

The Great Contraction: The Future of Discovery



Michael A. Berry, Ph.D.
Cambridge Symposium
January 26, 2009

**Complementary Subscription to Morning Notes for Cambridge
Attendees:**

info@DiscoveryInvesting.com

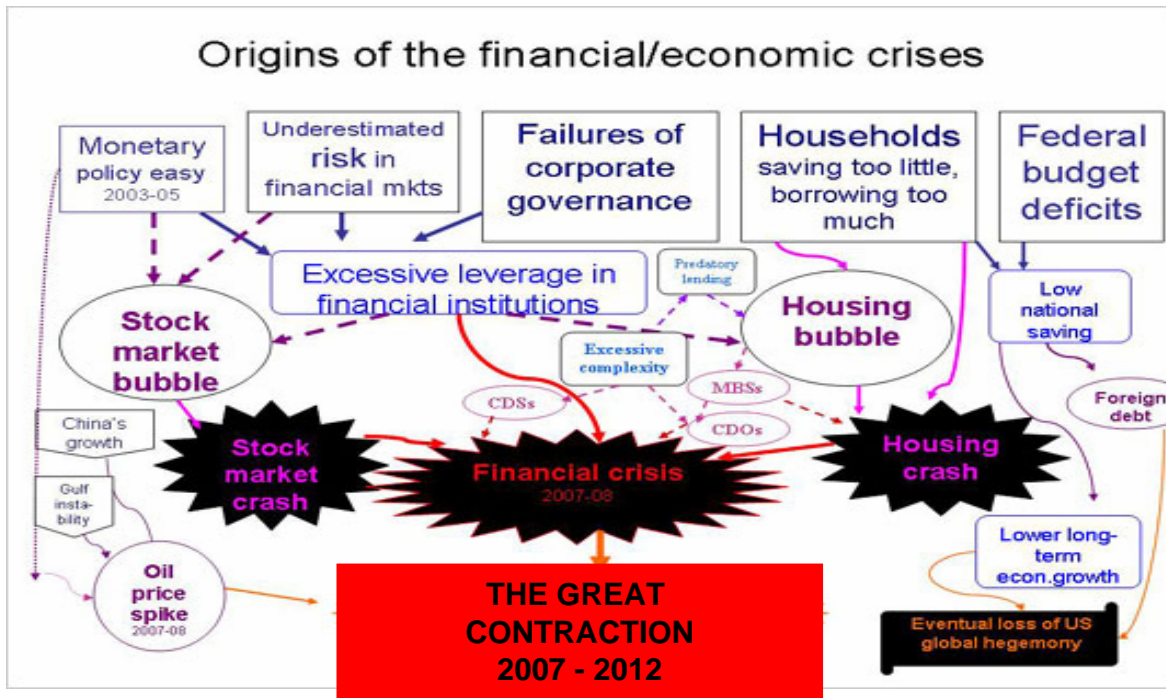
Former Fed Chairman Alan Greenspan 10/27/08

“Crisis Broader than anything I could
have imagined”

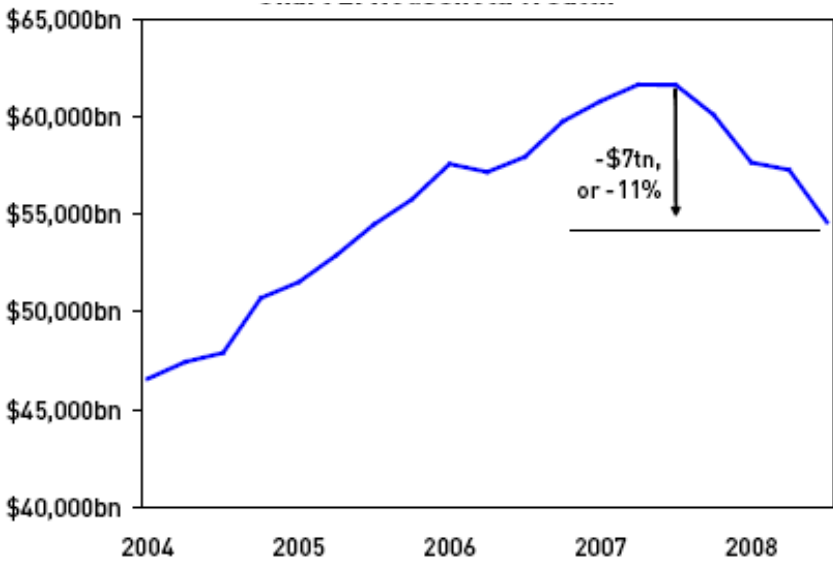
"we are in the midst of a once-in-a-century credit tsunami."

- ***“the best insights of mathematicians and finance experts failed”***
- ***“the whole intellectual edifice...collapsed in the summer of last year ...”***
- He said he was ***“in a state of shocked disbelief.”***

Origin of the Crisis: A Complex Set of Events Indeed (Rogoff, Harvard U.)

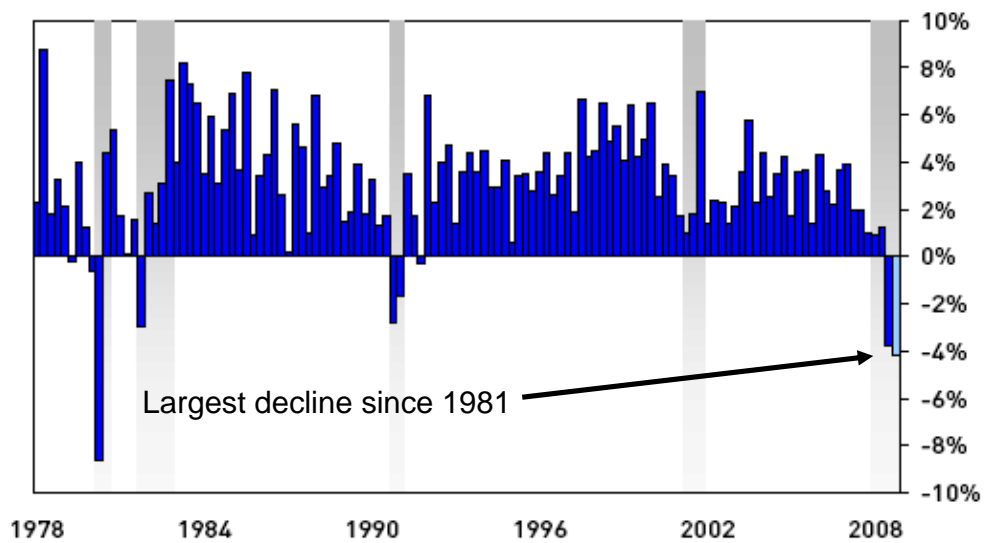


US Household Wealth Destruction: \$7 Trillion



Source: Federal Reserve

Real Personal US Consumption Expenditures – Dec 2008



Source: Federal Reserve

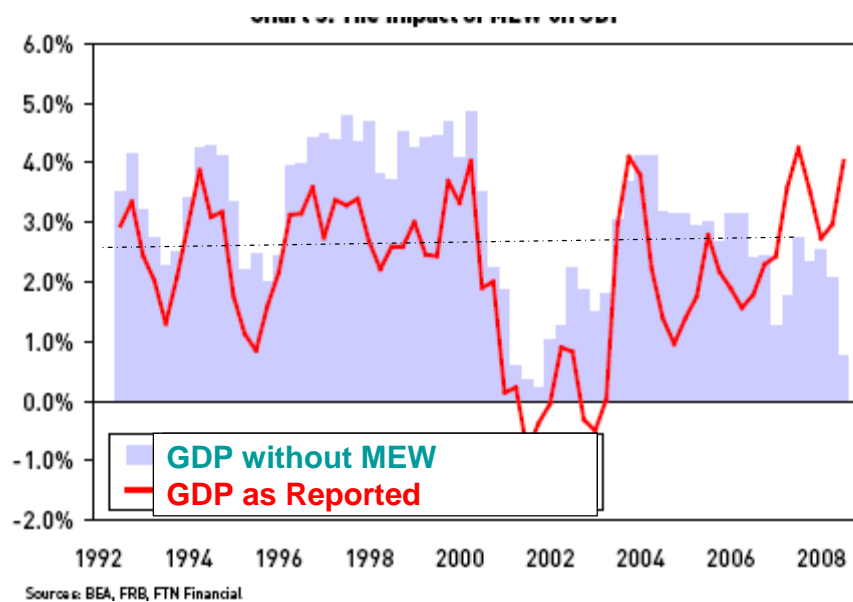
Alternative Measures of Labor Underutilization (Seasonally Adjusted) (%) January 9, 2009

	July 2008	Aug. 2008	Sept. 2008	Oct. 2008	Nov. 2008	Dec. 2008
U-3 Total unemployed, as a percent of the civilian labor force (official unemployment rate).....	5.7	6.1	6.1	6.5	6.7	7.2
U-6 Total unemployed, plus all marginally attached workers, plus total employed part time for economic reasons, as a percent of the civilian labor force plus marginally attached workers..	10.3	10.7	11.0	11.8	12.5	13.5

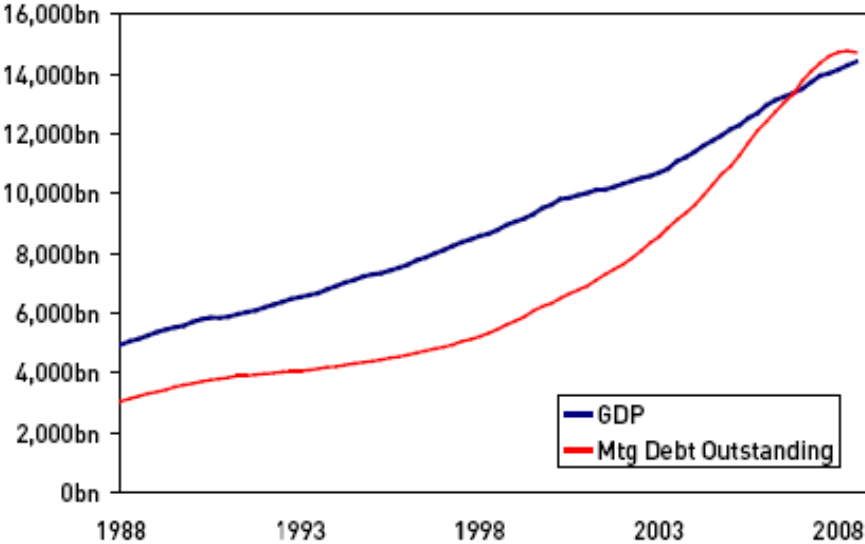


NOTE: Marginally attached workers are persons who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the recent past. Discouraged workers, a subset of the marginally attached, have given a job-market related reason for not looking currently for a job.

Mortgage Equity Withdrawals Increased GDP: Now with no home appreciation this source of growth is gone



US GDP: Driven by Debt



Source: Federal Reserve

Three Piecemeal Attempts to Save the US Banking System



Global Financial System Write-Downs Through Jan 12, 2009 (Bloomberg)

	Write-down (Billion \$)	Capital Raised	Shortfall
Total	\$ 1038.0	\$ 941.3	(\$96.70)
Americas	\$ 718.6	\$ 557.8	(\$160.80)
Europe	\$ 288.9	\$ 327.5	\$38.60
Asia	\$ 30.8	\$ 56.0	\$25.20

Professor Nouriel Roubini believes the US banks are Insolvent and will eventually require \$3.6 trillion in recapitalization.

Follow the \$8.5 trillion: Breakdown of the government's rescue funds

	Maximum commitment	Tapped so far
FEDERAL RESERVE PROGRAMS		
Commercial paper program Buys short-term notes from companies, which use the proceeds to pay bills	\$1.8 trillion	\$271 billion
Term auction facility Provides a negotiated rate for banks to borrow from the Fed	\$800 billion	\$415 billion
Other assets	\$606 billion	\$606 billion
Finance company debt purchases Buys debt issued or backed by government-chartered housing-finance companies including Fannie Mae and Freddie Mac in an effort to reduce their debt costs and thereby lower mortgage rates	\$600 billion	\$0
Money market investor funding facility Buys assets from financial companies to bolster money-market mutual funds	\$540 billion	\$0
Citigroup bailout The Fed agreed to guarantee \$291 billion of Citigroup's toxic assets	\$291 billion	\$291 billion
Term securities lending Allows financial firms to borrow Treasury bonds in exchange for collateral	\$250 billion	\$190 billion
Term asset-backed loan facility Lends money to owners of top-rated securities that are backed by school, car, credit-card and small business loans	\$200 billion	\$0
Other credit extensions Loan to American International Group	\$123 billion	\$87 billion
Discount window Lends directly to commercial banks	\$92 billion	\$92 billion
Commercial paper program 2 Lends to banks so they can buy commercial paper from mutual funds	\$82 billion	\$82 billion
Discount window 2 Lends directly to all financial firms, including securities firms	\$50 billion	\$50 billion
Bear Stearns assets The Fed guaranteed \$29 billion of the firm's assets when JPMorgan Chase bought it	\$29 billion	\$27 billion
Overnight loans Makes one-day loans to banks based on collateral	\$10 billion	\$10 billion
Secondary credit Lends at higher interest rates when collateral is weaker	\$118 million	\$118 million
Federal Reserve total	\$5.5 trillion	\$2.1 trillion
FEDERAL DEPOSIT INSURANCE CORP. PROGRAMS		
Loan guarantees Takes the risk out of bank-to-bank lending	\$1.4 trillion	\$0
Guarantee to GE Capital Supports the lending arm of General Electric	\$139 billion	\$139 billion
Citigroup bailout FDIC agreed to guarantee \$10 billion of Citigroup's toxic assets	\$10 billion	\$10 billion
Federal Deposit Insurance Corp. total	\$1.5 trillion	\$149 billion
TREASURY DEPARTMENT PROGRAMS		
Troubled Asset Relief Program Approved by Congress	\$700 billion	\$375 billion
Stimulus package Checks mailed to taxpayers last spring	\$168 billion	\$168 billion
Treasury Exchange Stabilization Fund Buys and sells short-term notes to moderate fluctuations in foreign currency exchange rates	\$50 billion	\$50 billion
Tax breaks for banks	\$29 billion	\$29 billion
Treasury Department total	\$1.1 trillion	\$597 billion
FEDERAL HOUSING ADMINISTRATION PROGRAM		
Hope for Homeowners Provides loan guarantees for struggling mortgage borrowers	\$300 billion	\$300 billion
Federal Housing Administration total	\$300 billion	\$300 billion
U.S. Government total	\$8.5 trillion	\$3.2 trillion

Dec. 2008
US Government
Rescue Funds

COMMITTED:
\$8.5 TRILLION

ALLOCATED:
\$3.2 TRILLION

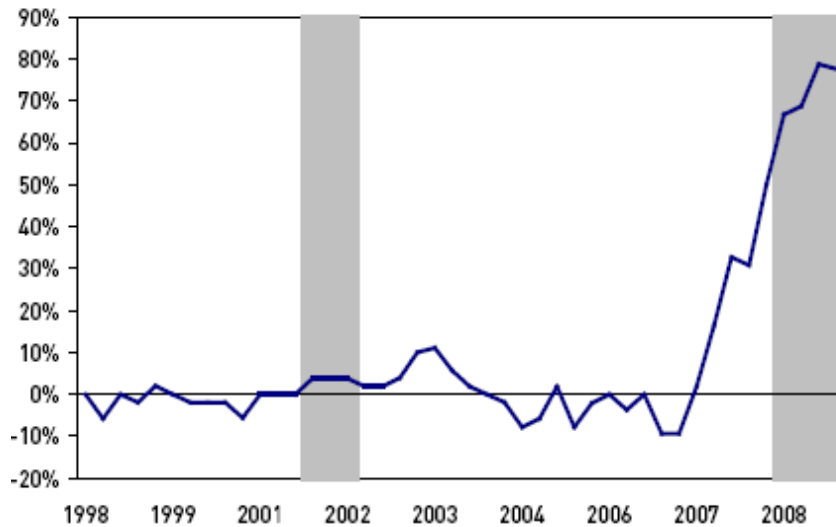
Note: Does Not Include TARP or
Obama Fiscal Spending

Estimates for the major US government expenditures (all figures inflation-adjusted):

Hoover Dam:	\$782 million
Panama Canal:	\$7.9 billion
Gulf War:	\$98 billion
Marshall Plan:	\$115.3 billion
Louisiana Purchase:	\$217 billion
Race to the Moon:	\$237 billion
Savings & Loan Crisis:	\$256 billion
Korean War:	\$454 billion
New Deal:	~\$500 billion
Iraq/Afghanistan/War on Terror:	\$597 billion
Vietnam War:	\$698 billion
NASA Budget since inception:	\$851.2 billion
World War II:	\$3.6 trillion
Total = \$7.63 trillion	

Lending Frozen: Percent of Banks Tightening Credit Standards

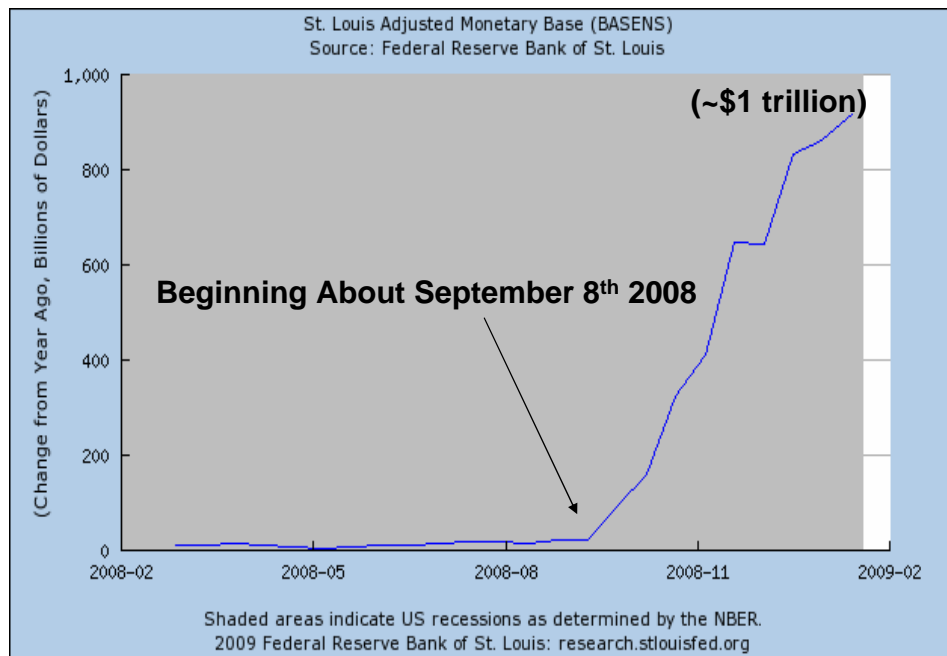
Lending fell \$46 billion, or 1.4%, at the top 13 recipients of TARP money in the past two months despite receiving \$148bn in new capital “intended” to boost lending. FTN Financial Jan 26, 2009



Source: Fed Senior Loan Officer Survey

Printing Money Like No Tomorrow Pushing on A String?

January 15, 2009

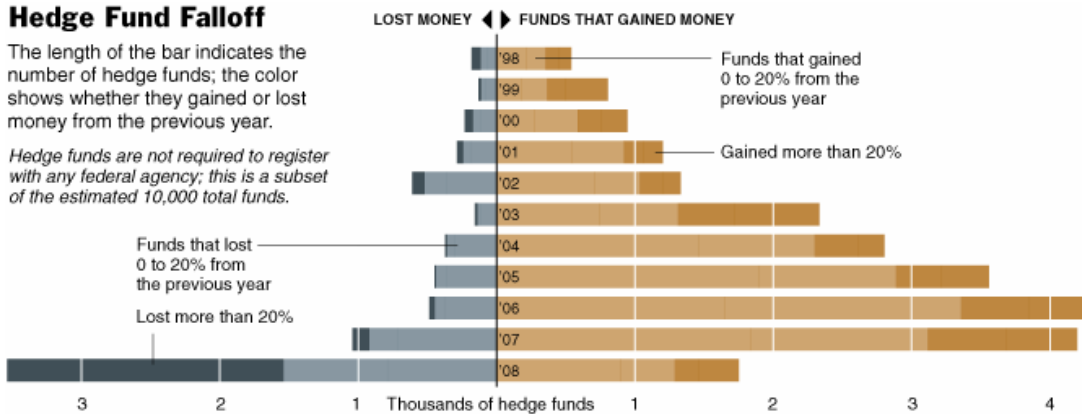


Hedge Funds Lose Big – State Pension Funds Underfunded by \$881 Billion

Hedge Fund Falloff

The length of the bar indicates the number of hedge funds; the color shows whether they gained or lost money from the previous year.

Hedge funds are not required to register with any federal agency; this is a subset of the estimated 10,000 total funds.



Source: HedgeFund.net

THE NEW YORK TIMES

The value of Canadian Pension Plans buoyed by a weak Loonie only fall by 15.9%

Globe and Mail Jan 24, 2009

US Housing Prices

Percentage Gain January 2000 to July 2006

Percentage Decline July 2006 to October
2008

127% Phoenix

-40.5%

174% Los Angeles

-34.3%

149% San Diego

-36.1%

118% San Francisco

-35.9%

40% Denver

-7.99%

50% Washington DC

-26.00%

178% Miami

-37.7%

138% Tampa

-30.5%

35% Atlanta

-11.2%

68% Chicago

-13.47%

78% Boston

-10.47%

23% Detroit

-30.13%

71% Minneapolis

-17.78%

28% Charlotte

0.04%

134% Las Vegas

-39.15%

115% New York

-11.71%

23% Cleveland

-11.93%

25% Dallas

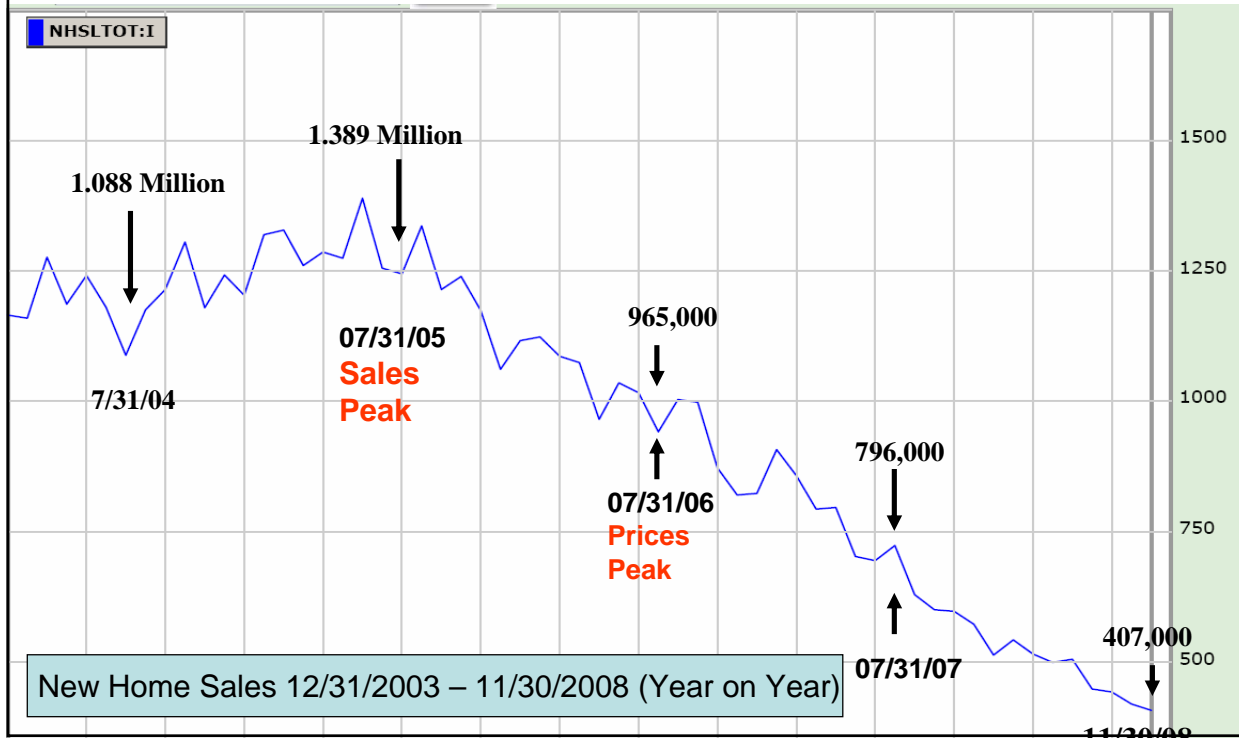
-3.8%

80% Seattle

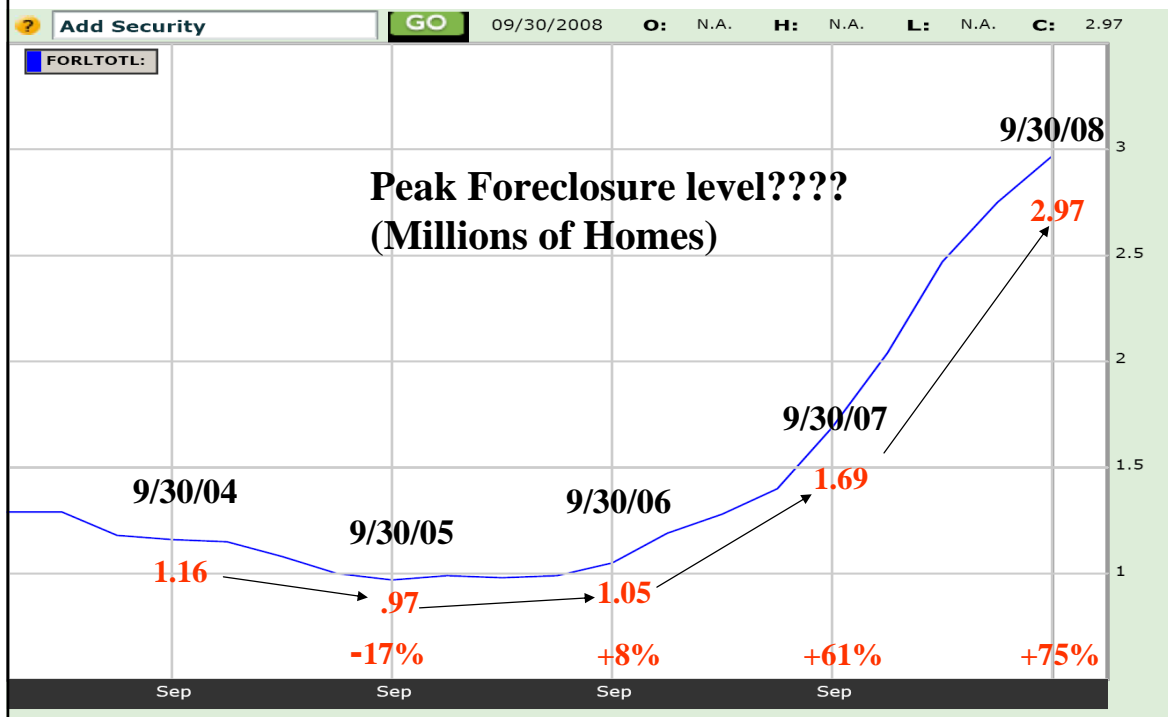
-5.28%

New Home Sales (Millions)

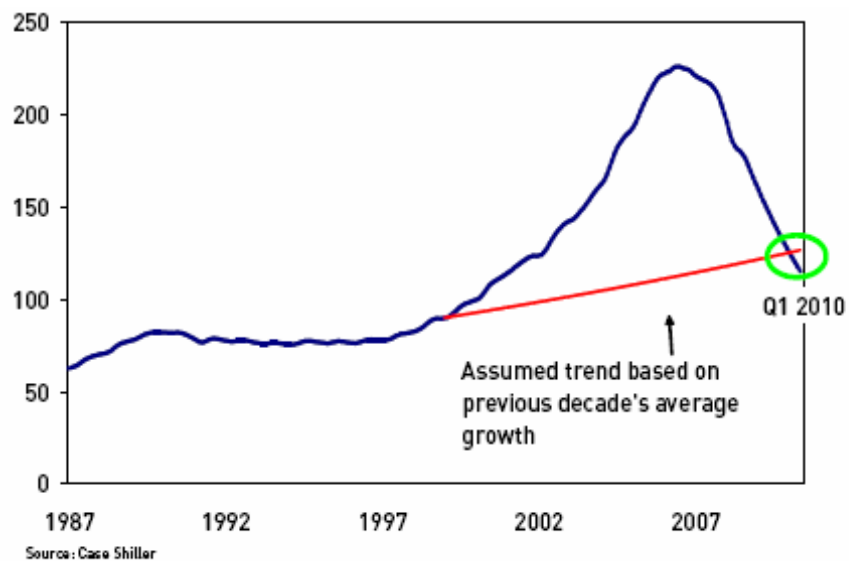
11/30/08



Foreclosures (Millions of Homes) Through 9/30/08

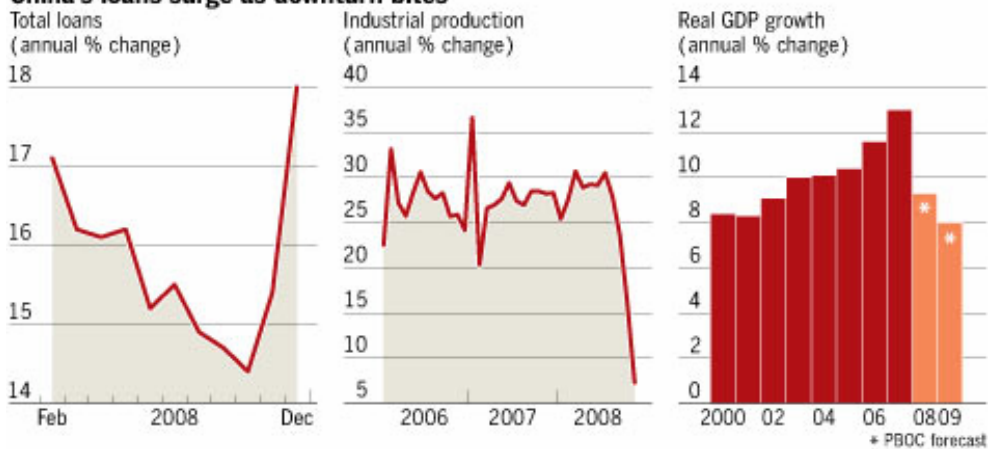


Best Estimate: US Housing Bottoms First Quarter - 2010



What About China?

China's loans surge as downturn bites

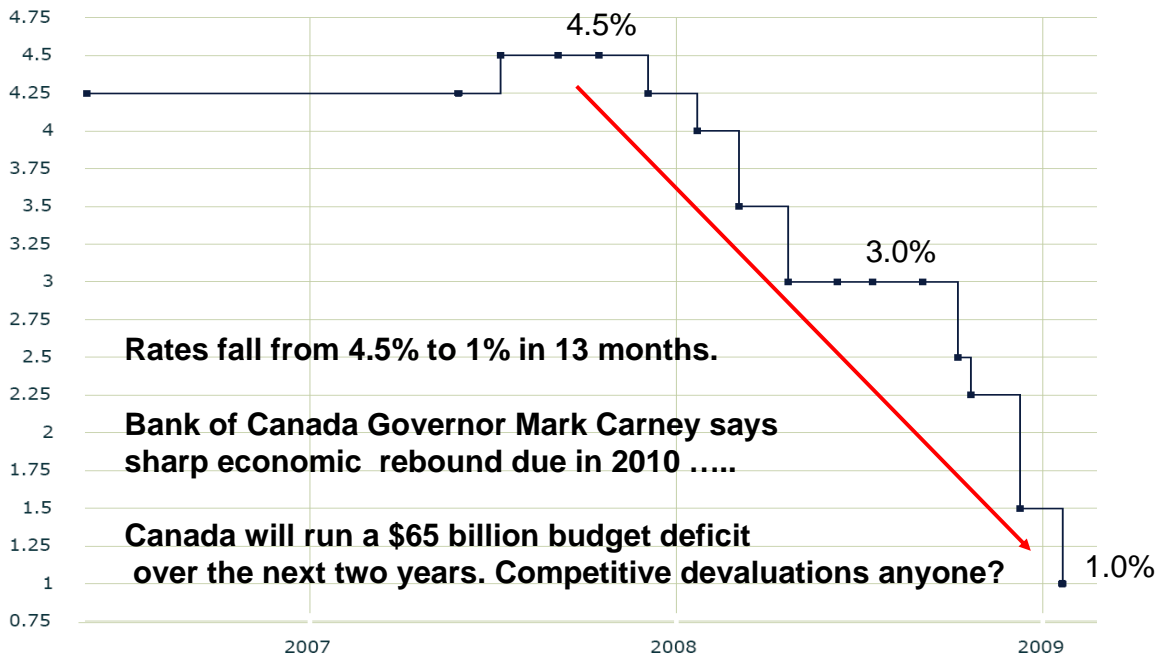


Thursday, China reported official 4Q GDP of 6.8% - 01/23/09

But ...

China is already 3 months into its \$685 billion fiscal program, focused on national highway and railway systems. China has the cash in hand to build out its infrastructure adding 1% to 3% to GDP

Even the Bank of Canada is in the Race to the Bottom



Energy and Commodities the key to Sustaining Lifestyle Barron's Roundtable – January 2009

Zulauf: Swing producers like the Saudis can cut back as they bring other OPEC producers in line. But it takes time to cut production by three million or four million barrels.

Faber: Some people say they have to cut by seven million barrels.

Gabelli: Either way you have a demand problem, even as oil companies have invested in new production. Petrobras has spent hugely on its new (Brazil) field.

Zulauf: At current oil prices, you can forget it. A lot of projects around the world have been postponed or canceled altogether, and that's true in all commodities markets, including metals.

Gross: Does extracting oil from tar sands make economic sense, with oil at \$45?

Zulauf: You need a price of \$60.

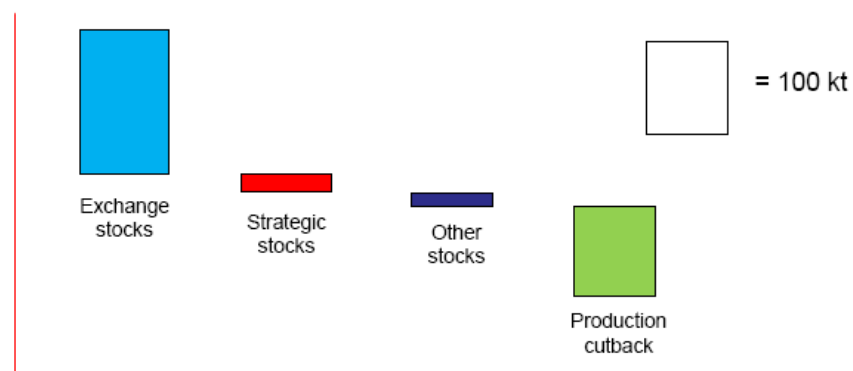
Throughout This Now Global Housing /
Credit / Banking Crisis

Commodity Prices Have taken it on the
Chin

There has been significant, and
irrevocable SUPPLY destruction in the
short run

Demand Destruction in Copper Exceeds Supply Destruction

With the arrival of surplus, exchange stocks rose. The chart below shows where the surplus went in Q4 2008



Production cuts were insufficient to fully offset the fall in consumption. Part of the reason for this was that cuts in mine output did not fully feed through to refined output. The net result was a large increase in exchange stocks. The increase would have been larger without off exchange stock building



Case Study:
BHP Closes Ravnesthorpe Nickel Mine
January 21, 2009

- Lays off 6,000 employees.
- Writes off US \$1.6 billion.
- Marginal projects are “toast.”
- Is this close to the bottom????

\$CRB (Reuters/Jefferies CRB Index (EOD)) IND.X

© StockCharts.com

Friday 23-Jan-2009

Open: **221.09** Bid: **n/a** P/E:
High: **226.05** Bid Size: **n/a** EPS:
Low: **215.32** Ask: **n/a** Last Ticks:
Prev Close: **221.09** Ask Size: **n/a** Last Size: **n/a**

▲ **+2.13%**
Chg: **+4.70**
Last: **225.79**
Volume: **0**

— \$CRB (Weekly) 225.79



**The Great Commodity Carry Trade Liquidation:
Covering the Short Dollar**

56%

Likely Outcome

- Global Contraction rivaling the Great Depression
- Long and Deep – U shaped recovery – US economy off 2% in 2009 – Europe deeper.
- Destruction and reconstitution (nationalization?) of the financial system as we know it.
- Very slow growth (if any) in 2010.
- Commodities a 2011 event – earliest.
- Gold, silver, fossil fuels and uranium sooner - 2010

What About Discovery

- Global supply has come off line quickly.
- BUT
- Demand destruction is still the mightier sword.
- Feedback loops from declining housing values to equity values and thence into bank writedowns force accelerated demand destruction. (potential for debt deflation)

First Potential for Recovery: 2011 / 2012

- Metals will boom – severely undervalued and a lack of supply.

Barron's Roundtable- Jan 2009

- **Zulauf:** My one recommendation for the longer term is physical gold. Consider the basic set-up: World economies are so weak that we are seeing government stimulation of historic proportions. At first this is deflationary, but it will become inflationary. Gold is the only currency that won't get devalued. It will be revalued.

What Do Some Canadian Bankers Think?

“At Royal Bank of Canada, we trade gold bullion off our foreign exchange desks rather than our commodity desks, because that’s what it is – a global currency, the only one that is freely tradable and unencumbered by vast quantities of sovereign debt and prior obligations.

"It is also the one investment and long-term store of value that cannot be adversely impacted by corrupt corporate management or incompetent politicians."

“ Don’t measure the Dollar against the Euro, or the Euro against the Yen, but measure all paper currencies against gold, because that’s the ultimate test."

Anthony S. Fell,
Chairman of RBC Capital Markets
February 13, 2007

\$GOLD (Gold - Continuous Contract (EOD)) INDX

© StockCharts.com

Friday 23-Jan-2009

Open: **844.10** Bid: **n/a** P/E:
 High: **903.60** Bid Size: **n/a** EPS:
 Low: **823.60** Ask: **n/a** Last Ticks:
 Prev Close: **839.90** Ask Size: **n/a** Last Size: **n/a**

▲ **+7.11%**
 Chg: **+59.72**
 Last: **899.62**
 Volume: **0**

▲ RSI(14) 57.12



Surviving the Great Contraction: Discovery Focus

Gold, Silver, Fossil Fuels, Uranium
&
alternative energy technologies.

Biotech/ Nanotech/ High tech
&
Infrastructure

Personal Survival

- Reduce / eliminate debt.
- Raise cash and hold – deflation impact.
- Prepare for reflation – watch Treasuries (prepare to short them) and other inflation indicators (Gold).
- Own adequate physical gold and silver.
- Buy energy sector selectively now. (Near Term Cash Flow)
- Use 10 point grid.
- Emphasize balance sheet strength, near term cash, JV potential and “Game Changer” Discovery potential. (Israeli natural gas Discovery)

WHAT'S DIFFERENT THIS TIME?

If the Fed's liabilities were covered by gold, it would sell for more than \$6,000 an ounce. We aren't going back to the gold standard, but the markets won't trust the central banks anymore. ...

You can sell it, but unlike a currency, you can't make it out of thin air. You have to dig hard to get it out of the ground, and there is a limited quantity available.

Bill Gross: How many years will it take for gold to double?

Two, but don't blame me if it takes three ... put the core of your holding in physical gold.

Felix Zulauf Jan. 2009

A message from the past
for Prime Minister Harper
and President Obama.

From Number 3 to Number 44

“If we run into such debts as that we must be taxed in our meat and in our drink, in our necessaries and our comforts, in our labors and our amusements, for our callings and our creeds, as the people of England are, our people, like them, must come to labor sixteen hours in the twenty-four, and give the earnings of fifteen of these to the government for their debts and daily expenses.

And the sixteenth being insufficient to afford us bread, we must live, as they do now, on oatmeal and potatoes, have no time to think, no means of calling the mis-managers to account; but be glad to obtain subsistence by hiring ourselves to rivet their chains around the necks of our fellow sufferers.

And this is the tendency of all human governments. A departure from principle in one instance becomes a precedent for a second, that second for a third, and so on 'til the bulk of the society is reduced to be mere automations of misery, to have no sensibilities left but for sinning and suffering.

And the forehorse of this frightful team is public debt. Taxation follows that, and in its train wretchedness and oppression.”

Yes, we did produce a near-perfect republic. But will they keep it? Or will they, in the enjoyment of plenty, lose the memory of freedom? Material abundance without character is the path of destruction.”

Thomas Jefferson 1816

***Third President of the United States 1801 -1809,
Drafter of the Declaration of Independence,
Founder of the University of Virginia***