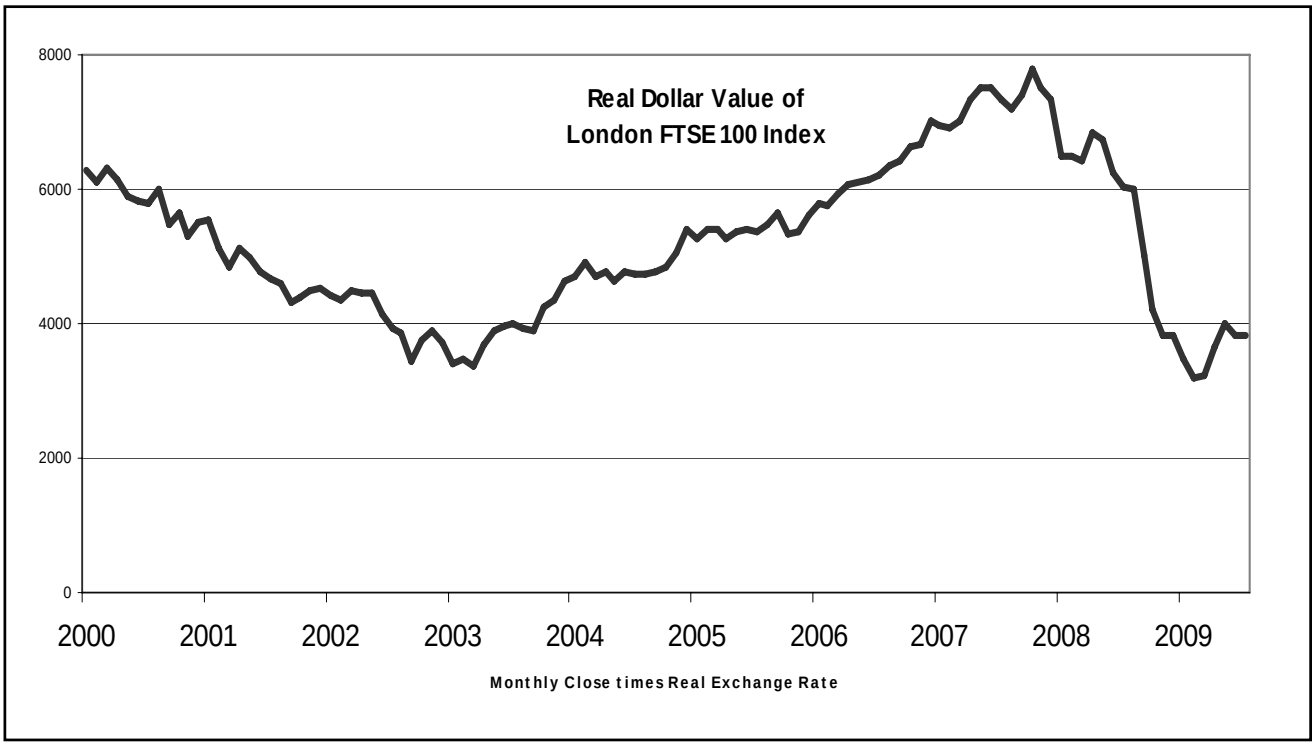
- It has significantly reduced the trade deficit.
- Personal savings has risen significantly.

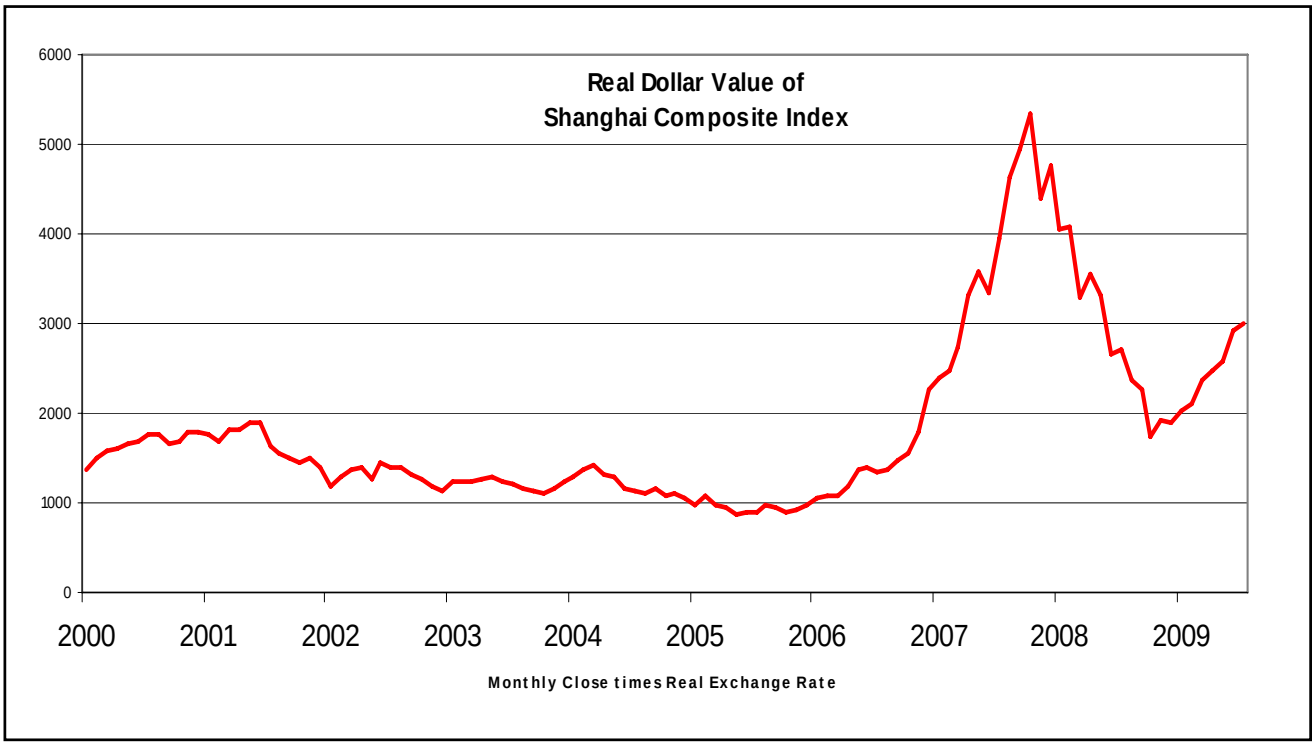


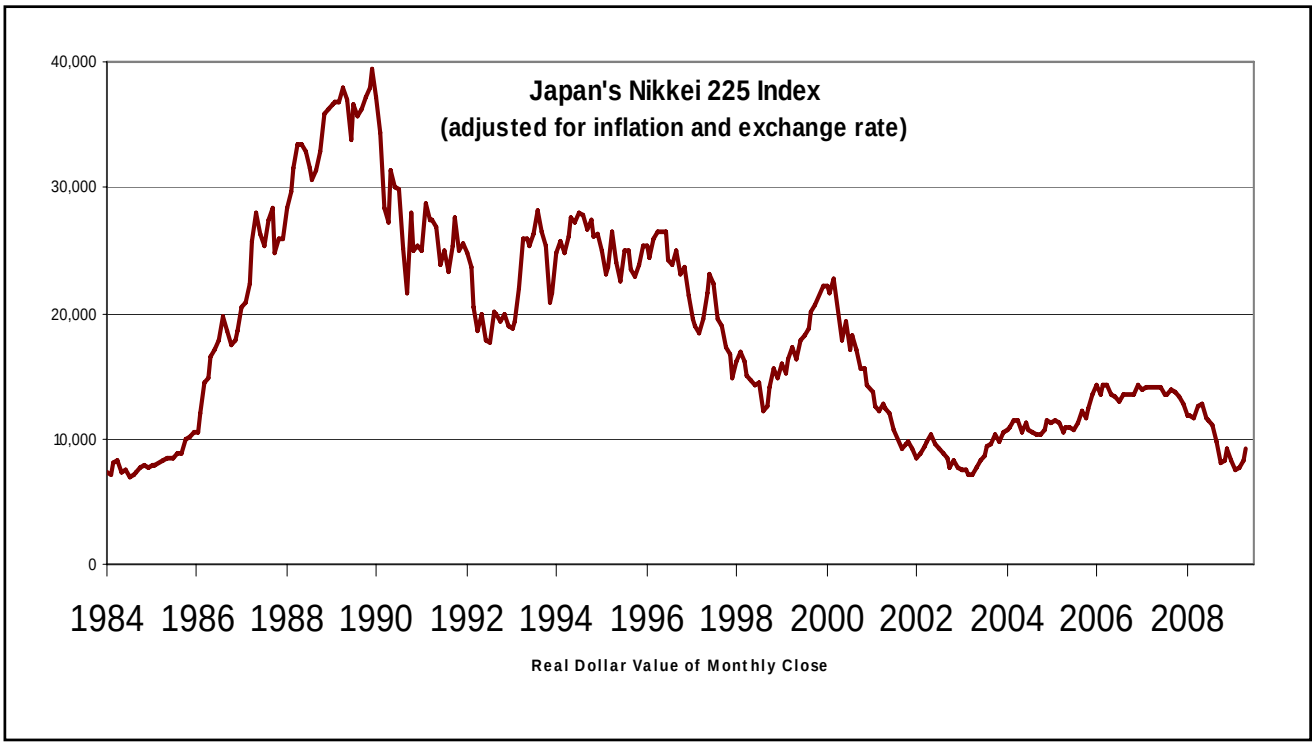
Foreign Exchange Rates

- From 2006-2008, foreign currencies were becoming more expensive in Dollar terms, and this was starting to rein in the trade deficit.
- Falling demand for imports and troubles in other countries led this to reverse in the last three quarters.
- This is likely to be a temporary depreciation of foreign currency, with effects on the trade deficit.


Real Direct Exchange Rates
Initial Period=1.0
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
Monthly Data
RMB
Euro
Pound


Real Dollar Value of
London FTSE 100 Index
8000
6000
4000
2000
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Monthly Close times Real Exchange Rate


Real Dollar Value of
Shanghai Composite Index
6000
5000
4000
3000
2000
1000
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Monthly Close times Real Exchange Rate


Japan's Nikkei 225 Index
(adjusted for inflation and exchange rate)
40,000
30,000
20,000
10,000
0
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
Real Dollar Value of Monthly Close

Bank Bailouts

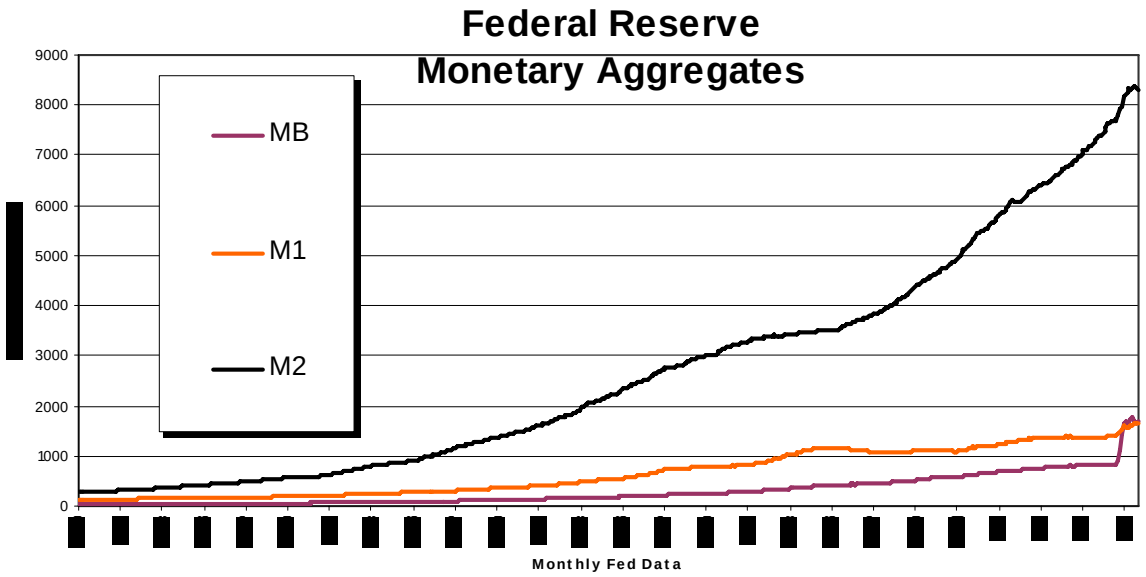
- Emergency Economic Stabilization Act:
  - $700 billion authorized in October 2008.
  - TARP funds began with plan for purchase of troubled MBS, but changed to a preferred stock model, with restrictions over executive pay.
  - Some large financial institutions have begun to pay these amounts back.

Monetary Intervention

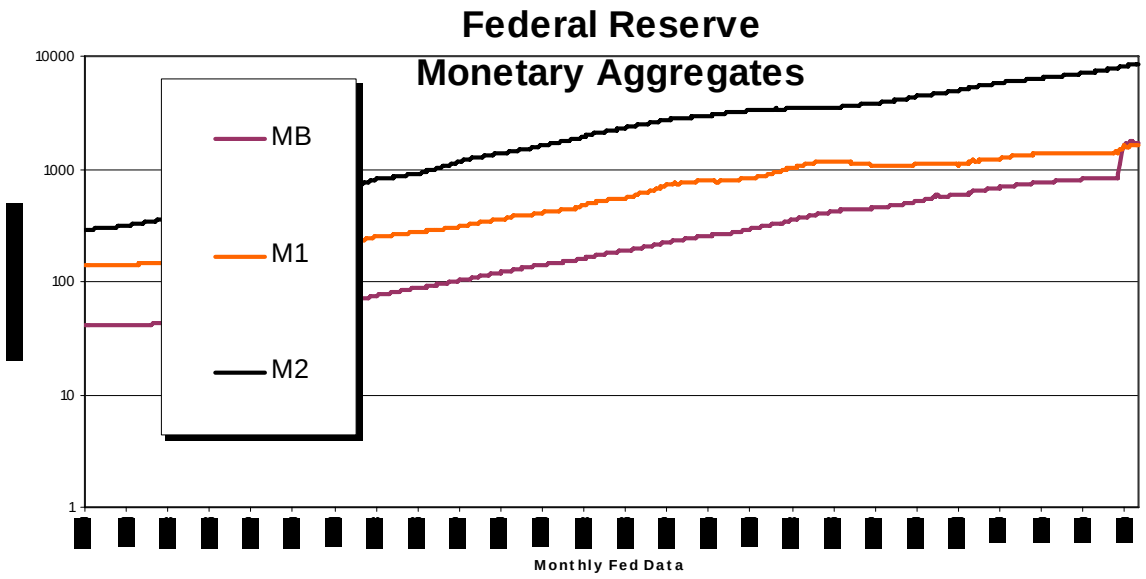
- Federal Reserve authorized:
  - Purchase of government bonds, helped drive yield to zero.
  - Purchase of private mortgage-backed securities for the first time.
  - Central bank currency swaps.
  - Target federal funds rate near zero.

Business is more than you think
COLLEGE OF BUSINESS
www.business.unr.edu

The Fed doubled the monetary base…



This is easier to see in logarithms…



Worries about Inflation

- Rise in Monetary Base would normally have been inflationary – but deposit expansion multiplier collapsed!
- Primary worry was Deflation, as during the Great Depression.
- M2 has not grown much, no sign of inflation yet.
- A Good Sign – worries have switched.
- Bernanke needs an exit strategy, to reduce reserves when banks start lending again.

Fiscal Intervention

- Economic Stimulus Act of Feb. 2008:
  - Tax rebates for 2008, estimated $150 billion cost (about 1% of GDP) in 2008.
- American Recovery and Reinvestment Act of 2009:
  - Estimated $800 billion cost over several years, with less than $100 billion spent so far, and $400 billion cost in FY 2010 (about 3% of GDP).
  - About 40% in tax credits, 30% in state fiscal support, and 30% in infrastructure investment (education, energy, health care), and some extended benefit support.

Business is more than you think
COLLEGE OF BUSINESS
www.business.unr.edu

Fiscal Skepticism?

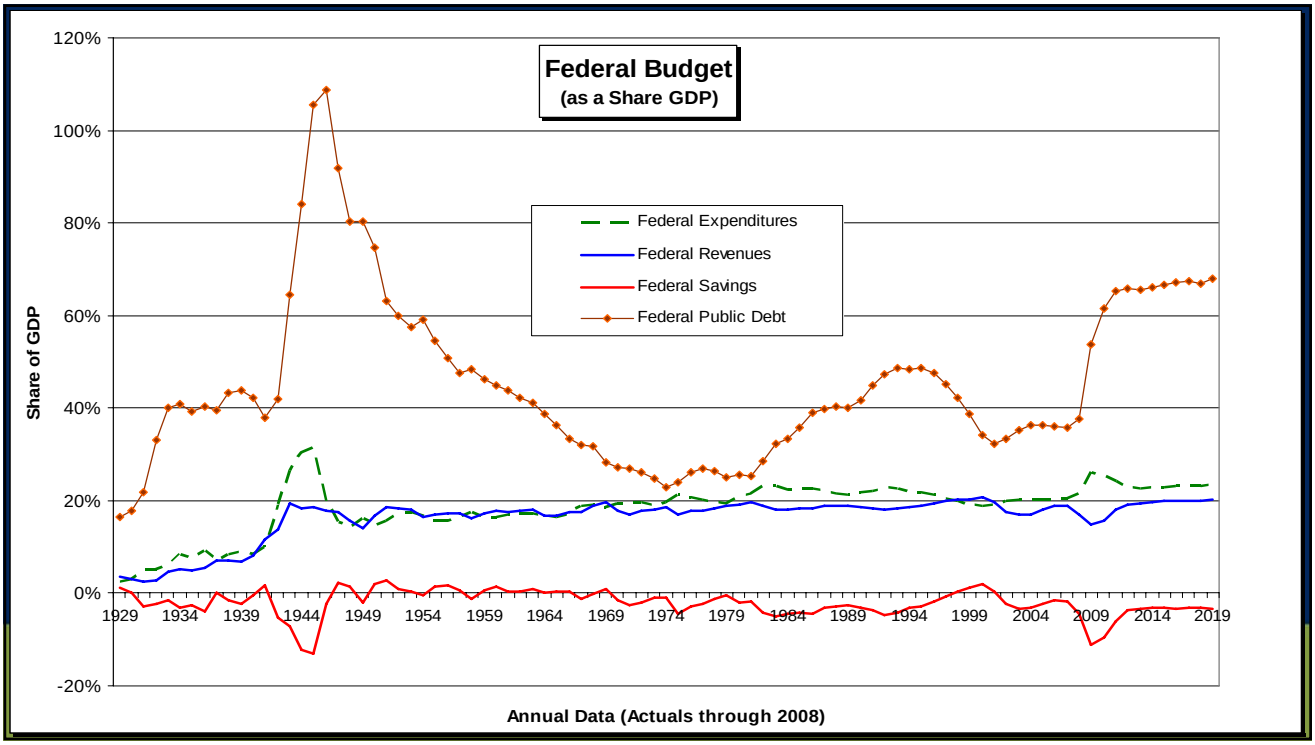
- Economists are very skeptical about fiscal policy working when we are close to full-employment.
  - Higher real interest rates crowd out investment.
  - Higher dollar crowds out exports.
  - Higher debt leads to future deficits.
- But we are NOT near full employment, and monetary policy isn't enough when banks are scared and interest rates are zero.
- What are our choices?

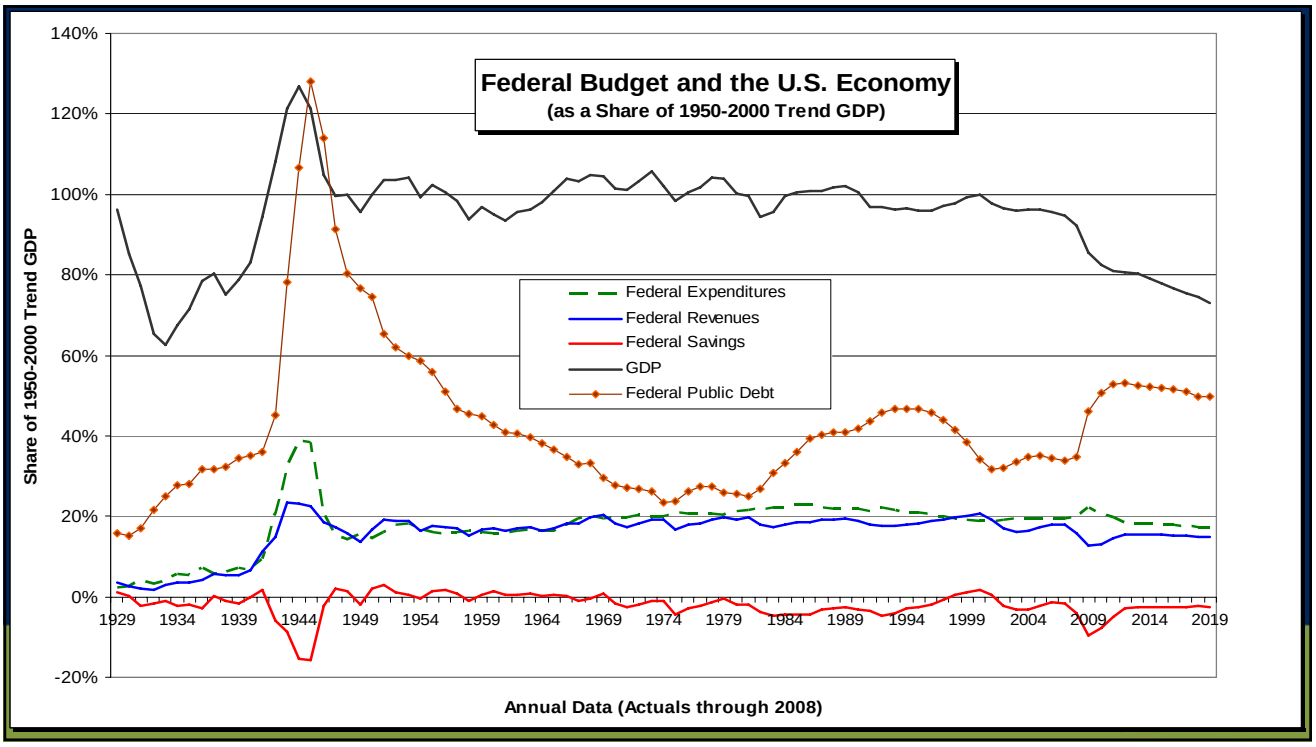
Worries about the Debt

- Recent estimates have raised 2009-2019 cumulative federal deficit projections from around $7 trillion to $9 trillion.
  - Falling revenues due to slower growth, assumption that tax cuts will be extended in 2012.
  - Servicing growing federal debt.
  - Additional tax cuts and expenditures from ARRA.

Is it Worth it?

- The total economic loss from the Great Depression was perhaps 120% to 140% of 1929 GDP, worth about $20 Trillion now.
- The total economic loss from the 1980-1983 recessions was 15% to 17% of 1979 GDP, about $2.4 Trillion now.
- If $800 million in stimulus could prevent half of this latter decline, then it would be a very good investment.
- If it led us to decline 2.5% instead of 5.0%, it has paid for itself.
- But we don't KNOW what would have happened without it.





Financial Regulation?

- How do we prevent this from happening again?
- The federal government seems afraid to shut the barn door while the horses are gone.

Will Things Return to Normal?

- On one hand – remember 9/11?
- Overconsumption is not sustainable
  - Households too, not just government.
  - Foreign countries did our saving for us.
- Nevada was particularly dependent on gaming, construction.
  - Much of this was driven by Californians letting their housing investments do their savings for them.

We are at a turning point…

- Our government debt is large, and growing, but not yet unsustainable. Will the current deficit be temporary or permanent?
- Our economic trajectory is not sustainable. We can't keep our spending growing faster than our income, and depending on other countries to keep financing that spending.
- Similarly, many countries with high savings rates have seen us as an export market driving their growth AND a place to invest their savings.

Business is more than you think
COLLEGE OF BUSINESS
www.business.unr.edu

How do we escape?

- Time – there is still significant deleveraging that still needs to occur. Housing prices must also stabilize.
- Confidence – consumers and investors no longer are as worried that we are in freefall.
- Restructuring – high consumption with trade deficits/foreign borrowing is not sustainable.
- Policy – difference between short-term intervention and long-term growth strategies.

What is the Prognosis Now?

- Housing prices are stabilizing nationwide – but Nevada is still being wagged by California.
- There is still a significant inventory of foreclosures and forced sales which are waiting to go on the market.
- Recession is likely over now, but Recovery may take a year or more to get started.
- Unemployment lags growth, and acts as a brake.
- Investor confidence has begun to return.

Business is more than you think
COLLEGE OF BUSINESS
www.business.unr.edu

This presentation will be available online

http://www.business.unr.edu/faculty/parker

or just Google "Elliott Parker"

Look under "Hot Topics" on the right side.

Thank you!

What will the Chinese Do?

- Before 1994 Devaluation: inefficient state enterprises, massive NPL problem in state banks, overvalued RMB.
- RMB kept low after 2000 through massive purchases of U.S. Bonds by PBC. Rising forex reserves financed money growth, but accommodated by rising money demand.
- Inflation rose after 2004, and PBC included other currencies in peg. In real terms, RMB rose 25% against the Dollar, easing inflationary pressure but eroding value of Dollar assets.
- Problem is not just Chinese assets, but those held by others.

Business is more than you think
COLLEGE OF BUSINESS
www.business.unr.edu

What if the Chinese stop lending?

"If you owe the bank $100 that's your problem. If you owe the bank $100 million, that's the bank's problem." - J. Paul Getty

If we owe foreign central banks $1 trillion, then what happens if they think we can't pay them?

- This debt is denominated in Dollars, so depreciation hurts them, not us.
- You can't, however, keep borrowing after that. Interest rates will rise, along with the U.S. risk premium.
- We will also lose the seignorage from the Dollar's use.