



Debt-Deflation

David Meier
October 2009



Revision History

- August 2009
 - Presented to MDP team; inflation vs. deflation
- September 2009
 - Presented to Advisor Development; inflation vs. deflation
- October 2009
 - Presented to CAPS Blog; debt-deflation



Summary

- The inflation vs. deflation debate rages on
- I am in the deflationist camp
- I believe debt-deflation is just starting
- This presentation contains the data that try to support my claim
- Is there a twist at the end?

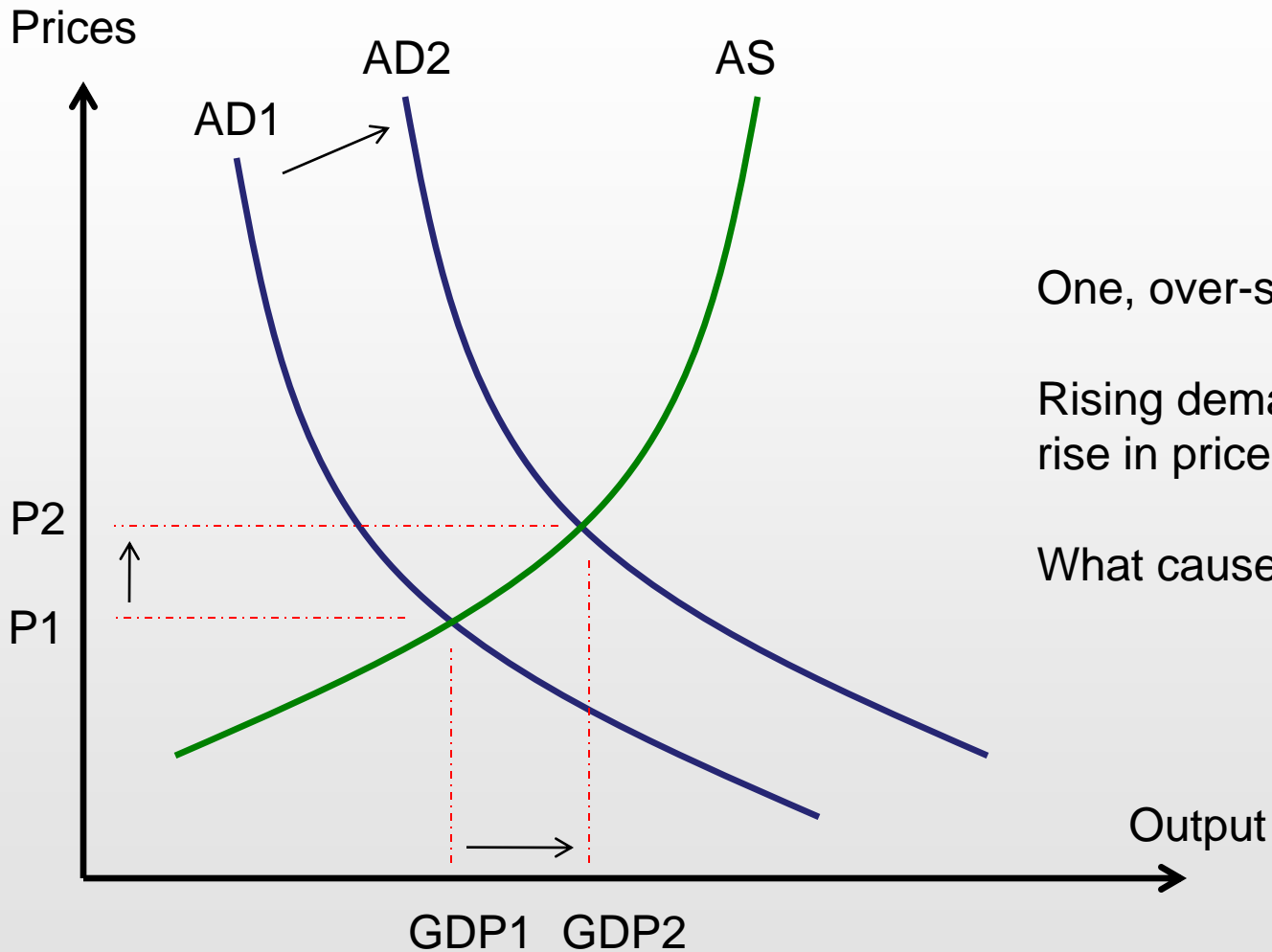


Inflation and Deflation

- Two perspectives
 - Prices and money
- Inflation
 - Rising prices and/or rising money supply
- Deflation
 - Falling prices and/or falling money supply
- I believe the two are interrelated and I believe it starts with money/credit supply



Inflation

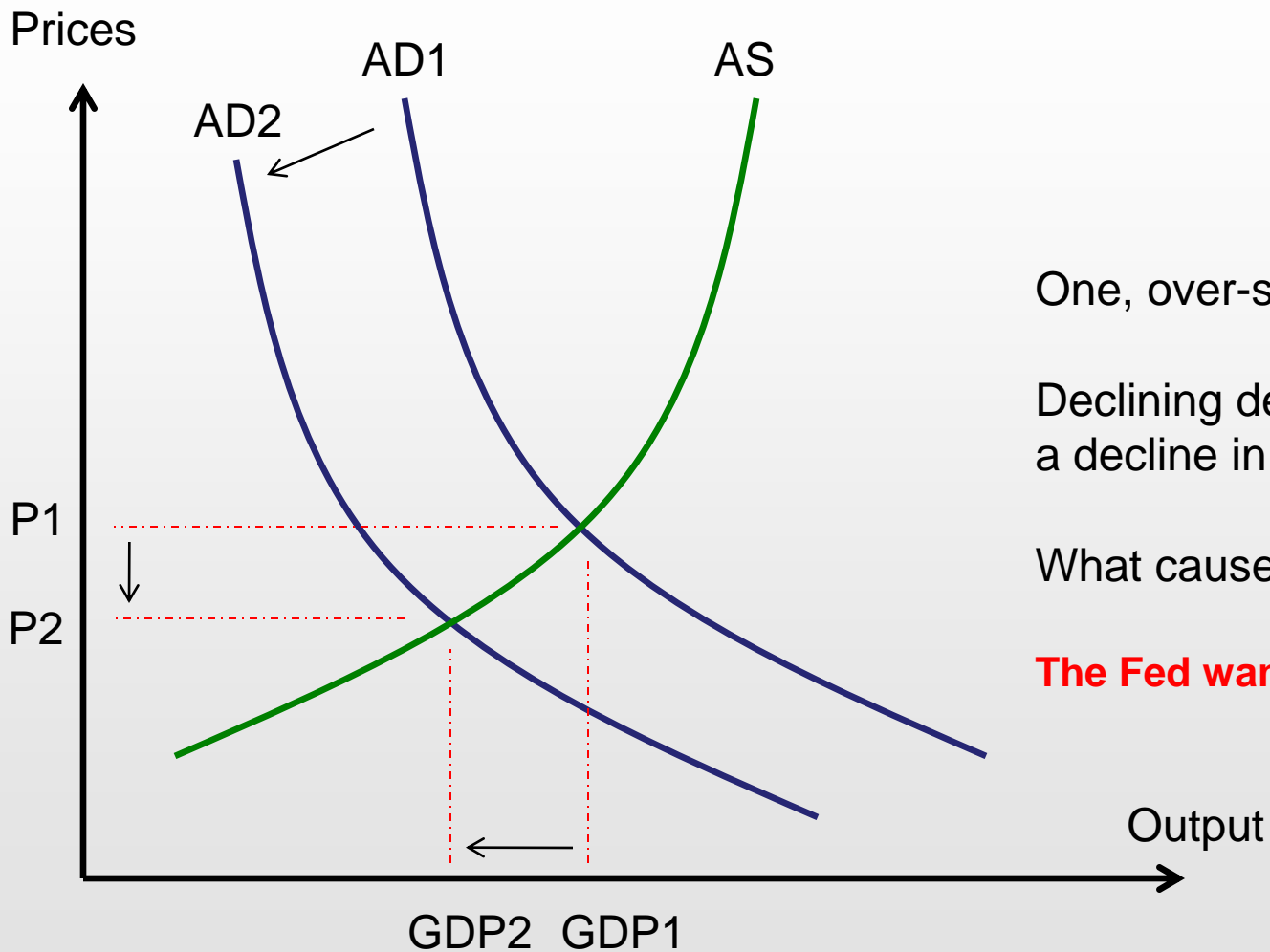


One, over-simplified view:

Rising demand can cause a rise in prices and output

What causes demand to rise?

Deflation



One, over-simplified view:

Declining demand can cause a decline in prices and output

What causes demand to fall?

The Fed wants to prevent this



And equations ...

- The Quantity Theory of Money
- $MV = PY$
 - M = money stock = monetary base * multiplier
 - V = velocity
 - P = price
 - Y = output
- Simplified view
 - Prices can move with changes in the money stock
 - Complex, non-linear relationships



Before We Start, Some Actors

- Hyman Minsky
 - Debt continuum
 - Instability and bubble models
- Irving Fisher
 - 9 links in the chain of debt-deflation
- Ben Bernanke
 - Dead set against deflation



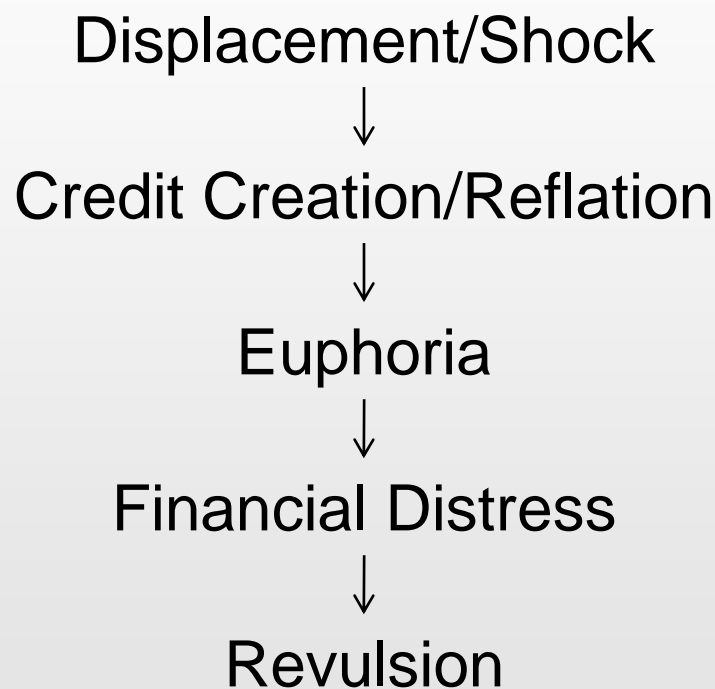
Minsky's Debt Continuum

- Hedge finance
 - Debt that can fulfill all contractual obligations using cash flows
- Speculative finance
 - Can meet interest payments on cash flows, but require a “roll over” to meet principal payments
- Ponzi finance
 - Cash flows cannot meet interest or principle obligations. Requires additional borrowing or asset sales or rising asset prices.



Minsky's Bubble Model

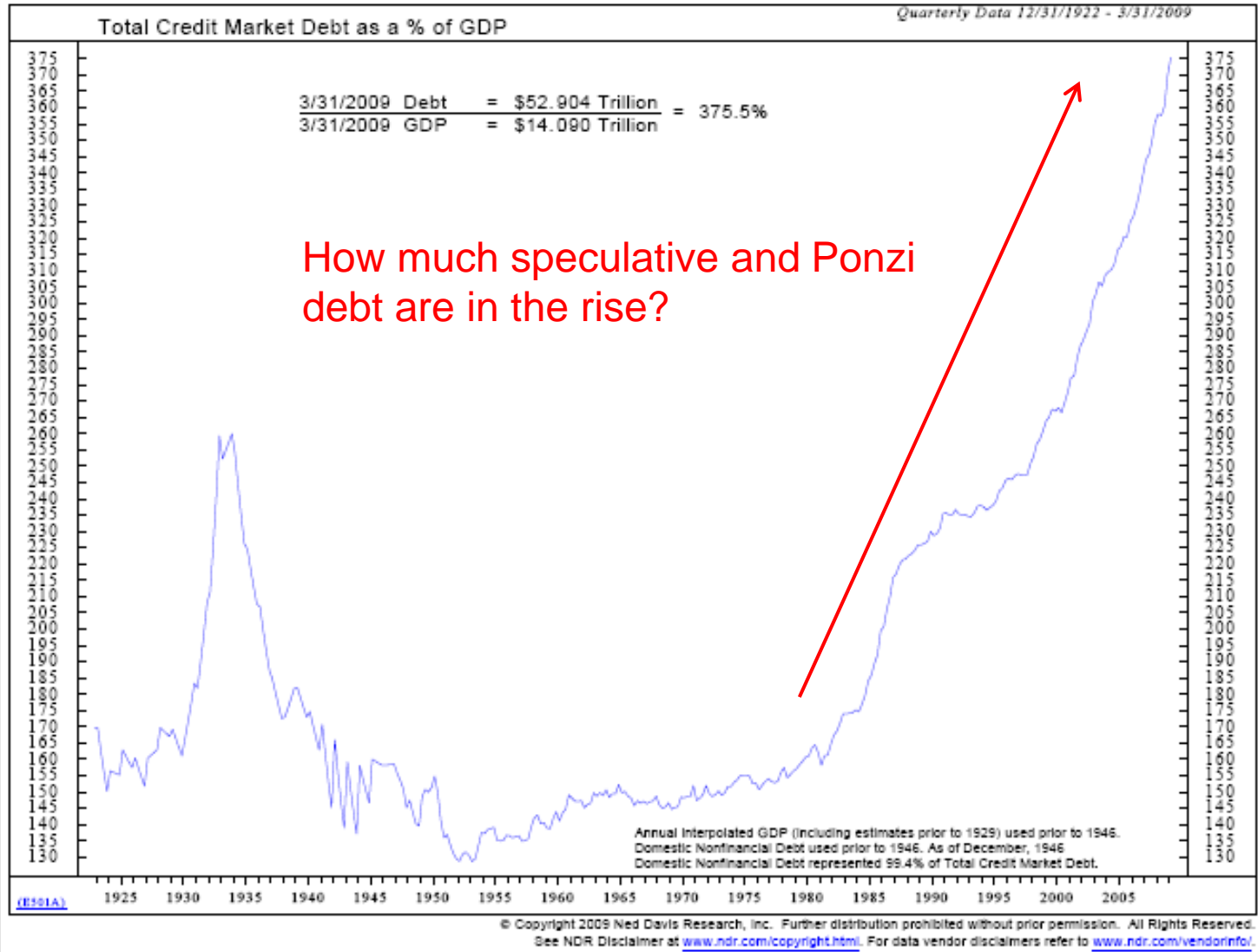
Minsky believed that a free market economy is prone to booms and busts when speculative and Ponzi finance become too large as a percentage of outstanding debt.



Where are we in this cycle?



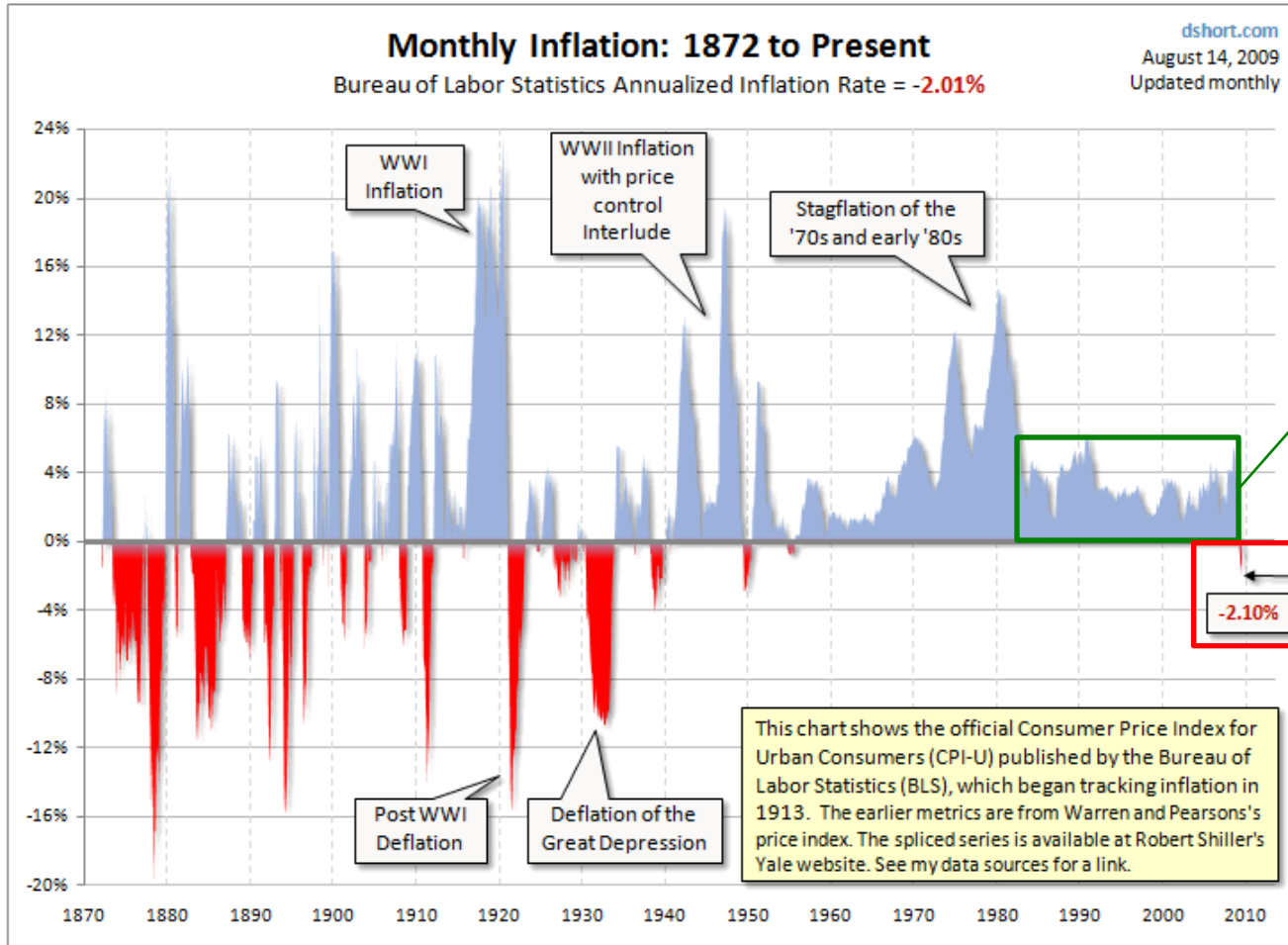
Stability Creating Instability?





A Minsky Moment?

Inflation with Official CPI | Inflation with ShadowStats CPI



Incredible stability ...

Creating instability?

For comprehensive [retirement planning advice](#), [dshort.com](#) recommends [Rule Your Retirement](#).

[data sources](#)

Source: dshort.com: Two Views of Inflations

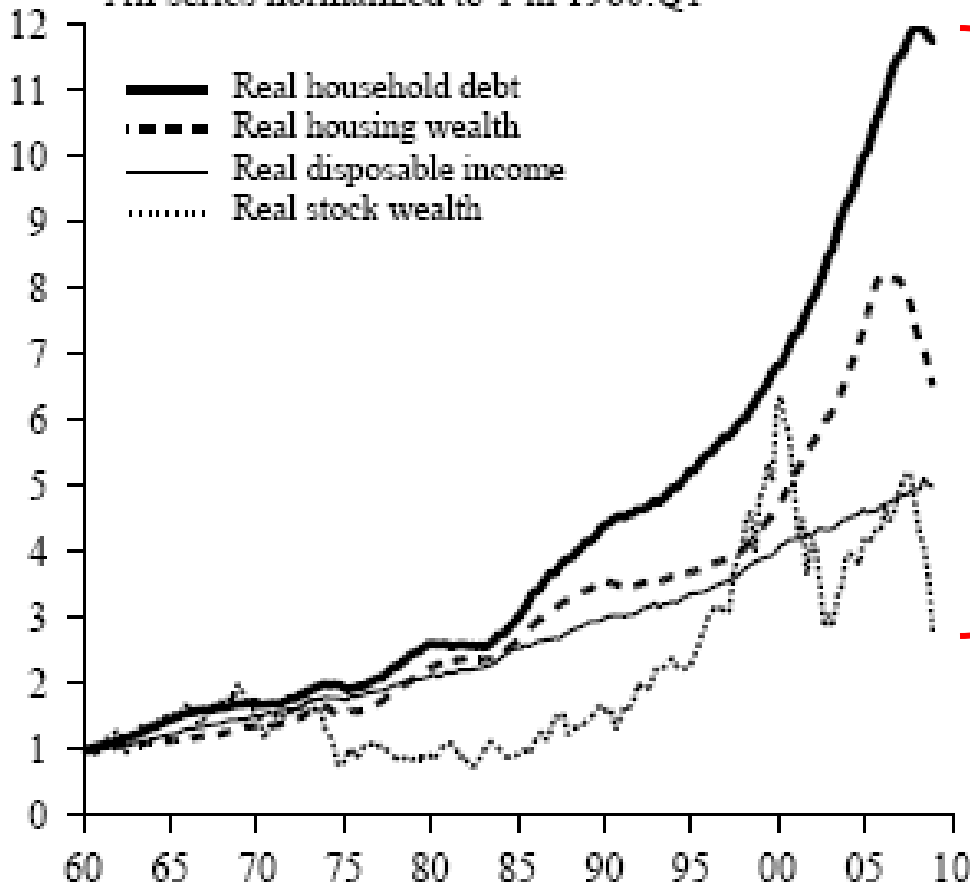
<http://dshort.com/inflation/inflation-since-1872.html?inflation-1872-present>

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A Displacement/Shock?

Figure 1
Real household debt, wealth, and income
All series normalized to 1 in 1960:Q1



This chart frightens me

Debt levels exploded relative to disposable incomes

Stock wealth declined

Housing wealth declined

Disposable income declined

How far can the debt level fall?



Credit Creation/Reflation

- Financing almost shut down for a short period of time
- The government filled the void with massive amounts of liquidity
- The FHA is insuring a large portion of new housing loans
- The government stepped in to fill the financing void and to reflate asset prices



Euphoria?

- Is the rise in the stock market giving the “all clear” signal?





Financial Distress?

- Have the problems really been solved?
 - Residential foreclosures rising
 - Toxic assets remain on banks' balance sheets
 - Banks aren't lending
 - Consumers aren't borrowing
 - Rising commercial real estate delinquencies
 - Unemployment continues to rise
 - GDP supported by government spending and imports declining faster than exports

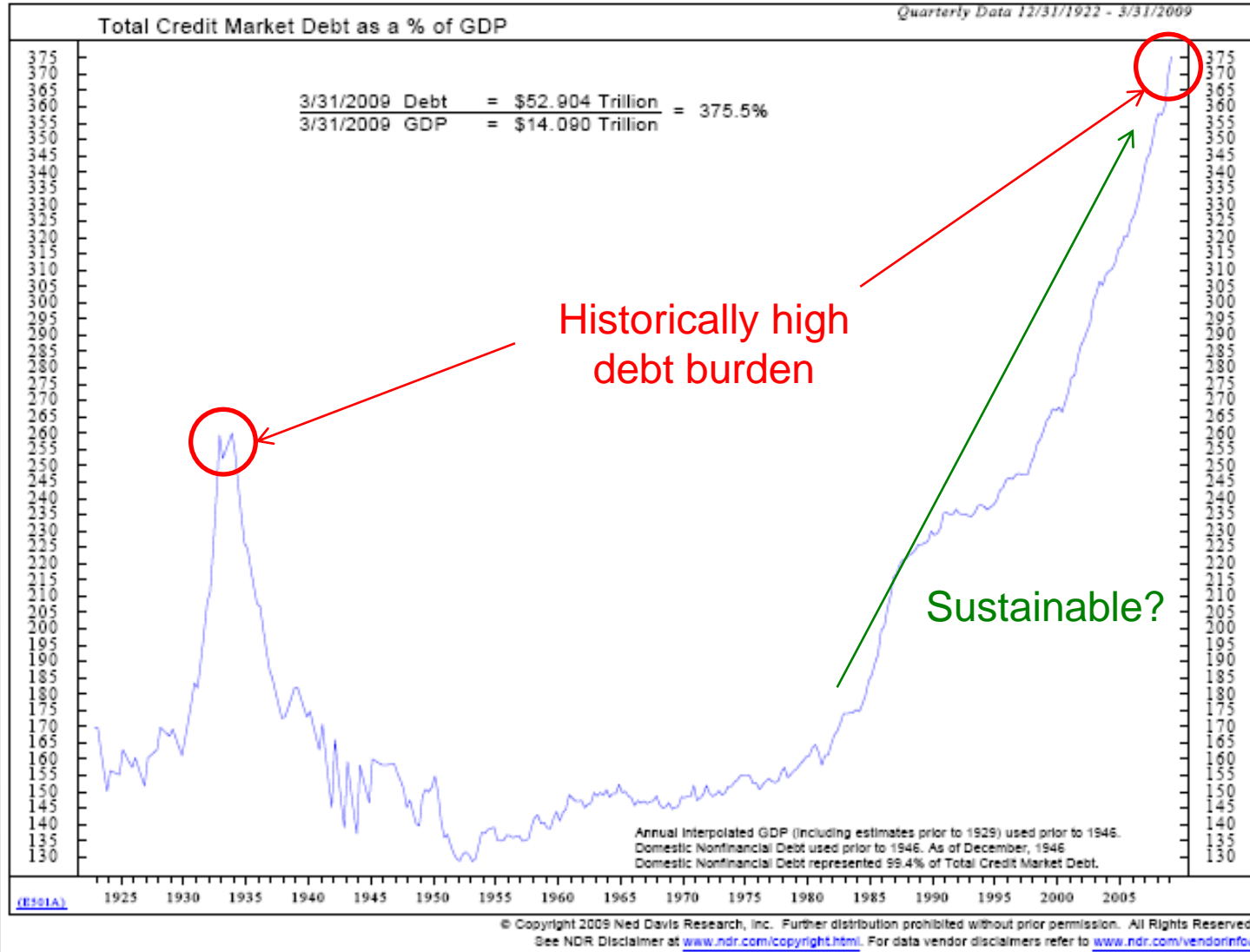


Debt-Deflation Theory

- Framework created by Irving Fisher
 - *The Debt-Deflation Theory of Great Depressions*
 - <http://fraser.stlouisfed.org/docs/meltzer/fisdeb33.pdf>
- I have not seen anyone run through this yet, so I thought I would
- Let's march through the 9 steps and see where we are today



Where We Are Today



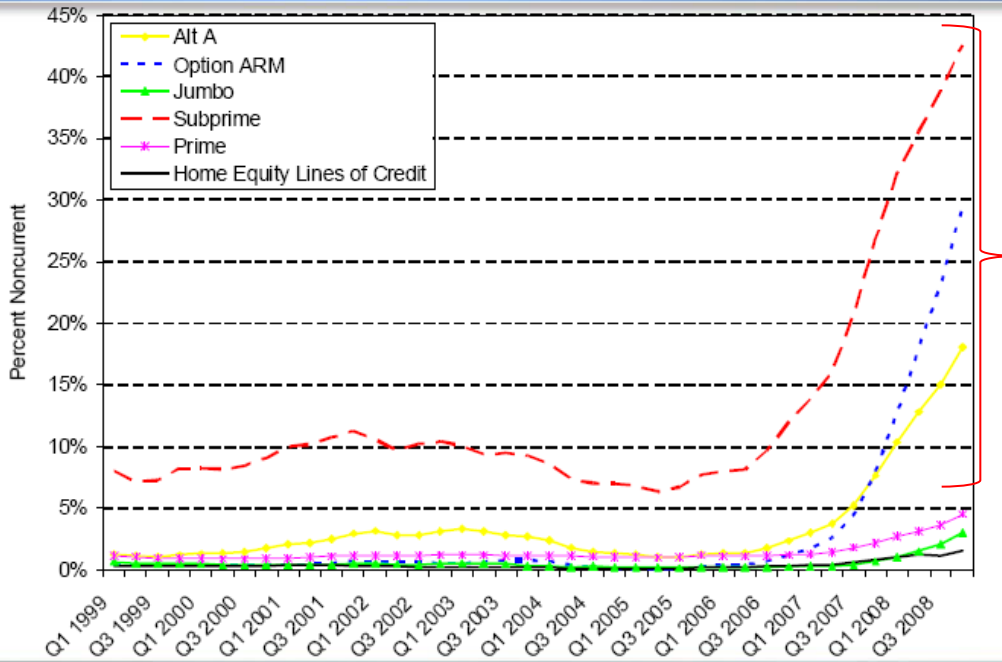


Fisher's Debt-deflation

Step 1: Debt liquidation leads to distressed selling and to ...

All Types of Loans Are Seeing a Surge in Delinquencies, Led by Subprime

T2 Partners LLC



Sources: Amherst Securities, LoanPerformance; National Delinquency Survey, Mortgage Bankers Association; FDIC Quarterly Banking Profile; T2 Partners estimates. Note: Prime is seasonally adjusted.

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Example:

Bad mortgages contributing to falling home prices.

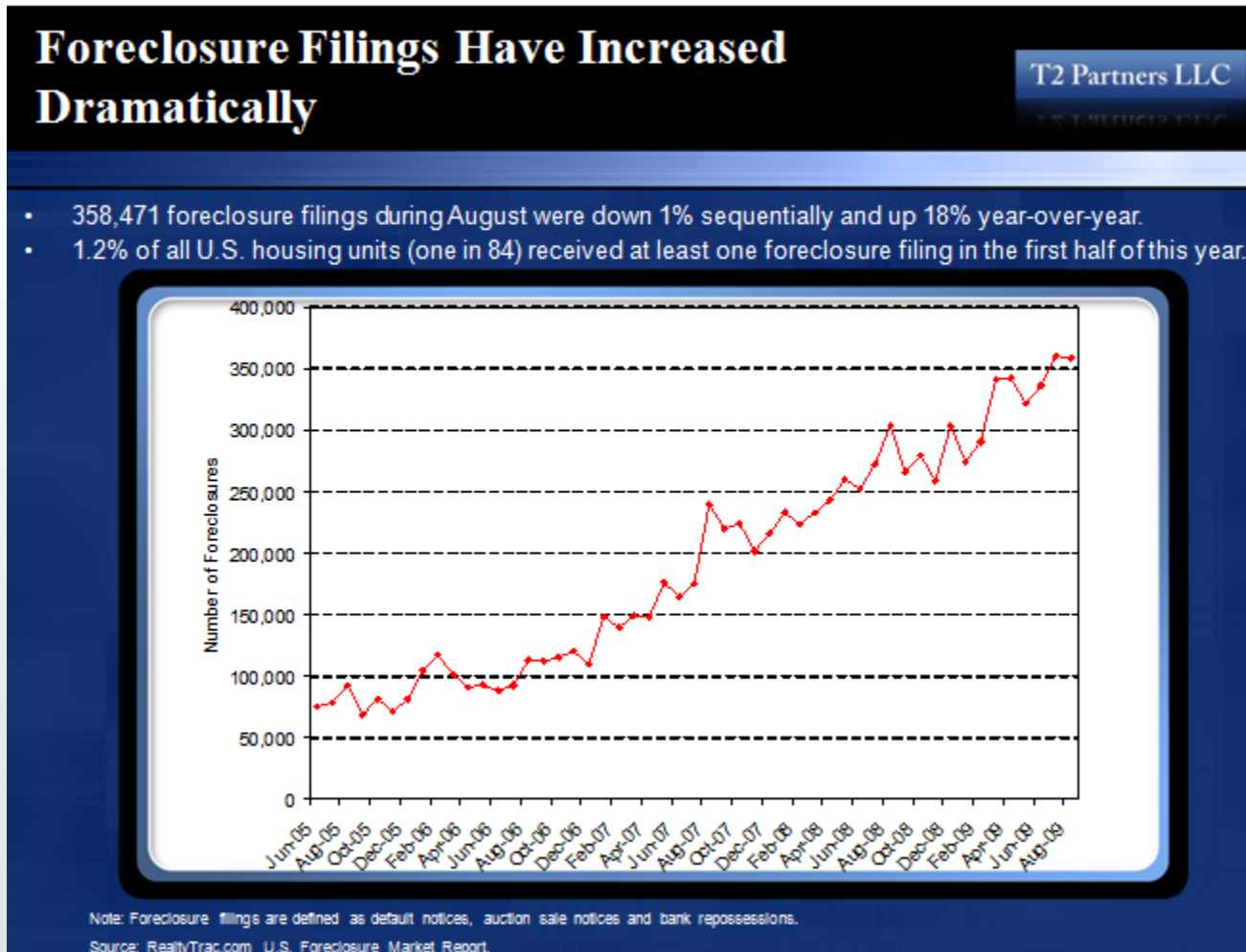
Speculative and Ponzi financing (e.g., subprime, no doc, and negative amortization loans) have caused some big problems.

http://www.moremortgagemeltdown.com/download/pdf/T2_Partners_presentation_on_the_mortgage_crisis.pdf



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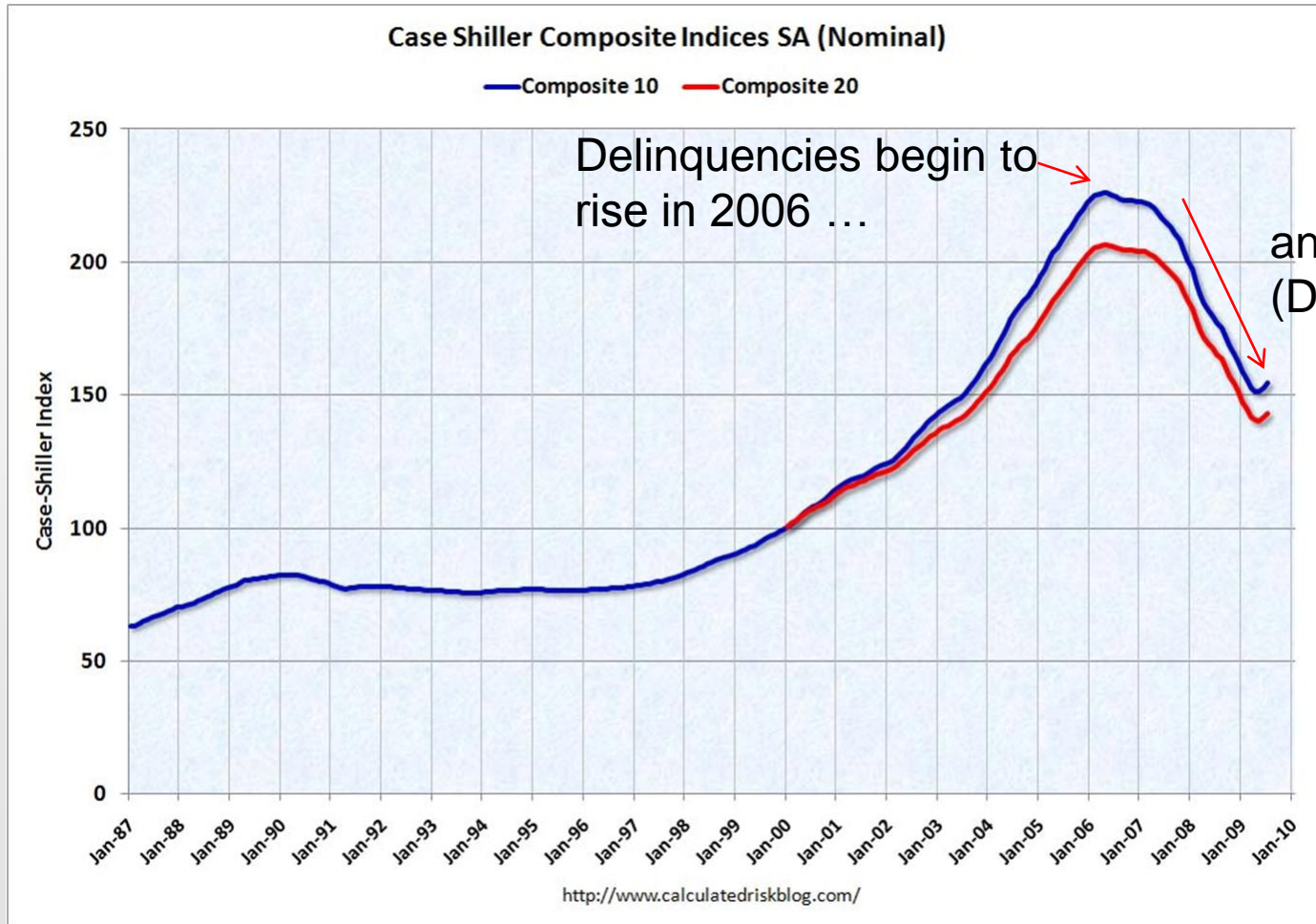
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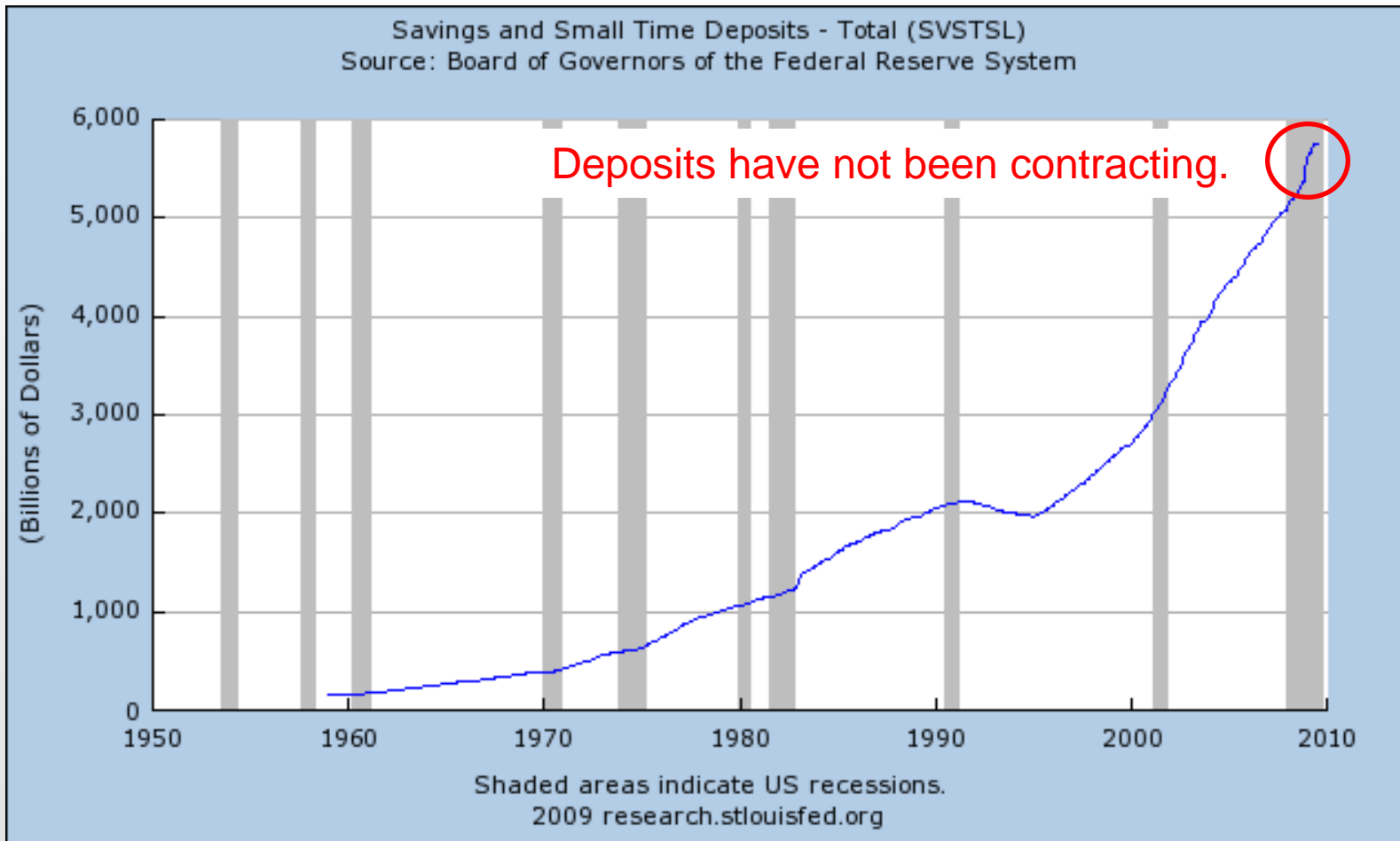
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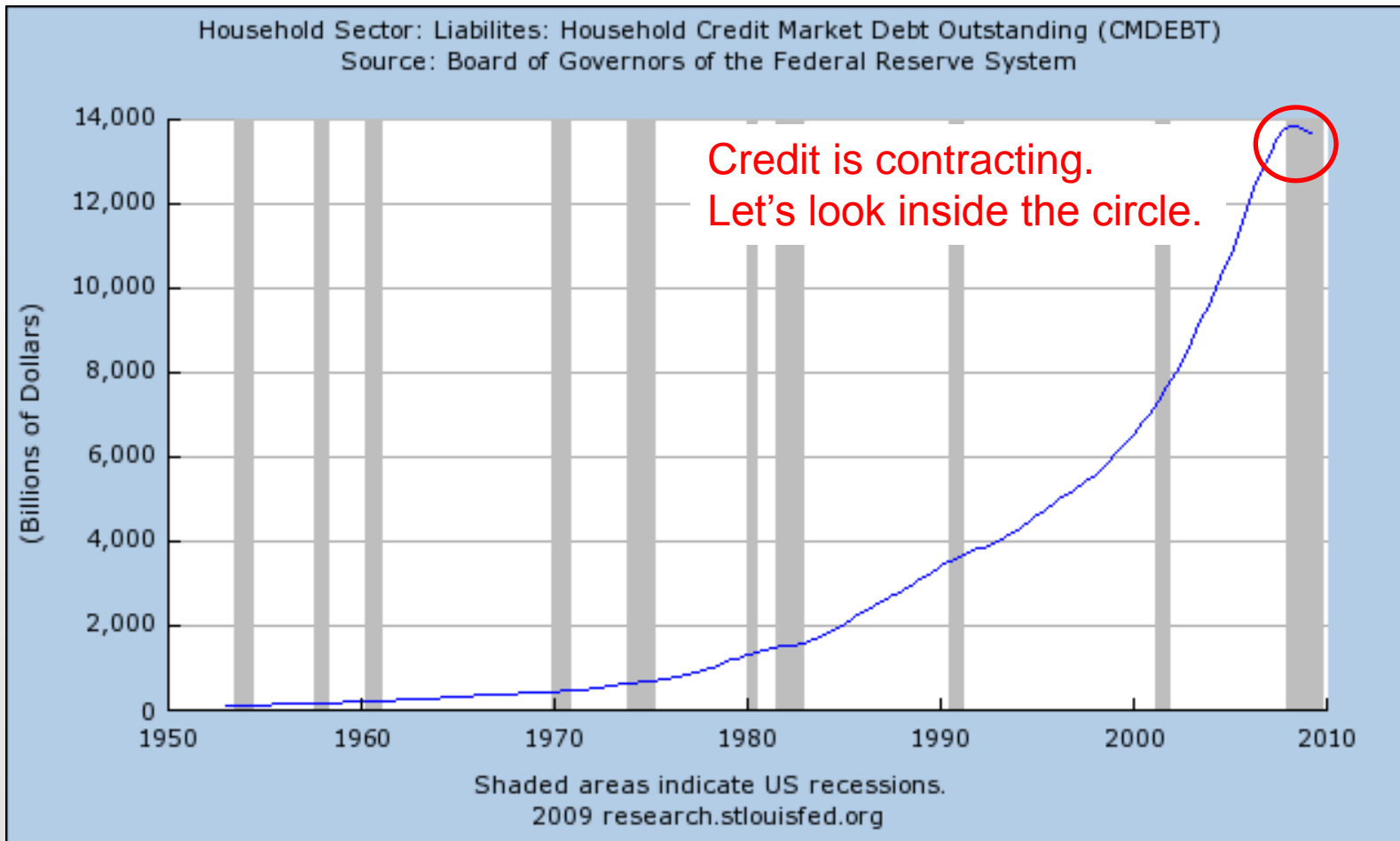
Fisher's Debt-deflation

Step 2: Contraction of deposit currency, as bank loans are paid off, and to a slowing down of velocity in circulation.



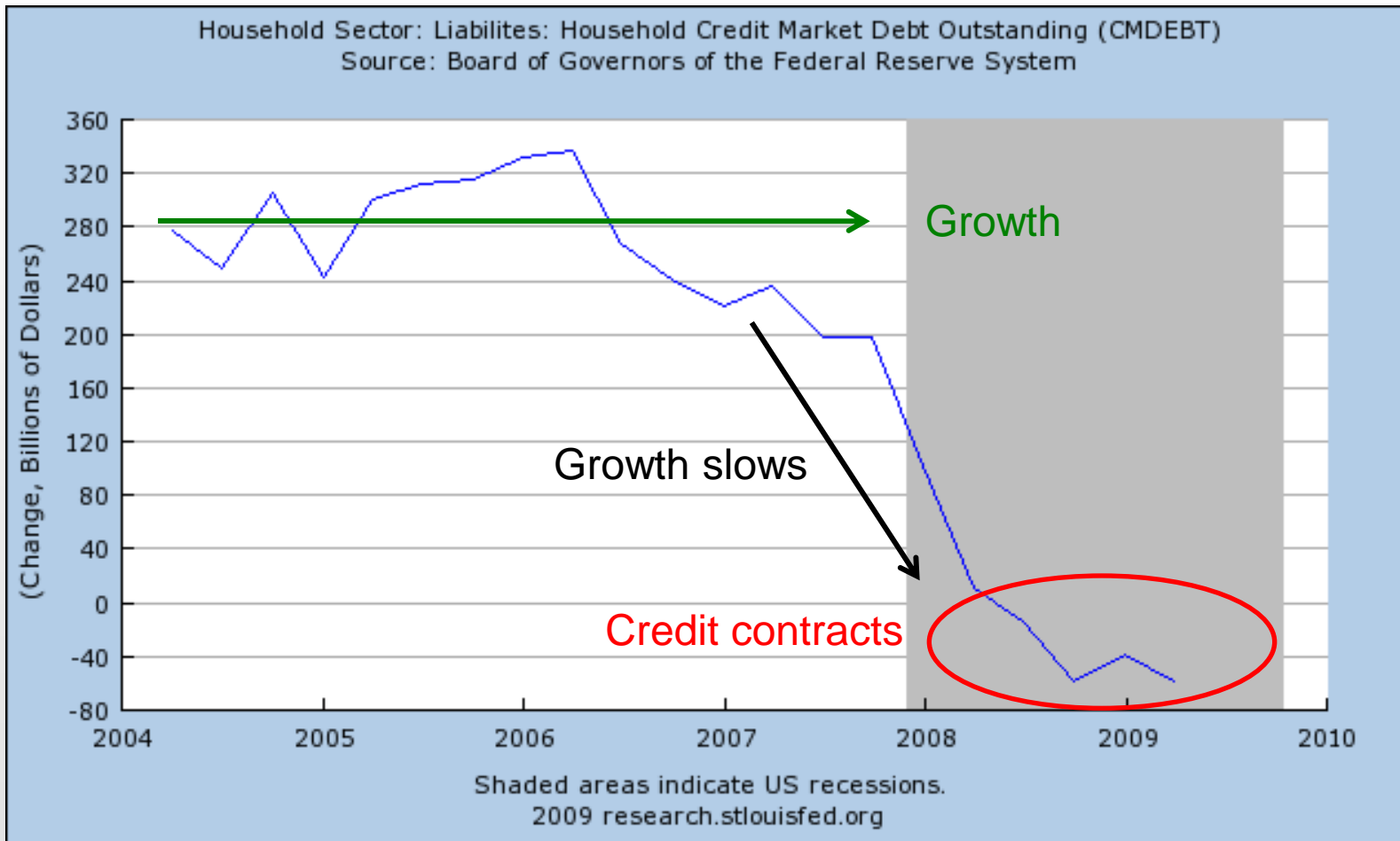
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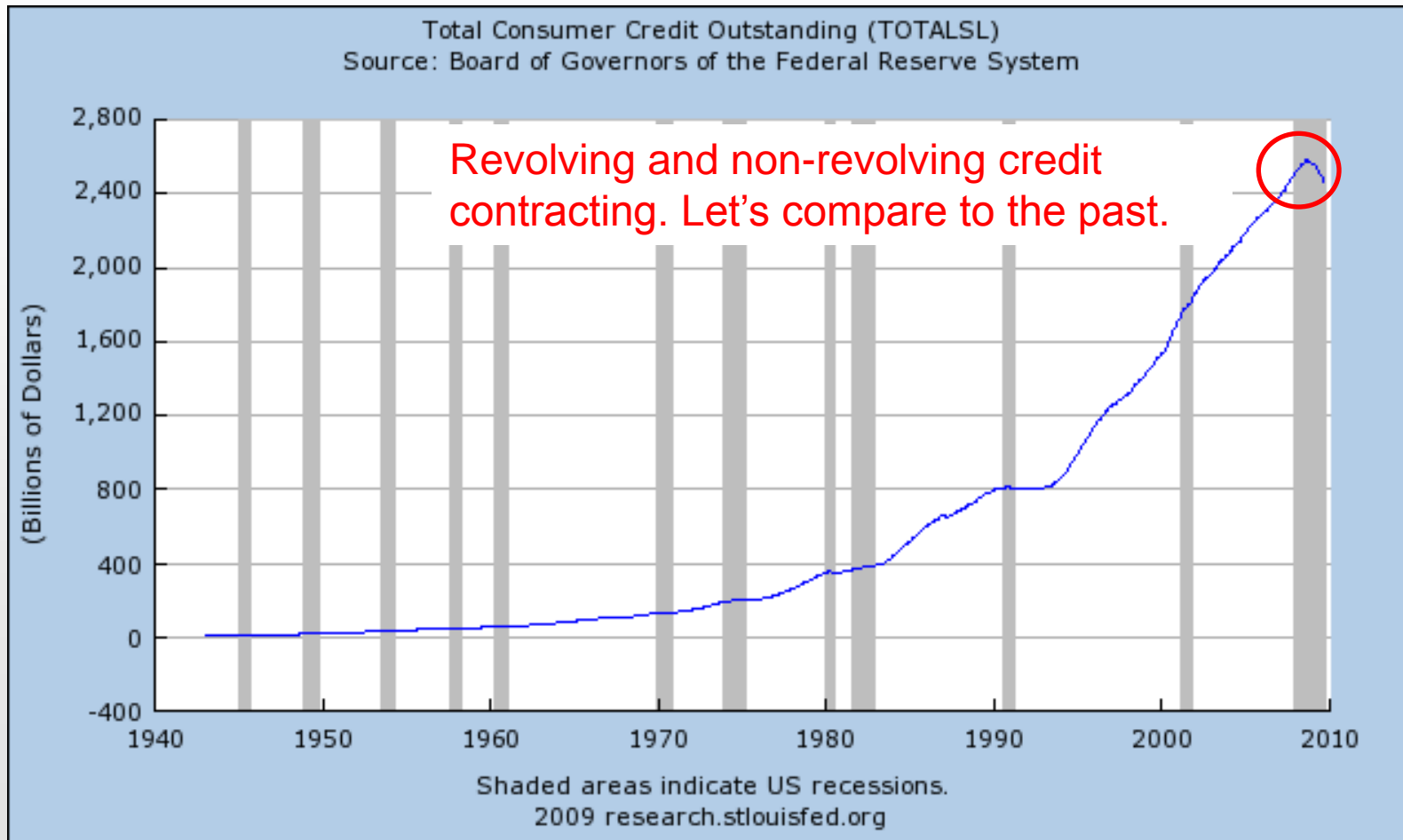
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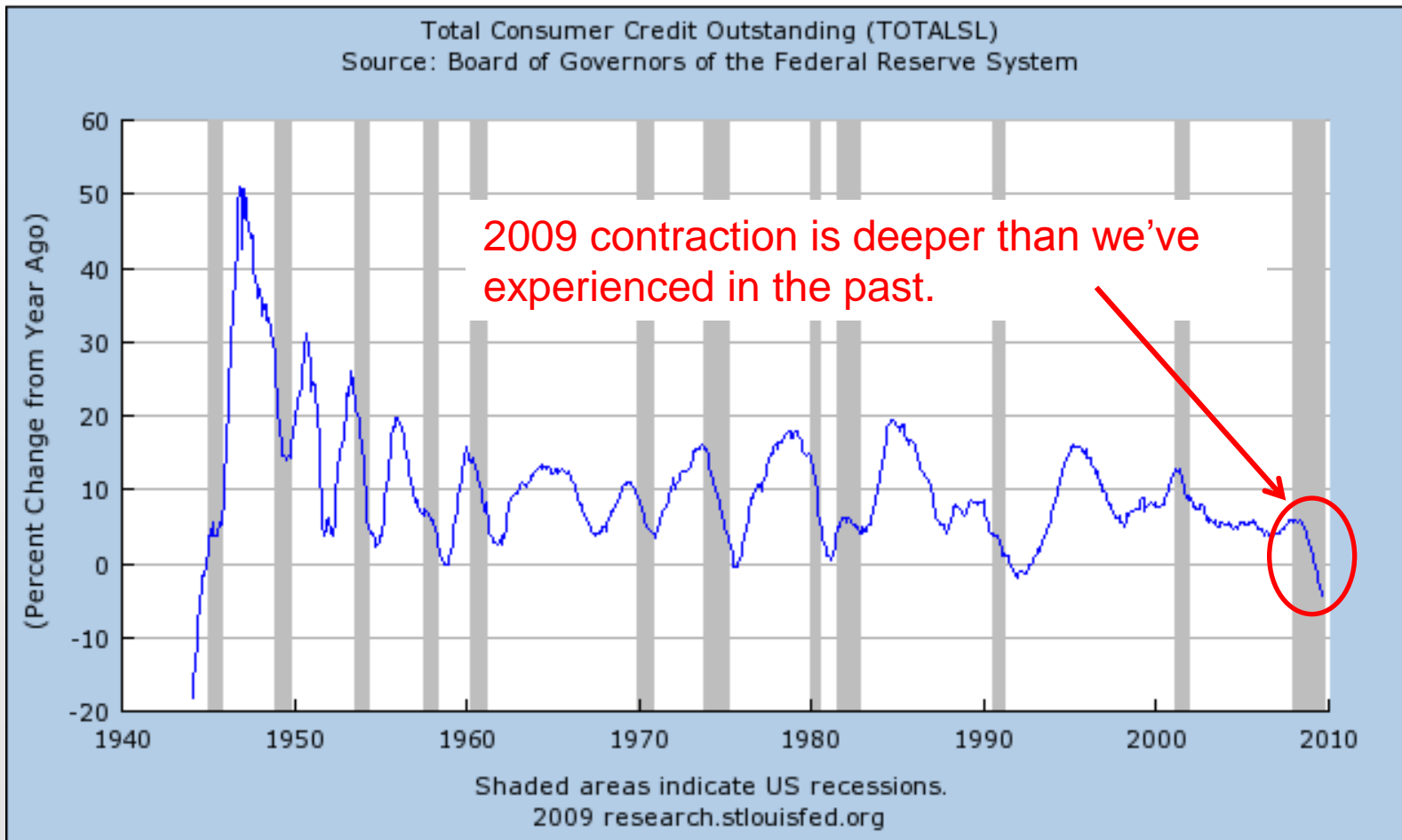
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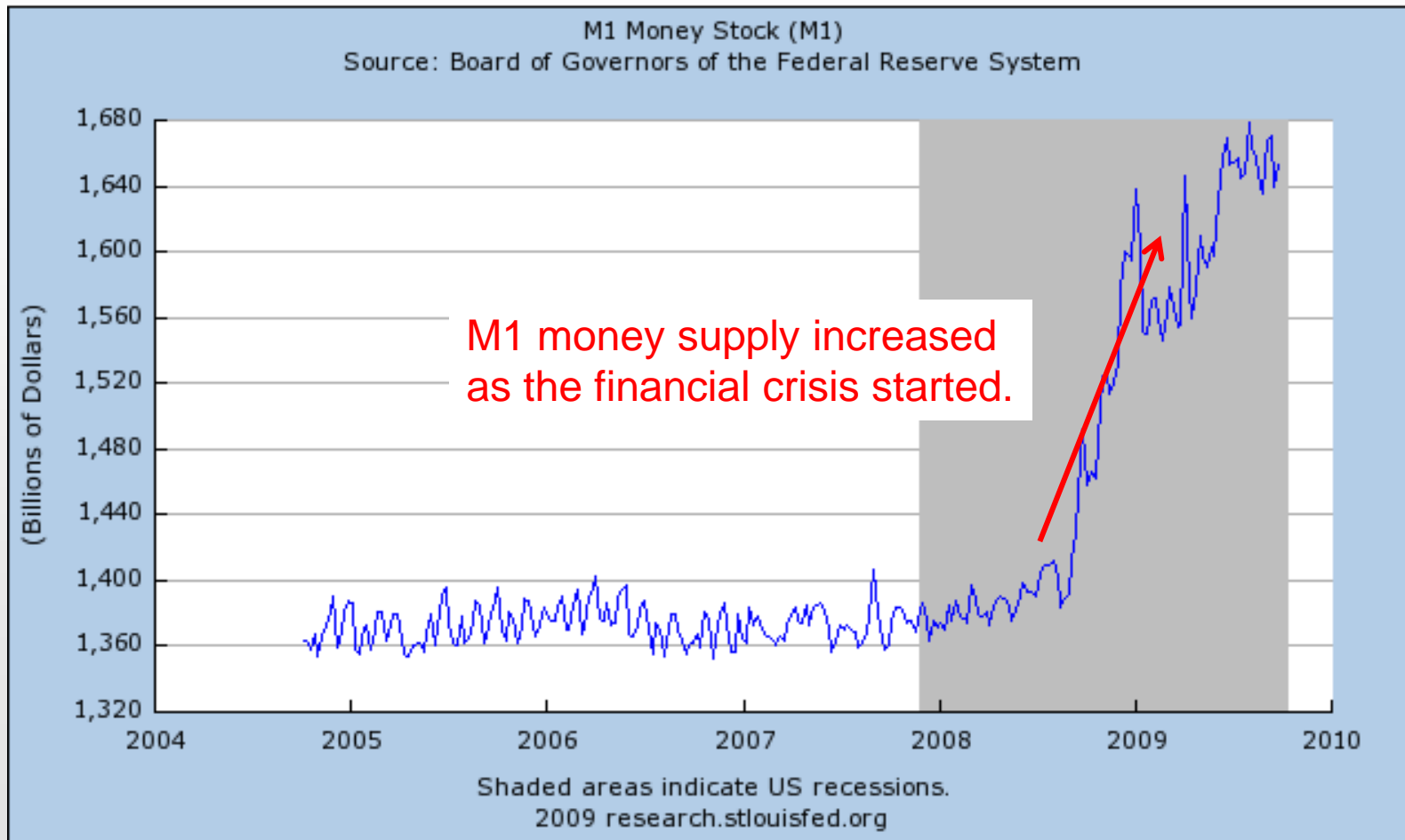
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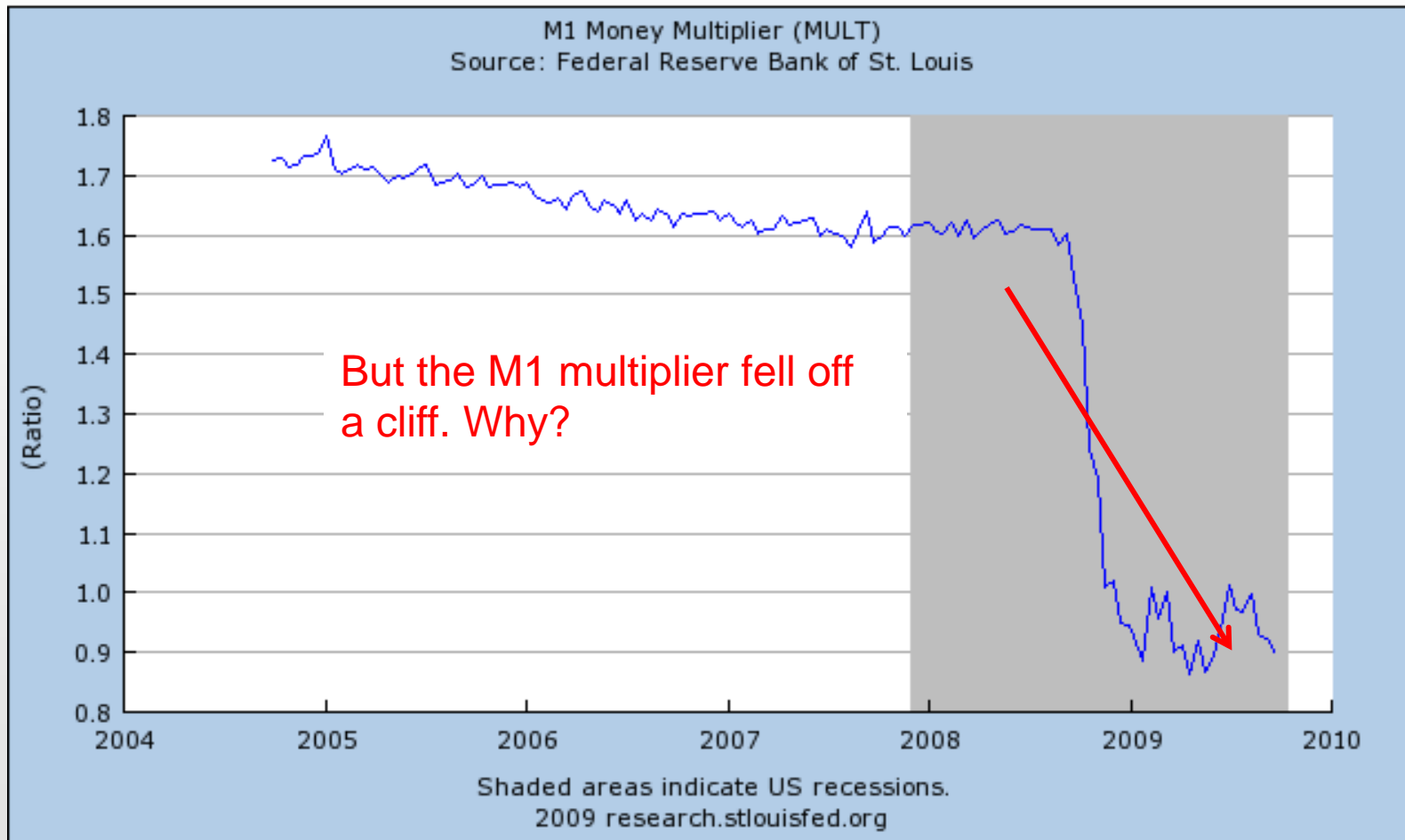
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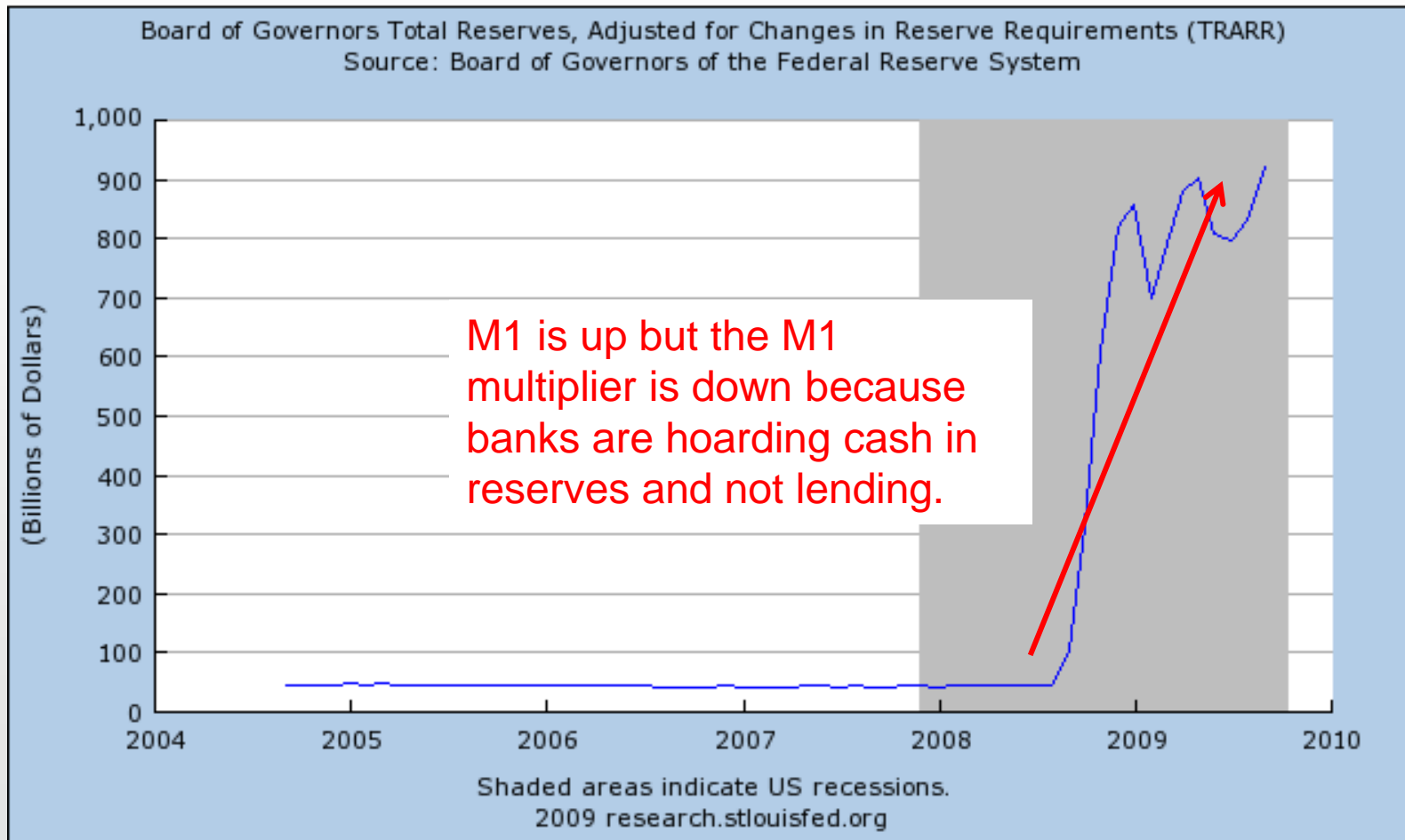
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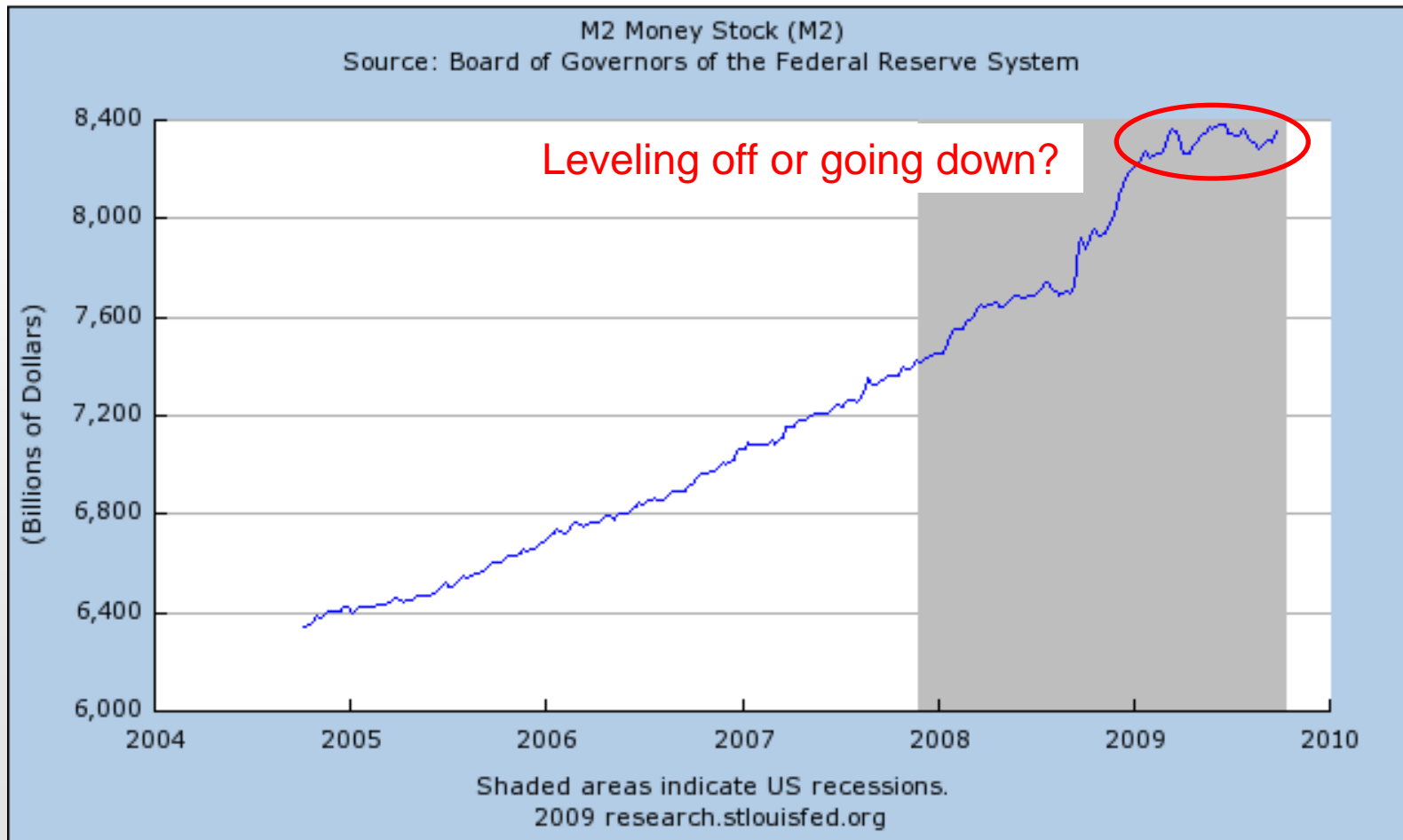
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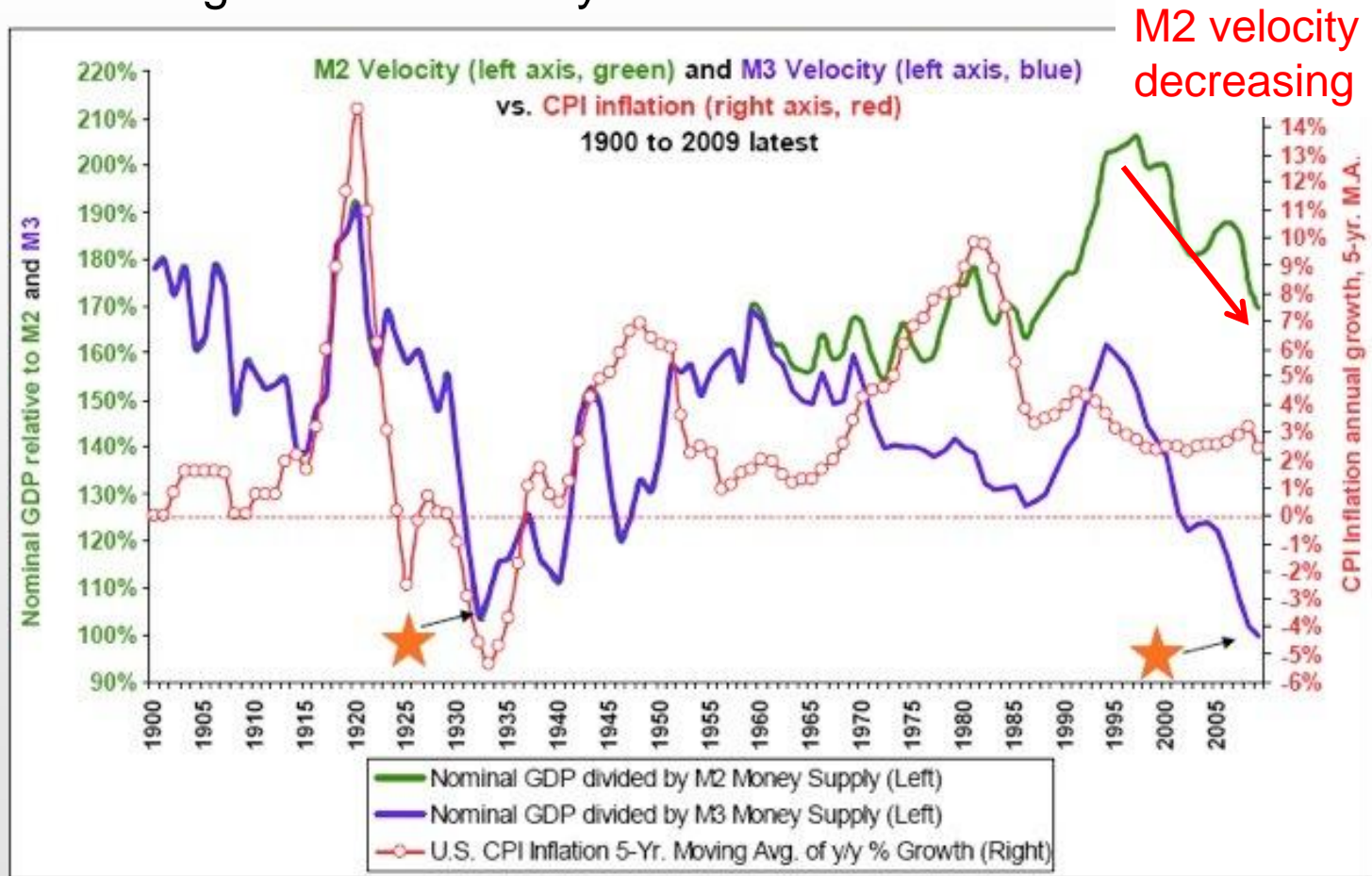
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Fisher's Debt-deflation

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Source: John Mauldin

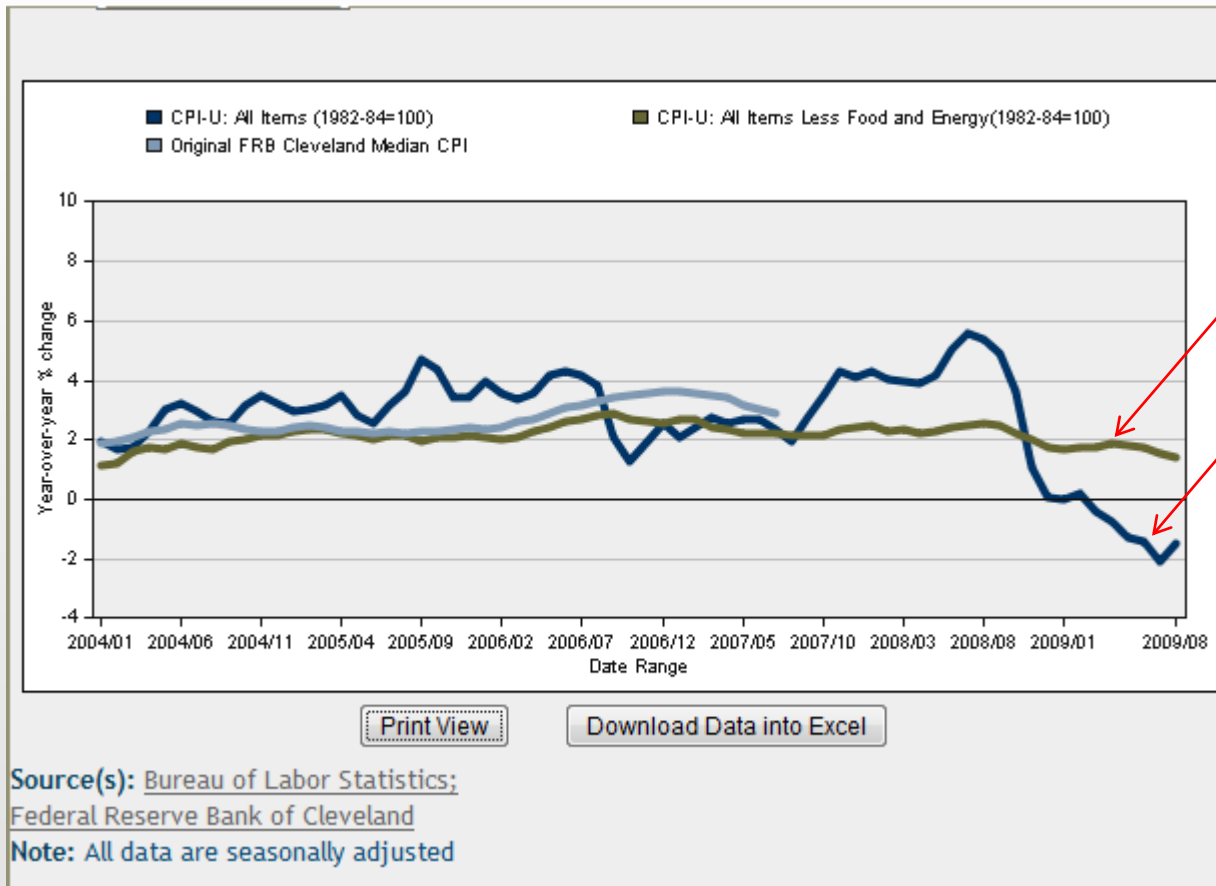
http://www.investorsinsight.com/blogs/thoughts_from_the_frontline/archive/2009/09/11/elements-of-deflation-part-2.aspx

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Fisher's Debt-deflation

Step 3: #1 and #2 cause a fall in the level of prices, in other words, a swelling of the dollar.



Disinflation: the level of inflation decreases

Deflation: prices decline



Fisher's Debt-deflation

Step 3: #1 and #2 cause a fall in the level of prices, in other words, a swelling of the dollar.



Source: Federal Reserve Bank of Cleveland

http://www.clevelandfed.org/research/data/updates/past_detail.cfm?m=8&y=2009



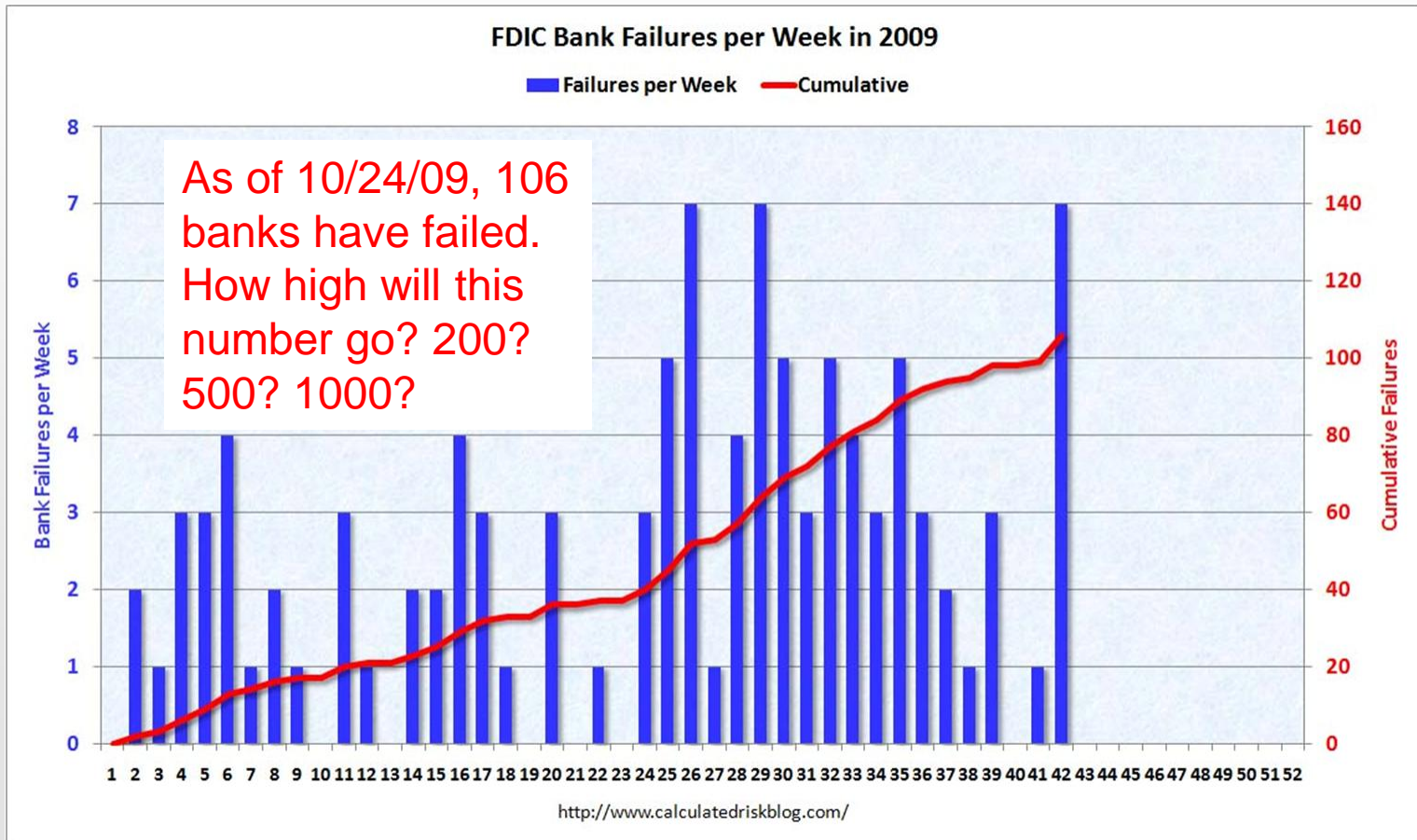
Fisher's Debt-deflation

Step 4: Assuming, as above stated, ***that this fall of prices is not interfered with by reflation or otherwise***, there must be a still greater fall in the net worths of business, precipitating bankruptcies and ...



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BankruptcyData.com A Division of New Generation Research

20 Largest Public Company Bankruptcy Filings - 2008

Company	Bankruptcy Date	Description	Assets
Lehman Brothers Holdings Inc.	09/15/08	Investment Bank	\$691,063
Washington Mutual, Inc.	09/26/08	Savings & Loan Holding Co.	327,913
IndyMac Bancorp, Inc.	07/31/08	Bank Holding Company	32,734
Downey Financial Corp.	11/25/08	Bank Holding Company	13,409
Tribune Company	12/08/08	Media & Entertainment Company	13,149
Fremont General Corporation	06/18/08	Financial Services Holding Company	12,890
SemGroup, L.P.	07/22/08	Provides Diversified Svcs. to the Energy Industry	6,140
Franklin Bank Corp.	11/12/08	Savings & Loan Holding Company	5,537
Luminent Mortgage Capital, Inc.	09/05/08	Real Estate Investment Trust	4,721
PFF Bancorp, Inc.	12/05/08	Diversified Financial Services Co.	4,102
Pilgrim's Pride Corporation	12/01/08	Produces Poultry Products	3,874
LandAmerica Financial Group, Inc.	11/26/08	Insurance Underwriter	3,853
Circuit City Stores, Inc.	11/10/08	Retailer of Consumer Electronics	3,745
WCI Communities, Inc.	08/04/08	Homebuilding & Real Estate Services Company	2,891
TOUSA, Inc.	01/29/08	Home Builder	2,842
VeraSun Energy Corporation	10/31/08	Ethanol Producer	1,863
Linens 'n Things, Inc.	05/02/08	Home Furnishings Retailer	1,740
Tropicana Entertainment, LLC	05/05/08	Casino Hotels	1,734
Quebecor World (USA), Inc.	01/21/08	Commercial Printing Services	1,731
Hawaiian Telecom Communications, Inc.	12/01/08	Telecommunications Provider	1,637

* Listed in descending order by Pre-Petition Assets (Assets in \$mil)

Source: BankruptcyData.com
New Generation Research, Inc. Boston, MA
(617) 573-9550



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Largest Public Company Bankruptcy Filings – 2009 to date

<u>Company</u>	<u>Bankruptcy Date</u>	<u>Description</u>	<u>Assets</u>
General Motors Corporation	06/01/09	Manufactures & Sells Cars	\$91,047
Chrysler LLC	04/30/09	Manufactures & Sells Cars	39,300
Thomburg Mortgage, Inc.	05/01/09	Residential Mortgage Lending Company	36,521
General Growth Properties, Inc.	04/16/09	Real Estate Investment Company	29,557
Lyondell Chemical Company	01/06/09	Global Manufacturer of Chemicals	27,392
BankUnited Financial Corporation	05/21/09	Bank Holding Company	15,046
Charter Communications, Inc.	03/27/09	Operates Broadband Communications	13,882
R.H. Donnelley Corporation	05/28/09	Provides Local Search Solutions & Services	11,880
AbitibiBowater Inc.	04/16/09	Producers of Newsprint	10,319
Nortel Networks, Inc.	01/14/09	Supplies Networking Products & Solutions	9,000
Smurfit-Stone Container Corporation	01/26/09	Mfgs. Paperboard & Paper-Based Packaging	7,387
Extended Stay Inc.	06/15/09	Owner & Operator of Lodging Facilities	7,133
Lear Corporation	07/07/09	Automotive Supplier	6,872
Station Casinos, Inc.	07/28/09	Gaming & Entertainment Company	5,831
Visteon Corporation	05/27/09	Mfg & Supply Auto Systems, Modules & Comp.	5,248
Aleris International, Inc.	02/12/09	Produces Aluminum Products	5,120
Spanion Inc.	03/01/09	Semiconductor Device Company	3,815
Chemtura Corporation	03/18/09	Specialty Chemical Company	3,064
Six Flags, Inc.	06/13/09	Theme Park Operator	3,030
Security Bank Corporation	07/31/09	Multi-Bank Holding Company	2,846

* Listed in descending order by Pre-Petition Assets (Assets in \$mil)

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Fisher's Debt-deflation

Step 5: A like fall in profits, which in a “capitalistic,” that is, a private-profit society, leads the concerns which are running at a loss to make ...

Falling revenue

Not only that, but corporate revenues in 2Q were -25.0% YoY, worse than the -15.0% trend in 1Q and the -7.0% in 4Q 2008. By way of comparison, the worst we ever saw at the depths of the 2002 bear market was -10.0% revenue growth and before that -3.0% in 1991. Not until this cycle did we see a low in equity prices with the trend in the top-lines still mired in negative terrain.

The mantra is that with 480 S&P 500 companies reporting, 73% have “beaten” expectations – only 19% missed! In aggregate, company EPS is coming in at 13.2% above estimates. Of course, these are estimates from early July, not from April or January; that is how the “expectations game” is played.

Falling profit

What seems to be lost on most, if not all pundits, is that the YoY pace in earnings for 2Q stands at -27.8%, which marks the first time that eight negative quarters in a row has been recorded – with 9 of 10 GIC sectors down (only health care managed to buck the trend). Note that company guidance has been downbeat – there have been 58 negative pre-announcements for 3Q versus 25 positive announcements. That negative-positive ratio of 2.3x is actually above the historical norm of 2.1x, but the bullish retort, of course, is that this makes for a lower hurdle to cross over in the next quarterly reporting season.



Fisher's Debt-deflation

Step 6: A reduction in output, in trade and in employment of labor.
These losses, bankruptcies and unemployment, lead to ...

	2008 I	2008 II	2008 III	2008 IV	2009 I	2009 II
Gross domestic product	-0.7	1.5	-2.7	-5.4	-6.4	-0.7
Personal consumption expenditures	-0.6	0.1	-3.5	-3.1	0.6	-0.9
Goods	-5.1	-0.5	-7.7	-10.0	2.5	-3.1
Durable goods	-8.9	-5.7	-11.7	-20.3	3.9	-5.6
Nondurable goods	-3.0	2.2	-5.6	-4.9	1.9	-1.9
Services	1.8	0.4	-1.3	0.5	-0.3	0.2
Gross private domestic investment	-7.4	-10.4	-6.9	-24.2	-50.5	-23.7
Fixed investment	-6.3	-2.7	-8.3	-20.2	-39.0	-12.5
Nonresidential	1.9	1.4	-6.1	-19.5	-39.2	-9.6
Structures	6.8	14.5	-0.1	-7.2	-43.6	-17.3
Equipment and software	-0.5	-5.0	-9.4	-25.9	-36.4	-4.9
Residential	-28.2	-15.8	-15.9	-23.2	-38.2	-23.3
Change in private inventories	---	---	---	---	---	---
Net exports of goods and services	---	---	---	---	---	---
Exports	-0.1	12.1	-3.6	-19.5	-29.9	-4.1
Goods	4.2	14.1	-1.8	-25.5	-36.9	-6.3
Services	-9.0	7.8	-7.7	-4.3	-13.6	0.1
Imports	-2.5	-5.0	-2.2	-16.7	-36.4	-14.7
Goods	-3.5	-4.6	-3.7	-19.6	-41.0	-16.5
Services	3.0	-7.1	6.1	-0.9	-11.5	-7.5
Government consumption expenditures and gross investment	2.6	3.6	4.8	1.2	-2.6	6.7
Federal	8.1	7.8	13.2	6.5	-4.3	11.4
National defense	8.2	7.0	19.8	3.8	-5.1	14.0
Nondefense	8.1	9.6	0.1	12.7	-2.5	6.1
State and local	-0.5	1.2	0.1	-2.0	-1.5	3.9

The U.S. government has stepped in as the lender of last resort and a large consumer in the economy.



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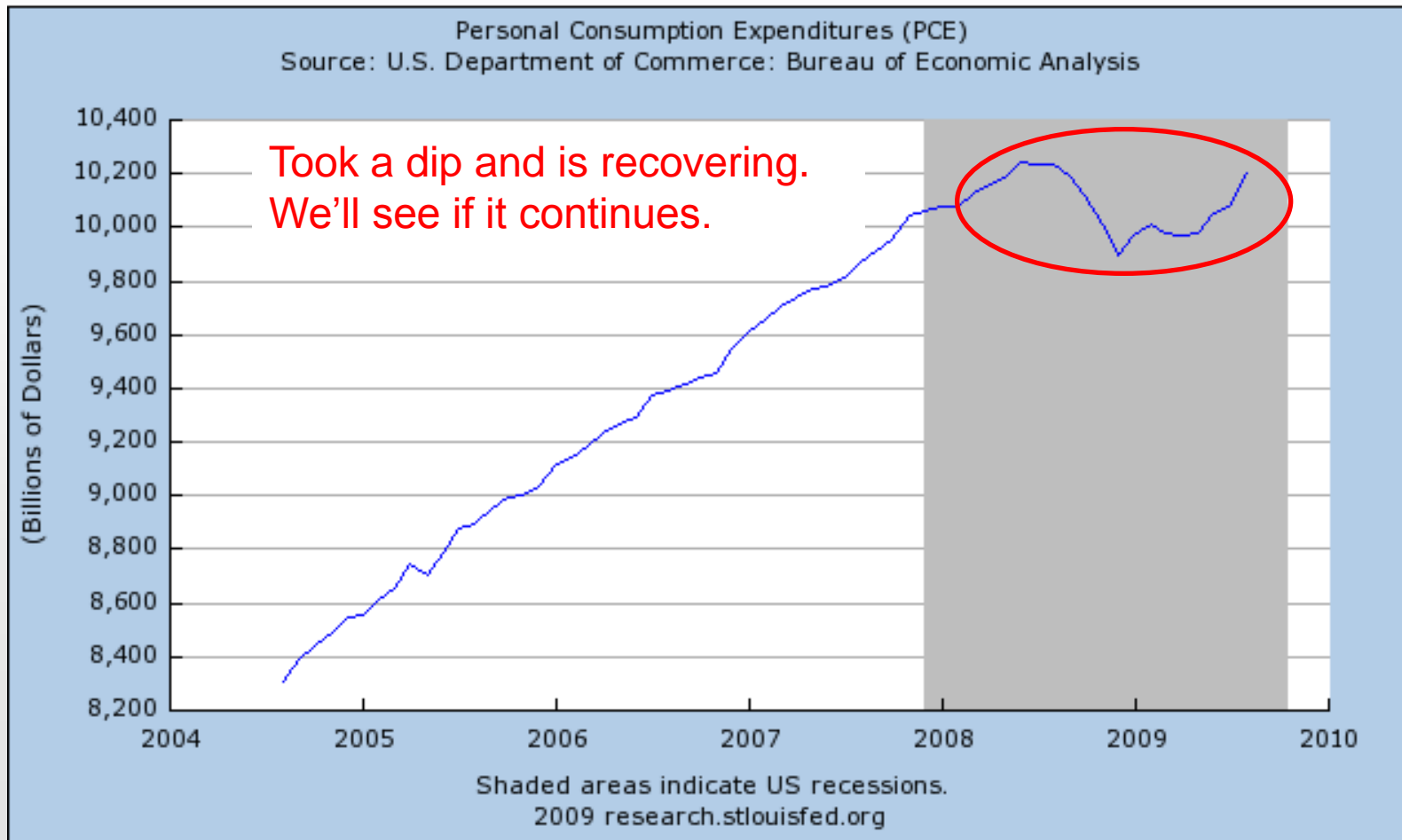


Government spending and net exports are the only thing keeping GDP afloat right now.



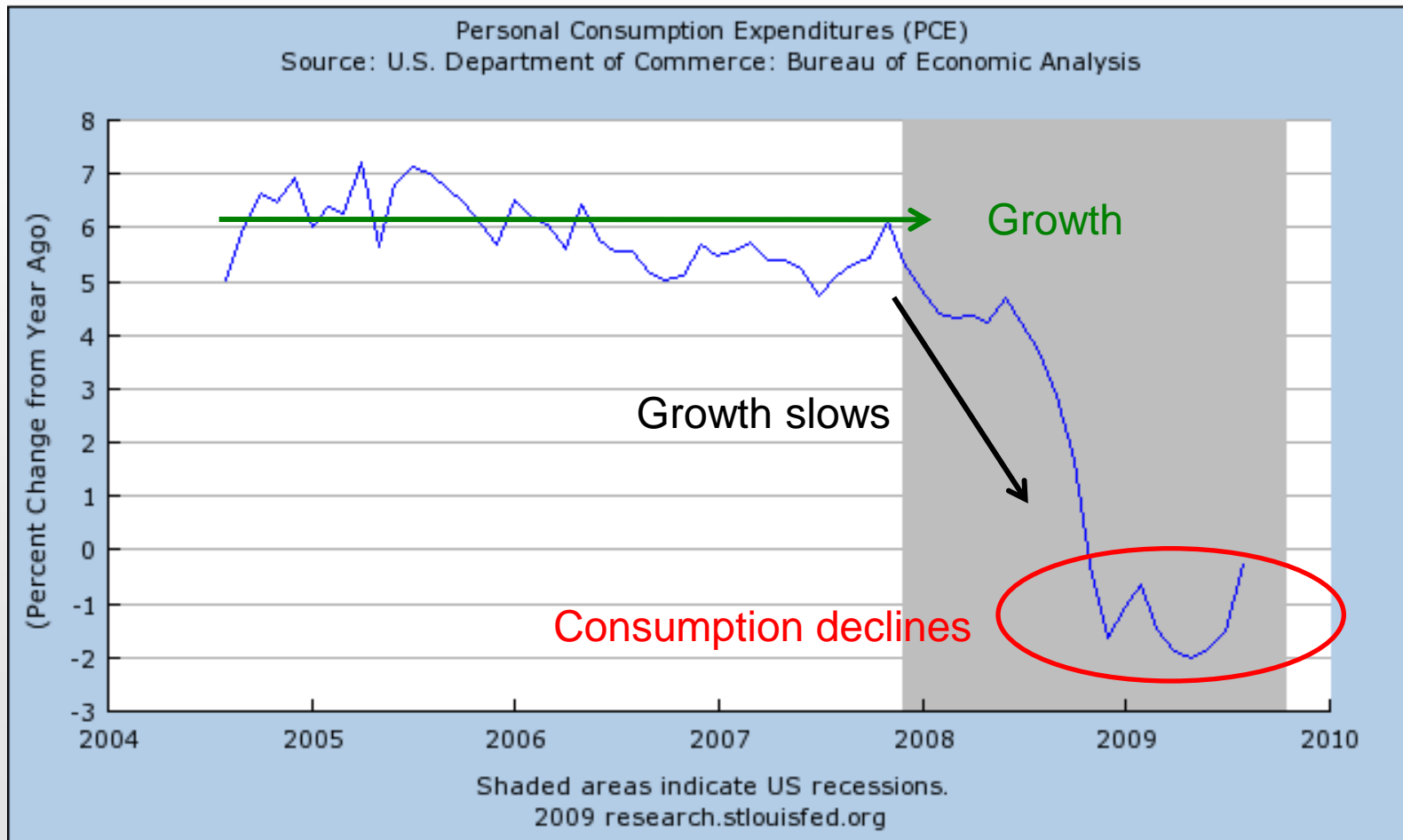
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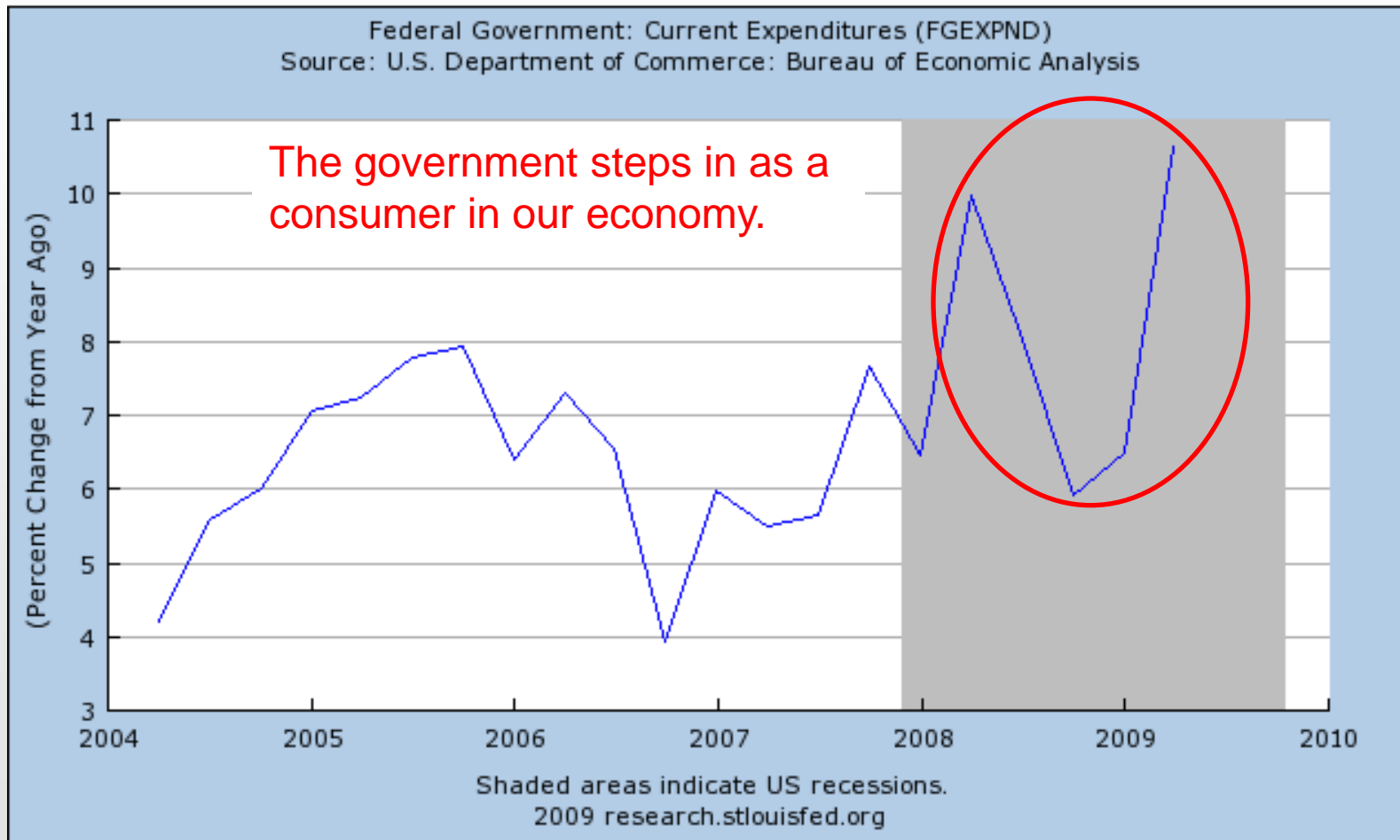
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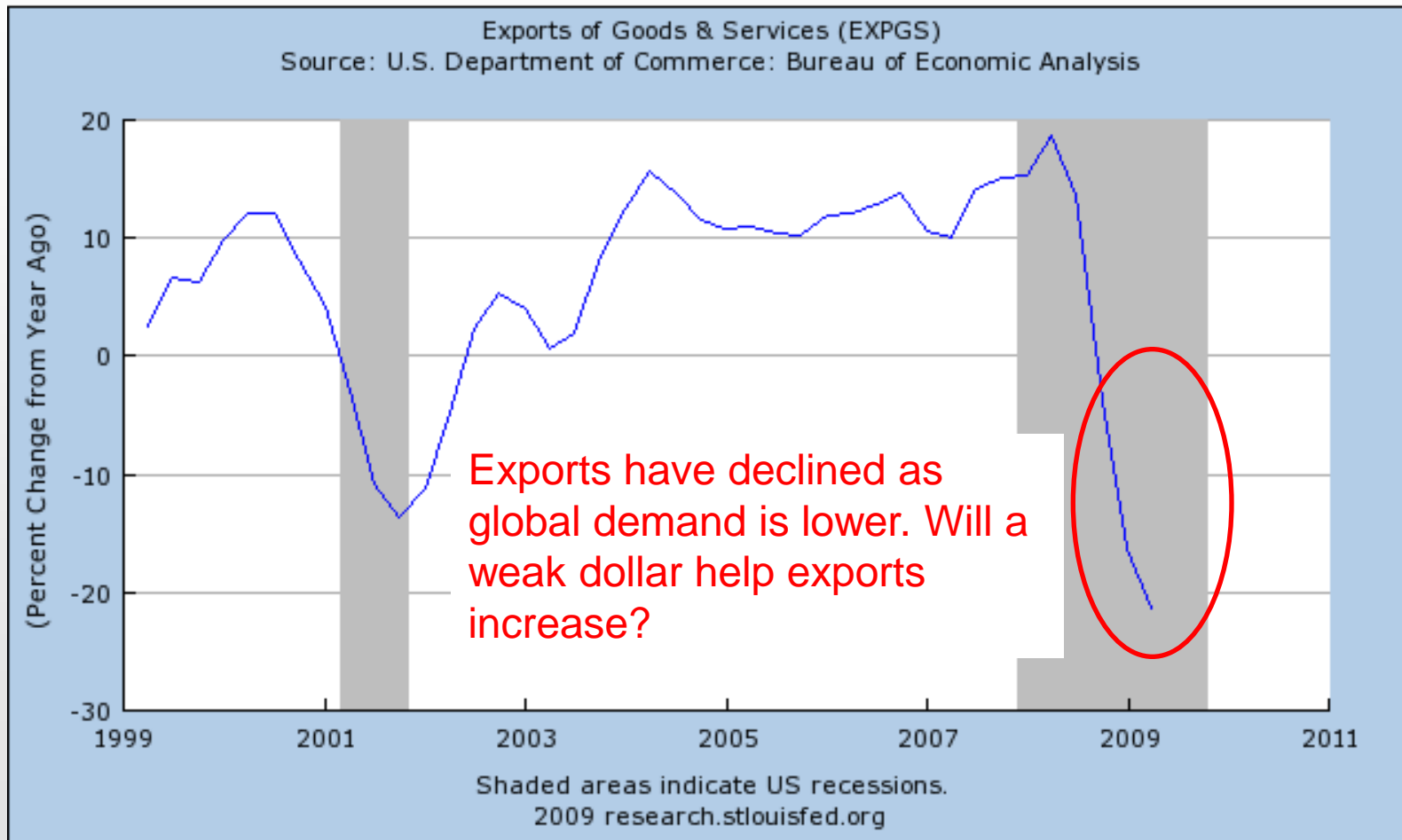
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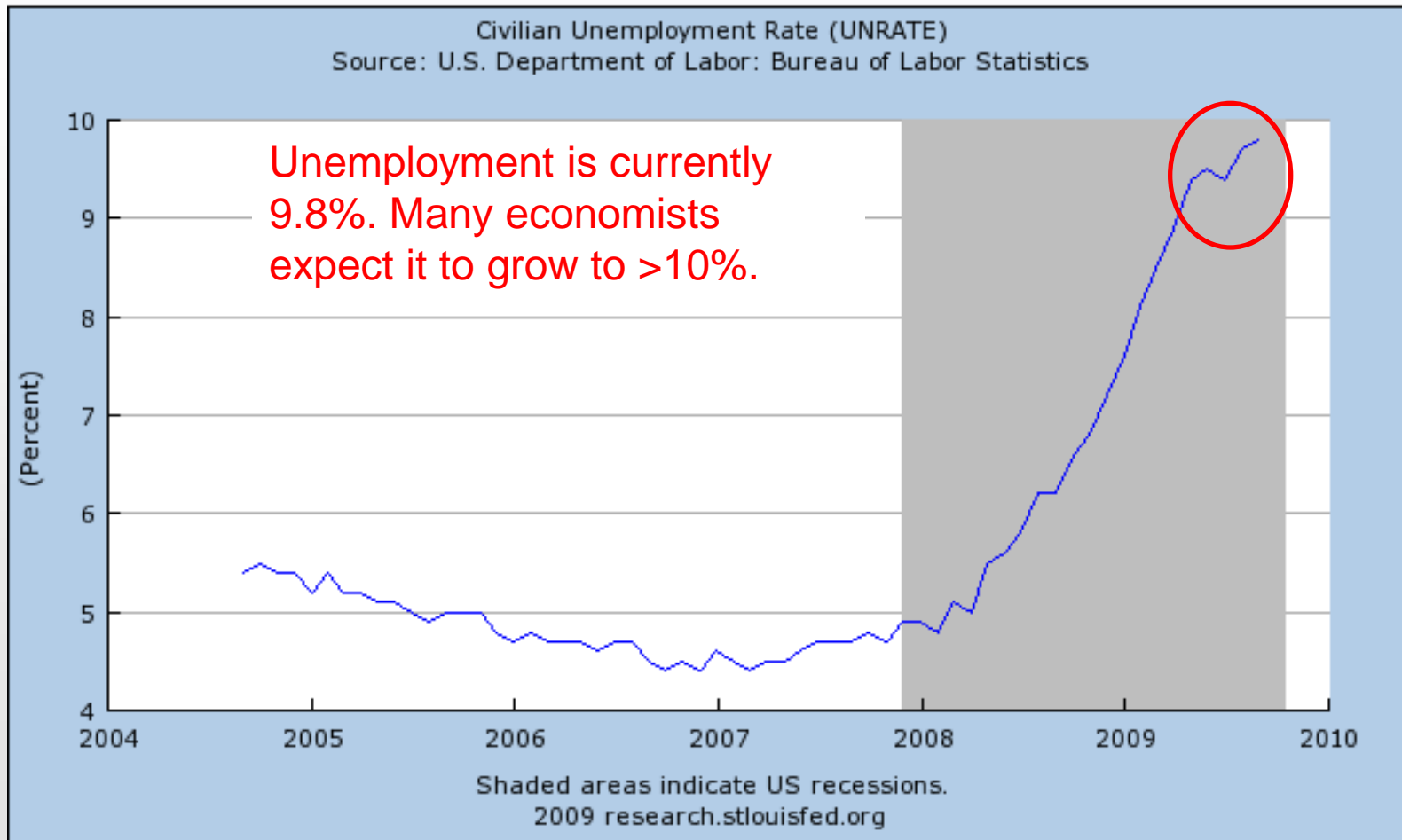
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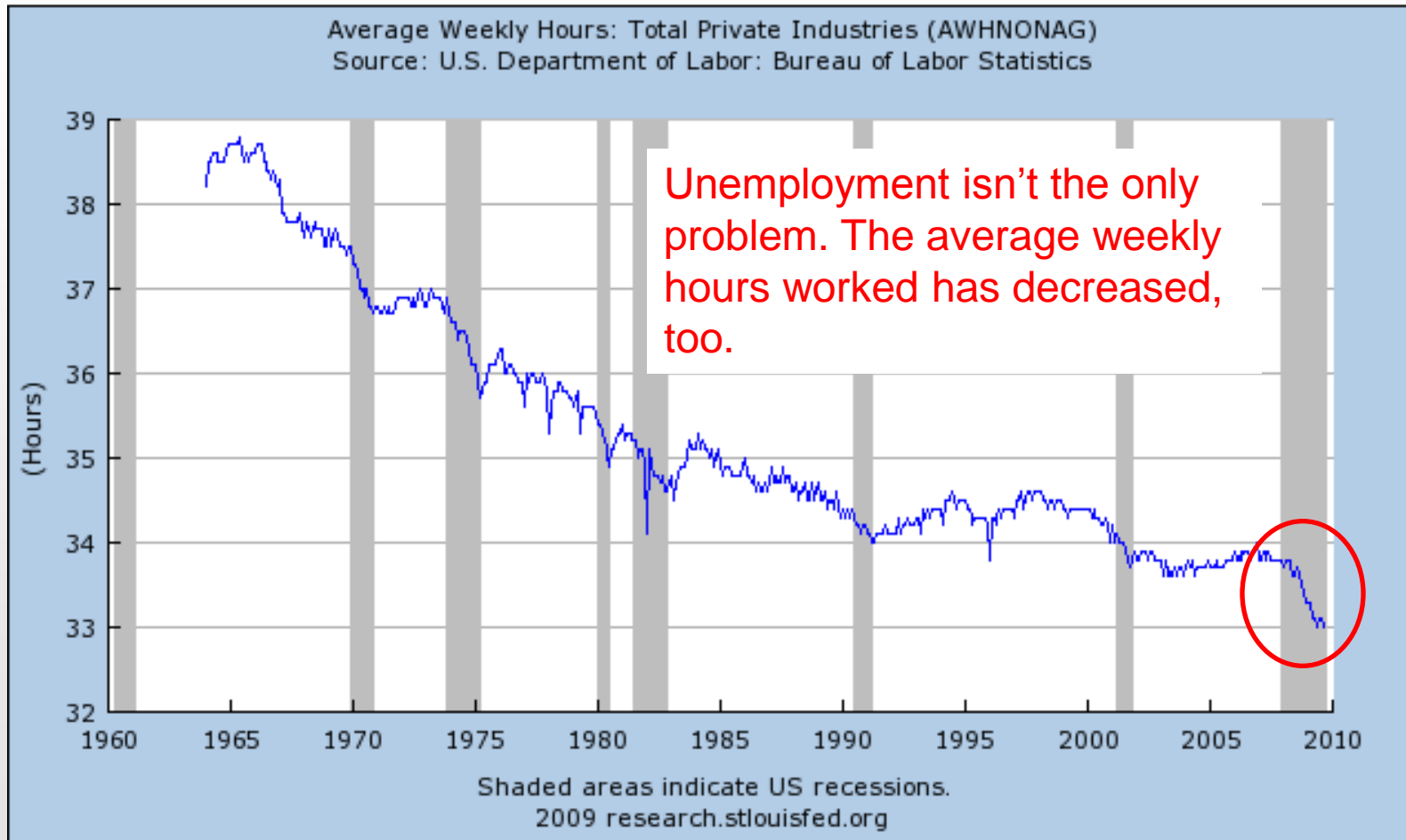
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CHART 2: NO GROWTH IN WAGE-BASED CONSUMER INCOME

United States: Wage and Salary Disbursements
(year-over-year percent change)



Shaded region represent periods of U.S. recession
Source: Haver Analytics, Gluskin Sheff

And wages are falling.



Fisher's Debt-deflation

Step 7: Pessimism and loss of confidence, which in turn lead to ...

09.25.2009

Consumer Sentiment

Consumer Sentiment

Index (NSA, 1966:IQ=100)



Source: University of Michigan, Survey of Consumer Sentiment.

The University of Michigan's measure of consumer sentiment was revised up in September from a preliminary index value of 70.2 to 73.5, representing a fairly strong 7.8 point gain over the August reading and the highest level since September 2007 (before the start of the recession). Both components of the index, current economic conditions and consumer expectations, contributed to September's gain. Both shorter- and longer-run average inflation expectations were revised down in late September. One-year average inflation expectations ticked down 0.2 percentage point to 2.8 percent, while the longer-term (five-to-10-year ahead) average expectations slipped down 0.1 percentage point to 3.2 percent (still 0.1 percentage point above August's reading).

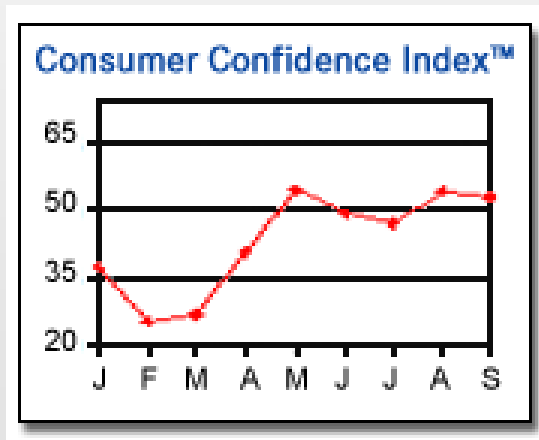
Rising but still low.

Fisher's Debt-deflation

Step 7: Pessimism and loss of confidence, which in turn lead to ...

The Conference Board Consumer Confidence Index® Dips in September *September 29, 2009*

The Conference Board Consumer Confidence Index®, which had improved in August, dipped in September. The Index now stands at 53.1 (1985=100), down from 54.5 in August. The Present Situation Index decreased to 22.7 from 25.4. The Expectations Index declined to 73.3 from 73.8 last month.

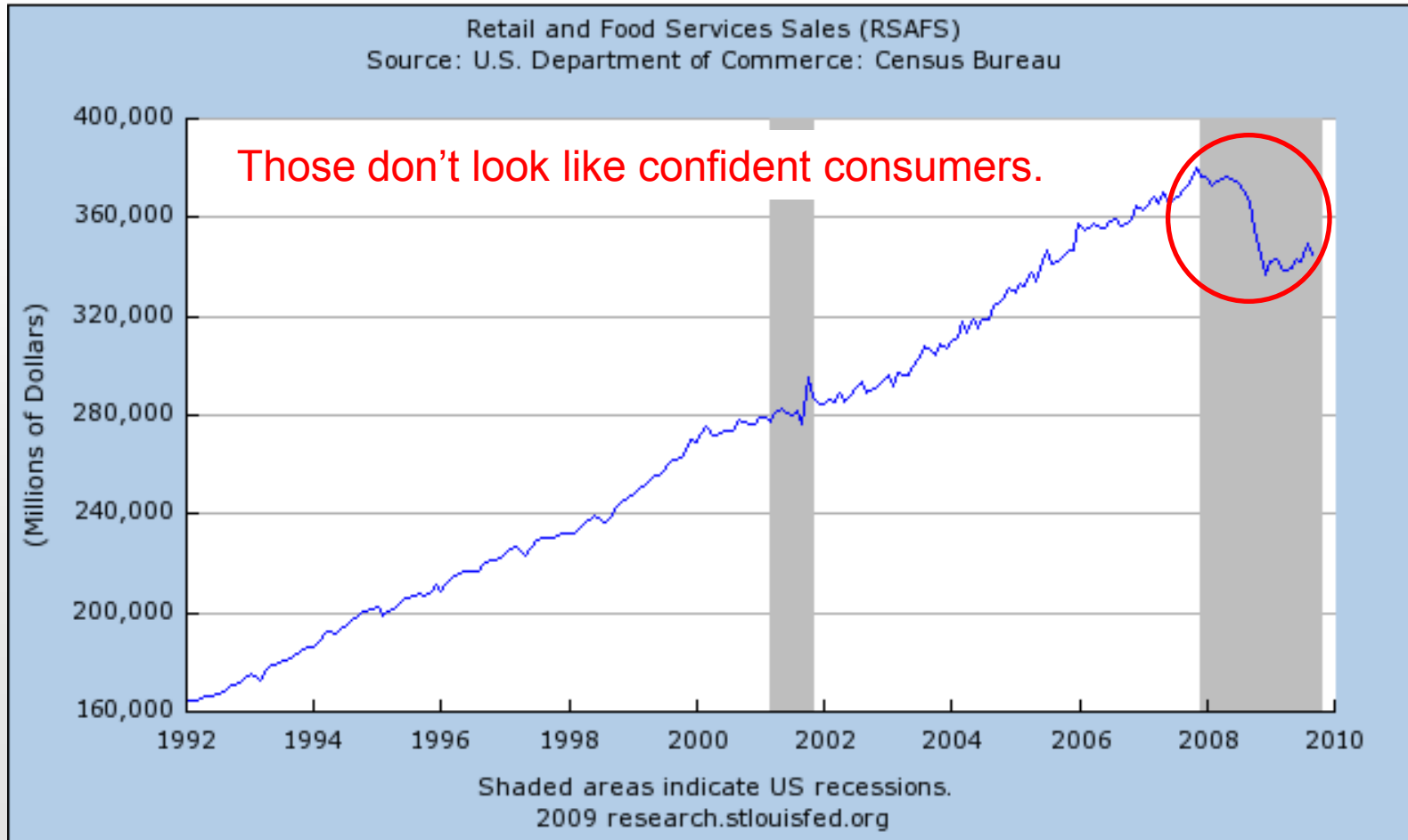


Low and falling slightly. So which one should we considered?



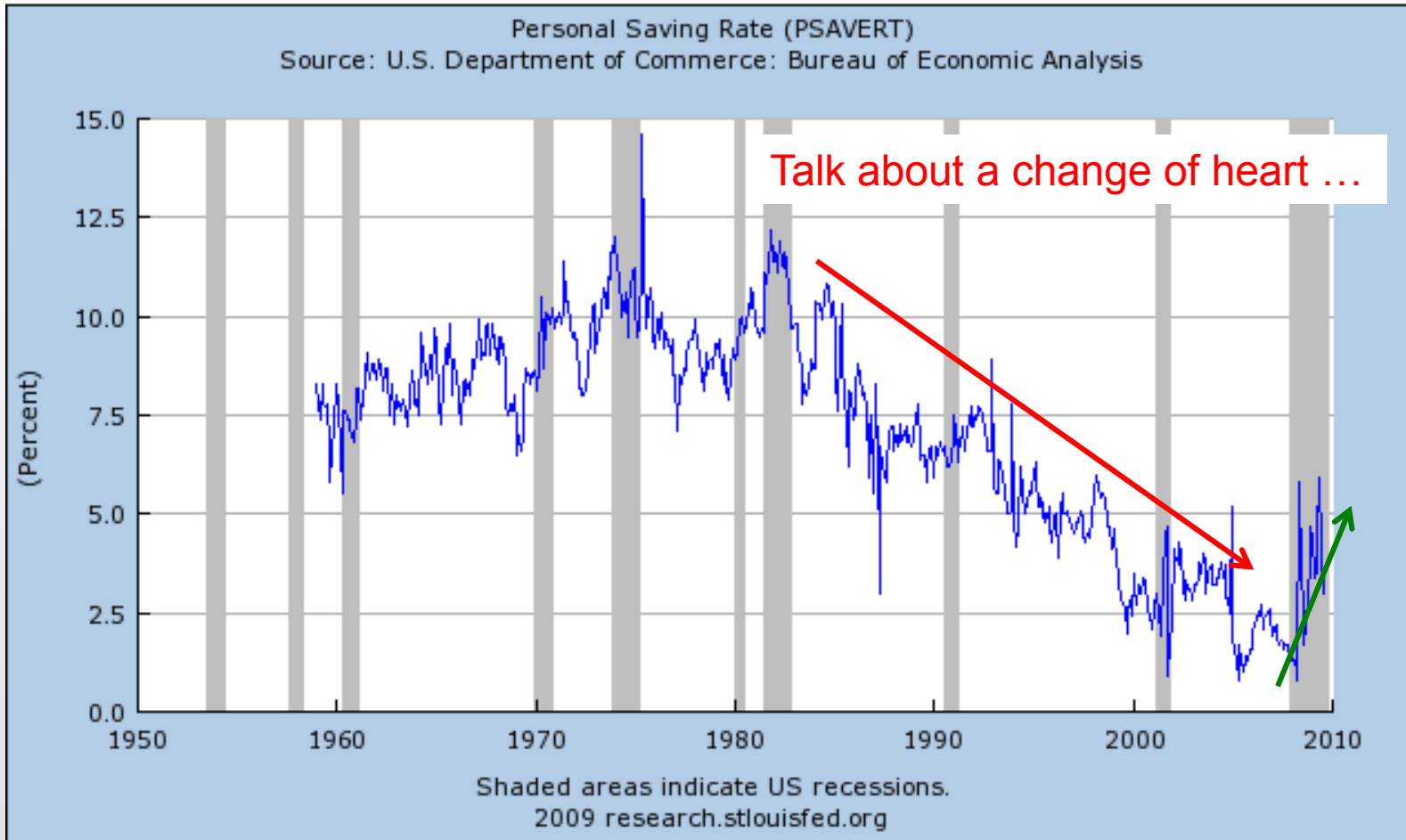
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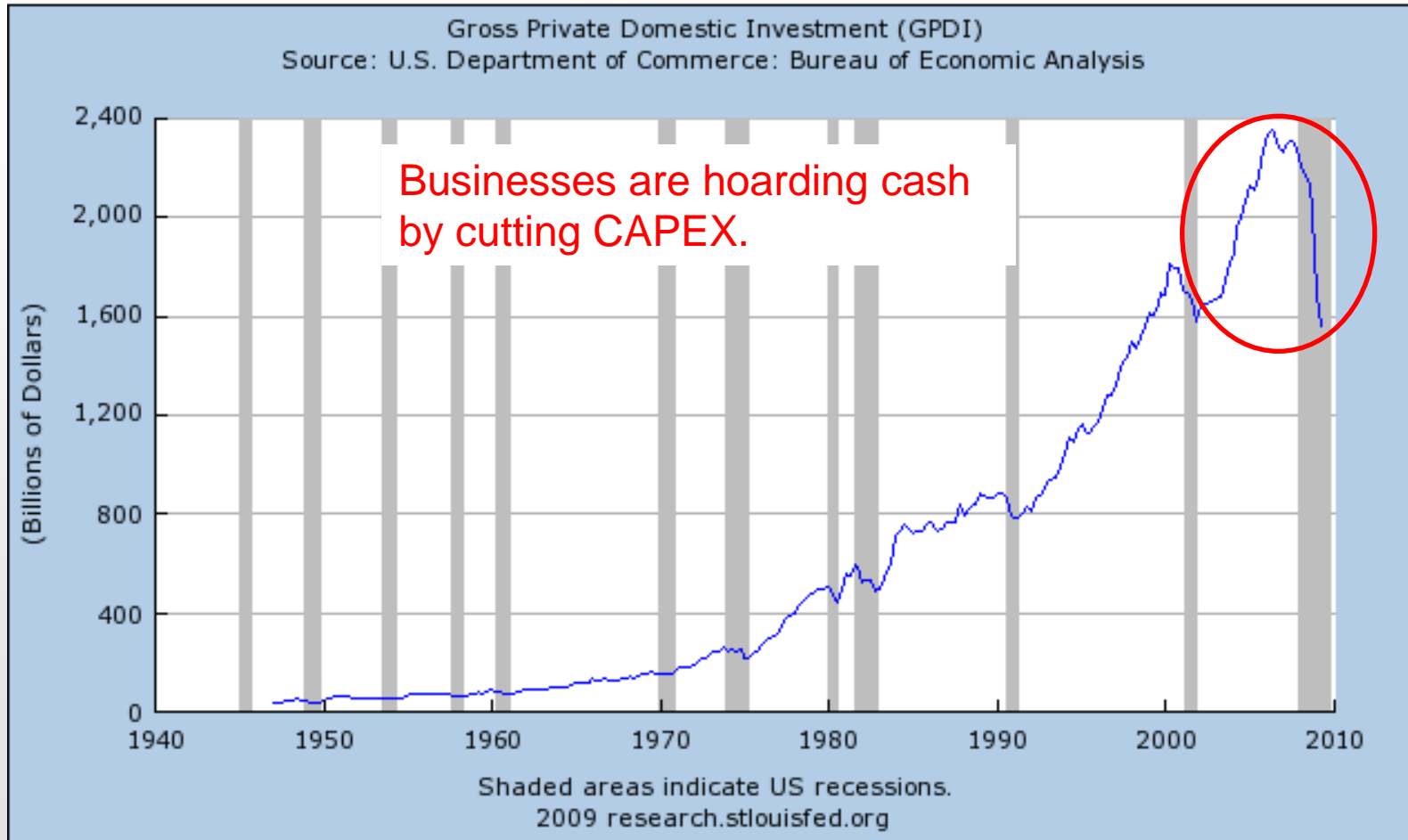
Step 8: Hoarding and slowing down still more the velocity of circulation.





Fisher's Debt-deflation

Step 8: Hoarding and slowing down still more the velocity of circulation.





Fisher's Debt-deflation

Step 8: Hoarding and slowing down still more the velocity of circulation.

Article on businesses hoarding cash:

<http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aKArtbx5GFHw>

- Treasurers and CFO's ~~conserving~~ hoarding cash
- “Even as government reports show that the first global recession since World War II may be easing, corporate treasurers are raising cash as fast as they can, wary of losing access to capital.”



Fisher's Debt-deflation

- Step 9: The above eight changes cause complicated disturbances in the rates of interest, in particular, a fall in the nominal, or money, rates and a rise in the real, or commodity, rates of interest.
- The Fed is keeping rates low on purpose to try and prevent demand from falling.



Fisher's Debt-deflation

- The data shows that we are following Fisher's debt-deflation process; and I think we are at the beginning.
- Ben Bernanke will fight this tooth and nail.
- How do we know this? He said he would.



Bernanke: Deflation/Depression Hawk

- Bernanke's November 2002 speech outlines his deflation-fighting plan
 - <http://www.federalreserve.gov/BOARDDOCS/SPEECHES/2002/20021121/default.htm>
- 1. Prevention
 - Use monetary and fiscal policy to stimulate spending and keep deflation in check
 - I think we are past prevention



A Curious Quote ...

- Janet Yellen, President of the San Francisco Federal Reserve Bank

“I’ll put my cards on the table right away. I think the predominant risk is that inflation will be too low, not too high, over the next several years.”

- She’s not the only Fed governor worrying about this
- Why does she think that’s the biggest risk?



Bernanke: Deflation/Depression Hawk

2. Kill deflation before it multiplies

- Maintain “an inflation buffer zone,” i.e., target higher than normal inflation
 - Reason: to protect against falling aggregate demand and higher borrowing costs
-
- Is this Janet Yellen’s fear?
 - We may be past this, too. But Bernake remains committed to fight it.



Bernanke: Deflation/Depression Hawk

Bernanke's deflation-fighting playbook

- Maintain financial stability
 - Opened the Fed's discount window
- Use aggressive policies very early
 - Dropped rates to near 0%



Bernanke: Deflation/Depression Hawk

- Use the “printing press”
 - Increase the dollars in circulation
 - “... reduce the value of the a dollar in term of goods and services” to “generate higher spending and hence positive inflation.”
- Make asset purchases
 - Increase the magnitude of asset purchases
 - Increase the scope of asset purchases
- Inject money directly into banks
 - Offer low-rate loans to banks
 - Make equity purchases



Bernanke: Deflation/Depression Hawk

- Flatten the yield curve
 - Especially on the long-end in order
 - Low long-term rates provide a disincentive to save
- Coordinate with fiscal policy
 - Tax cuts plus quantitative easing can lower interest rates to stimulate consumption
 - Increase transfer payments
 - Increase direct government spending



Isn't Inflation on the Way?

- Milton Friedman thought “inflation is always and everywhere a monetary phenomenon”
 - Turning those bank reserves loose on the economy
 - Quantitative easing: the Fed’s “printing press”
 - Monetizing the debt
 - Buying assets: asset-backed securities, foreign debt
- The Fed signals higher than normal inflation
 - <http://www.pimco.com/LeftNav/Featured+Market+Commentary/FF/2009/July+2009+Global+Central+Bank+Focus+McCulley.htm>



Can the Deleveraging Force Be Stopped?

- Bernanke is using all of the tools. Will they be enough?
- Think of deleveraging as having inertia
 - A body in motion tends to stay in motion ...
- Richard Koo notes that Japanese businesses and consumers delevered for years despite near-0% interest rates
- Bernanke is pulling out all the stops to prevent the effects of deleveraging
 - unless acted upon by an unbalanced force.
- Can the Fed generate enough counter-momentum?
 - We're starting from an historic debt level



The Potential Outcomes

- Deflation sets in
 - Declining “ $M*V$ ” and/or decline in prices
- Inflation sets in
 - Are the wheels are in motion?
- Bernanke perfectly balances the forces and things go back to “normal”
 - “Goldilocks” (“This one’s just right”) is possible
- What are the probabilities?



Positioning a Portfolio

- For a deflationary environment
 - Cash
 - Cash rich companies with no debt
 - Low-cost manufacturers who can withstand falling prices
 - Niche companies with important products and services
 - Other ideas?



Positioning a portfolio

- For an inflationary environment
 - Treasury Inflation-Protected Securities
 - Debt-laden companies that can survive
 - Commodities and commodity-related companies
 - Other ideas?



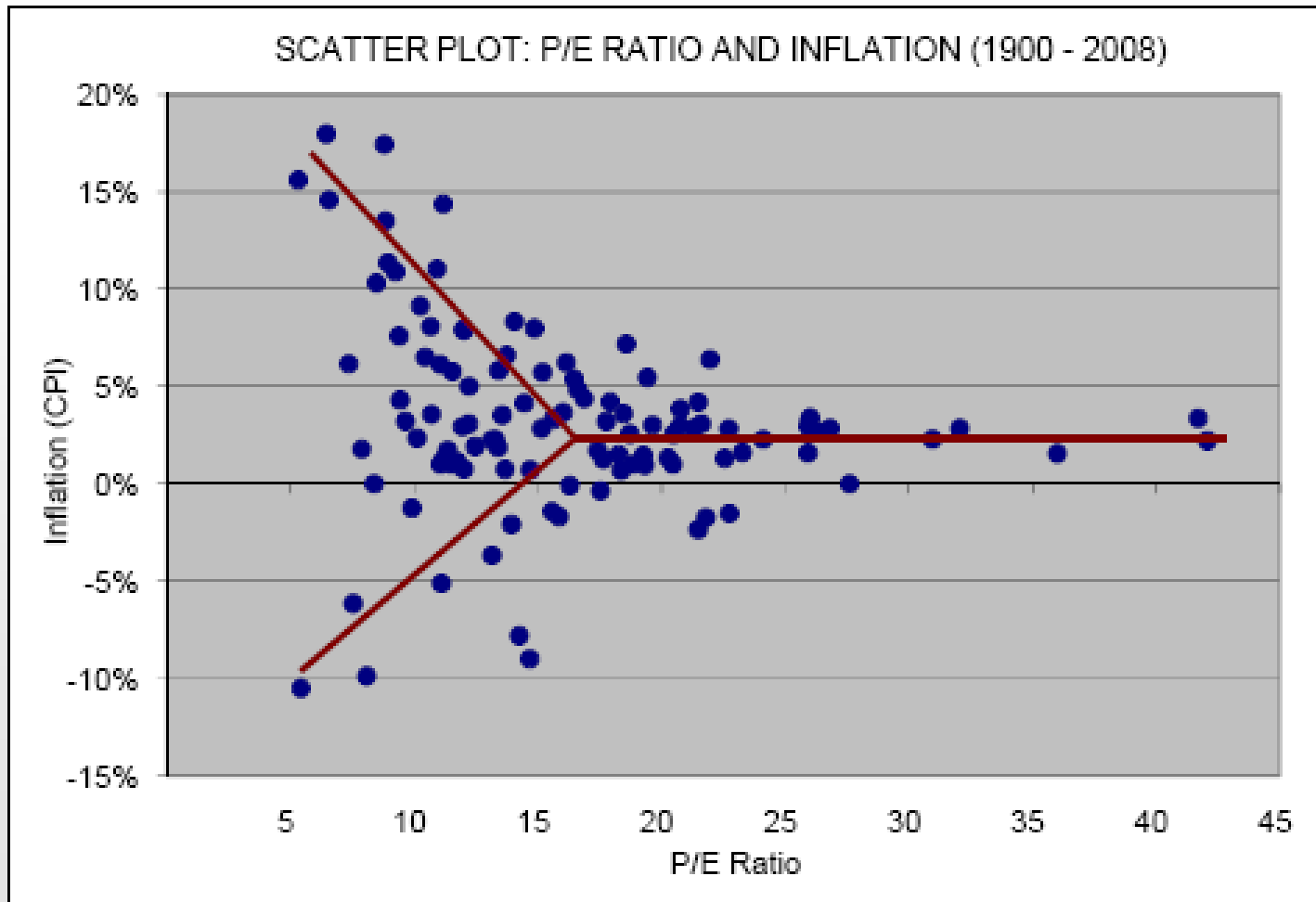
Positioning a portfolio

- If Bernanke can “balance the forces”
 - A rising tide lifts all yachts
 - Get 100% invested?
 - Could this create another instability in the future?



There's Always a Catch

This chart would say unless inflation stays low, we're likely to see the market's P/E ratio contract with inflation or deflation





Summary

- The U.S. is highly leveraged
 - Consumers, businesses, and the government
- Lots of speculative and some Ponzi debt
 - Created an instability
- Ample evidence of debt-deflation
 - Looks like it may just be starting
- Investors should be prepared
 - Market P/E ratio could easily contract