


THE PERFECT (FINANCIAL) STORM . . .
. . . CONTINUES
. OR RECEDES?


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and Real Estate
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THE
PERFECT STORM



Six-and-a-half years after the failure of Bear-Stearns, many, if not most, think that the financial crisis that followed is behind us.

- The unofficial arbiter of U.S. business cycles—the NBER—dates the so-called “Great Recession” as beginning in Dec. 2007 and ending in Jun. 2009.
 - Wall Street has reached new record highs, with the Dow almost tripling from its 2009 low of 6,500 to more than 17,000.
 - U.S. unemployment has fallen from more than 10% to 6.2%.
 - Since the 2012 bottom, U.S. housing prices have risen by 23%.
 - The U.S. fiscal deficit has fallen from \$1.5 trillion in 2009 to “only” \$680 billion in 2013, and \$589 billion through 11 months in 2014.
 - The number of U.S. bank failures slowed from 150 in 2009 to only a trickle in 2014.
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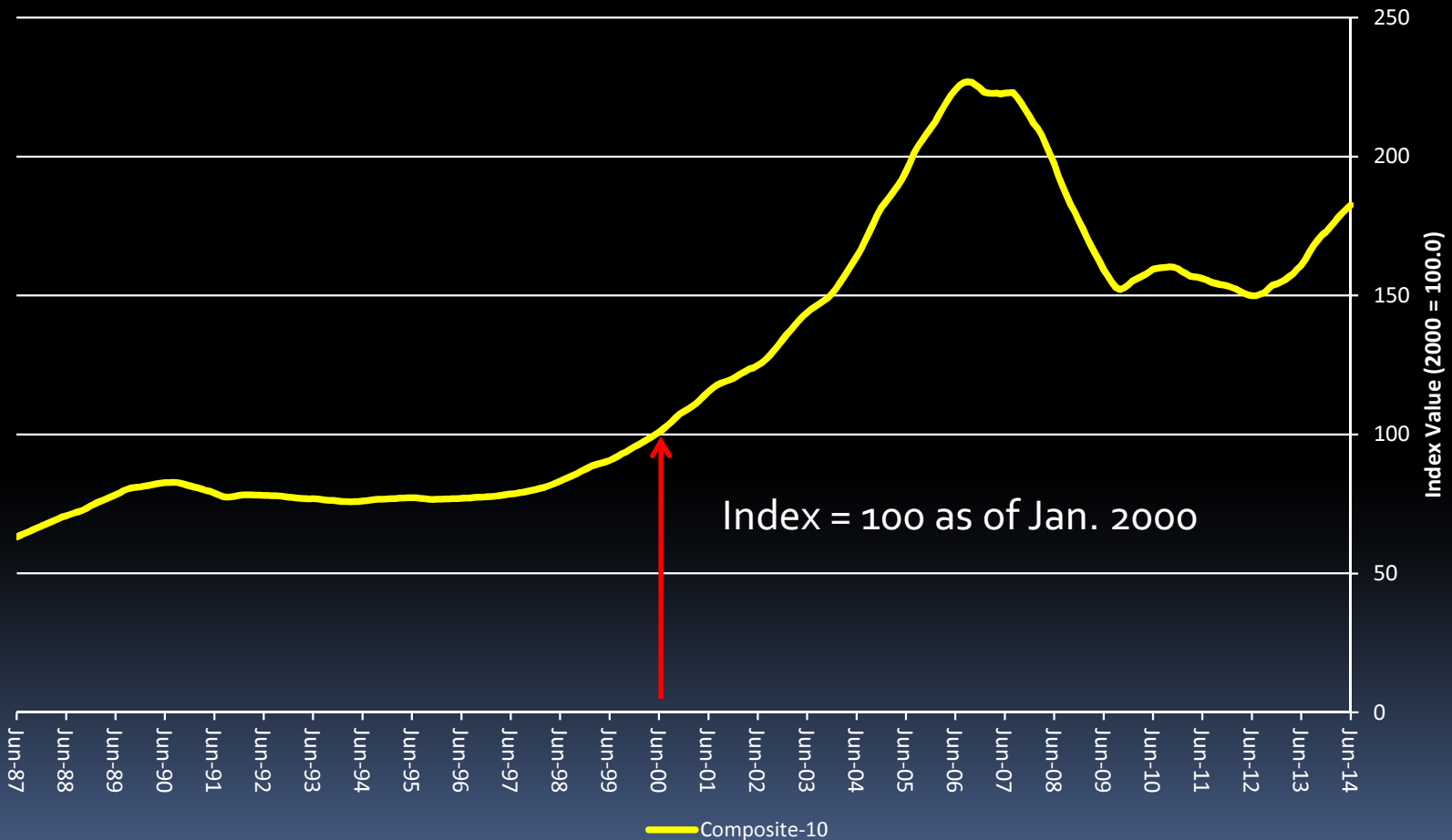
And yet, I will argue, financial storm clouds continue to churn. . .

- The Fed has maintained zero interest rates since 2008 and promises to continue through at least 2015.
- This policy has fueled asset bubbles around the world, especially in U.S. equities and emerging market bonds.
- The U.S. national debt has grown from \$10 Trillion in 2008 to more than \$17.7 Trillion today, and the CBO forecasts it will top \$20 Trillion sometime in 2019.
- The labor force participation rate has dropped from 65% in 2008 to only 63% today as millions of long-term unemployed have given up looking for work.
- After more than 5 million completed foreclosures, there remain 3.8 million homeowners who are delinquent on their mortgages, and home prices remain 20% below their 2006 peak.
- After more than 400 bank failures, more than 350 banks remain on the FDIC's list of troubled banks.

The U.S. Housing Crisis

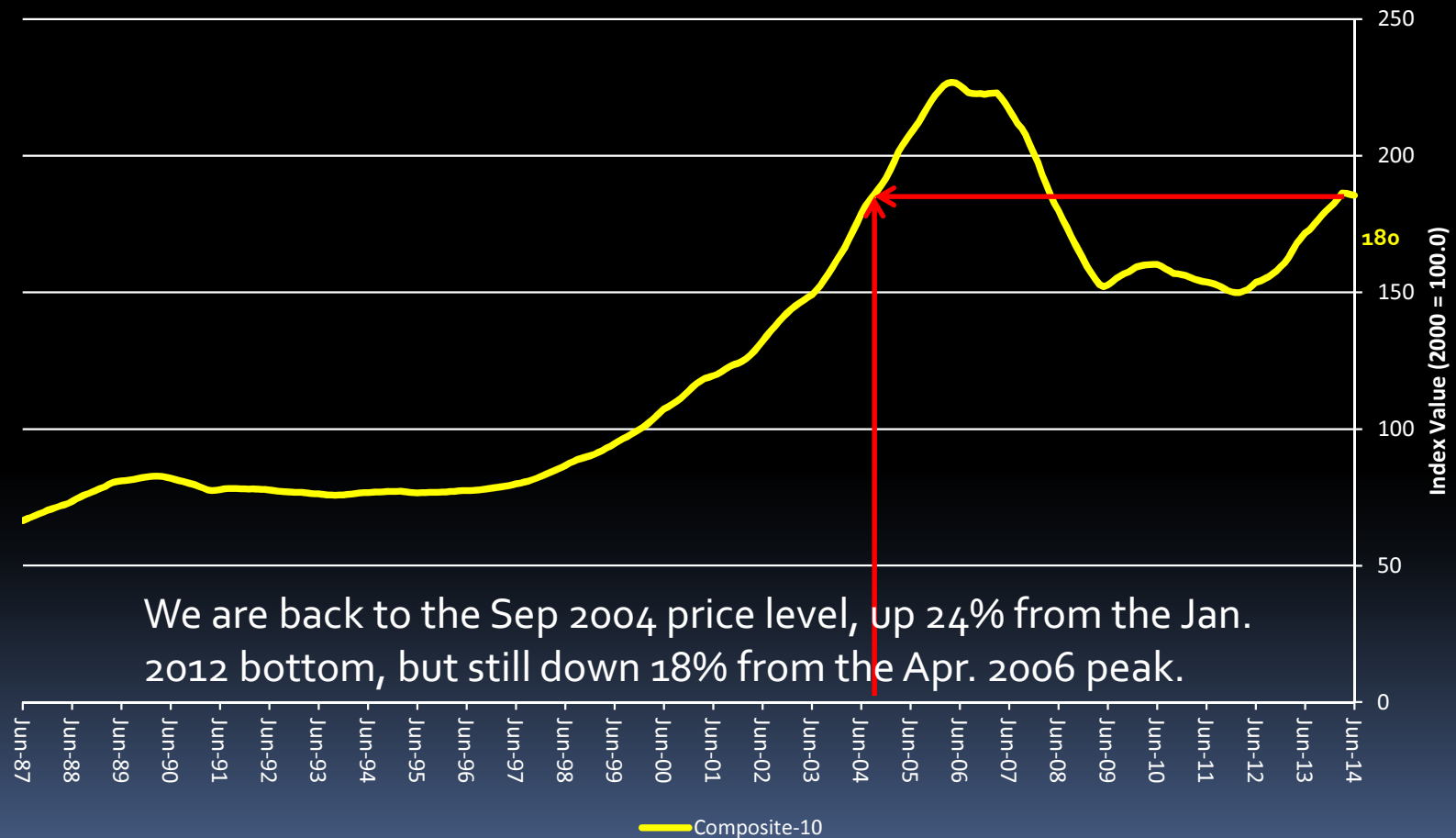
- Since 2008, about 5 million families have lost their homes to foreclosure.
- Another 3.8 million are currently delinquent on their mortgages, with more than half of these likely lose their homes during the next few years.
- Another 5 million are “underwater,” owing more than the value of their home.
- More than \$2 trillion in home equity has been destroyed. Home equity is the financial lifeblood of entrepreneurs, who create most U.S. jobs.

The U.S. Housing Crisis: Home Prices Jun. 1987 – Jun. 2014



Source: Case-Shiller Composite 10-City Index (Jun. 2013)

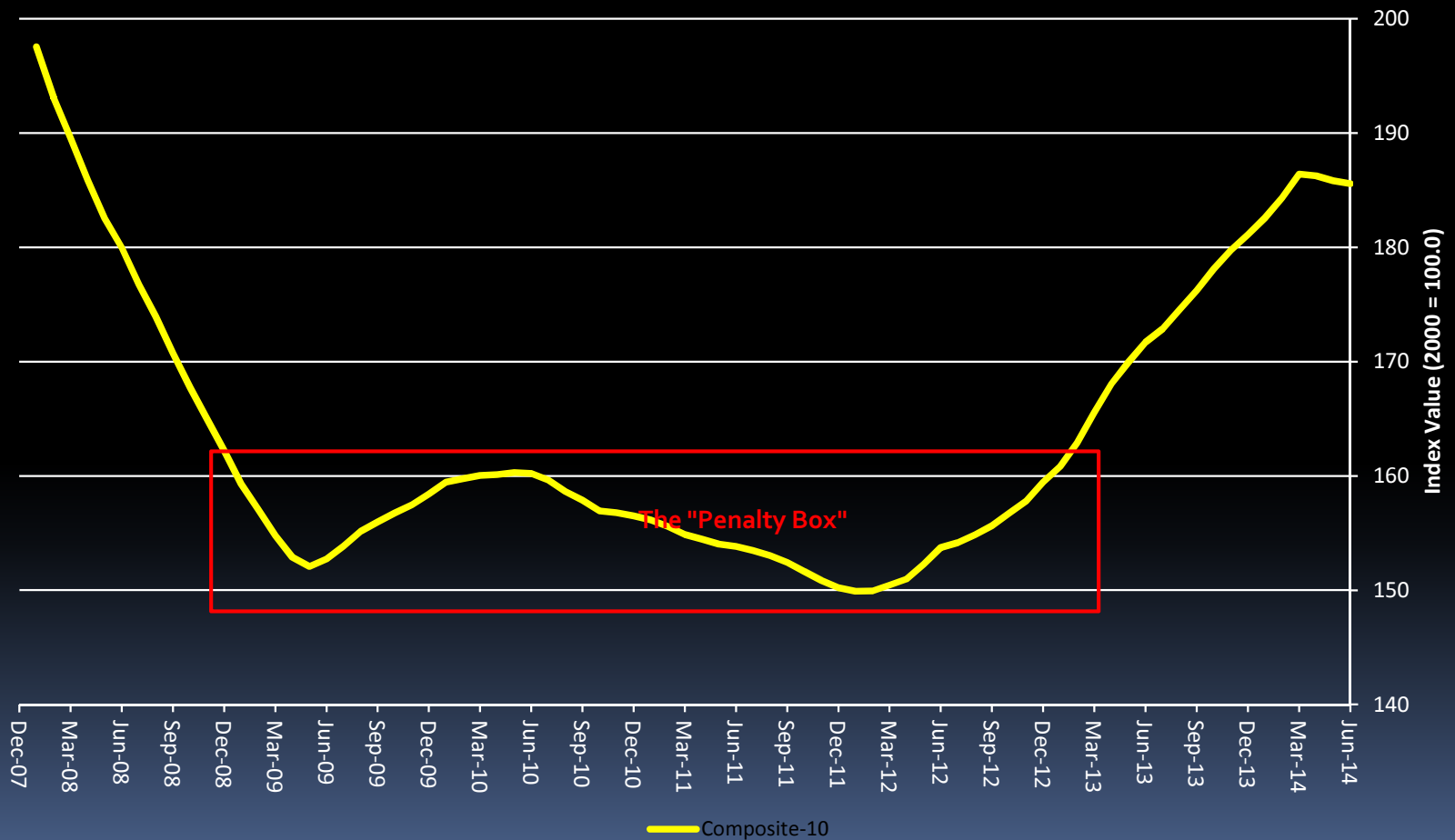
The U.S. Housing Crisis: Home Prices Jun. 1987 – Jun. 2014



We are back to the Sep 2004 price level, up 24% from the Jan. 2012 bottom, but still down 18% from the Apr. 2006 peak.

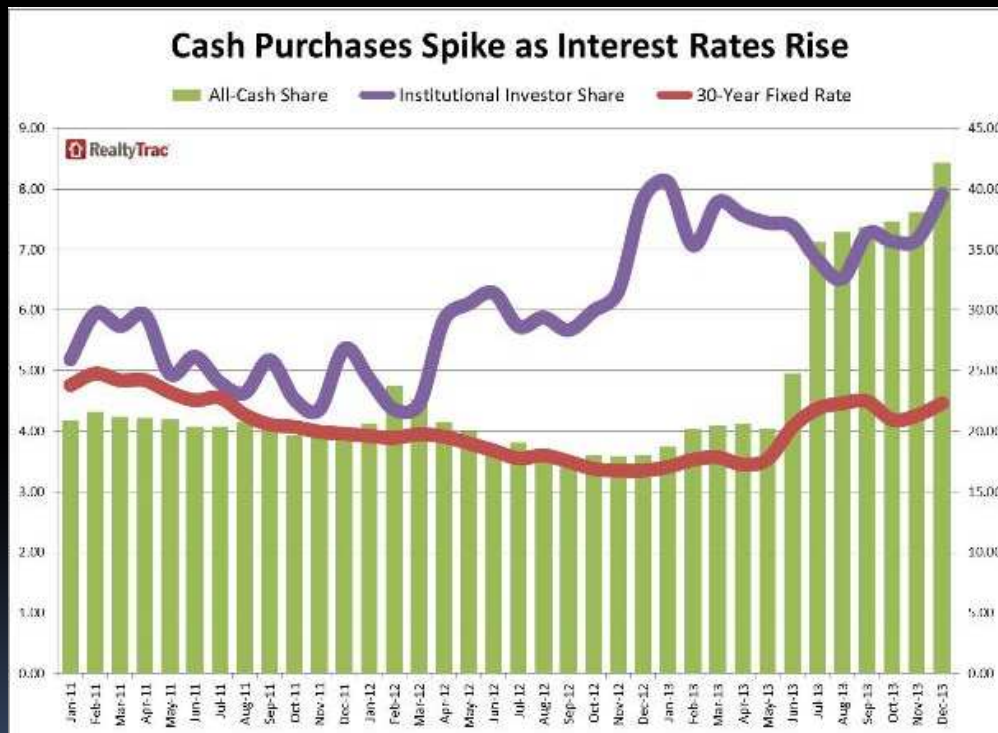
Source: Case-Shiller Composite 10-City Index (Jun. 2014)

The U.S. Housing Crisis: Home Prices Jan. 2009 – Nov. 2013



Source: Case-Shiller Composite 10-City Index (Jun. 2014)

The U.S. Housing Crisis: The Role of Institutional Investors

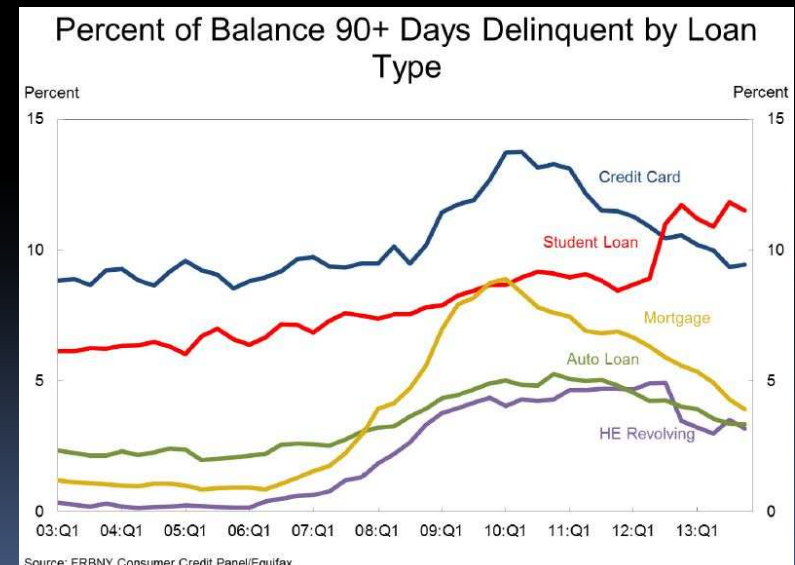
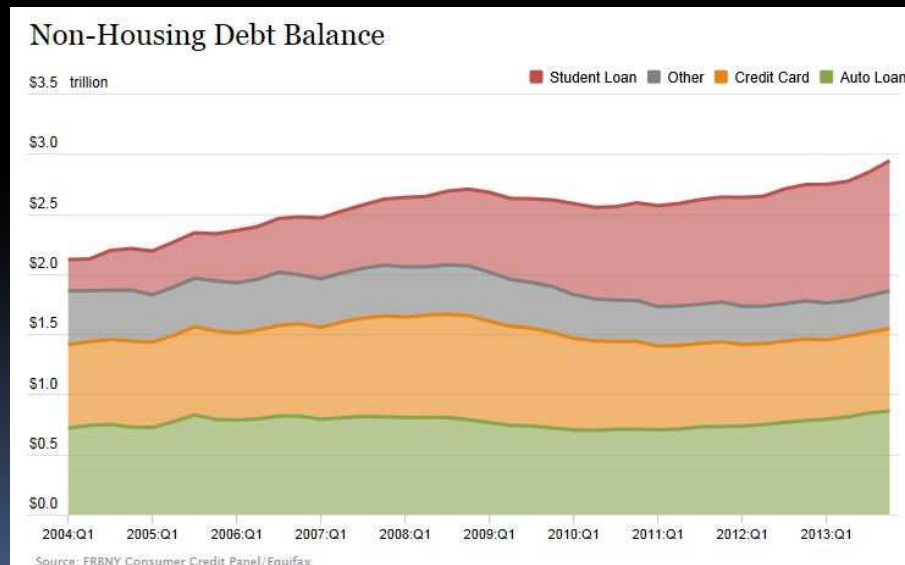


Source: RealtyTrac (Dec. 2013).

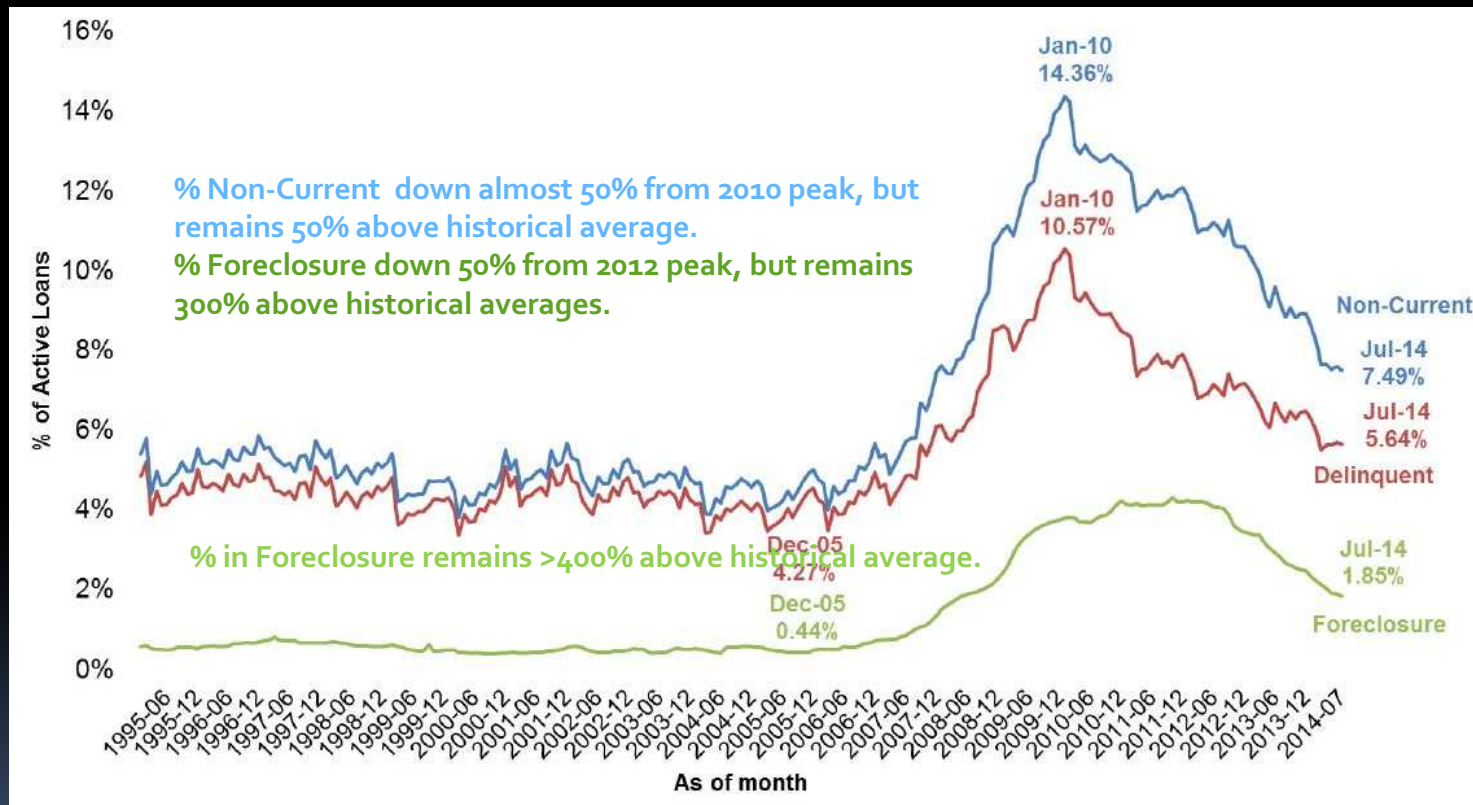
- Tight underwriting and student loan debt have left many potential first-time buyers out of the market.
- Much of the recovery has been driven by institutional investors paying CASH and converting foreclosures into rentals.
- These investors now have largely ceased purchases, and many observers fear that they will dump their holdings.
- Hence, the housing recovery has stalled, prices appear to have peaked, and be poised to head south yet again.

The U.S. Housing Crisis: Student Loans and First-Time Home Buyers

- Don't expect the "Millennials" to bail us out by purchasing their first homes.
- They owe too much (\$1.2 Trillion) on their student loans, and don't have enough cash for the required 20% down payment.



The U.S. Housing Crisis: Non-Current Mortgages Jun.1995 - Jul.2014



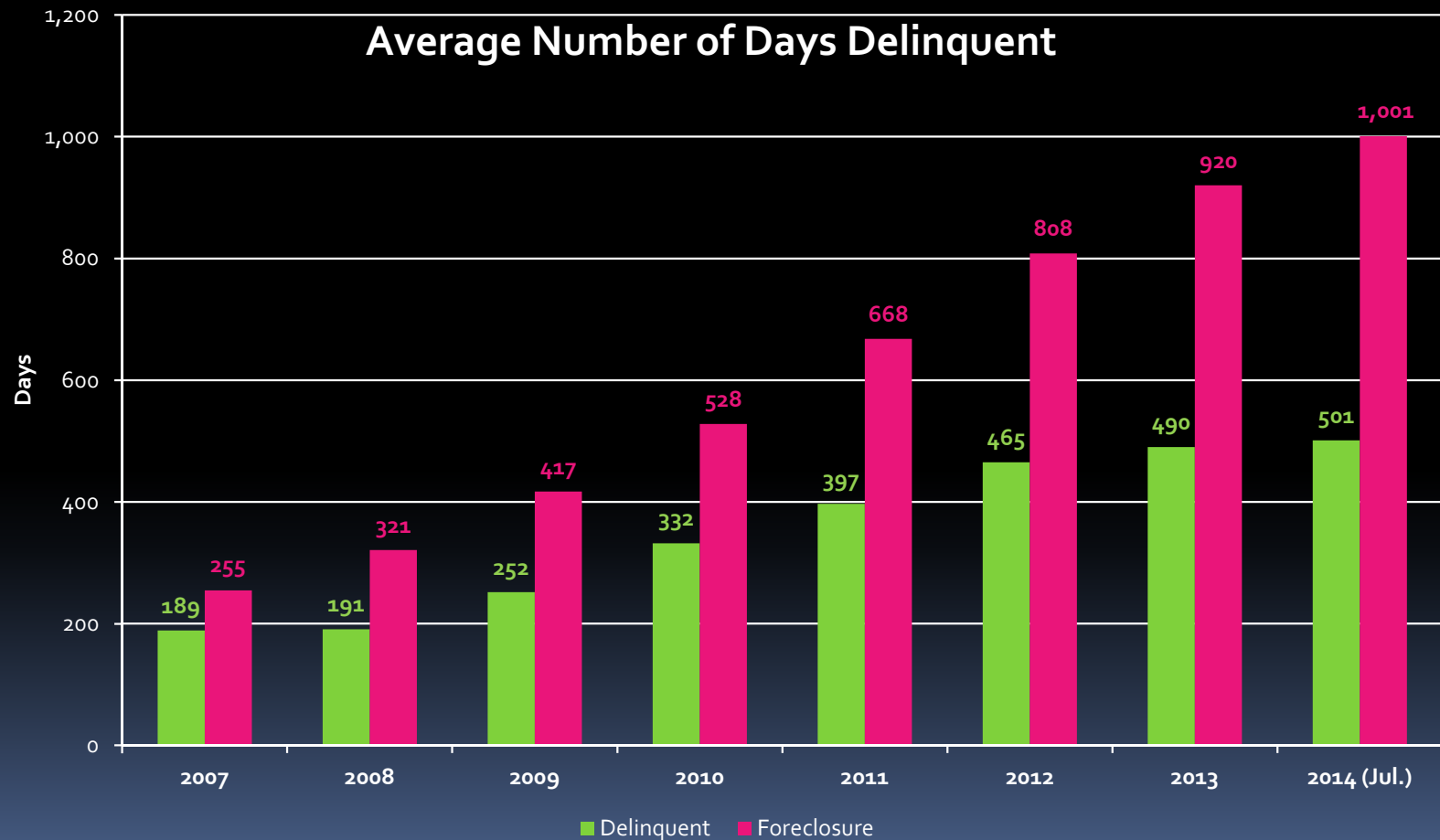
Source: Black Knight Financial Services (Jul. 2014). Excludes completed foreclosures.

The U.S. Housing Crisis: Non-Current Mortgages Jan.2008 - Jul.2014

Month	TOTAL ACTIVE COUNT	30 DAYS	60 DAYS	90+ DAYS	FC	Total Non-Current	FC Starts	Average Days Delinquent for 90+	Average Days Delinquent for FC	Ratio of 90+ to FC
1/31/2008	54,094,282	1,701,163	664,956	940,832	817,948	4,124,899	197,210	189	255	115.0%
1/31/2009	54,267,187	1,945,997	909,744	1,817,809	1,318,840	5,992,391	249,655	191	321	137.8%
1/31/2011	52,138,710	1,682,266	715,350	1,988,781	2,162,601	6,548,999	261,272	332	528	92.0%
1/31/2012	51,111,780	1,531,458	627,874	1,758,894	2,163,659	6,081,884	219,750	397	668	81.3%
1/31/2013	49,896,142	1,407,343	567,022	1,531,216	1,702,715	5,208,297	147,593	468	814	89.9%
2/28/2013	50,123,564	1,400,311	526,649	1,483,423	1,693,699	5,104,081	131,826	473	824	87.6%
3/31/2013	50,186,364	1,346,310	495,352	1,465,953	1,688,809	4,996,424	121,012	492	834	86.8%
4/30/2013	50,117,188	1,252,302	464,676	1,394,132	1,588,138	4,699,249	127,496	503	843	87.8%
5/31/2013	50,076,535	1,243,193	465,129	1,334,699	1,524,837	4,567,859	116,812	511	852	87.5%
6/30/2013	49,823,992	1,471,134	511,731	1,344,818	1,457,699	4,785,382	109,042	512	860	92.3%
7/31/2013	49,784,184	1,335,498	510,585	1,347,161	1,406,121	4,599,365	112,849	517	876	95.8%
8/31/2013	50,370,772	1,344,657	491,283	1,287,867	1,340,955	4,464,763	107,552	505	895	96.0%
9/30/2013	50,521,857	1,397,119	537,260	1,331,344	1,327,608	4,593,332	108,953	513	895	100.3%
10/31/2013	50,161,457	1,345,175	523,729	1,282,783	1,275,579	4,427,266	118,837	512	900	100.6%
11/30/2013	50,264,345	1,424,197	534,167	1,282,938	1,256,170	4,497,471	104,939	500	905	102.1%
12/31/2013	50,163,956	1,411,348	551,473	1,280,336	1,244,436	4,487,591	104,759	490	920	102.9%
1/31/2014	50,044,899	1,318,673	532,548	1,288,573	1,175,470	4,315,263	94,075	481	943	109.6%
2/28/2014	50,118,665	1,267,410	482,140	1,241,878	1,114,985	4,106,413	91,993	481	956	111.4%
3/31/2014	50,211,856	1,135,658	435,521	1,198,907	1,069,791	3,839,877	88,113	496	966	112.1%
4/30/2014	50,211,885	1,197,193	436,813	1,187,019	1,016,287	3,837,312	78,796	495	985	116.8%
5/31/2014	50,541,174	1,222,390	447,930	1,168,971	966,062	3,805,353	86,258	501	993	121.0%
6/30/2014	50,530,807	1,261,502	466,039	1,155,114	951,384	3,834,039	88,314	502	997	121.4%
7/31/2014	50,521,130	1,239,298	473,983	1,136,139	935,460	3,784,879	90,690	501	1,001	121.5%

Source: Black Knight Financial Services (Jul. 2014). Excludes completed foreclosures.

The U.S. Housing Crisis: Non-Current Mortgages Dec.2007 - Jul.2014



Source: Black Knight Financial Services (Jul. 2014). Excludes completed foreclosures.

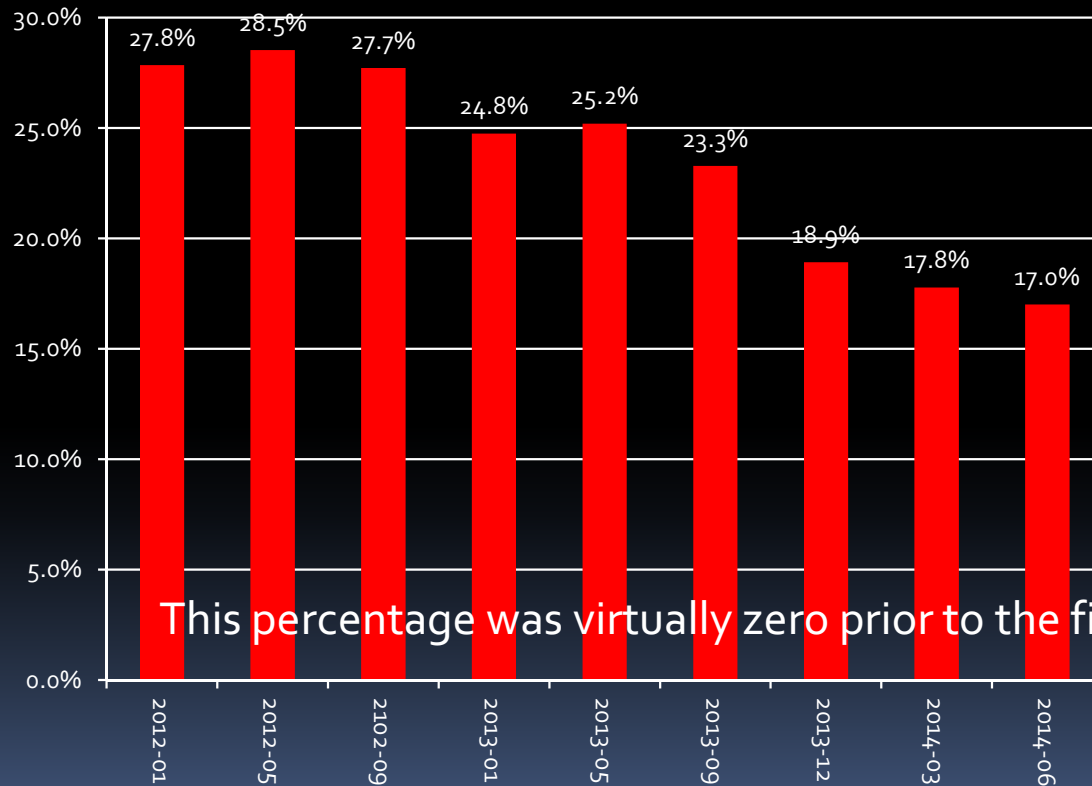
The U.S. Housing Crisis:

Non-Current Mortgages Dec.2007 - Jul.2014

- How could a loan in the U.S. be delinquent for almost three years?
- Why can't the lenders seize the collateral underlying these mortgages?
- The answer is . . .
- . . . "paperwork problems."

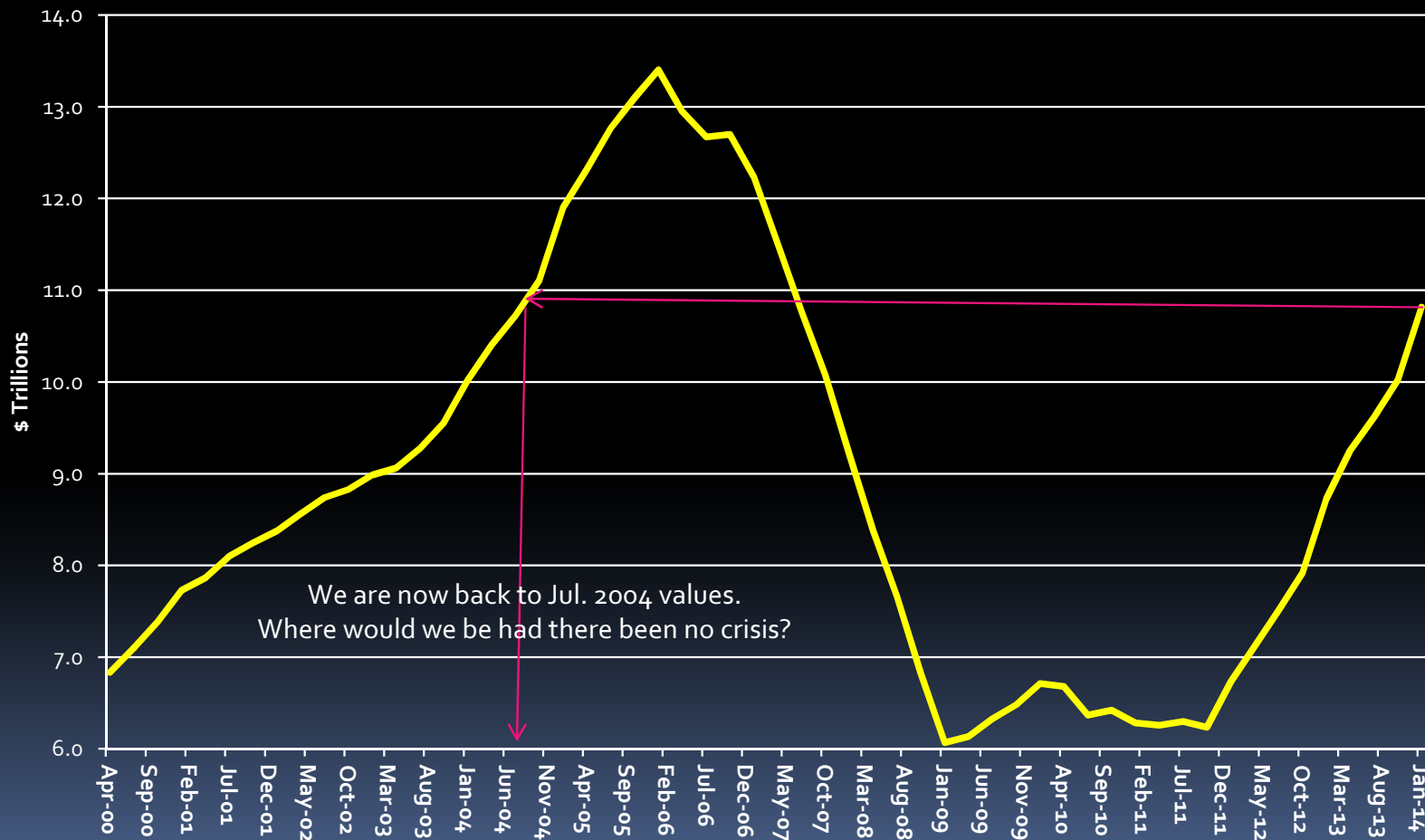
Source: Black Knight Financial Services (Jul. 2014). Excludes completed foreclosures.

The U.S. Housing Crisis: 17% of 53.5 Million Mortgages Still Seriously Underwater (> 10% of Value)



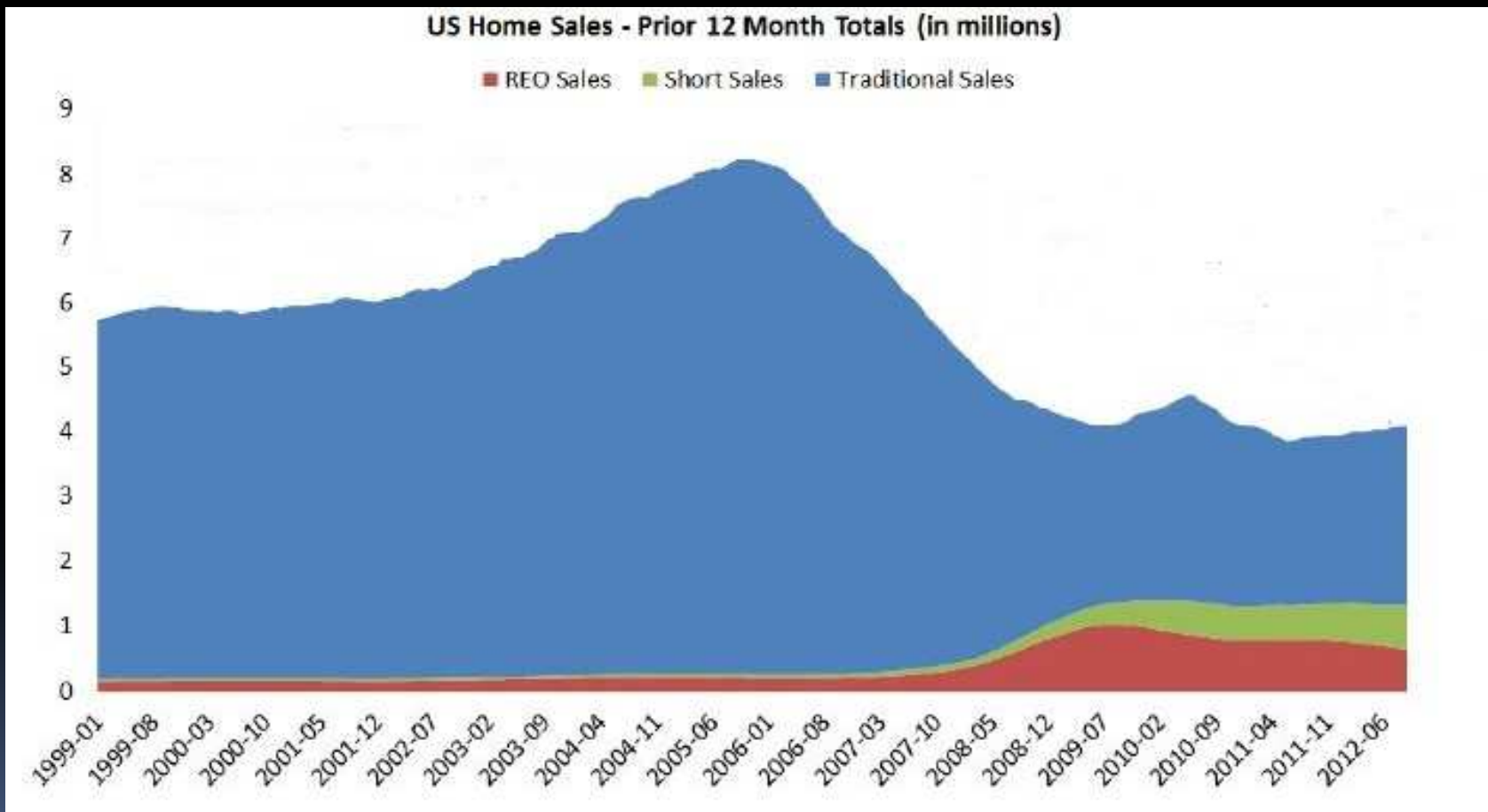
Source: RealtyTrac (Jul. 2014)

The U.S. Housing Crisis: Home Equity



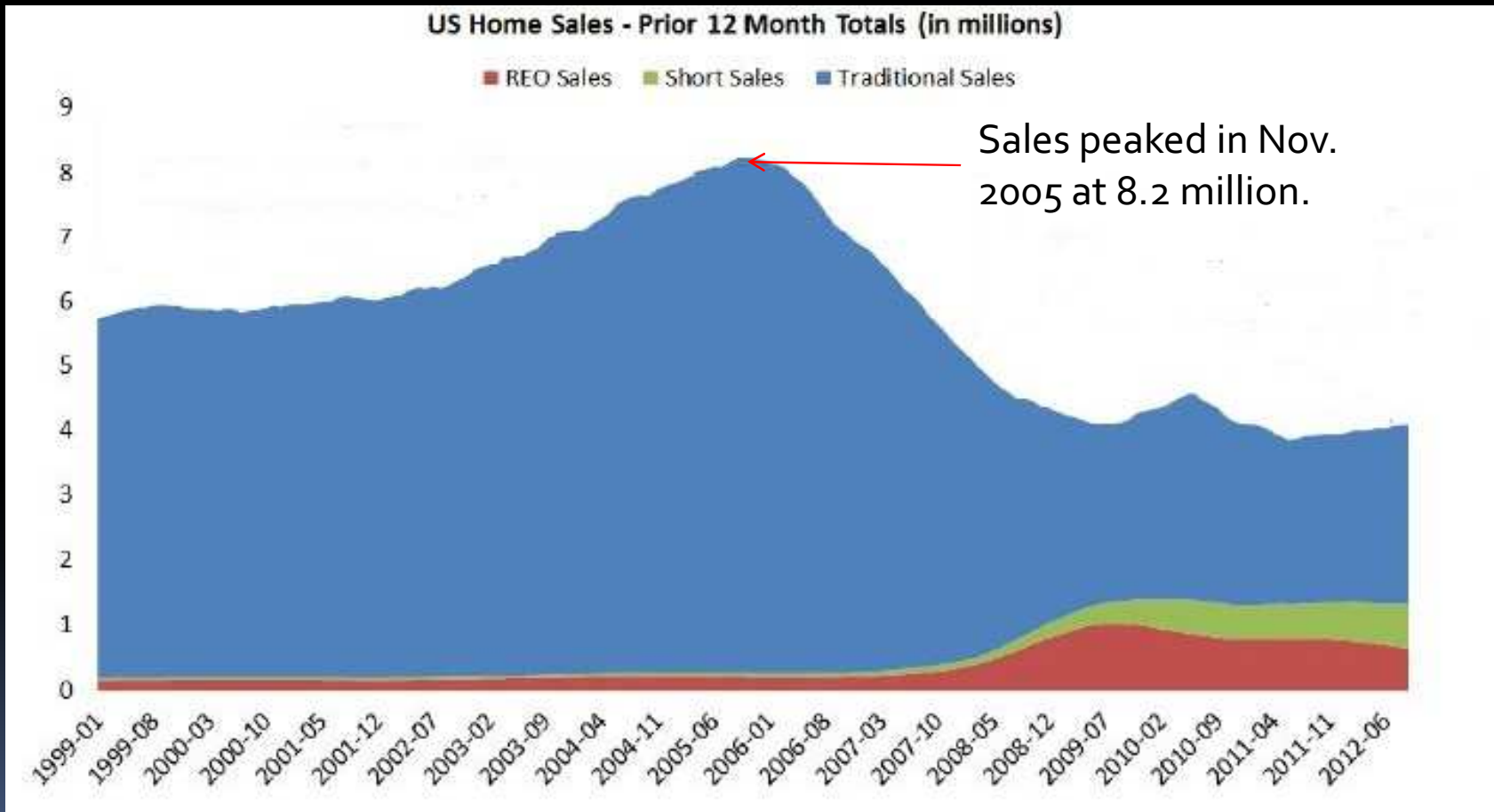
Source: Federal Reserve Board's Flow of Funds

The U.S. Housing Crisis: “Distressed” Sales



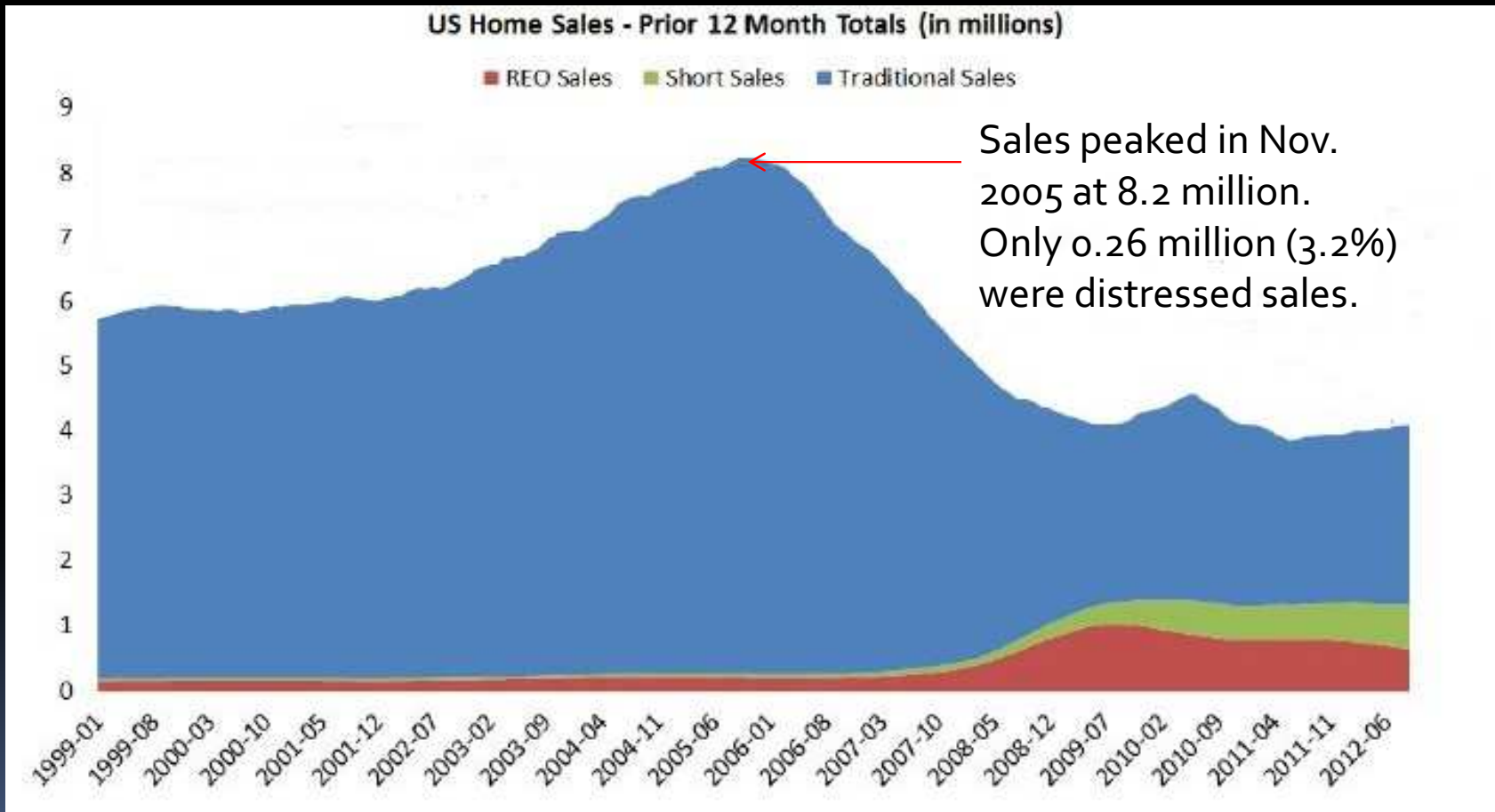
Source: Lender Processing Services (Oct. 2012)

The U.S. Housing Crisis: “Distressed” Sales



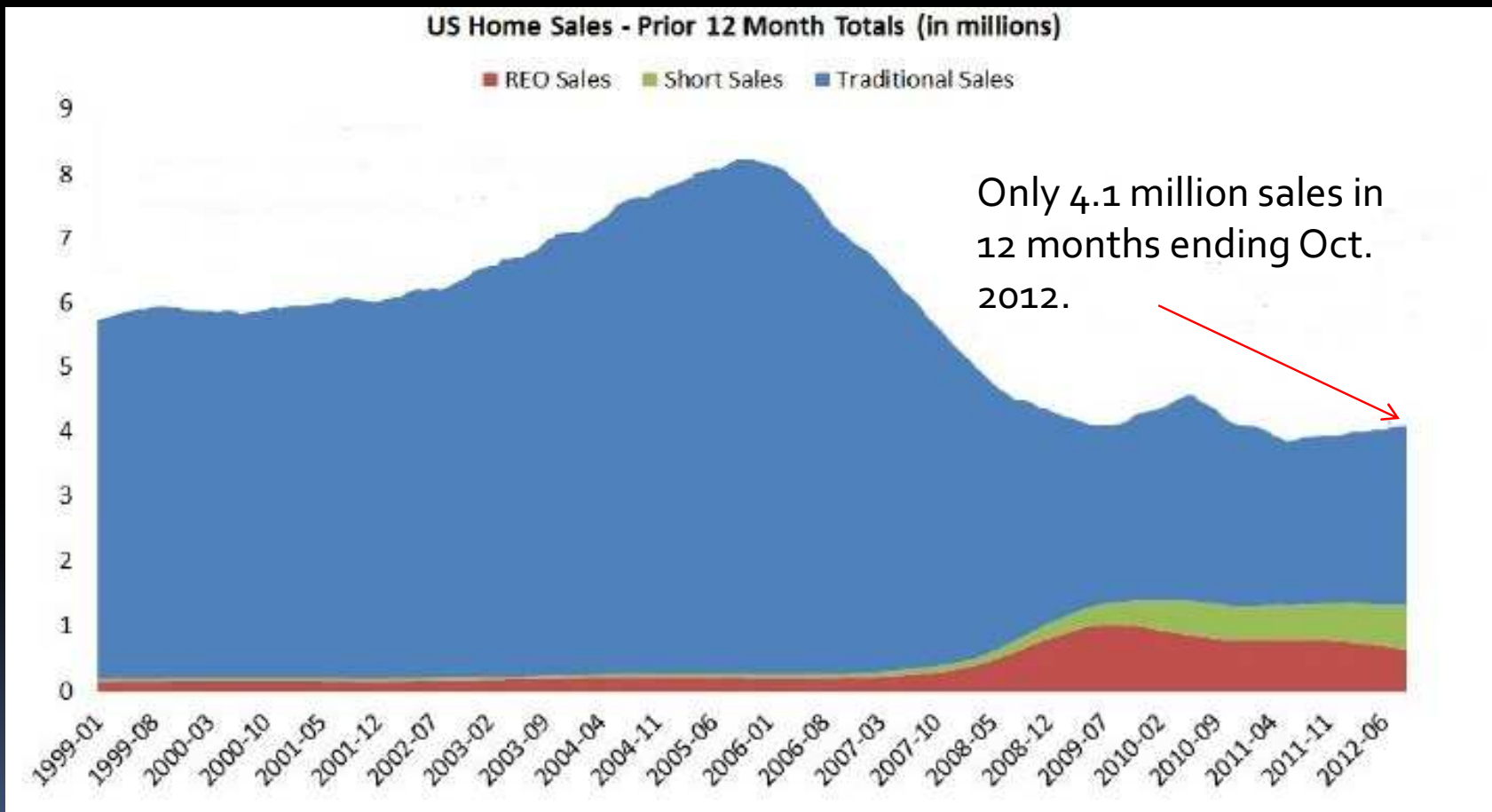
Source: Lender Processing Services (Oct. 2012)

The U.S. Housing Crisis: “Distressed” Sales



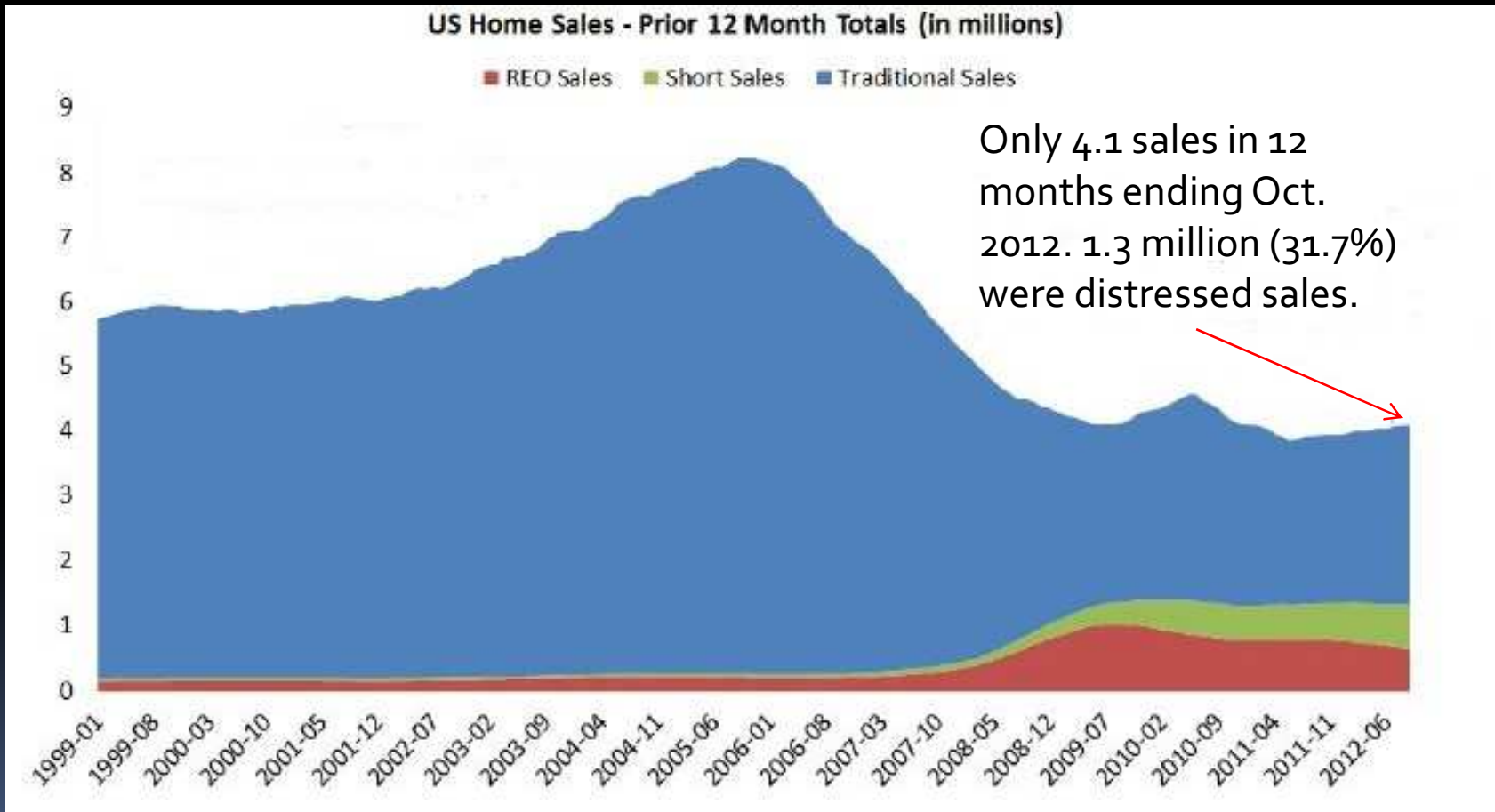
Source: Lender Processing Services (Oct. 2012)

The U.S. Housing Crisis: “Distressed” Sales



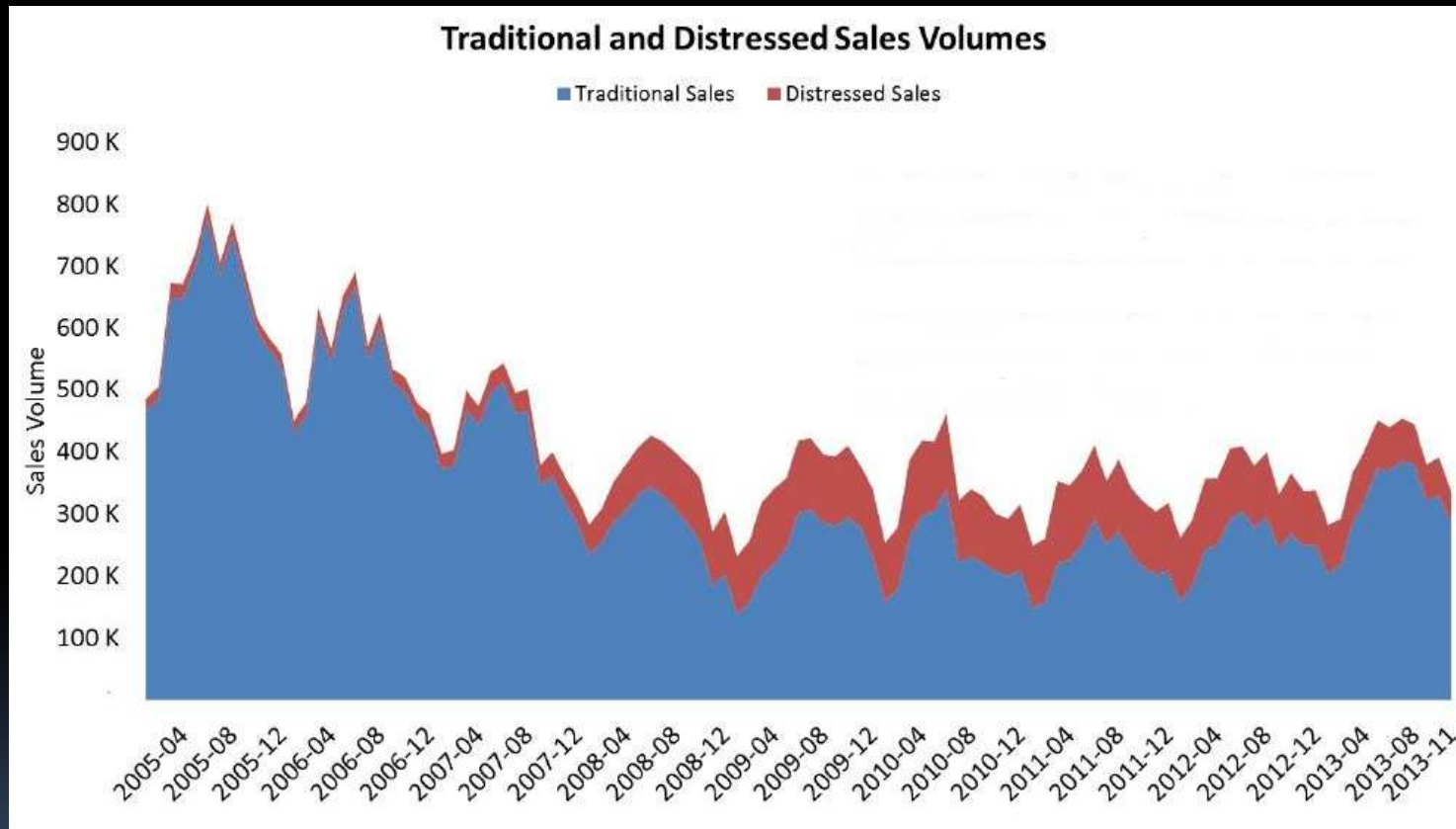
Source: Lender Processing Services (Oct. 2012)

The U.S. Housing Crisis: “Distressed” Sales



Source: Lender Processing Services (Oct. 2012)

The U.S. Housing Crisis: “Distress Sales” now down to “only” 16%



Sales still bumping along at only about 4 million per year.

Source: Black Knight Financial Services (Dec. 2013)

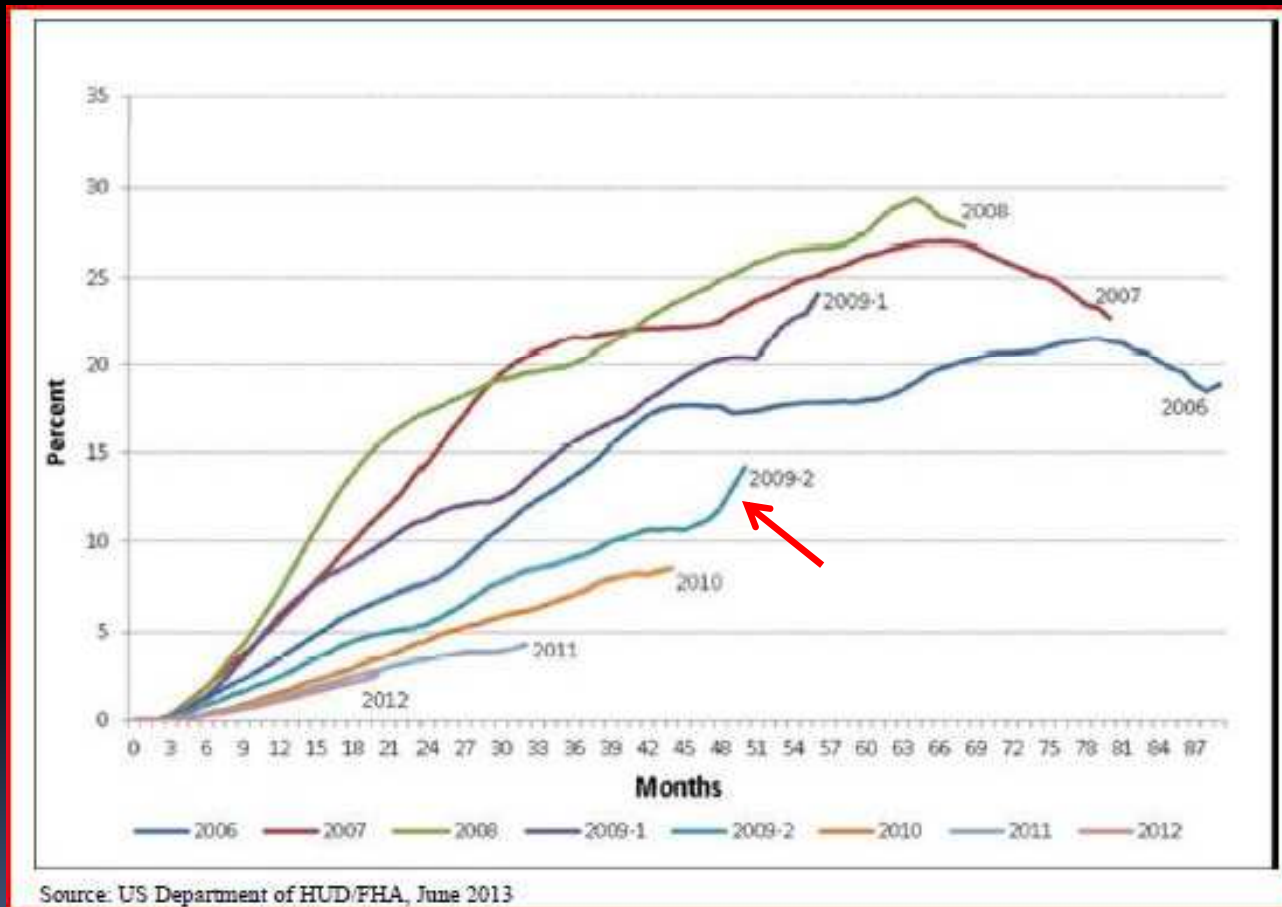
The U.S. Housing Crisis: Where is the private sector?

- U.S. Government Sponsored Entities (GSEs)
 - Fannie Mae
 - Freddie Mac
- U.S. Govt. Agency
 - Federal Housing Administration (FHA)
 - Veterans Administration (VA)
- 2005: 60% market share
- 2013: 85% market share

The U.S. Housing Crisis: Where is the private sector?

- FHA mortgage is the “new” subprime mortgage.
 - FHA guarantees payments to investors purchasing GNMA mortgage-backed securities in case an insured homeowner defaults.
 - Borrower makes only a 3% Down Payment.
 - Borrower pays an insurance premium equal to about 1% of mortgage amount.

The U.S. Housing Crisis: FHA Delinquency Rates by Vintage



Delinquencies spiking among 2009 vintage mortgages, when FHA had 40% market share.

The U.S. Housing Crisis: FHA Asks for Taxpayer Bail-Out

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Mortgage bailout not over, FHA to draw \$1.7 billion

 Text Size

Published: Friday, 27 Sep 2013 | 11:36 AM ET

By: Diana Olick | CNBC Real Estate Reporter

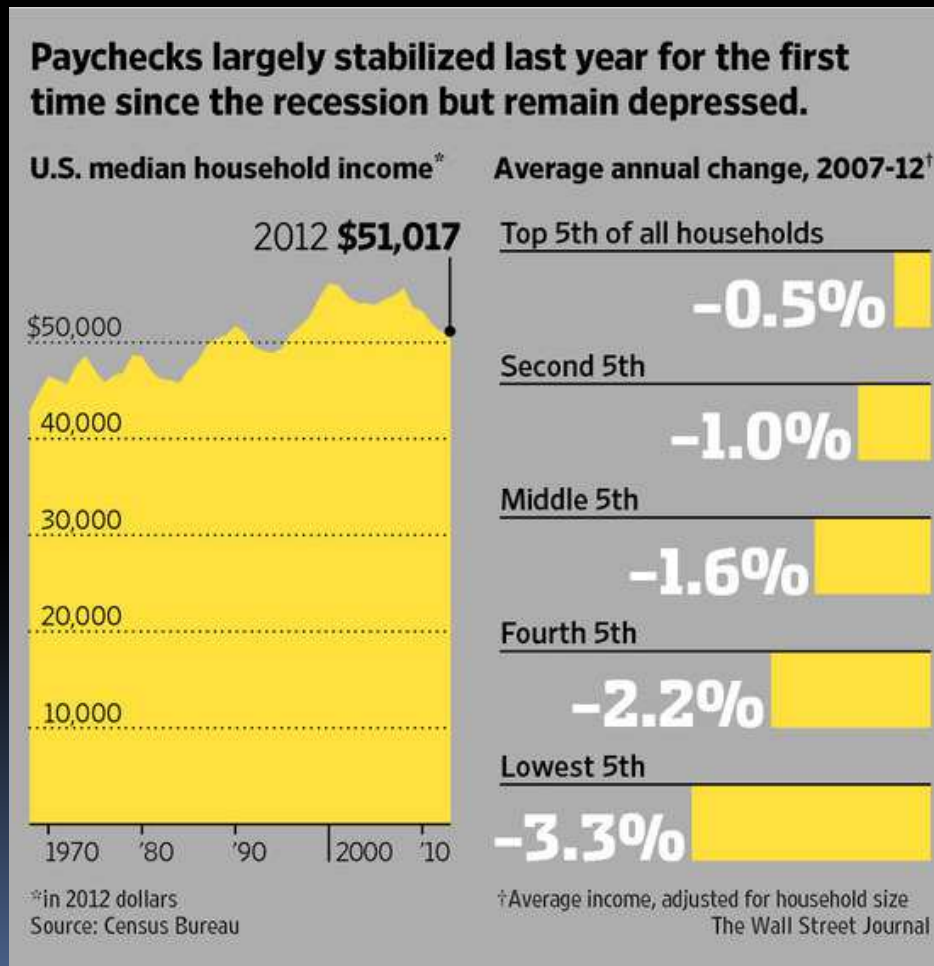
The U.S. Housing Crisis: Bottom Line

- Housing market will be weak until “shadow” inventory works through the system. (2016?)
- Without a healthy housing sector, the jobs market will remain weak. Also, many workers can’t move to take a new job because of underwater mortgages.
- Foreclosures mean there will be millions of new renters who will not be able to buy until their credit histories heal.
- Yellen Fed is continuing Bernanke Fed’s ZIRP and QE in attempt to fix housing (and the jobs market).

The U.S. Jobs Crisis

- Household income has stagnated for most Americans.
- Millions of Americans lost their jobs following onset of the financial crisis in 2008.
- Many have been unable to find new jobs, and have given up trying.
- Millions have retired early and millions more have gone on long-term disability in order to receive government payments.

The U.S. Jobs Crisis: Household Income

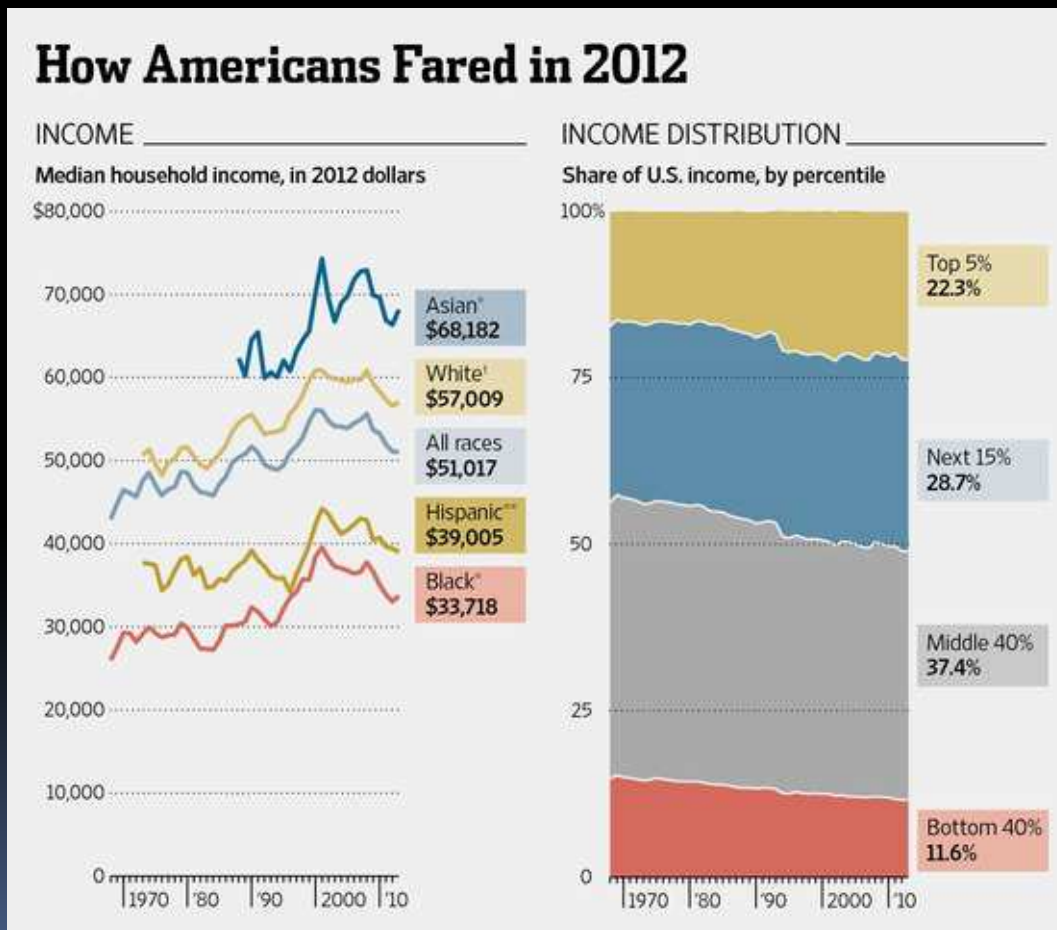


All five income quintiles have lost ground since 2007.

The lower the quintile, the more lost ground.

Median income is back to where it was in late 1990s.

The U.S. Jobs Crisis: Household Income

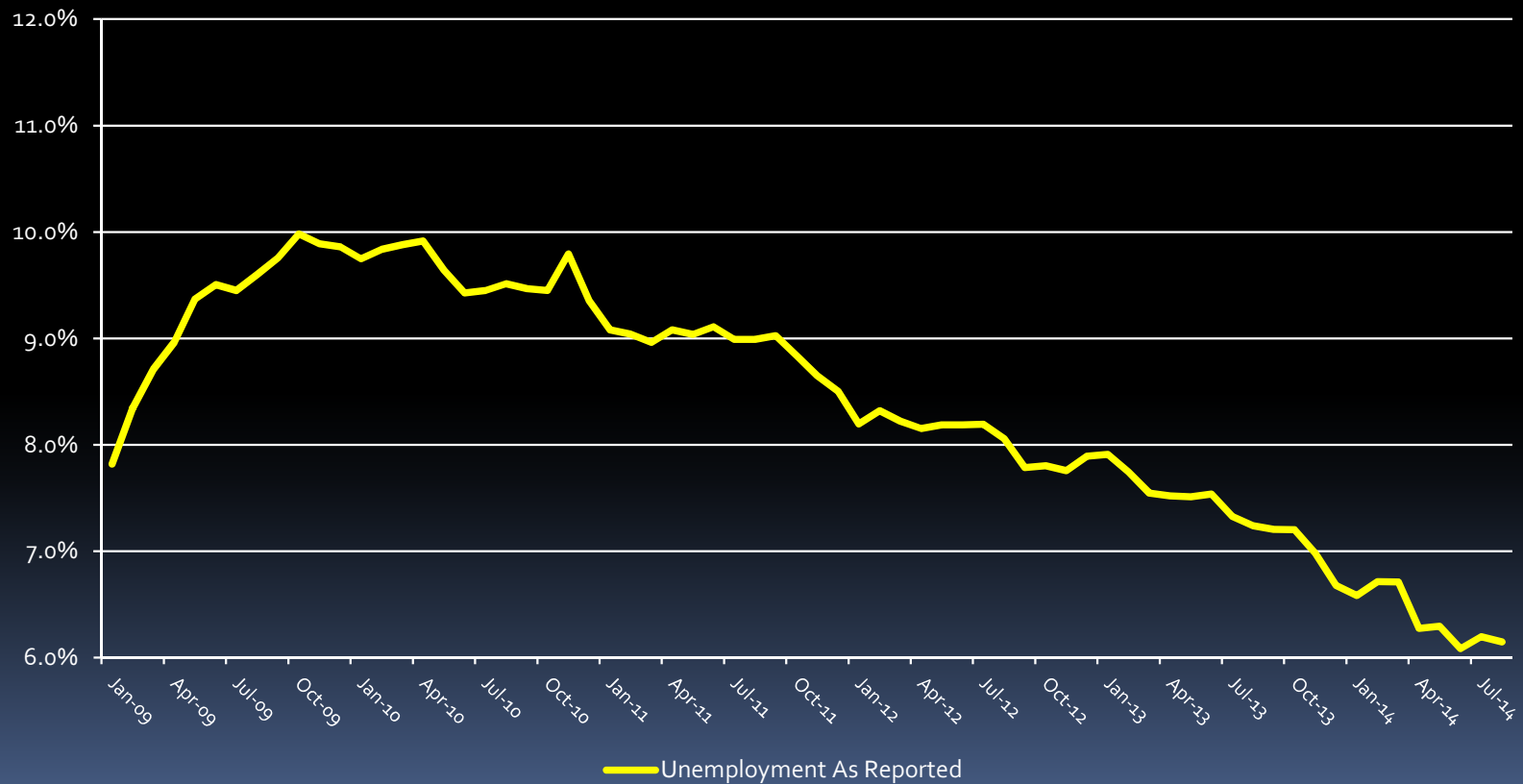


Declines in income have hit all races, but blacks and Hispanics fared worst.

The rich have gotten (relatively) richer, the poor poorer.

The U.S. Jobs Crisis: Unemployment Rate

U.S. Unemployment Rate:
As Reported

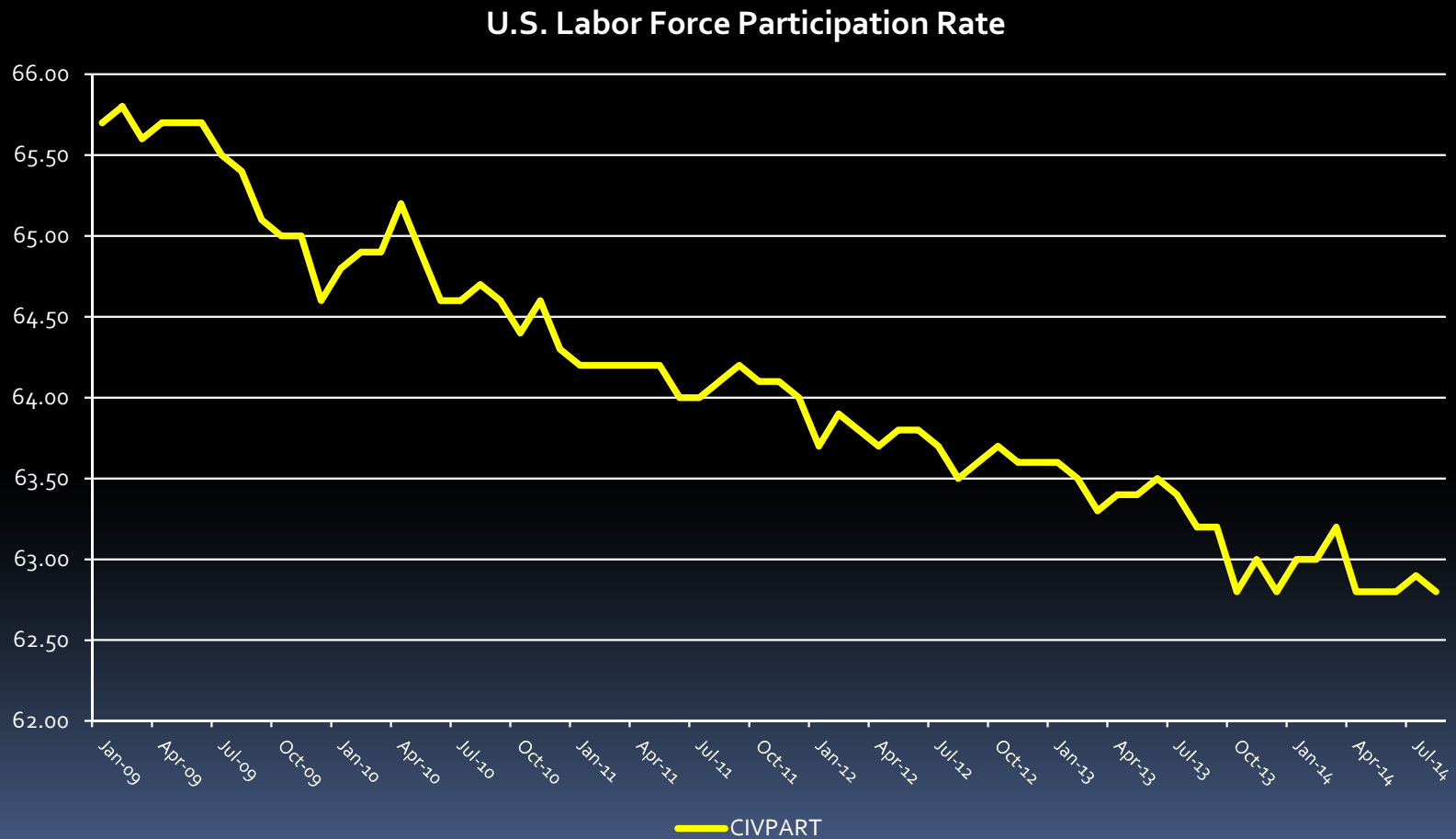


Source: Federal Reserve Economic Data (FRED)

The U.S. Jobs Crisis: Definitions

- Unemployment Rate
= # Unemployed / # Labor Force
- Labor Force = # Unemployed + # Employed.
- Labor Force Participation Rate
= # Labor Force / # Working-Age Population
- Employment-to-Population Ratio
= # Employed / # Working-Age Population

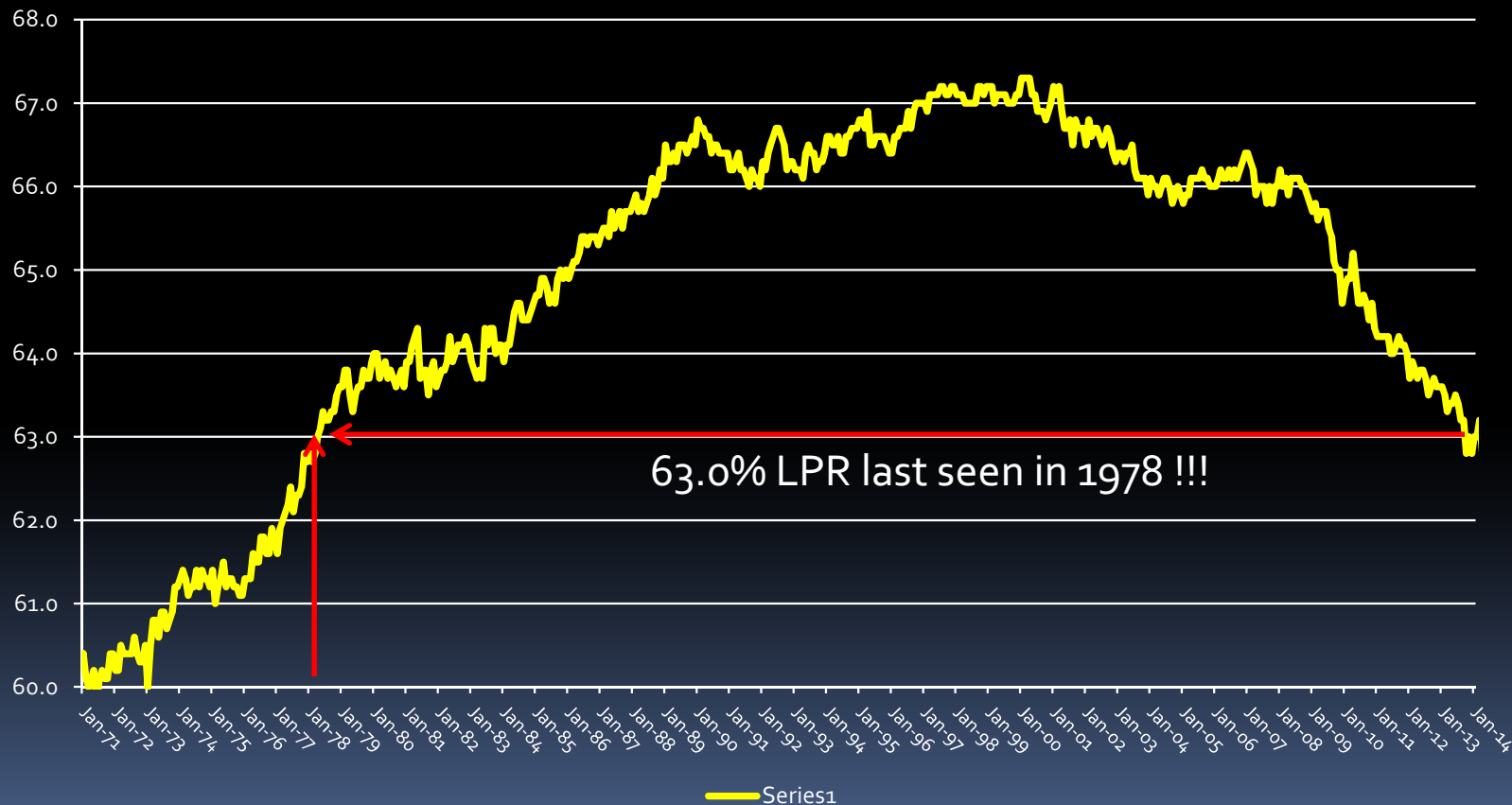
The U.S. Jobs Crisis: Labor Force Participation Rate



Source: Federal Reserve Economic Data (FRED)

The U.S. Jobs Crisis: Labor Force Participation Rate

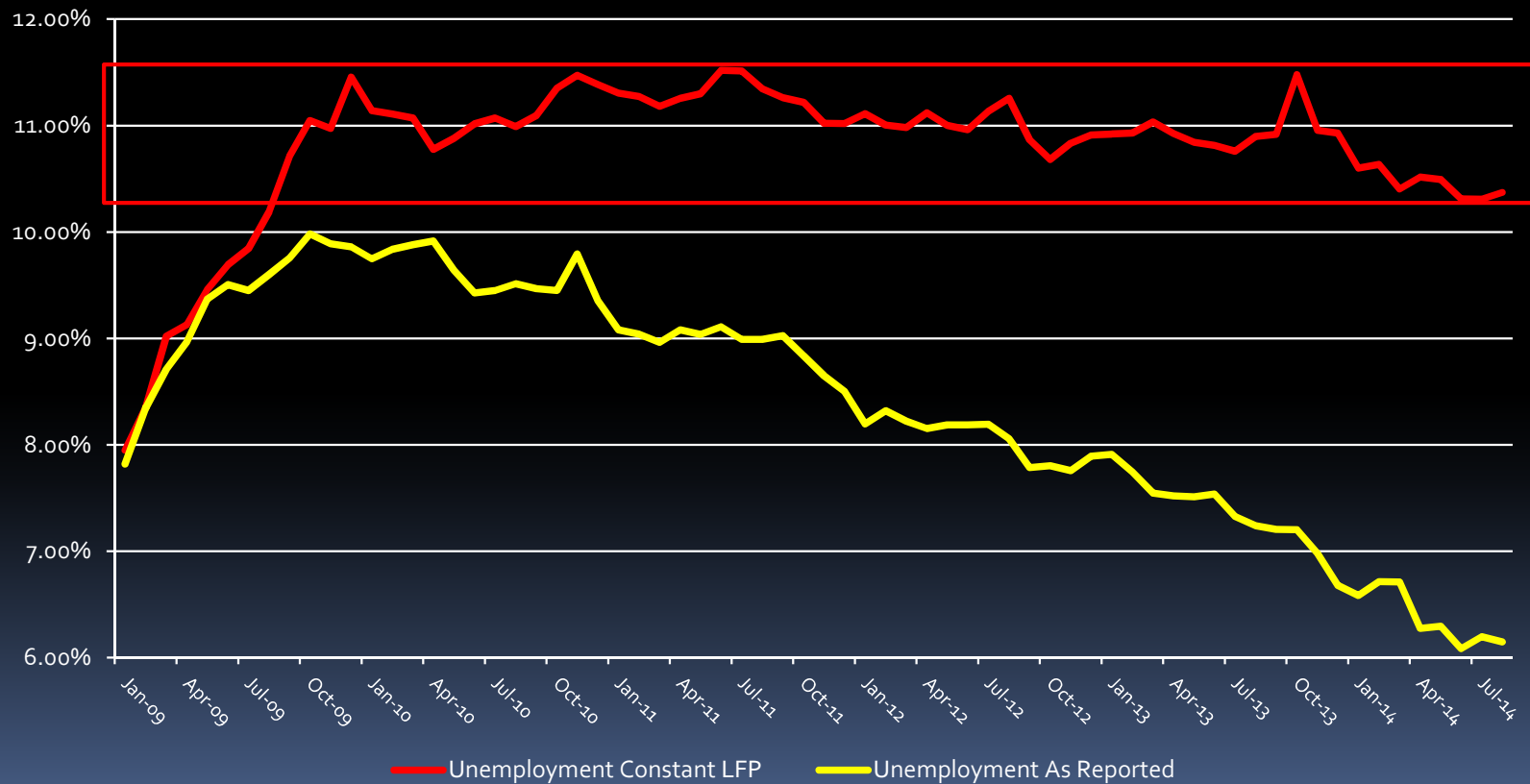
U.S. Labor Force Participation Rate



Source: Federal Reserve Economic Data (FRED)

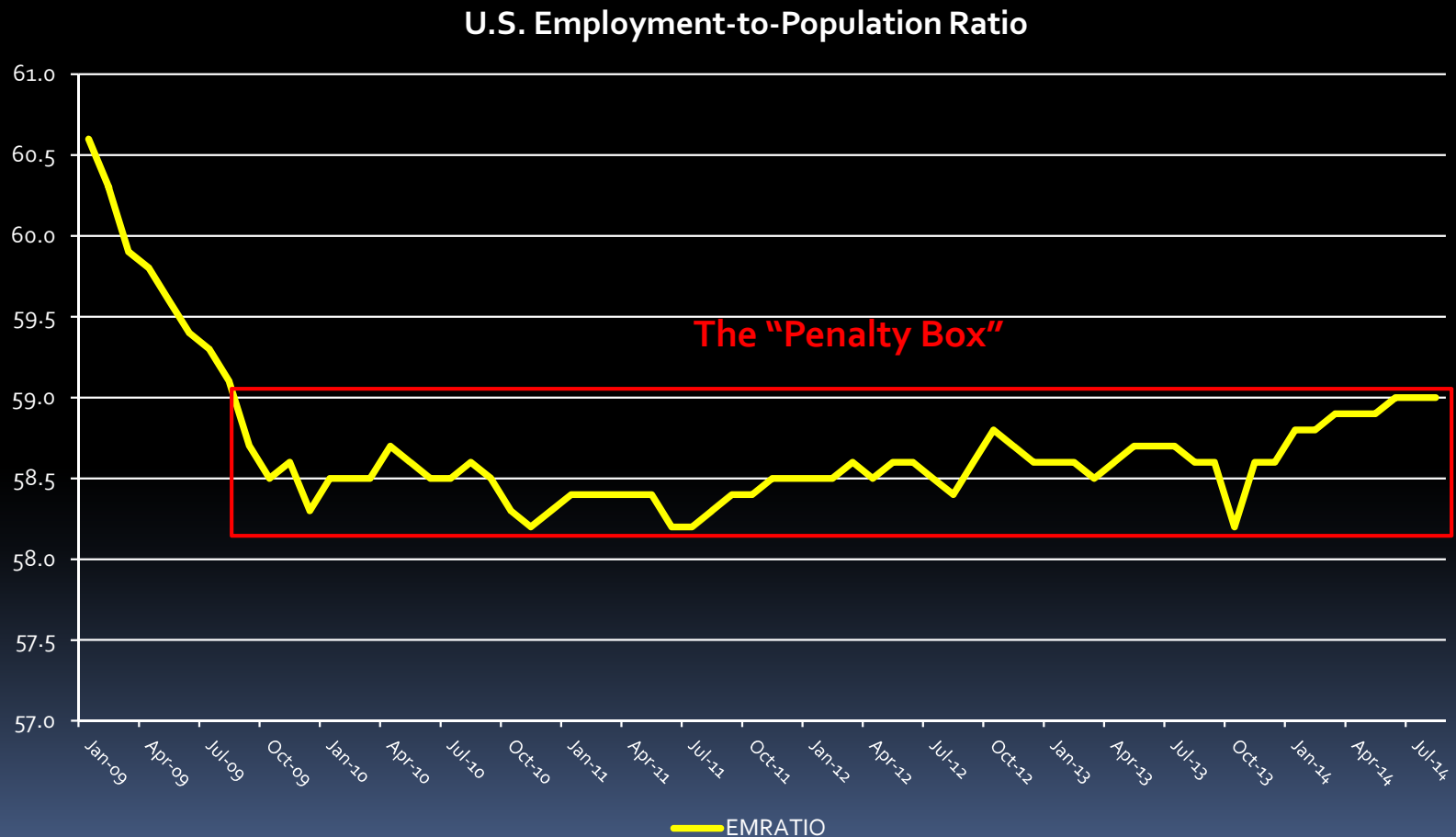
The U.S. Jobs Crisis: Unemployment Rate

U.S. Unemployment Rate:
6.6% As Reported and 10.4% If LFP Unchanged since 2009



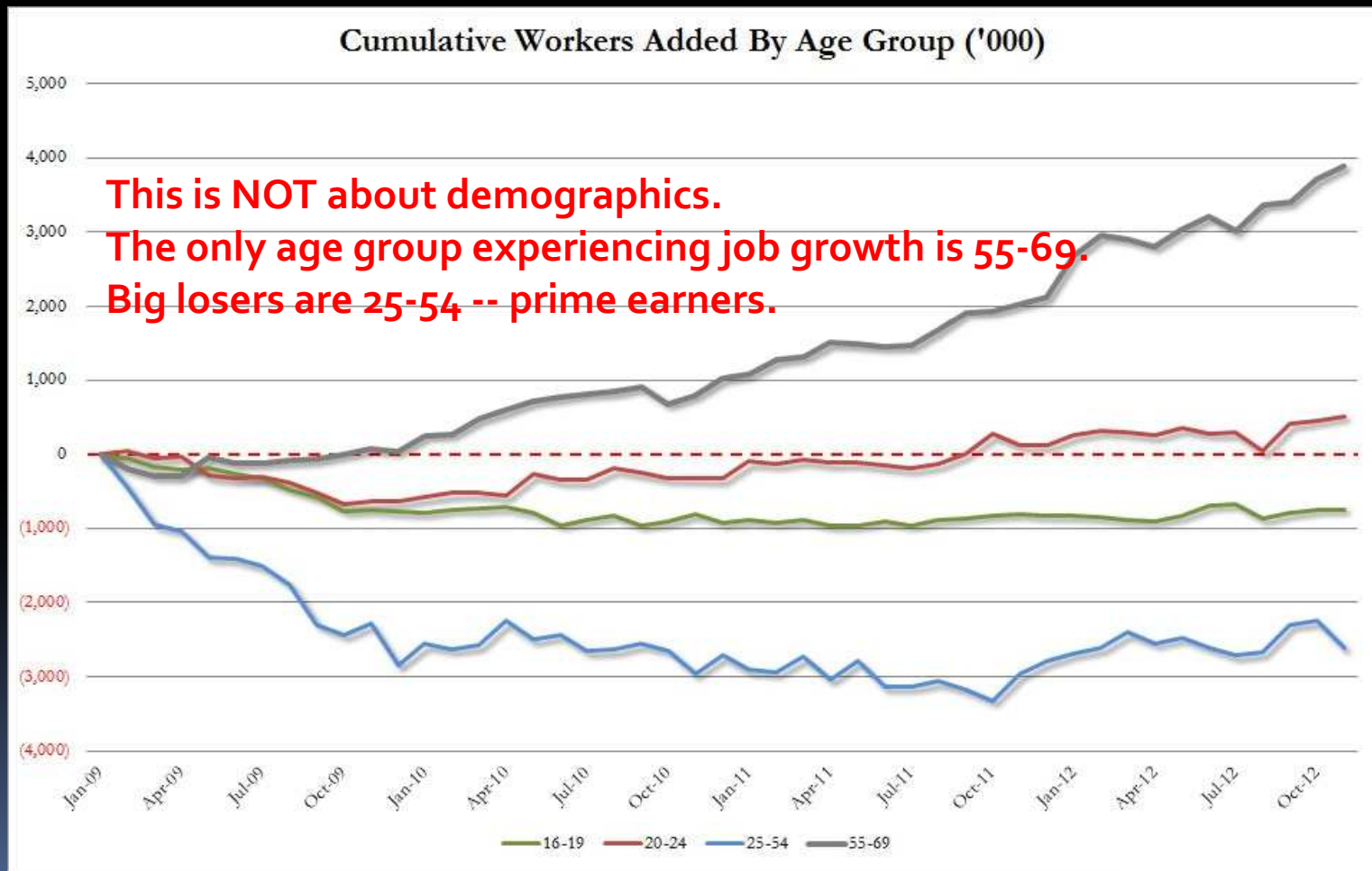
Source: Federal Reserve Economic Data (FRED)

The U.S. Jobs Crisis: Employment-to-Population Ratio



Source: Federal Reserve Economic Data (FRED)

The U.S. Jobs Crisis: Job Creation by Age Cohorts



Source: U.S. Bureau of Labor Statistics

The U.S. Jobs Crisis: Is now the time to raise the minimum wage?

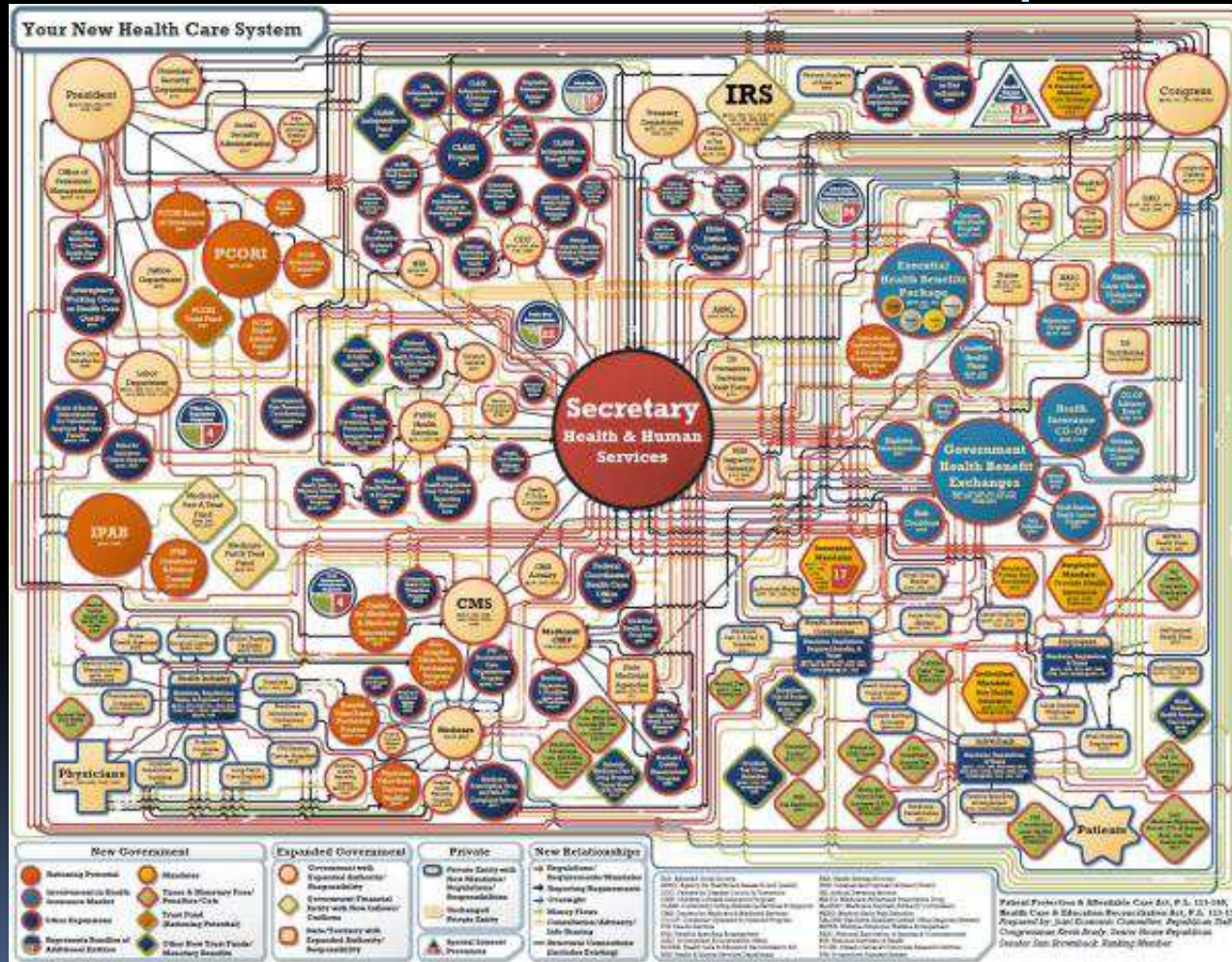


The U.S. Jobs Crisis:

Is now the time to raise the minimum wage?

- At a time when the “official” unemployment rate for high-school dropouts is 9.6%, Pres. Obama has proposed raising the hourly U.S. minimum wage by more than 30%, from \$7.25 to \$10.10.
- The U.S. CBO has estimated that an increase of this magnitude will reduce employment by 500,000, primarily among the least educated workers.
- When labor becomes more expensive relative to capital, employers will substitute capital for labor, especially at the entry-level.
- These entry-level jobs will be permanently destroyed.

The U.S. Jobs Crisis: ObamaCare's Labor Market Impact



Complexity is preventing employers from hiring new workers.

ObamaCare: Labor Market Impact

- “CBO estimates that the ACA will reduce the total number of hours worked, on net, by about 1.5 percent to 2.0 percent during the period from 2017 to 2024, almost entirely because workers will choose to supply less labor.”
- “The reason for the reduction in the supply of labor is that the provisions of the ACA reduce the incentive to work for certain subsets of the population.”
- This says nothing about reduction in demand for labor by firms unsure of their health-care costs.

ObamaCare: Labor Market Impact

U.S.

Public Sector Cuts Part-Time Shifts to Bypass Insurance Law

By ROBERT PEAR FEB. 20, 2014

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WASHINGTON — Cities, counties, public schools and community colleges around the country have limited or reduced the work hours of part-time employees to avoid having to provide them with health insurance under the Affordable Care Act, state and local officials say.



- N.Y. Times: The public sector is cutting hours of part-time workers from 35 to 28 in order to avoid the costs of providing insurance to “ObamaCare full-time workers,” i.e., those working 30+ hours.

The U.S. Jobs Crisis: Bottom Line

- There has been no “real” measurable improvement in the U.S. labor market since Oct. 2009.
- Decline in Unemployment Rate is “smoke and mirrors:”
 - Attributable to millions of unemployed workers who have given up hope and left the work force for early retirement or long-term disability insurance.
 - Not about “demographics;” LF participation rate of older worker is RISING, not FALLING. Participation rate fell most for prime working age 26-54.
- By this measure, the Great Recession has not ended, which explains why the Yellen Fed maintains ZIRP.

The U.S. Jobs Crisis: Bottom Line

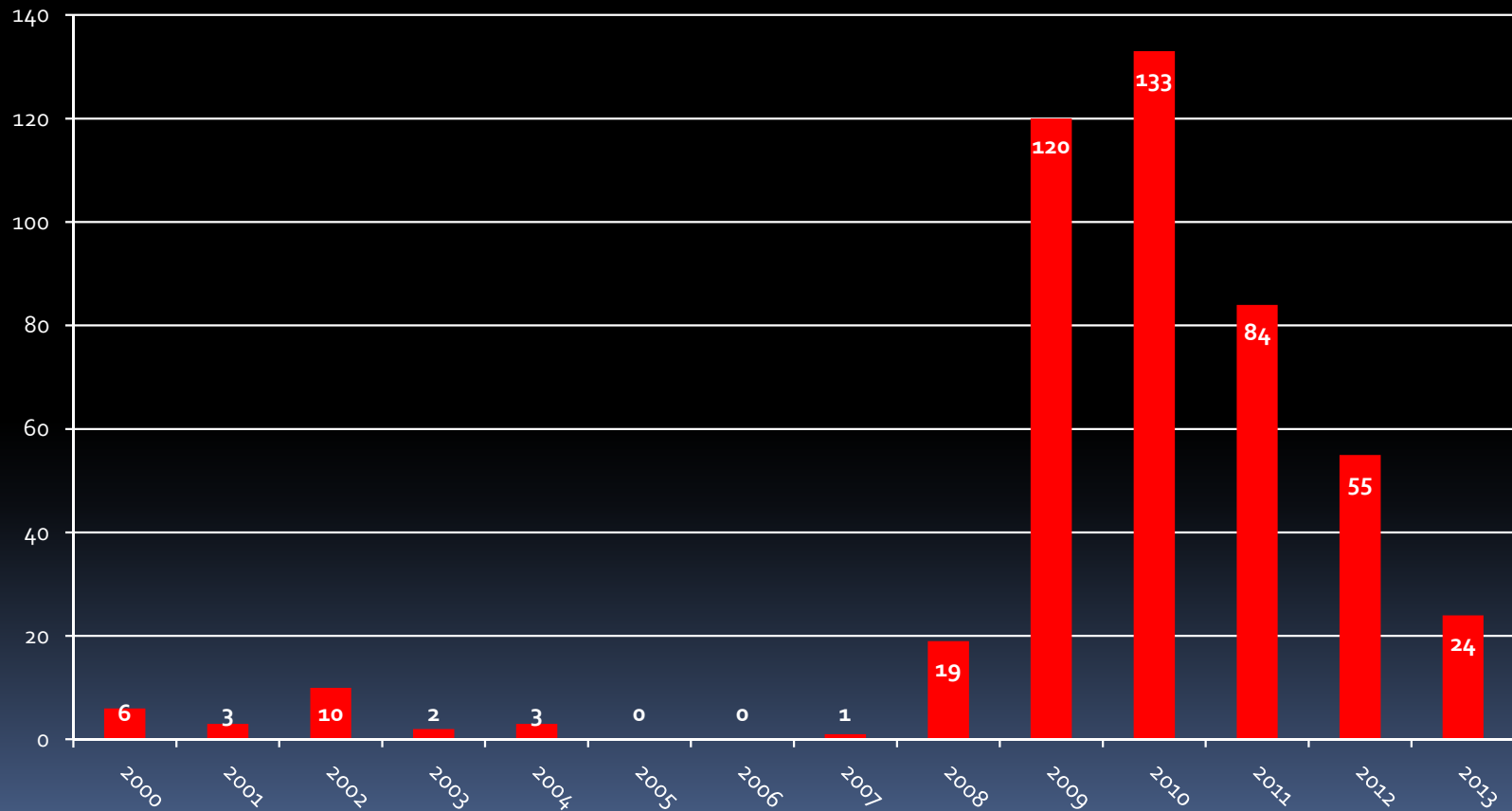
- The Fed's "Charlie Evans" rule says that the FOMC will pursue the "full employment" part of the Fed's "dual mandate" until the unemployment rate drops below 6.5%; it did in April and has continued to fall.
- Janet Yellen's recent testimony implies that the Fed will now focus on the long-term unemployed and part-timers who want to work full time.
- Raising the minimum wage is only going to make the situation worse.
- Implementation of ObamaCare already is making the situation much worse.

The U.S. Banking Crisis:

- In 2008, Feds were forced to rescue most of the largest U.S. bank holding companies.
- The \$700 billion TARP (of which only \$200 billion actually went to banks) was dwarfed by \$7 trillion in secret Fed loans to banks around the world.
- Since 2008, more than 400 (mostly small) U.S. banks have failed.
- More than 350 U.S. banks remain on FDIC's "Problem Bank" list. ("Normal" is less than 50.)

The U.S. Banking Crisis: Number of Failures 2000 – 2013

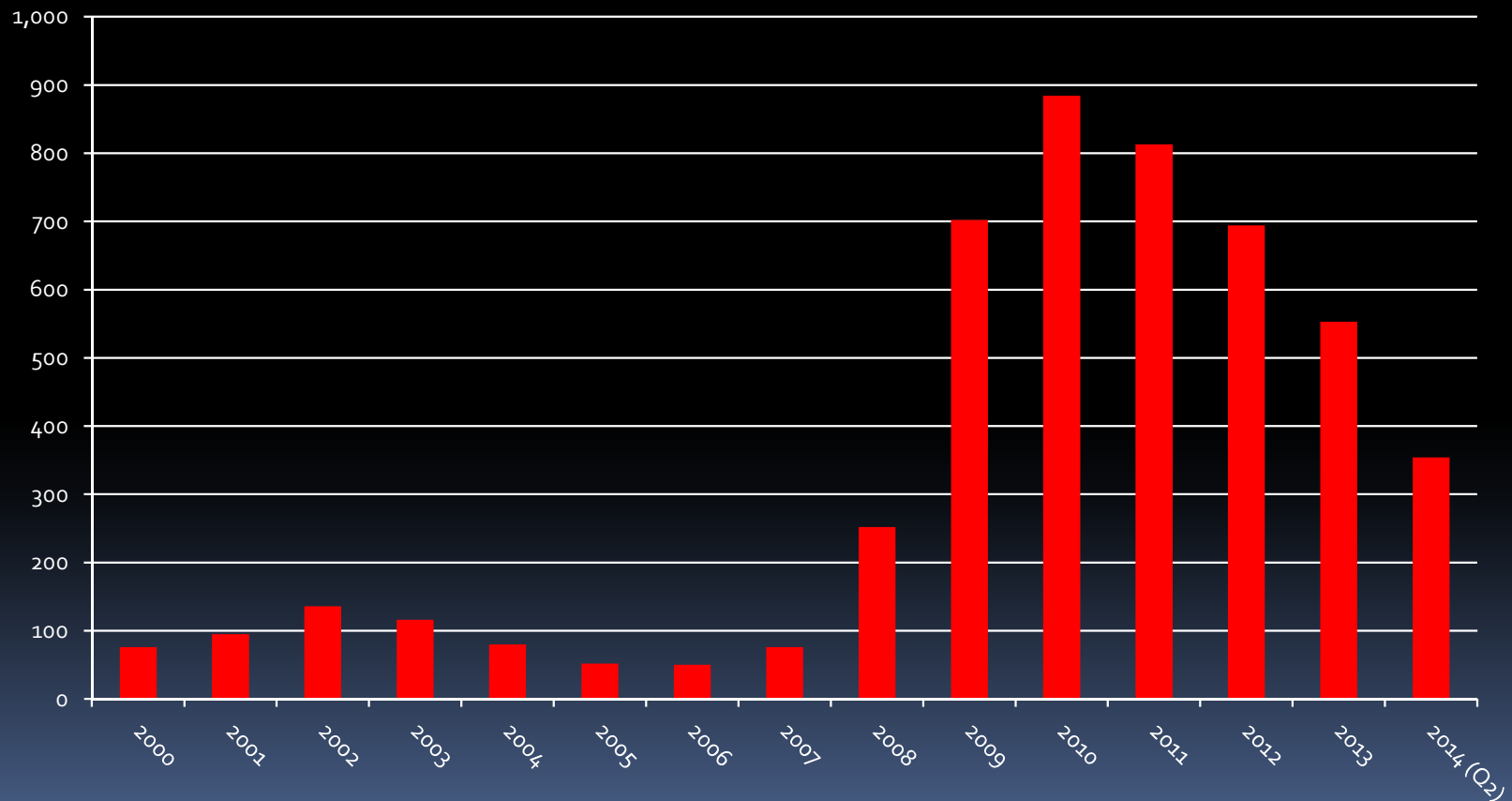
Bank Failures: 2000 – 2013



Source: FDIC Historical Statistics on Banking

The U.S. Banking Crisis: Number of Problem Banks 2000 – 2014(Q2)

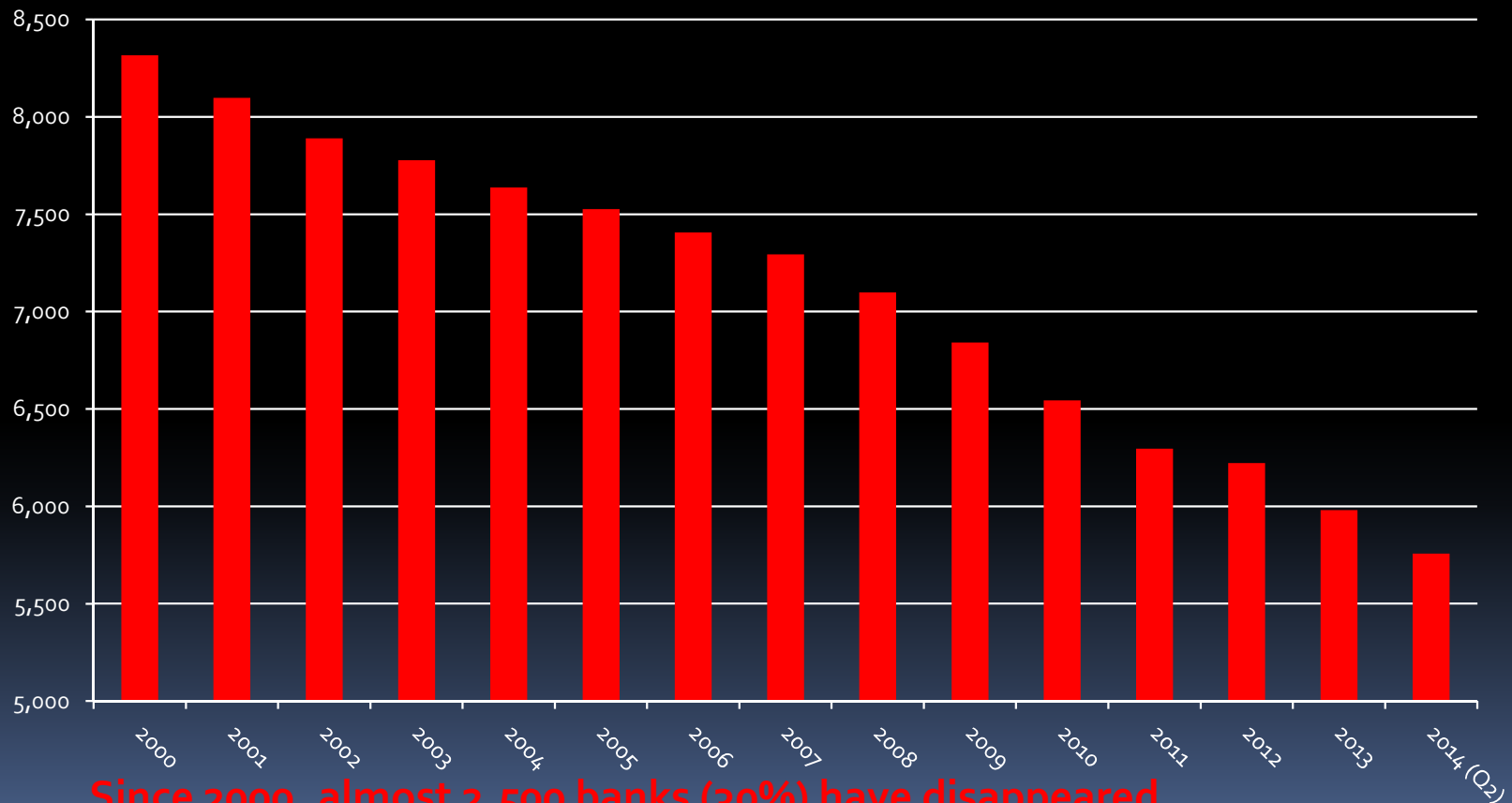
Number of FDIC Problem Banks: 2000 – 2014(Q2)



Source: FDIC Quarterly Bank Profiles

The U.S. Banking Crisis: Number of Banks 2000 – 2013

Number of Banks: 2000 – 2013



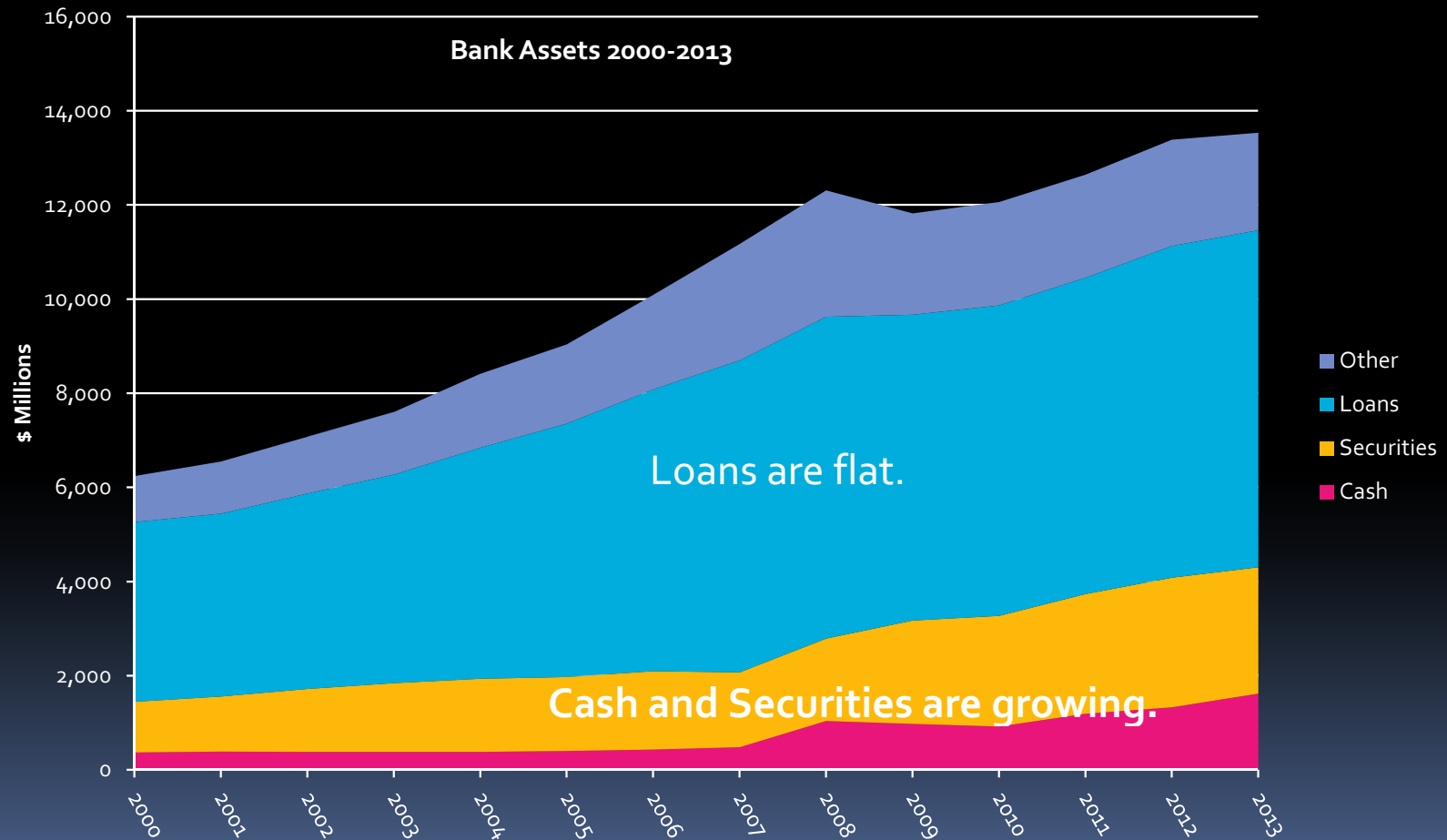
Since 2000, almost 2,500 banks (30%) have disappeared.

Source: FDIC Historical Statistics on Banking

The U.S. Banking Crisis: Subprime, CDOs, CDSs and C&D loans

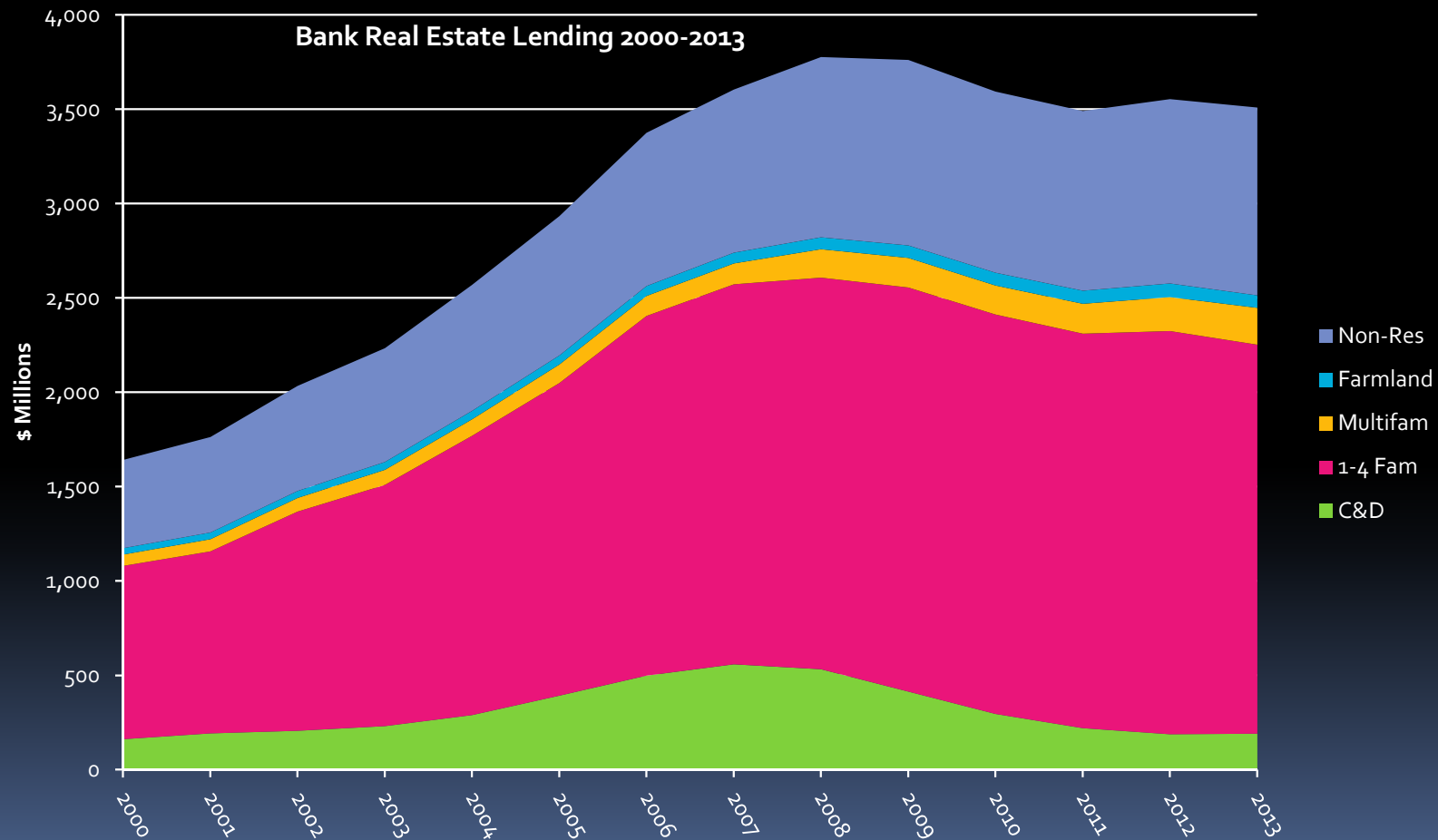
- “Subprime” mortgages are widely blamed for the crisis, but it was Collateralized Debt Obligations (CDOs) and Credit Default Swaps (CDSs) that did the real damage to Wall Street banks and to the U.S. economy.
- \$70 Trillion in opaque OTC CDSs meant that no one knew who was solvent and who was not.
- Main Street banks are another story: they were funding construction loans to developers that went south as the housing market crashed.

The U.S. Banking Crisis: Commercial Bank Assets 2000 - 2013



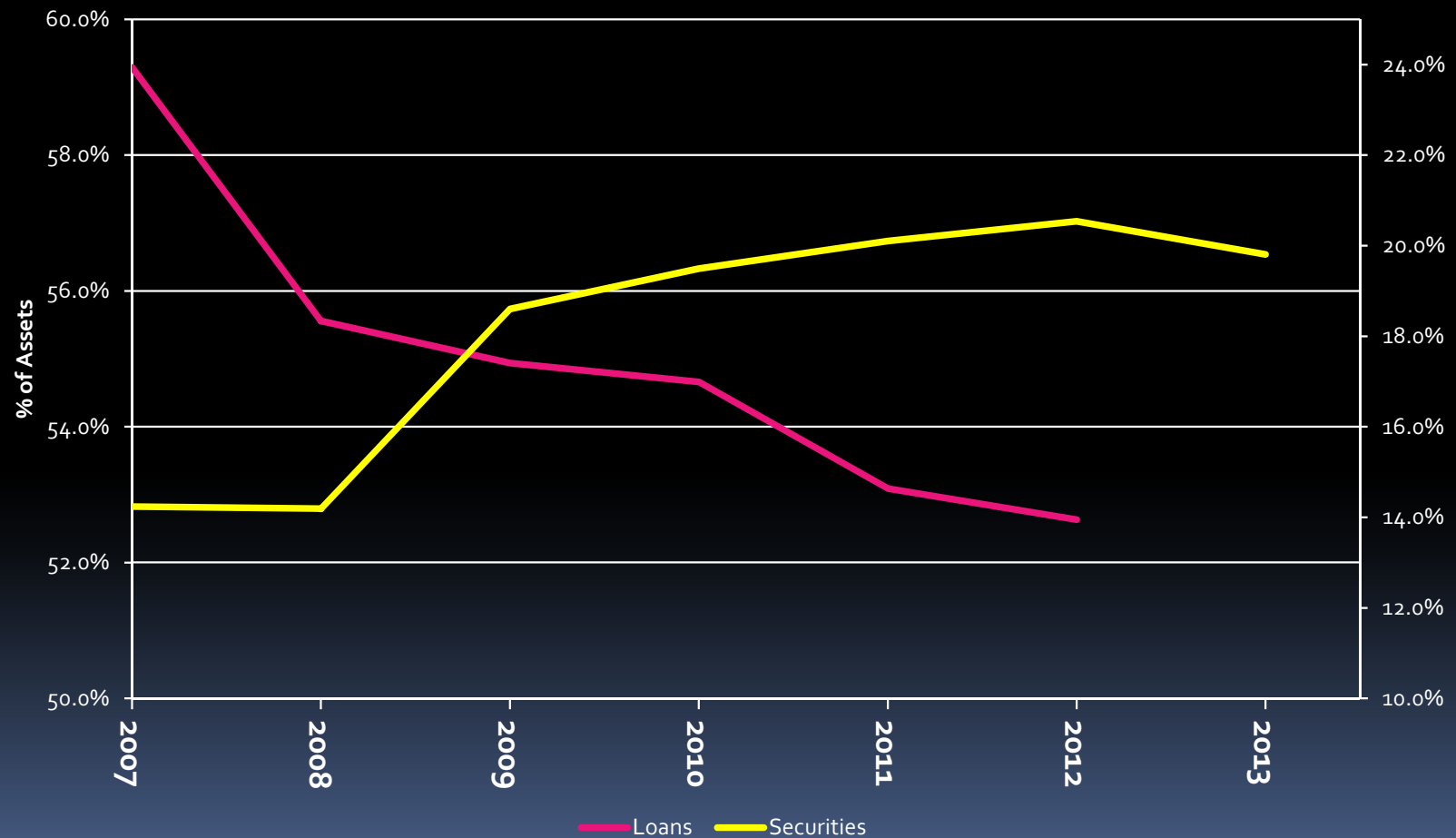
Source: FDIC Historical Statistics on Banking

The U.S. Banking Crisis: Commercial Bank RE Lending 2000 - 2013



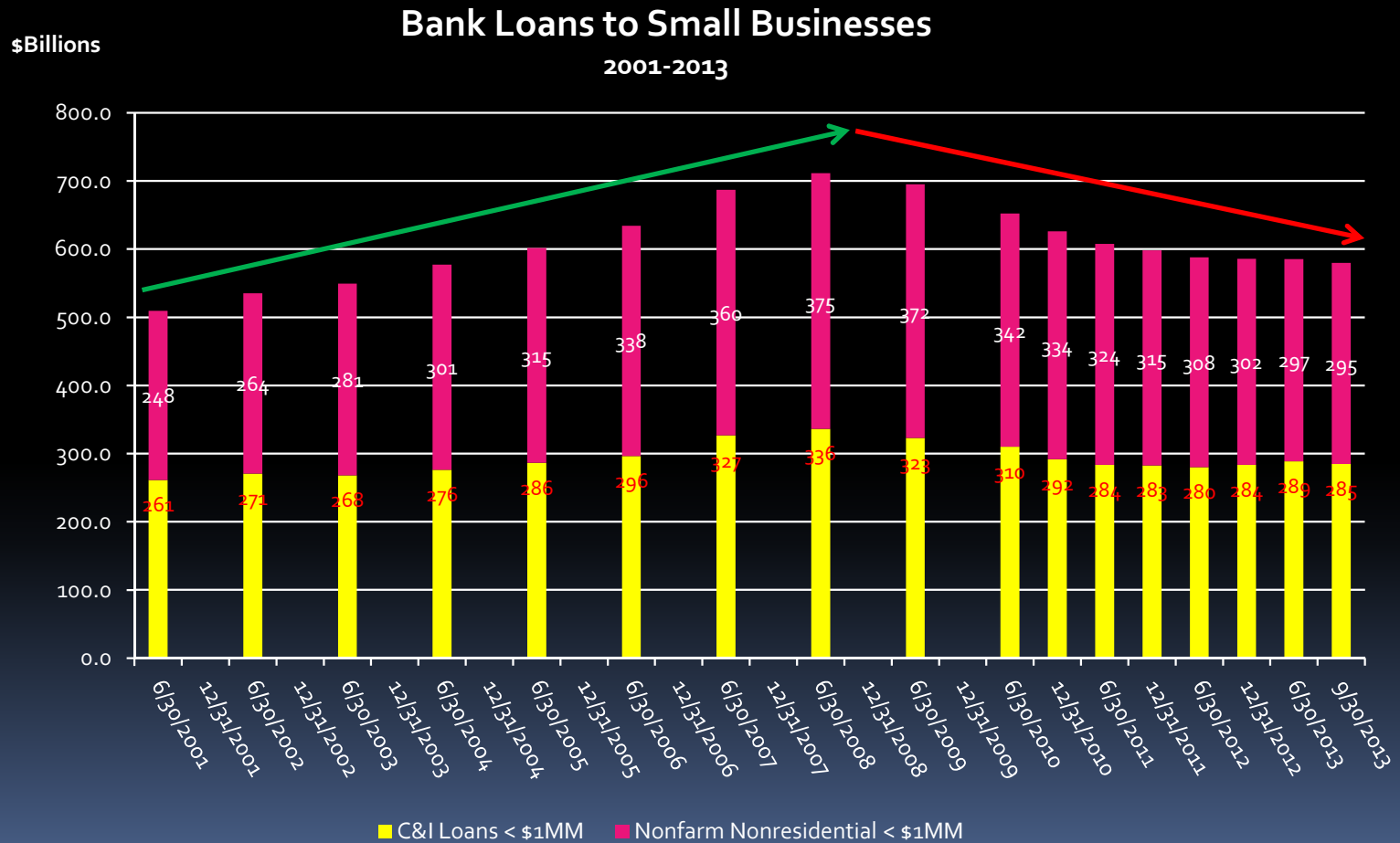
Source: FDIC Historical Statistics on Banking

The U.S. Banking Crisis: Banks slowed lending, bought securities



Source: FDIC Historical Statistics on Banking

The U.S. Banking Crisis: Banks slowed lending to small businesses

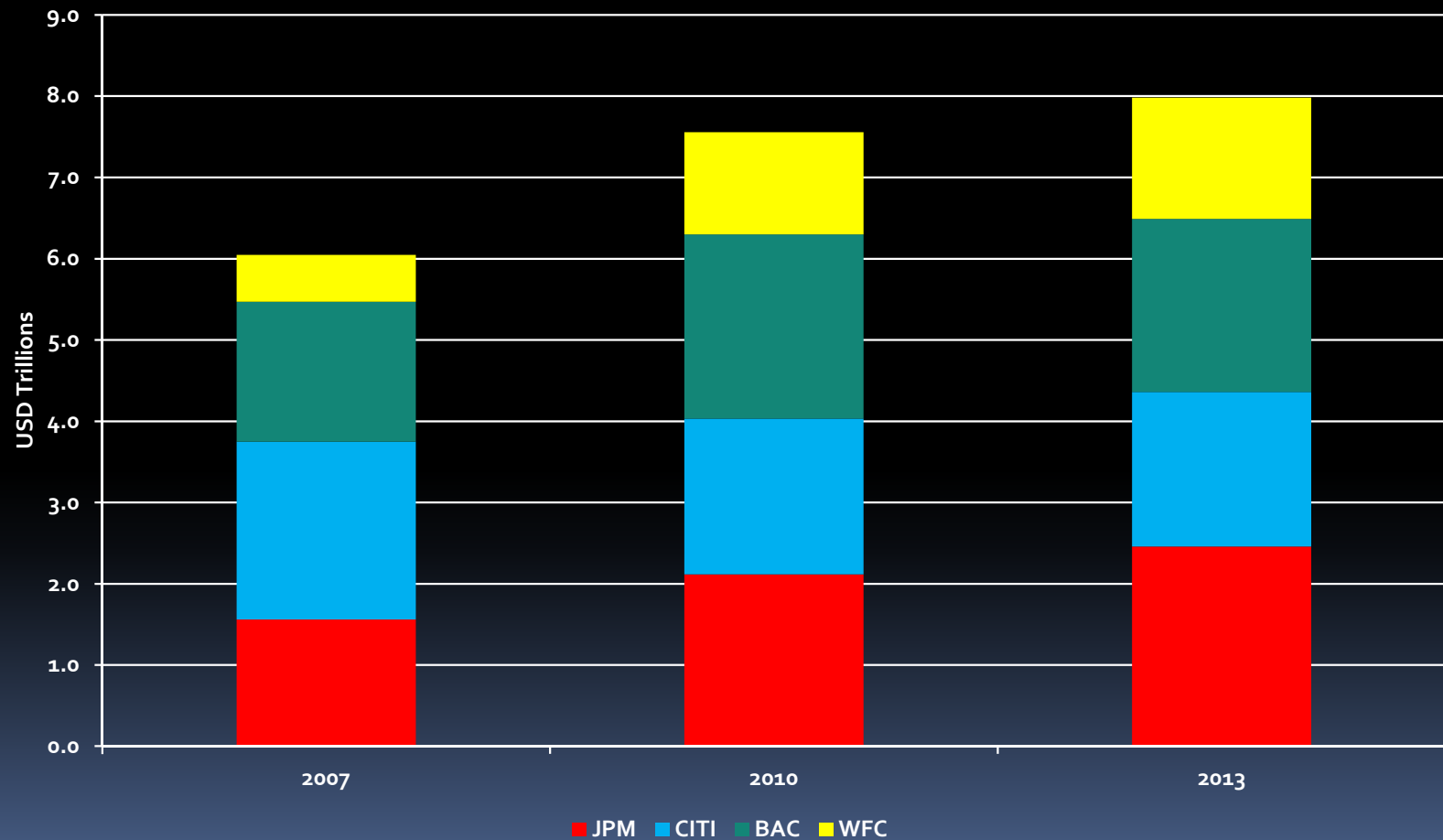


Source: FDIC Historical Statistics on Banking

The U.S. Banking Crisis: Too-Big-To-Fail

- Dodd-Frank Act of 2010 was supposed to end what is known as “too-big-to-fail.”
- Yet, since 2007, what has happened to the largest U.S. banks?
- They’ve gotten BIGGER, not smaller!

The U.S. Banking Crisis: Assets of four largest U.S. banks



Only Citibank has seen a decline in assets since 2007.

Dodd-Frank / Basel 3:

The Beatings will continue until morale improves

- Thousands of pages of new banking regulations have been, and are being, written.
- Banks will be required to hold more capital and more liquid assets, which bankers claim will lead them to make fewer loans.
- Regulators are now cracking down on “leveraged loans,” i.e. syndicated loans to large borrowers.

The U.S. Banking Crisis: The Bottom Line

- The mega-banks are earning their way back to financial health, but still aren't lending.
- Community banks remain in crisis.
- By year-end 2016, look for another 500 community banks to fail or disappear in "shotgun" weddings (mergers arranged by regulators).
- New Dodd-Frank/Basel 3 regulations will likely restrict the availability of credit even further.

The Fed's Crisis Response: Zero Interest Rate Policy (ZIRP)

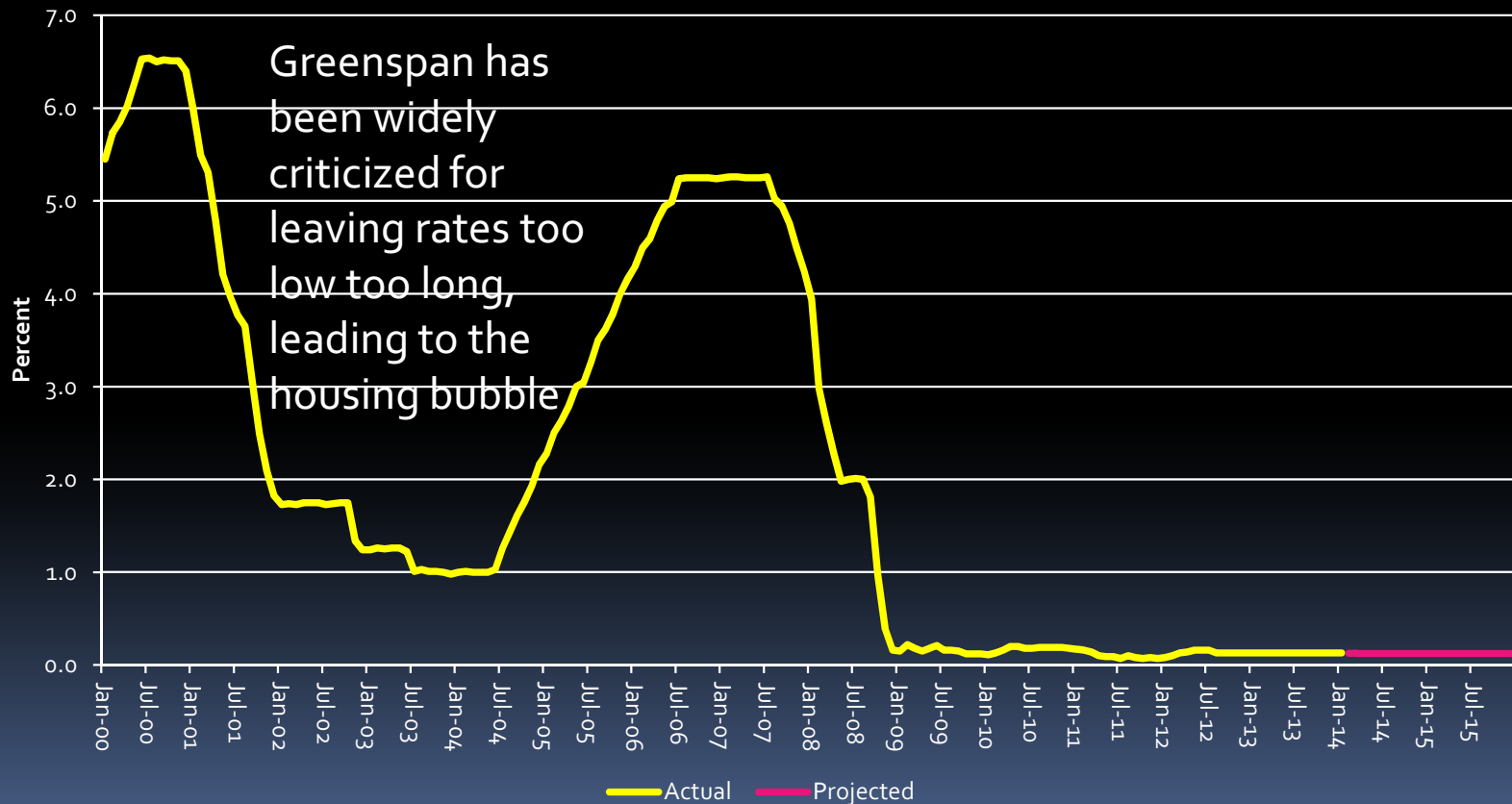
Federal Funds Rate 1970 - 2015



Source: Federal Reserve Economic Data (FRED)

The Fed's Crisis Response: Zero Interest Rate Policy (ZIRP)

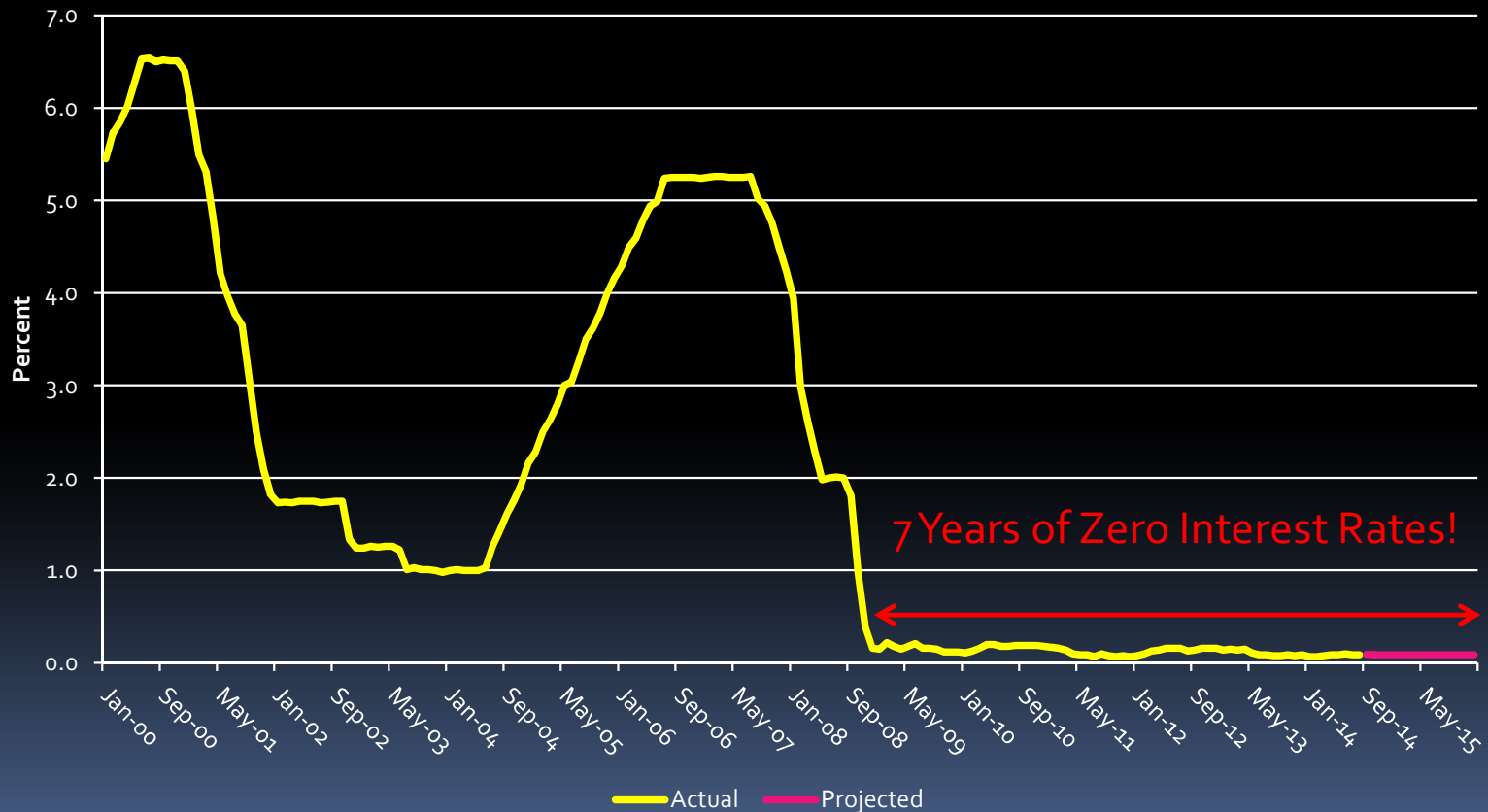
Federal Funds Rate 2000 - 2015



Source: Federal Reserve Economic Data (FRED)

The Fed's Crisis Response: Zero Interest Rate Policy (ZIRP)

Federal Funds Rate 2000 - 2015

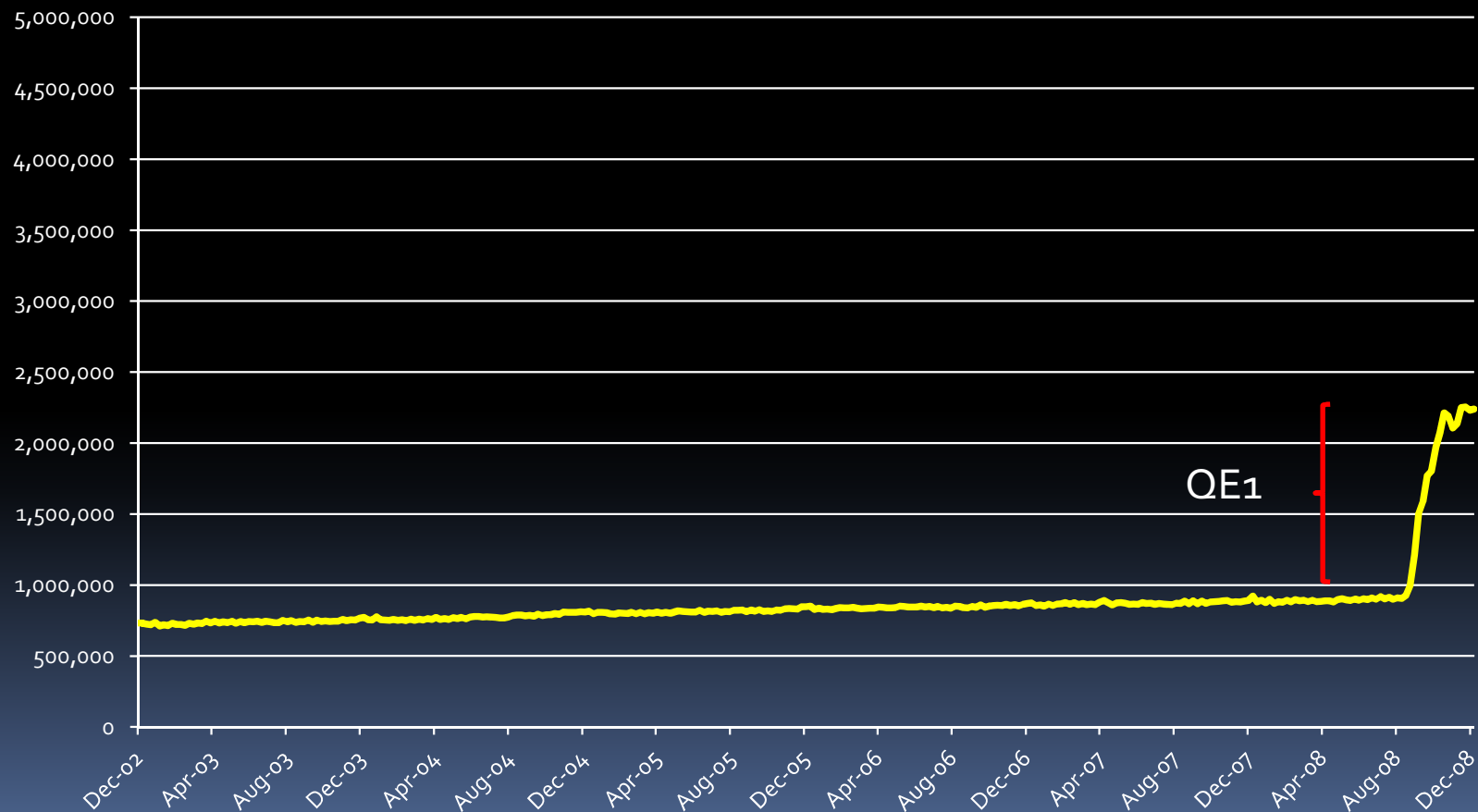


Source: Federal Reserve Economic Data (FRED)

The Fed's Crisis Response: Asset Purchases (Quantitative Easing)

- ZIRP was not enough for Bernanke's Fed.
- In addition, back in Sep. 2008, the Fed announced that it would purchase hundreds of billions in U.S. Treasury securities—a program known as “Quantitative Easing.”
- The goal was to push longer term interest rates even lower than possible with targeting of the Fed Funds Rate at zero.
- By year-end 2008, QE1 had ballooned the Fed's balance sheet from \$900 Billion to \$2.2 Trillion.

The Fed's Crisis Response: Size of the Fed's Balance Sheet 2003-2008

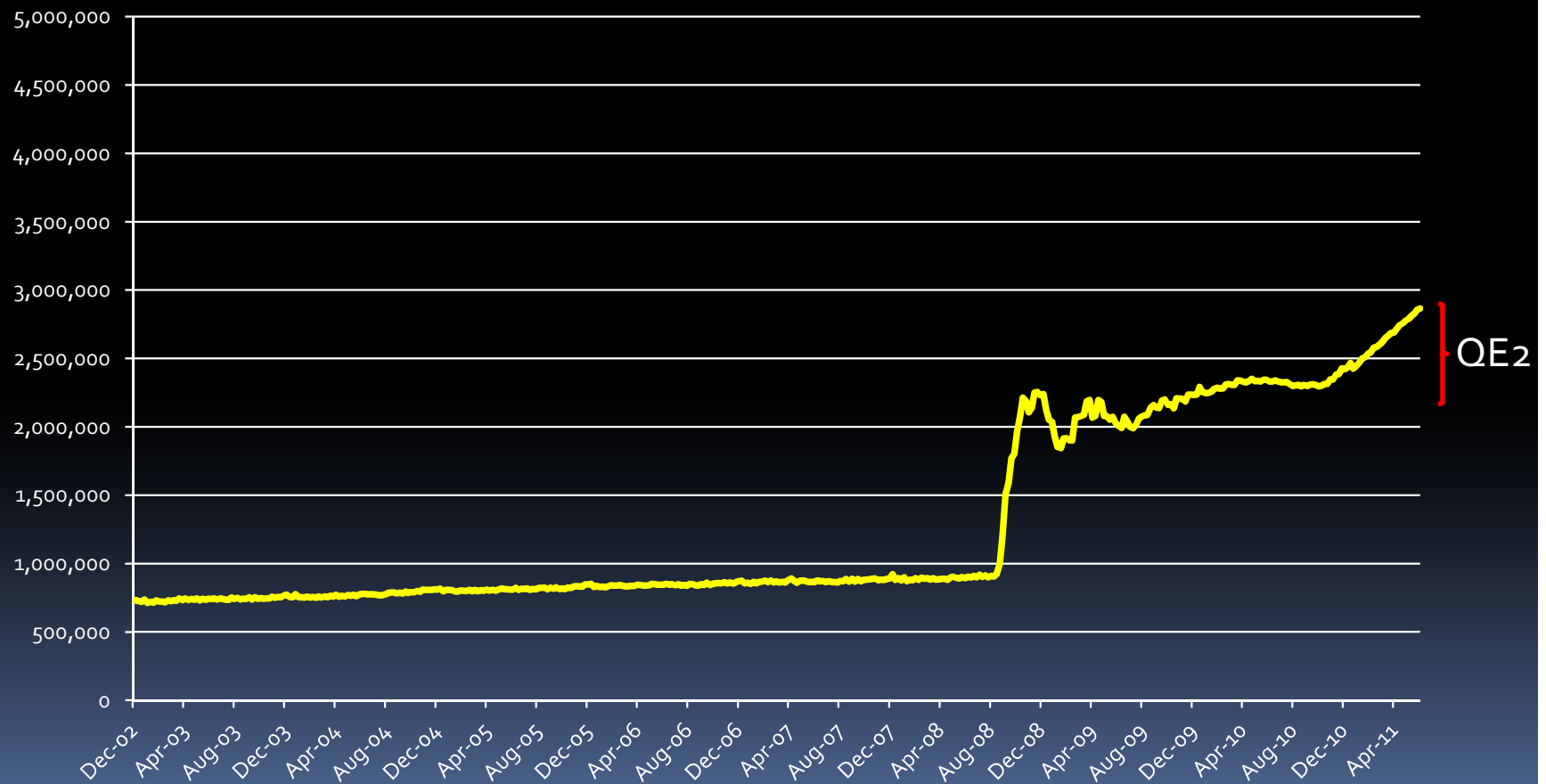


Source: Federal Reserve Economic Data (FRED)

The Fed's Crisis Response: QE2: Nov. 2010 – Jun. 2011

- In Nov. 2010, as the U.S. economy began to deteriorate again.
- In response, the Fed announced a second round of asset purchases (QE2) totaling \$600 Billion by Jun. 2011.
- QE2 ballooned the Fed's balance sheet from \$2.3 Trillion up to \$2.9 Trillion.

The Fed's Crisis Response: Size of the Fed's Balance Sheet QE2: Nov. 2010 - Jun. 2011



Source: Federal Reserve Economic Data (FRED)

The Fed's Crisis Response: Operation Twist

- In Sep. 2011, the Fed announced a variation on quantitative easing called "operation twist," selling short-term treasuries to sterilize the purchase of long-term treasuries and RMBS.
- This program avoided further bloating of the Fed's balance sheet.
- The goal was to push long-term mortgage rates to help the struggling housing sector.

The Fed's Crisis Response:

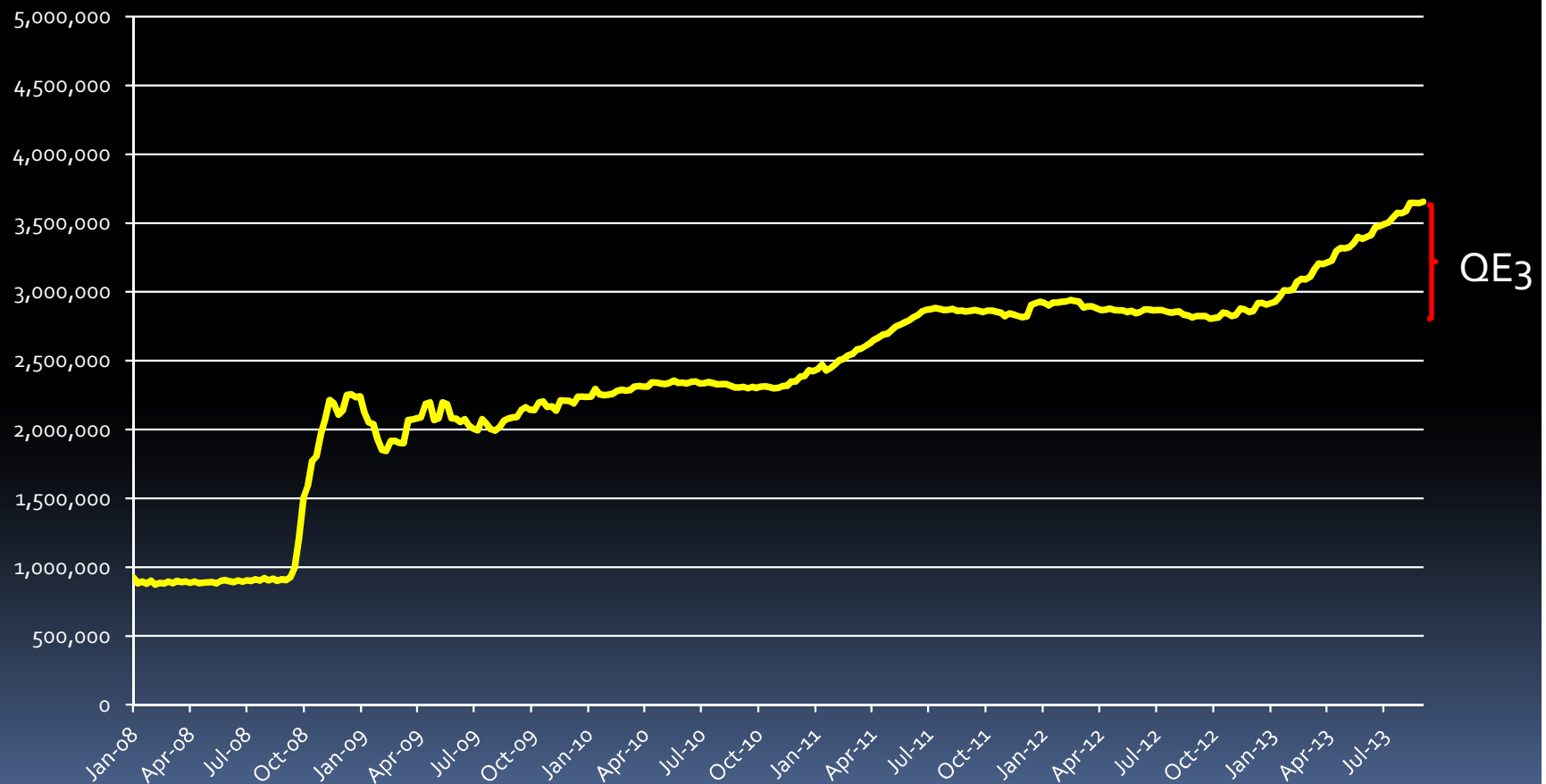
QE3: Sep. 2012 – Sep. 2013

- In Sep. 2012, the Fed announced a third round of quantitative easing—QE₃.
- The Fed said it would buy \$45 Billion of RMBS per month without “sterilization,” again ballooning the Fed’s balance sheet.
- Again, the goal was to boost the still moribund housing sector.
- Unlike QE₁ and QE₂, the Fed said that QE₃ would be open-ended.

The Fed's Crisis Response: QE3: Sep. 2012 – Sep. 2013

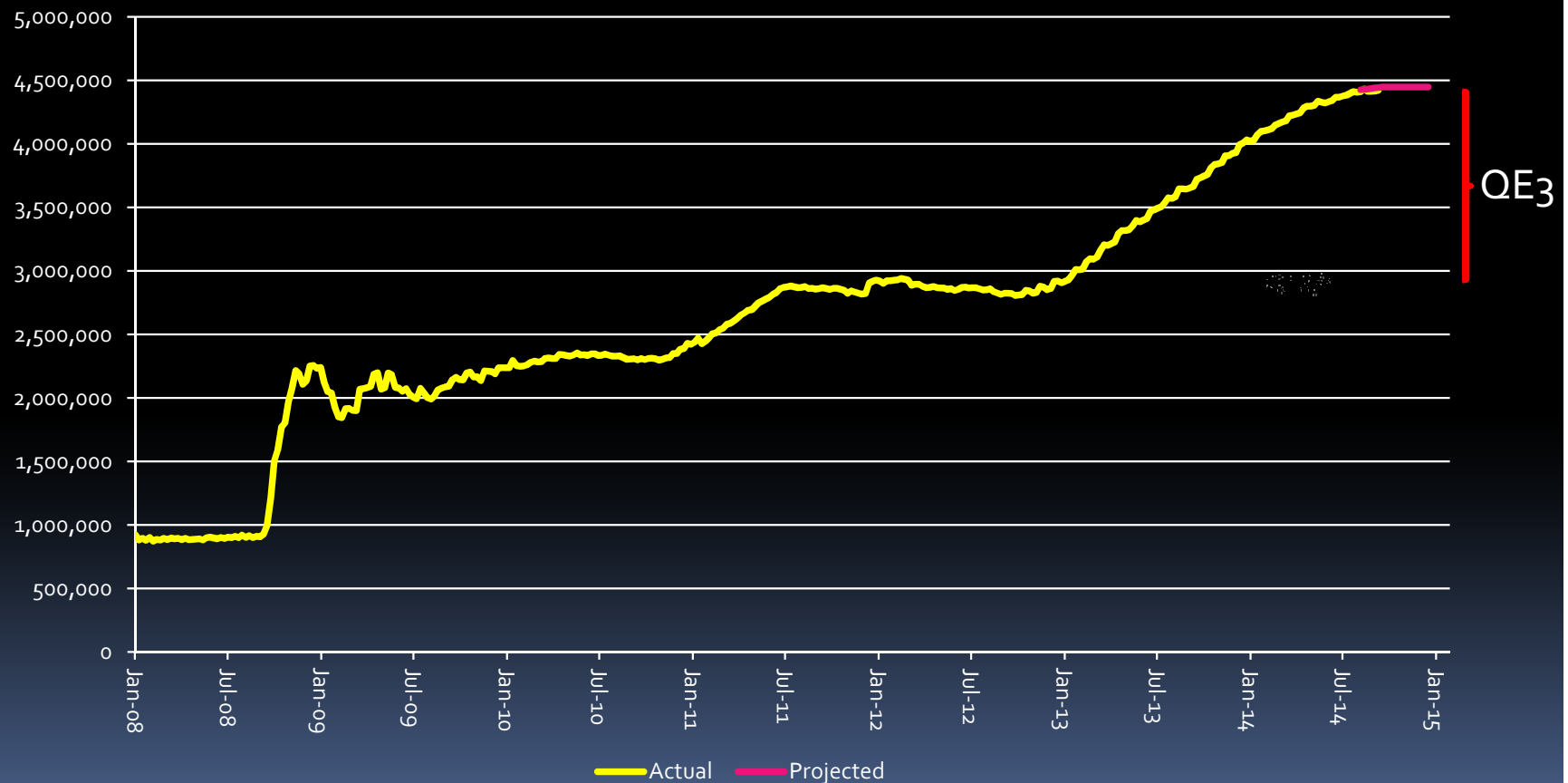
- In Dec., the Fed said that it also would buy \$40 Billion of Treasuries each month in addition to the \$45 Billion of RMBS, for a total of \$85 Billion each month.
- It also said that this would continue until the unemployment rate, which then stood at 7.9%, falls below 6.5%.
- As of Aug. 2014, the unemployment rate had fallen to only 6.2%, but for the wrong reasons.
- By Aug. 2014, QE3 had ballooned the Fed's balance sheet to \$4.5 Trillion, up from \$2.8 Trillion in Sep. 2012.

The Fed's Crisis Response: Size of the Fed's Balance Sheet QE3: Sep. 2012 – Sep. 2013



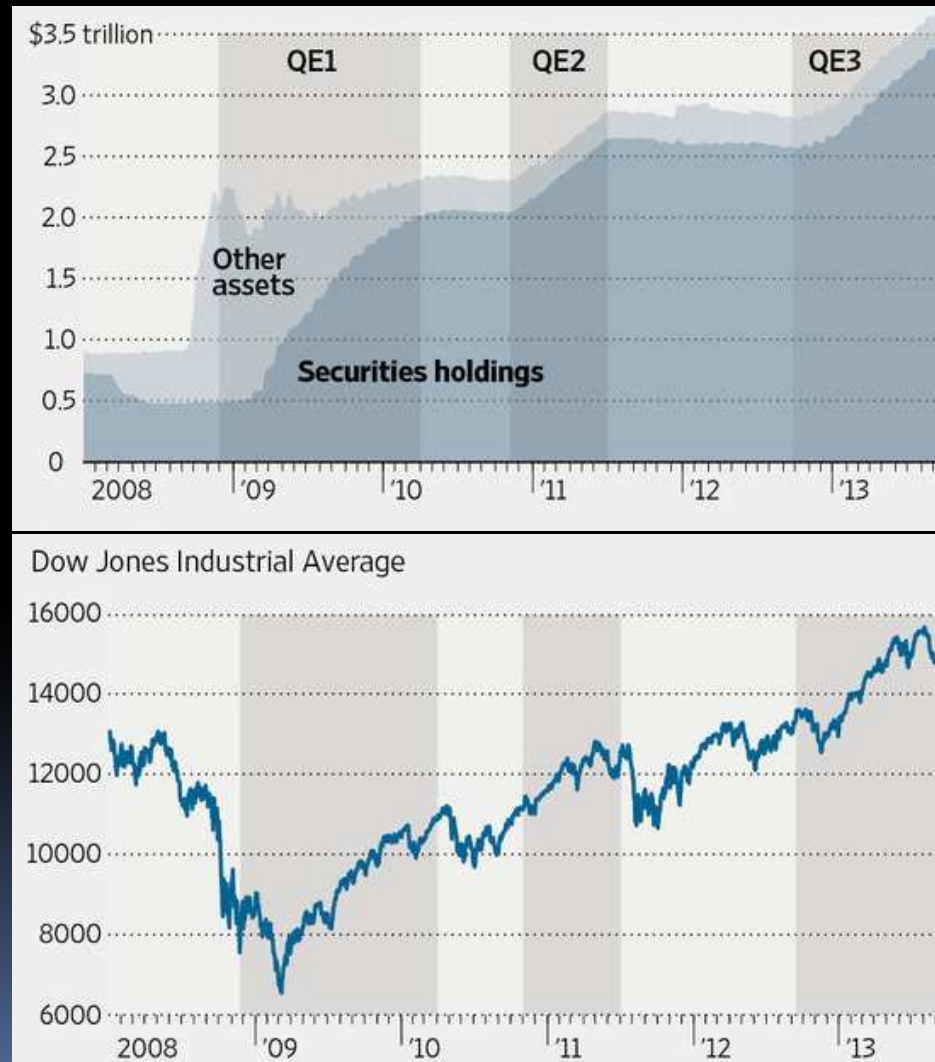
Source: Federal Reserve Economic Data (FRED)

The Fed's Crisis Response: Size of the Fed's Balance Sheet Jan.2008-Aug.2014, Projected through 2015



Source: Federal Reserve Economic Data (FRED)

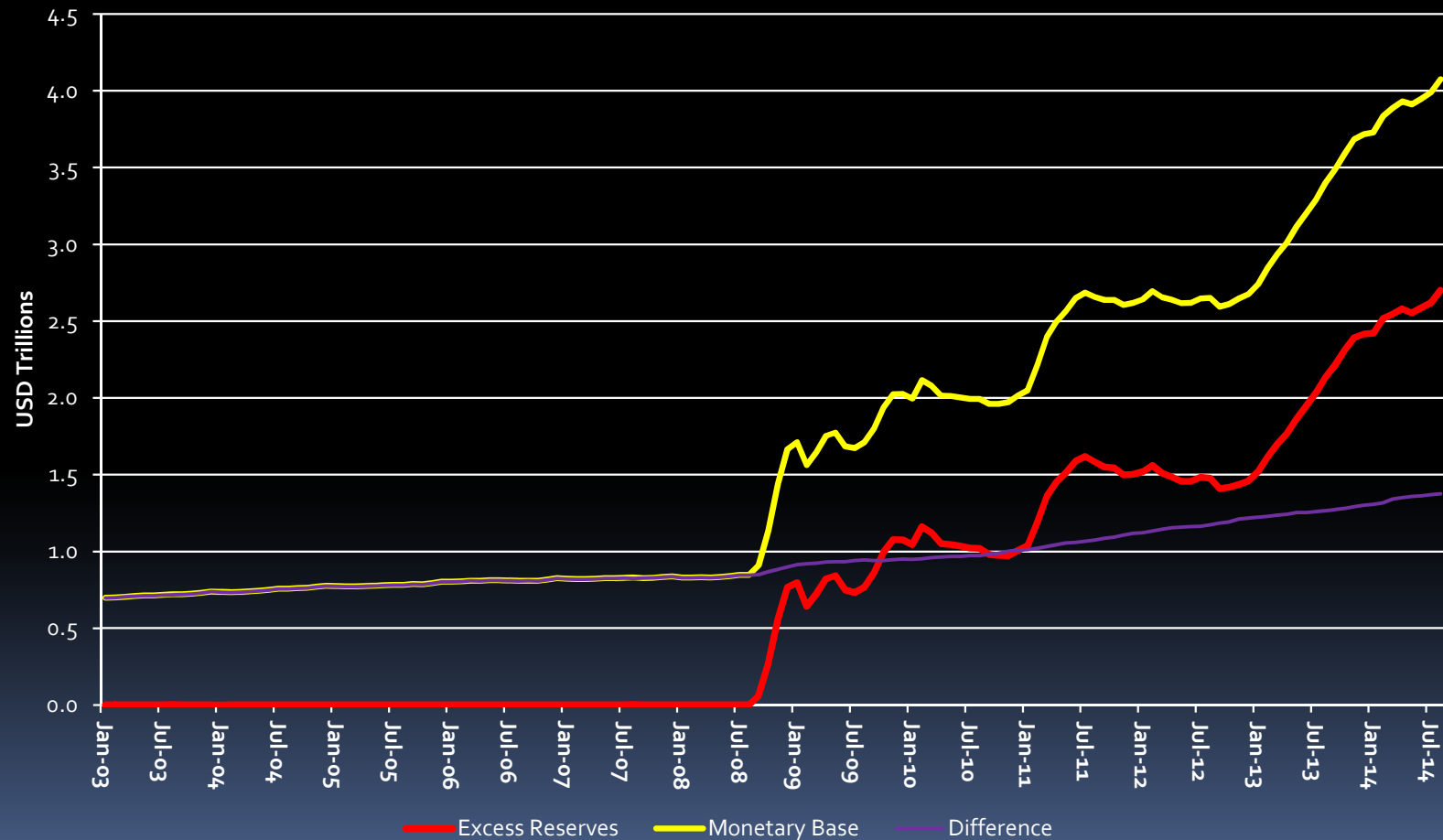
The Fed's Crisis Response: Fed Asset Purchases and U.S. Stock Prices



The Fed's Crisis Response: Fed Asset Purchases and U.S. Bond Yields

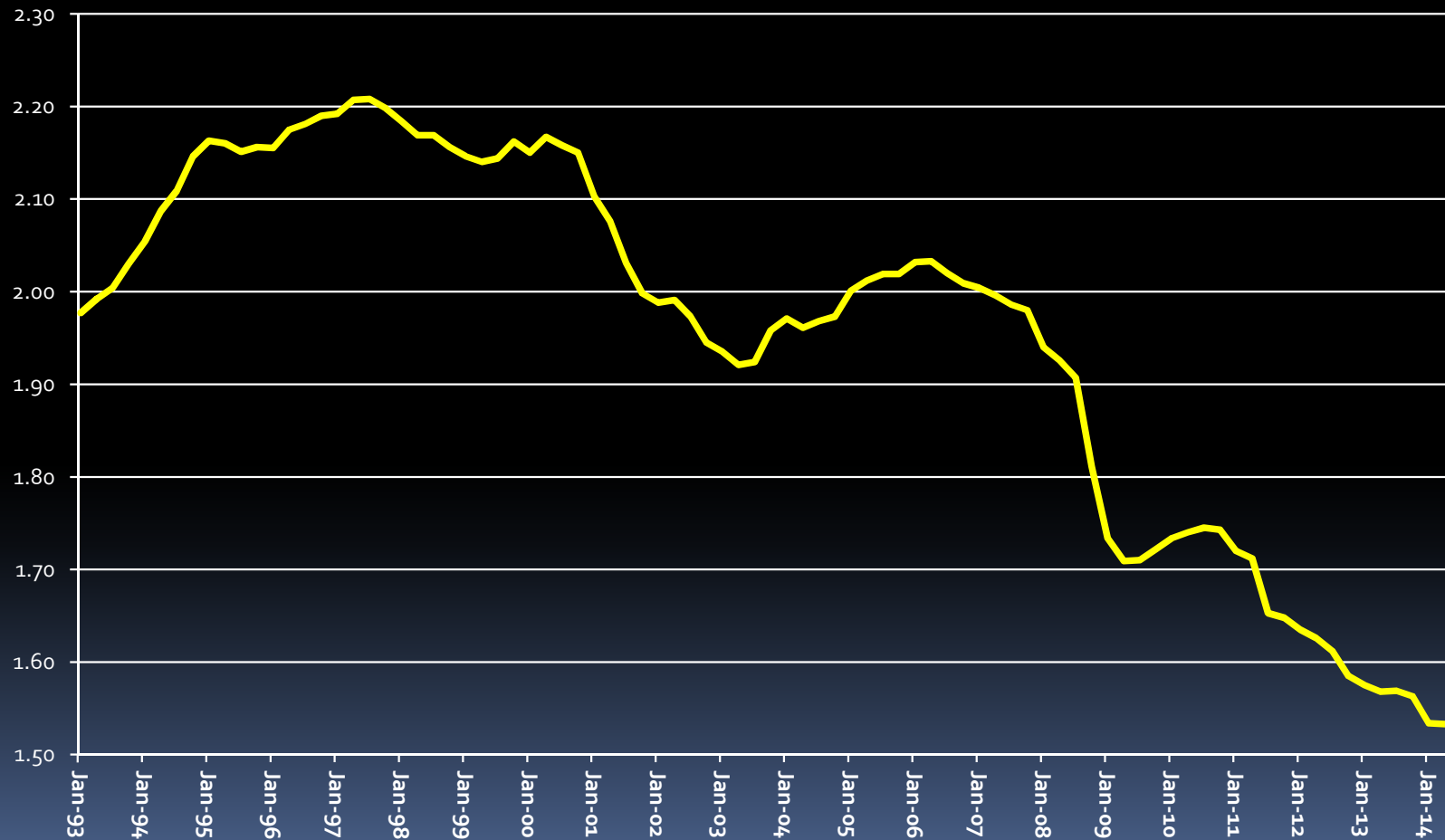


The Fed's Crisis Response: Fed Balance Sheet vs. Bank Excess Reserves



You can give a banker money . . . but you can't make him lend.

The Fed's Crisis Response: Velocity of Money (M2)



Velocity of money is the number of times one dollar is spent to buy goods and services per unit of time.

The Fed's Crisis Response:

- Cumulatively, ZIRP and QE constitute the “greatest monetary policy in history.”
- No one knows how it will end . . .
- . . . Or how to end it.
- The next year will shed much light on this issue.

Velocity of money is the number of times one dollar is spent to buy goods and services per unit of time.

The Fed's Crisis Response: The "Taper"



Tapir

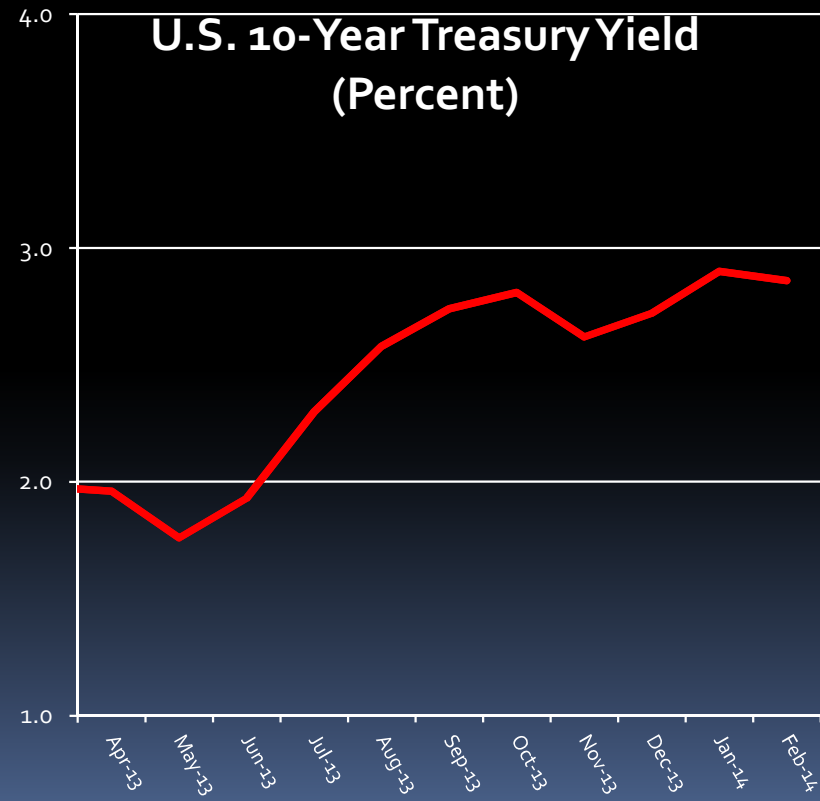
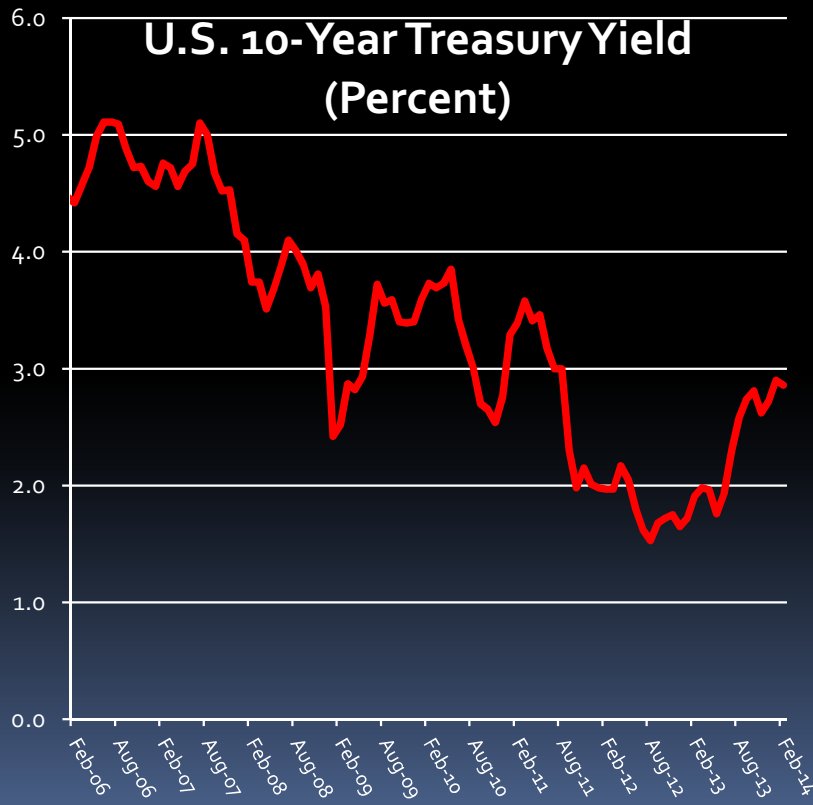


Chairman Taper

The Fed's Crisis Response: The "Taper"

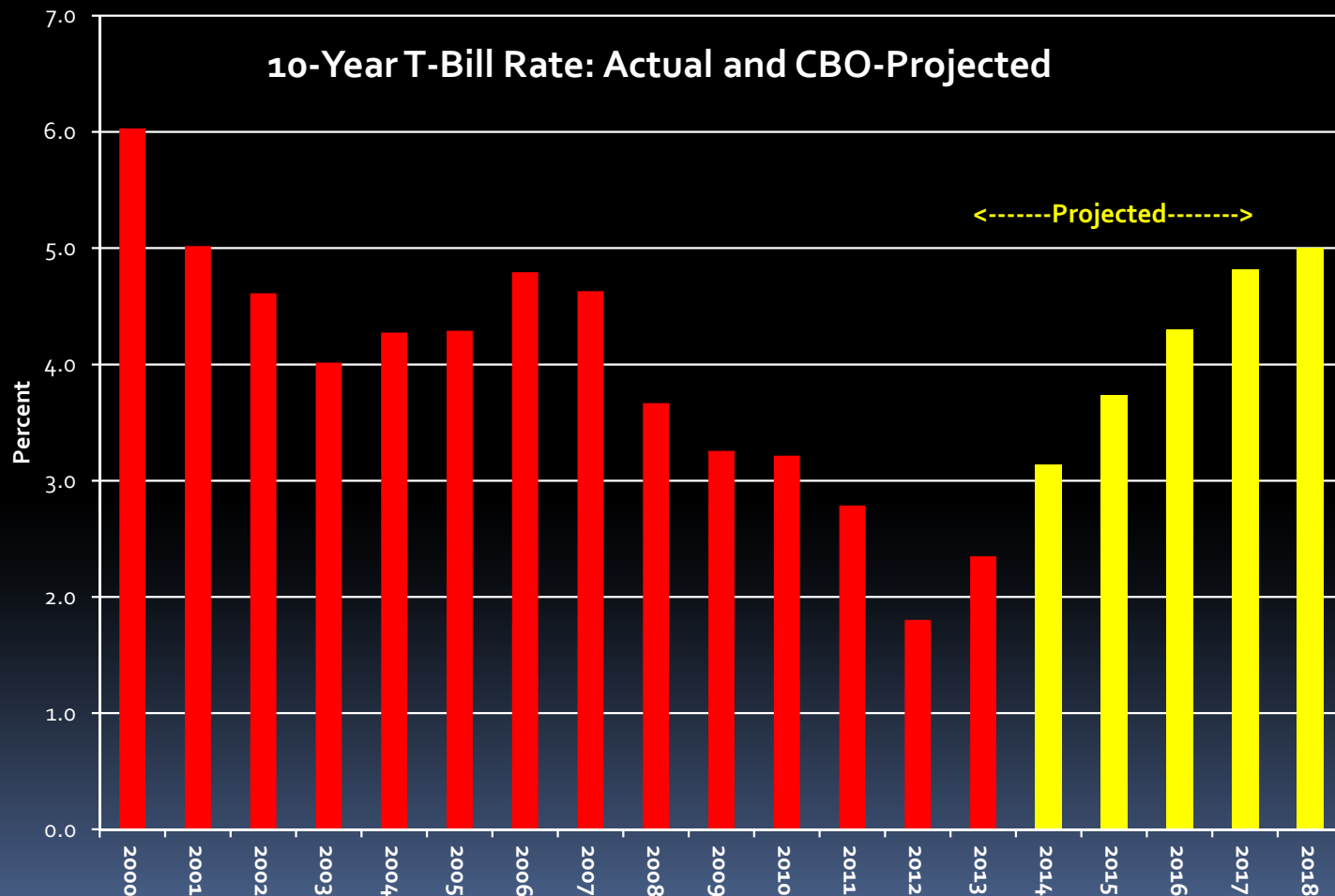
- With the unemployment rate falling and the economy improving, the Fed "hinted" on May 22, 2013, that it would soon begin to "taper," or reduce, its \$85B in monthly asset purchases.
- In response, the U.S. bond market tanked, with the 10-Year Treasury yield climbing from 2.03% to more than 3.00%.

The Fed's Crisis Response: "Taper" Comment and U.S. Treasury Yields



Source: Federal Reserve Economic Data (FRED)

The Fed's Crisis Response: The (Lack of an) Exit Strategy



Source: CBO Budget and Economic Outlook 2014-2024

The Fed's Crisis Response: The (Lack of an) Exit Strategy

- What happens when the Fed actually ends its asset purchases and lets past purchases mature?
- Who will buy the \$1 Trillion per year in new U.S. Treasuries that the Fed has been buying?
- What will happen to interest rates?
- What will happen to the value of bonds?

- Answer: It is going to be really, really U-G-L-Y.

The Fed's Crisis Response: The (Lack of an) Exit Strategy

- Why? D-U-R-A-T-I-O-N
 - Duration is the price elasticity of a bond with respect to interest rates.
 - It approximates the percentage change in the price of bond for a one-percentage point change in interest rates.
 - For example, a \$100 bond with a duration of 10 years would lose 10% of value when interest rates rise by 100 basis points.

The Fed's Crisis Response: The (Lack of an) Exit Strategy

- As soon as Fed announced “tapering” asset sales, long-term interest rates spiked upwards by almost 100 basis points (b. p.).
- This implies market-value losses of:
 - \$1.7 Trillion on the \$17 Trillion in U.S. T-Bonds,
 - \$1.3 Trillion on the \$13 Trillion in home mortgages,
 - \$0.9 Trillion on the \$9 Trillion in corp. bonds.
- Who is bearing these losses . . . ?
- What if long-term rates rise another 200 b. p. . . . as CBO forecasts?

The Fed's Crisis Response: The (Lack of an) Exit Strategy

- When the Fed actually began “tapering” asset sales by \$10B/month, equities also reversed course.
- In Dec.-Jan., the Wilshire 5000 fell by 5% before rallying after bad economic reports: “bad news” for the economy is “good news” for equities.
- The Fed has announced that QE₃ will end with Oct. 2014 asset purchases of \$15 billion, but that it will not yet begin winding down its balance sheet.

The Fed's Crisis Response: The (Lack of an) Exit Strategy

- What will happen to the U.S. Federal budget?
- In 2012, interest payments were only \$360 Billion.
- If long-term rates rise to pre-crisis 5% level, then interest payments on what will soon be \$18 Trillion in federal debt will skyrocket to about \$1 trillion per year.
- During FY 2014, the U.S. expects to collect only \$3.0 Trillion in revenues, so interest would account for 1/3 of the U.S. budget.

The Fed's Crisis Response: The (Lack of an) Exit Strategy

- What will happen to the U.S. economy?
- Interest rates rising, bond and equity values falling, taxes rising, and a lousy labor market.
- This is a prescription for a recession that will make 2008 look tame.
- Think "Jimmie Carter" and the real "great recession" of 1980 – 82.

The Fed's Crisis Response: The (Lack of an) Exit Strategy

- The only alternative: "Turning Japanese."
- Keep interest rates near zero indefinitely.
- This produced 20 years of zero growth in Japan.
- Is this preferable to a massive recession?
- For politicians, the answer is undoubtedly . . .
. . . YES!

The U.S. Fiscal Crisis: Summary

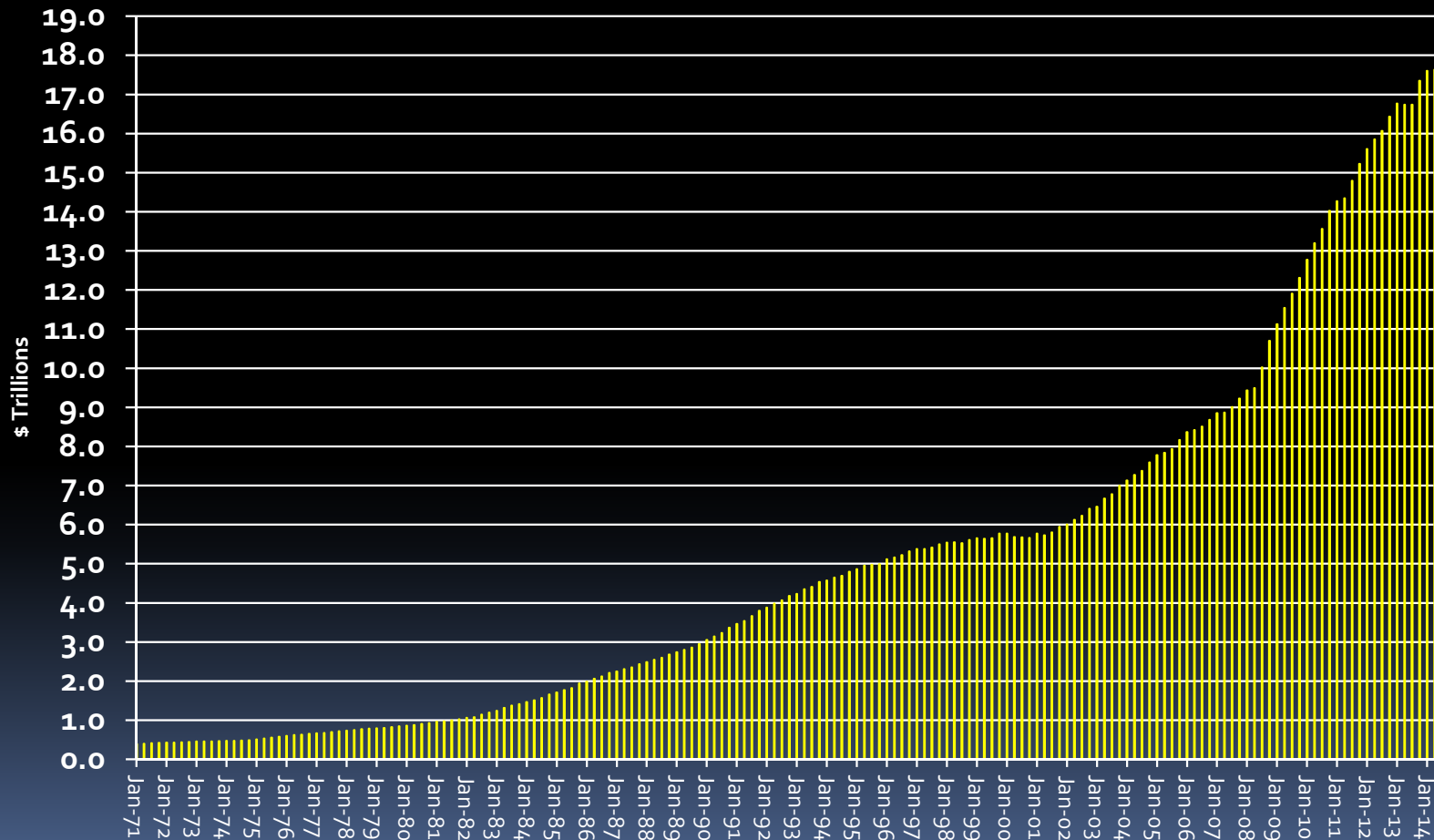
- The U.S. Federal Government has now amassed more than \$17 Trillion in debt.
- 70% or 100% of GDP, depending upon what the definition of “debt” is.
- Debt is expected to top \$20 Trillion by 2019.
- Annual deficits have averaged > \$1 Trillion since 2009, and are not projected to fall below \$500 Billion during the next decade.

The U.S. Fiscal Crisis: Summary

- The U.S. (for once) has not acted alone.
- First, Japan has followed down this Neo-Keynesian pathway of ZIRP and QE.
- Now, the ECB has joined the party.

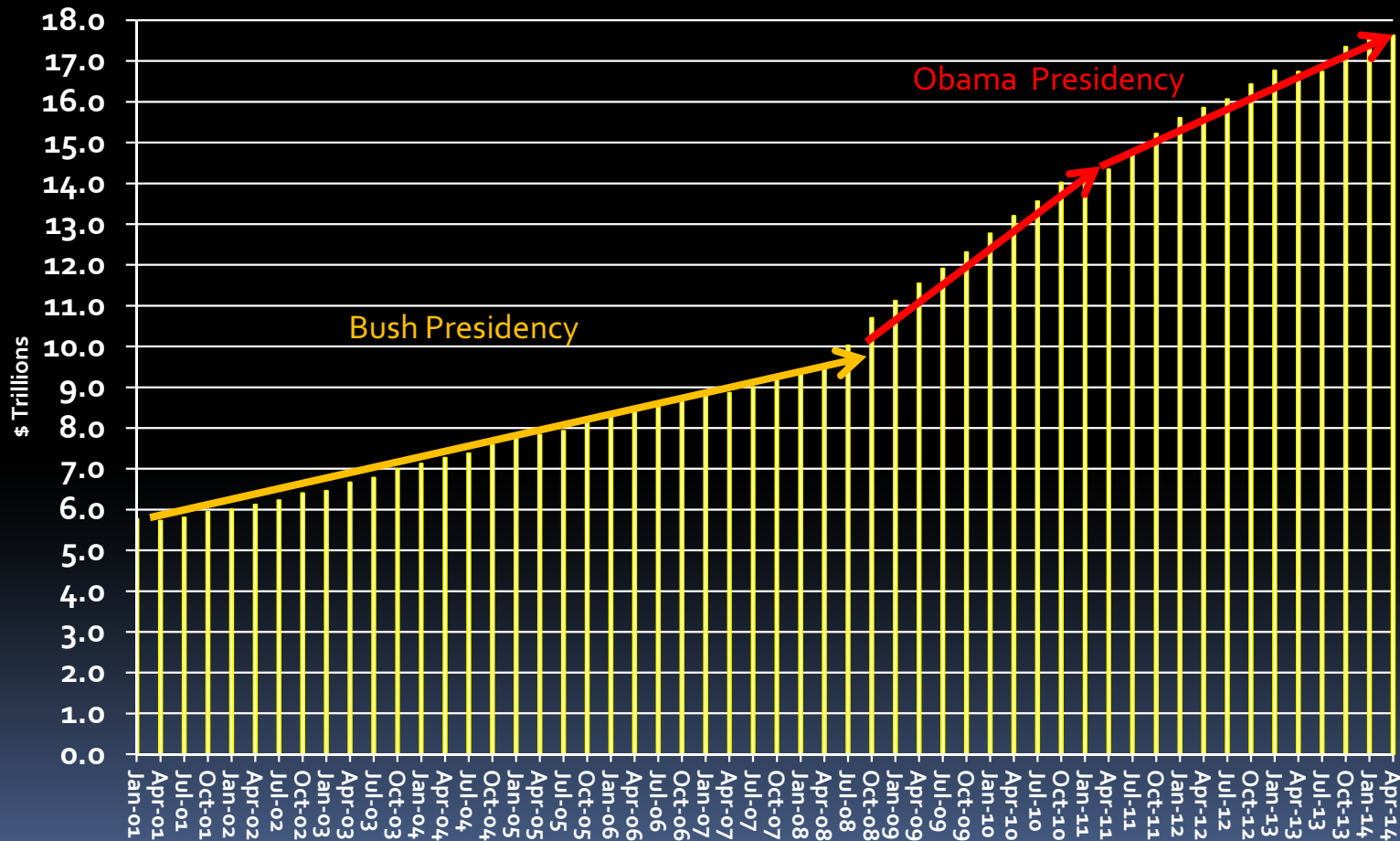
- Question:
- What do Bernanke, Draghi, and several other Neo-Keynesians have in common in their past?

The U.S. Fiscal Crisis: U.S. Federal Debt 1971 - 2014



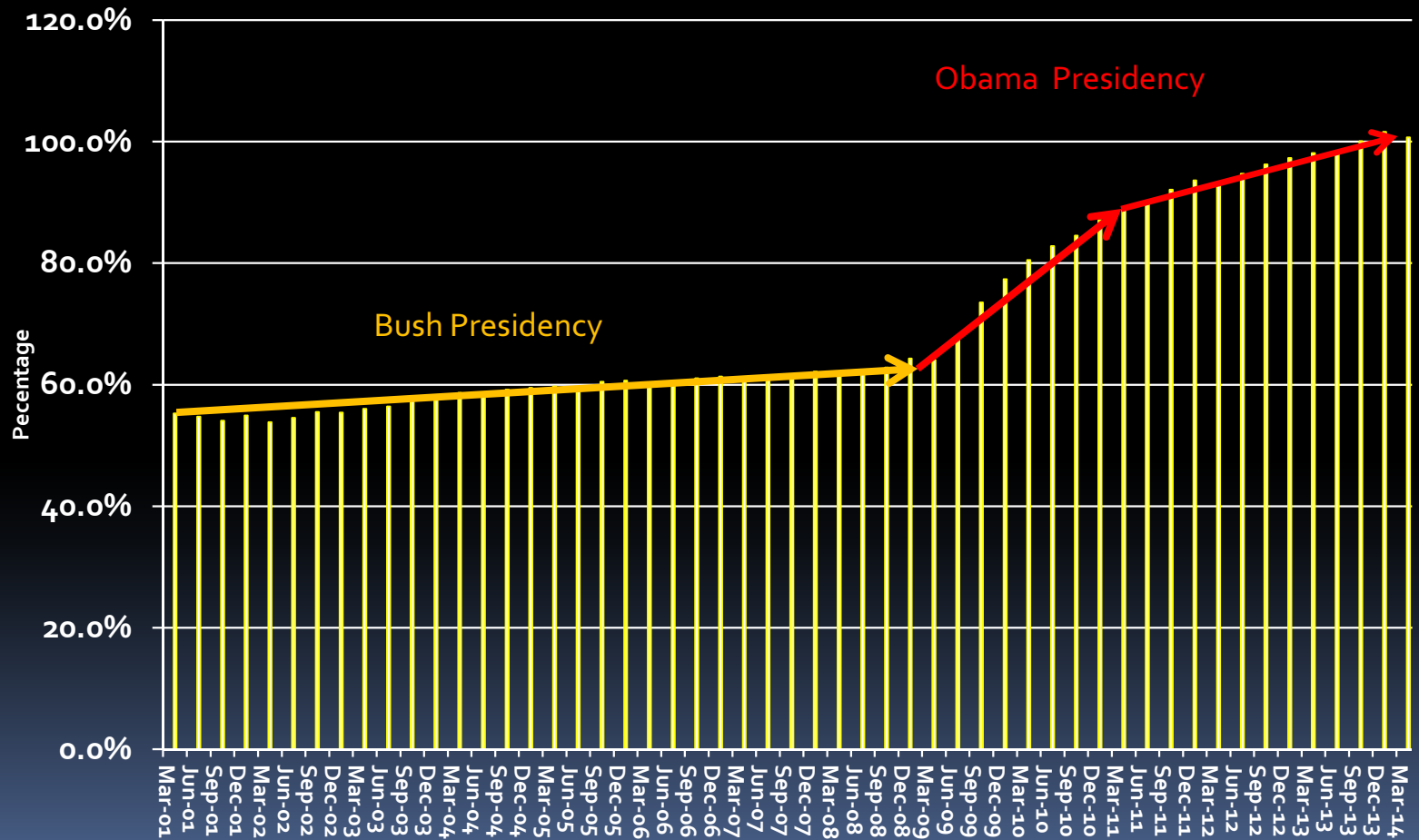
Source: Federal Reserve Economic Data (FRED)

The U.S. Fiscal Crisis: U.S. Federal Debt: 2000 - 2014



Source: Federal Reserve Economic Data (FRED)

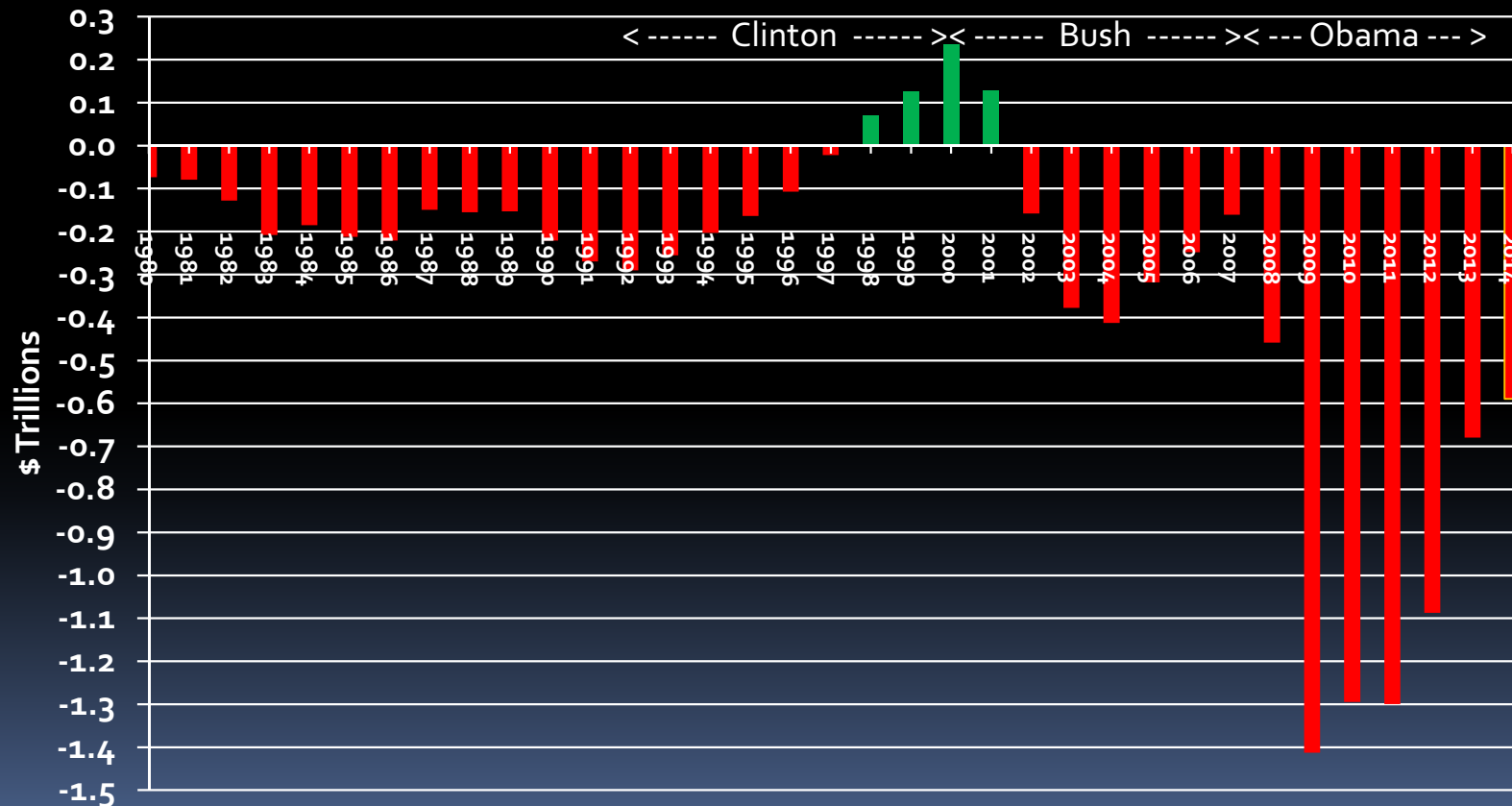
The U.S. Fiscal Crisis: U.S. Debt to GDP Ratio: 2001 - 2014



Source: Federal Reserve Economic Data (FRED)

The U.S. Fiscal Crisis: Annual Deficit/Surplus 1980 - 2014

Annual U.S. Federal Deficit/Surplus

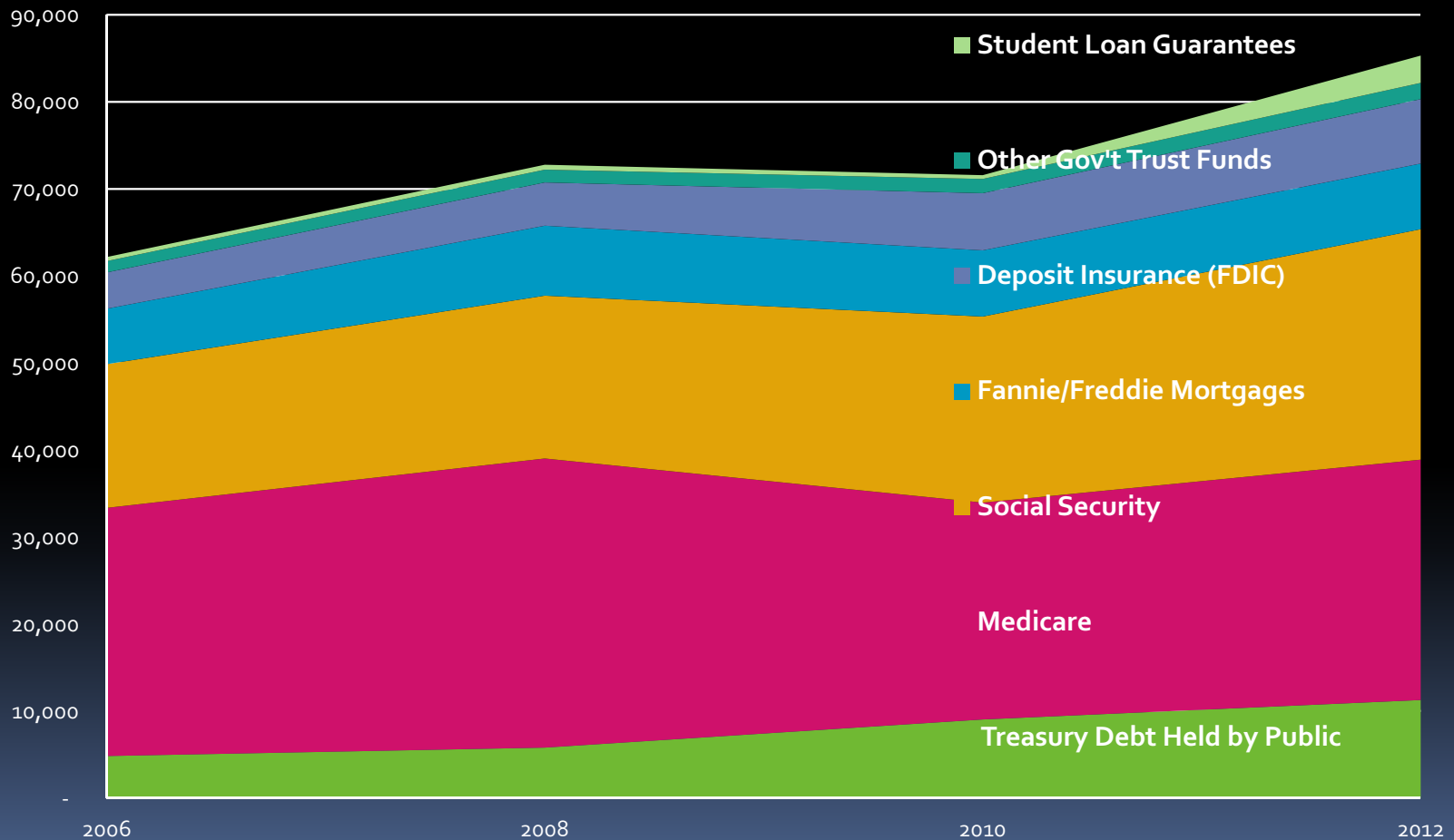


Source: Federal Reserve Economic Data (FRED)

The U.S. Fiscal Crisis: Unfunded Liabilities

- Unfunded federal liabilities for retirement, social programs dwarf on-balance-sheet federal debt.
- Estimates for 2012 top \$80 Trillion.
- Combined with debt, this puts ratio of liabilities to GDP at more than 500%.
- Unfunded state liabilities are estimated at another \$20 Trillion.
- This puts liabilities above 600% of GDP.
- "We are all Greeks now."

The U.S. Fiscal Crisis: Unfunded Liabilities



Source: NBER Working Paper at <http://www.nber.org/papers/w19253>

Summary and Conclusion

- The U.S. economy is improving by a number of measures . . .
- . . . but it remains in troubled waters by many economic measures.
- Is the Perfect Storm receding . . . ?
- Or is it about to regain strength, and, once again, lash the economic shoreline?
- Complicating this issue is the “greatest monetary policy experiment” in history.
- The forecast remains “ominous.”



THE
PERFECT STORM