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

By the 1990s, people came to think rapidly rising stock prices were normal.

Boom through 1968, stagnation through 1984. Overall, the Dow just kept up with inflation for 40 years.
Remember the Bubble in NASDAQ?
Remember the Enron scandal?
How did we become so forgetful?

A Look at Housing Prices Since 1987
Adjusting for Inflation

Why did we think that housing prices would continue to always rise faster than inflation?
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
Real estate mortgages seemed like such good investments.

**Graph:**

- **Title:** Delinquency Rates and Charge-Off Rates on Loans at Insured Commercial Banks: 1985 to 2006
- **Legend:**
  - Real Estate Loan Delinquency
  - Real Estate Loan Charge-offs
  - Credit Card Charge-offs

Subprime lending had a much higher default rate, but it was less than ten percent of the mortgage market.

**Graph:**

- **Title:** Residential Delinquencies by loan number
- **Legend:**
  - All residential
  - Prime
  - Subprime

Source: National Delinquency Survey, Mortgage Bankers Association, CMBSA.
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.
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.

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
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 Dollar Value of Shanghai Composite Index

Real Dollar Value of Monthly Close times Real Exchange Rate

Japan's Nikkei 225 Index
(adjusted for inflation and exchange rate)

Real Dollar Value of Monthly Close
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.

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.
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.

---

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.
This presentation is available online

http://www.business.unr.edu/faculty/parker
or just Google “Elliott Parker”
Look under “Hot Topics” on the right side.

Thank you!