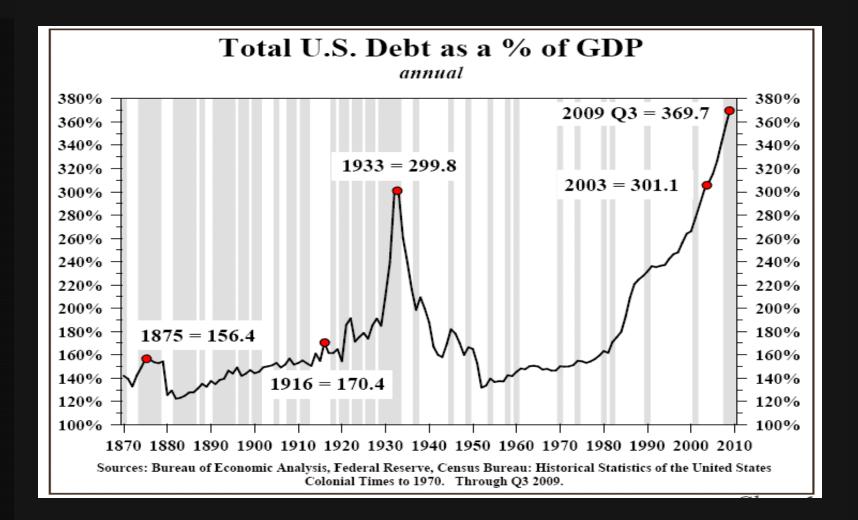
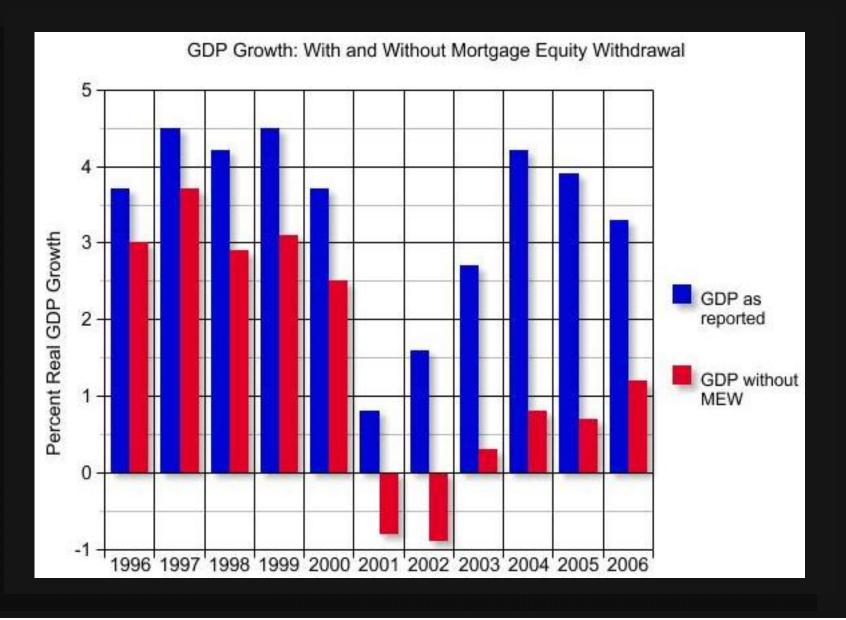


The Debt Super Cycle



Mortgage Equity Withdrawal Fueled the Economy



The Great Experiment



Keynes VS von Mises VS Fisher VS Friedman







GDP = C + I + G + (E-I)

GDP is Consumption (Consumer and Business) + Investment + Government Spending + Net Exports (Exports – Imports)

If the Government "Dis-saves" then the difference must be made up by Consumers, Business and Foreigners.

GDP = MV = PT

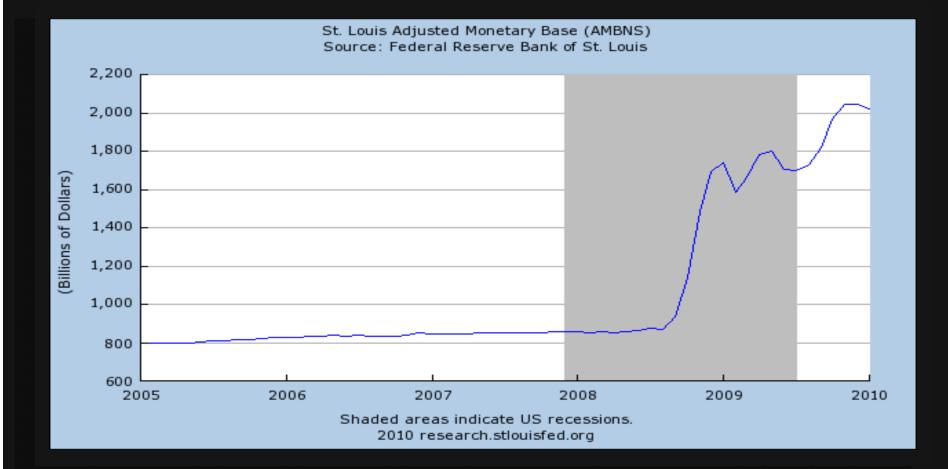
Gross Domestic Product is equal to

M (the supply of money) times V (The velocity of Money)

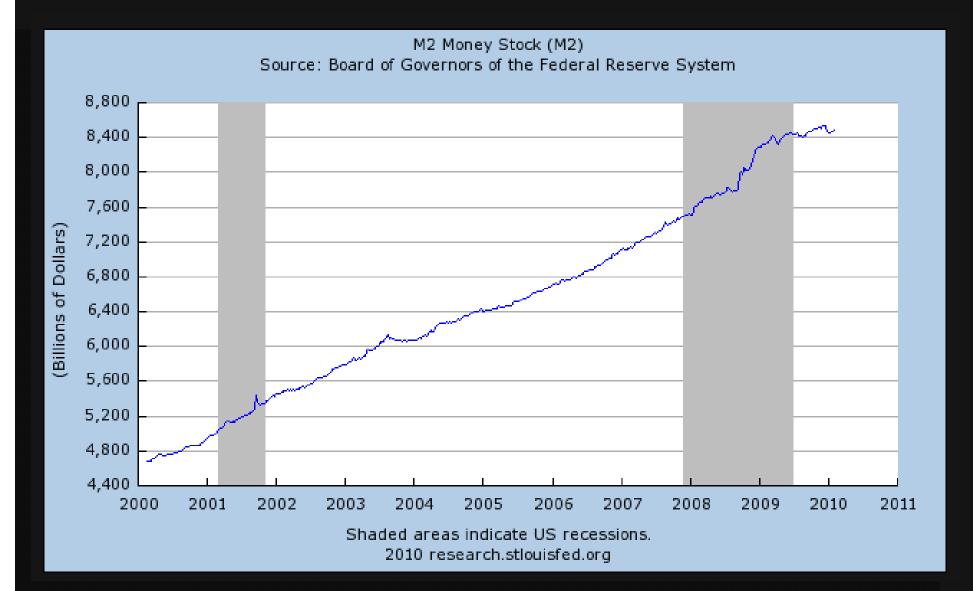
which is also

 Equal to P (price level) times T (The number of transactions)

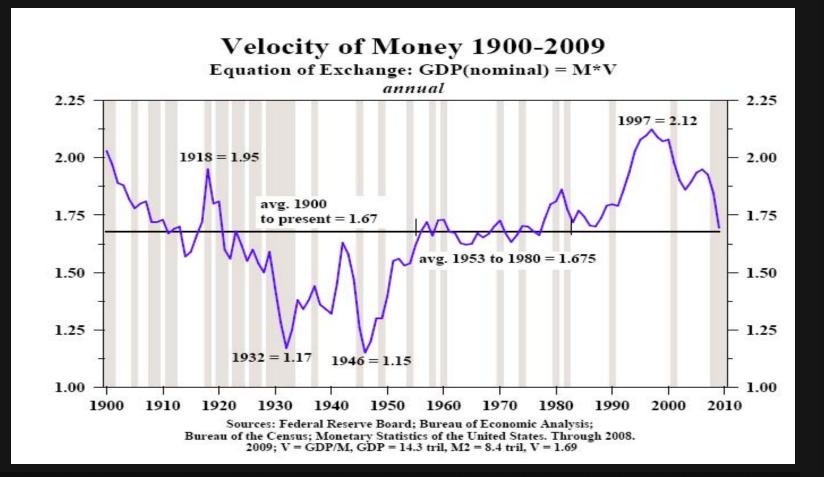
The Growth of the Adjusted Monetary Base



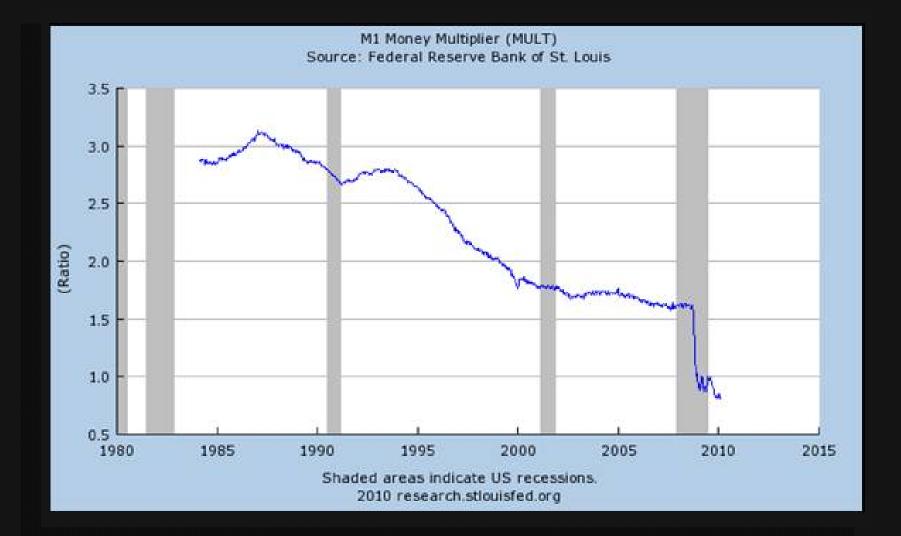
M2 is Flat or Falling Since the End of February



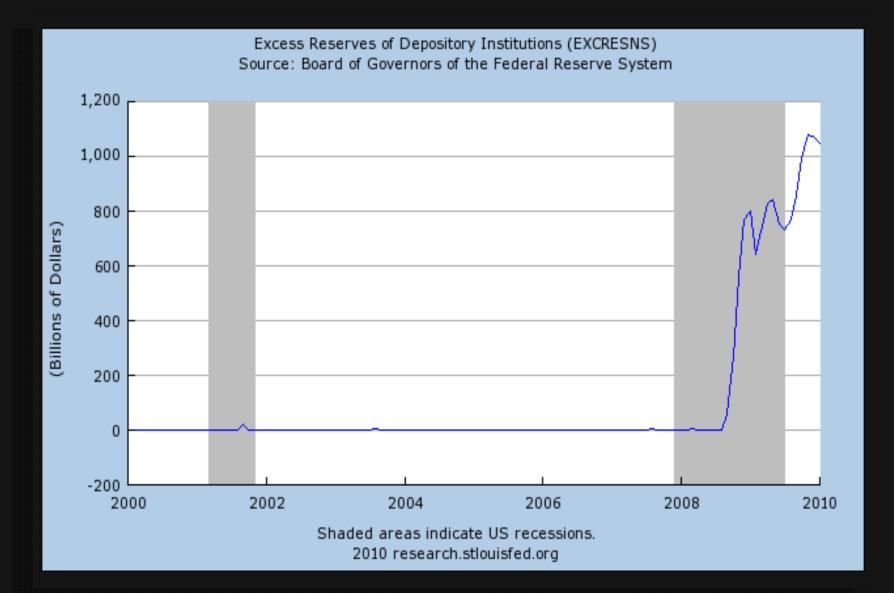
The Velocity of Money is Slowing Y=MV



The Money Multiplier is Falling!!



Where Did All the Money Go?



$\Delta GDP = \Delta Population + \Delta Productivity$

The Change in Gross Domestic Product is equal to the Change in Population plus the Change in Productivity

The Multiplier Effect

- The most extensive research on tax multipliers is found in a paper written at the University of California Berkeley entitled The Macroeconomic Effects of Tax Changes: Estimates Based on a new Measure of Fiscal Shocks, by Christina D. and David H. Romer (March 2007). (Christina Romer now chairs the president's Council of Economic Advisors).
- This study found that the tax multiplier is 3, meaning that each dollar rise in taxes will reduce private spending by \$3.

It Gets Worse

Barro (Harvard) and Perotti (Universita Bocci) Independently say that

Each \$1 increase in government spending reduces private spending by about \$1, with no net benefit to GDP

Impact of Deleveraging on GDP Growth

Real GDP growth is significantly slower in the first 2-3 years

of deleveraging Impact of deleveraging on GDP growth

inpactor dolororaging on obrigional						
		Deleveraging				
	A Real GDP growth ← Recession					
		Debt/GDP				
		10 years	1-2 years	2-3 years	4-5 years	10 years t
		10-year historic trend	Economic downturn starts as economy still leverages up	Downturn continues during the first years of deleveraging	Economic "bounce- back" while delever- aging continues	10-year trend post- deleveraging
Average annual real GDP growth, %		DP				
1	"Belt-tightening" n = 16	(4.7)	0.6	-0.6	4.8	3.2
2	"High inflation" n = 8	4.3	-1.7	-1.4	4.1	4.2
3	"Massive default" n = 7	4.3	-1.8	-3.0	5.7	4.8
4	"Growing out of deb n = 1	t" 7.9	0.8	▲ 12	.81	2.3
	Total n = 32	4.6	-0.5	-1.3	5.1	3.8

1 Deleveraging driven by off-trend growth is not linked to a recession.

SOURCE: International Monetary Fund; McKinsey Global Institute analysis

This Time Is Different

- Reinhart and Rogoff looked at 66 countries and 250 financial crises
- Key is whether debt is excessive relative to income as Fisher first said was the most important factor in 1933.



- Government actions, even involving sizeable sums of money, are far less helpful than they appear. As the book states, "Infusions of cash can make a government look like it is providing greater growth to its economy than it really is."
- Further increasing leverage to solve the problem only leads to greater systemic risk and general economic underperformance.

Conclusions

 Financial crises occur when debt is excessive relative to income, whether public or private or both

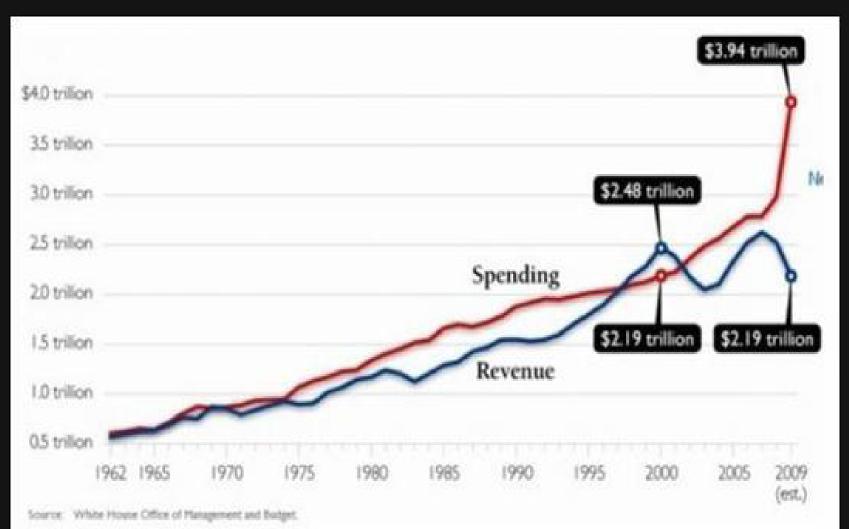
 It doesn't make any difference who the debt is owed to

The Limit of Debt on Growth

 Rogoff and Reinhart recently showed that when government debt rises to 90% it seems to reduce potential GDP by about 1% annually.

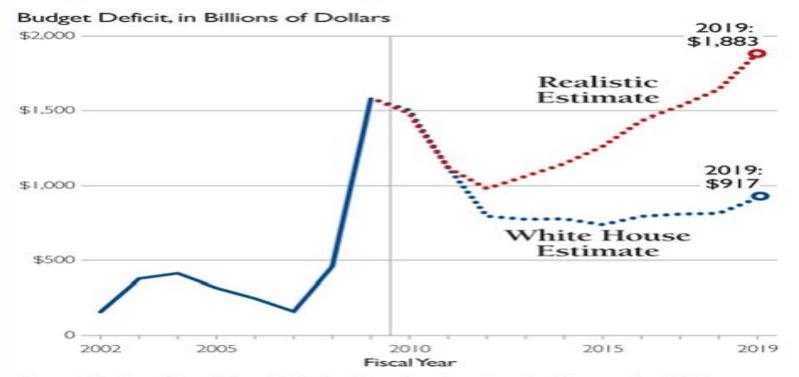
This is not theory, but simply observable fact

An Unsustainable Debt



Nothing But Trillion Dollar Deficits as Far as we Can See!!!!

Obama Budget Agenda Would Bring Annual Budget Deficits to Nearly \$2 Trillion



Source: Heritage Foundation calculations based on data from the Congressional Budget Office and U.S. Office of Management and Budget.

Chart 2 · B 2319 Theritage.org

GDP = C + I + G + (E-I)

Basically, Savings equals Investments

If the Government "Dis-saves" then the difference must be made up by Consumers, Business and Foreigners.

*But government spending has a multiplier of essentially nothing, and taxes have a multiplier of 3! And if you raise taxes?!?!?!



M-1, M-2, gold? – Misleading Measure

- Money is CASH + Credit
- Cash is \$2 Trillion
- Backed by Credit of \$50 Trillion



Re-Inflation?

It may take up to \$2 Trillion in new printing press money to re-inflate





The Elements of Deflation

If you add:

- Rising Unemployment and
 - Wealth Destruction and
- Reduced Borrowing and Lending and
 - Decreased Final Demand and
 - Increased Savings and
 - Low Capacity Utilization and
 - Massive Deleveraging and
 - \$2 trillion in Bank losses and a
 - Very Weak Housing Market and
 - Slowing Velocity of Money

You Get Deflation and **Nothing But Bad Choices**

Which path for the US economy?



- Argentina: Hyperinflation
 - Austrian School: Cut government spending
 - Eastern Europe: Structural Change
- Japanese Disease: Large deficits, no growth

Japanese Disease?

- Total Japanese debt to GDP is about where it was 20 years ago, but the government debt to GDP has risen from 51% to 200% and rising fast.
- What did they get for all that debt? The Japanese have not added any jobs for two decades, and their nominal GDP is where it was 17 years ago

Which path for the US economy?



- Argentina: Hyperinflation
- Austrian School: Cut government spending
- Eastern Europe: Structural Change
- Japanese Disease: Large deficits, no growth



- The Glide Path Option:
- High unemployment
- Tax increases
- slow-growth

The Prospects for the Rest of the World

- Greece Between Very Bad and Disastrous
- The Pain in Spain
- Japan A Bug in Search of a Windshield
- Britain Things that make you go hmmm
- Emerging markets

