The U.S. Debt Crisis:
How it Happened and What Can be Done

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Pat Obi

PURDUE UNIVERSITY CALUMET

OUTLINE

1. 2007 Mortgage crisis
2. Federal budget
3. Debt buildup
4. The debt crisis
5. Failed attempts by Congress
6. Suggested path to debt elimination

Perspective…

Our total debt as of …

June 2002 = $6.13Tr
[as % of GDP: 60%]

GDP = Gross Domestic Product, measure of the size of our economy. A Debt/GDP ratio of 100% means we owe as much as we produce.

June 2012 = $15.86Tr
[as % of GDP: 103%]

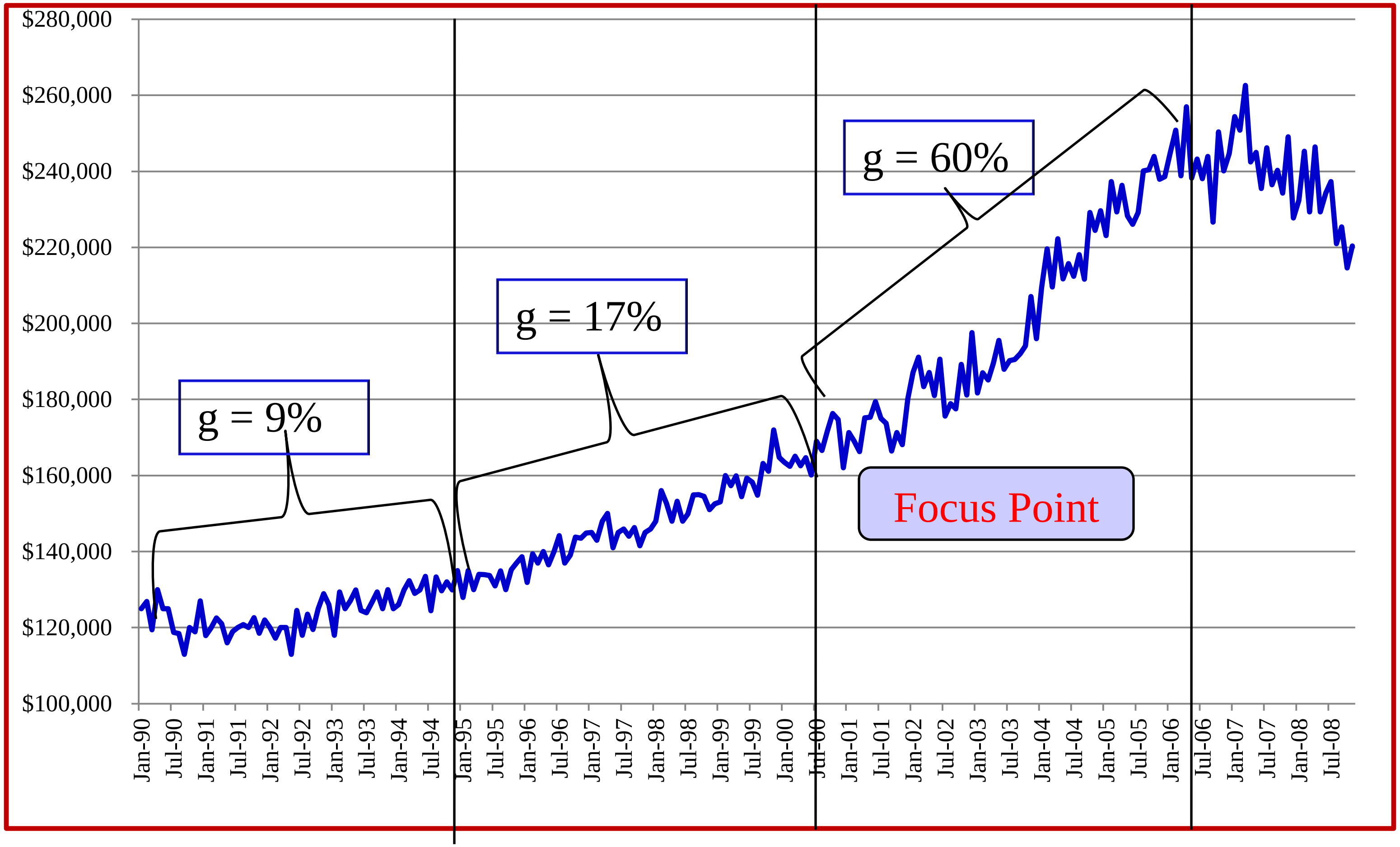
When the bottom fell out…

2007 Mortgage Crisis

2008 Financial Crisis

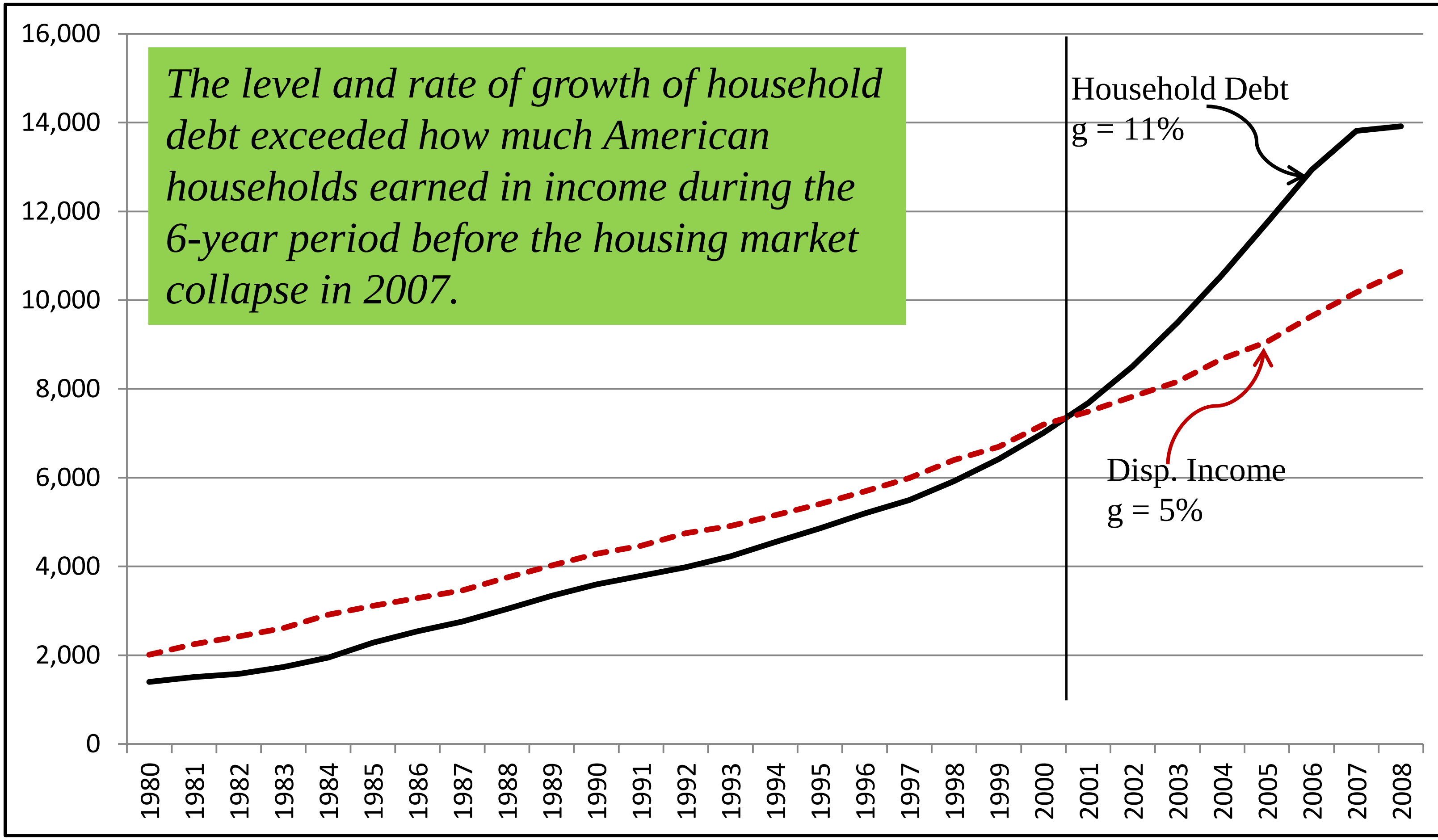
Median Home Price: 1990-2008

Data source: U.S. Census. www.census.gov/const/uspricemon.pdf



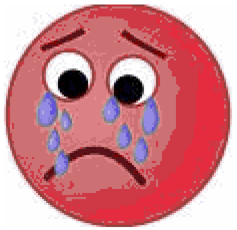
Household Debt v. Disposable Income

(in billions of $)



Sources: Bureau of Economic Analysis (income); Federal Reserve Flow of Funds (household debt)

What went wrong between 2000 and 2007



1. Steep jump in household debt to $14Tr
2. Decline in mortgage underwriting standards
3. Rising default risk in the mortgage market
4. Complex *Wall Street* financial derivatives
5. Unsustainable <u>home</u> and <u>stock</u> price levels

- 2008 Stock market plunge = -40%
- Household wealth loss of > $13Tr, 2007-2008
- Financial crisis – from 2008

My scholarly contributions with respect to the 2008 Financial Crisis

- Obi, Pat, Jeong-gil Choi, and Shomir Sil (2010). "A Look Back at the 2008 Financial Crisis: The Disconnect between Credit and Market Risks," *Czech Journal of Economics and Finance*. 60(5): 400-413.

- Obi, Pat, Saul Lerner, and Shomir Sil (2010). "The 2008 Global Financial Crisis: A Discussion of Causes, Consequences, and Remedies," *Journal of Global Commerce Research*, 2(4): 1-11.

- Obi, Pat, Paolo Miranda, and Shomir Sil (2011). "An Inquiry into the Time Series Dynamics of Short-Term Interest Rates and Stock Returns," *Journal of Business and Economic Studies*, 17(1): 16-28.

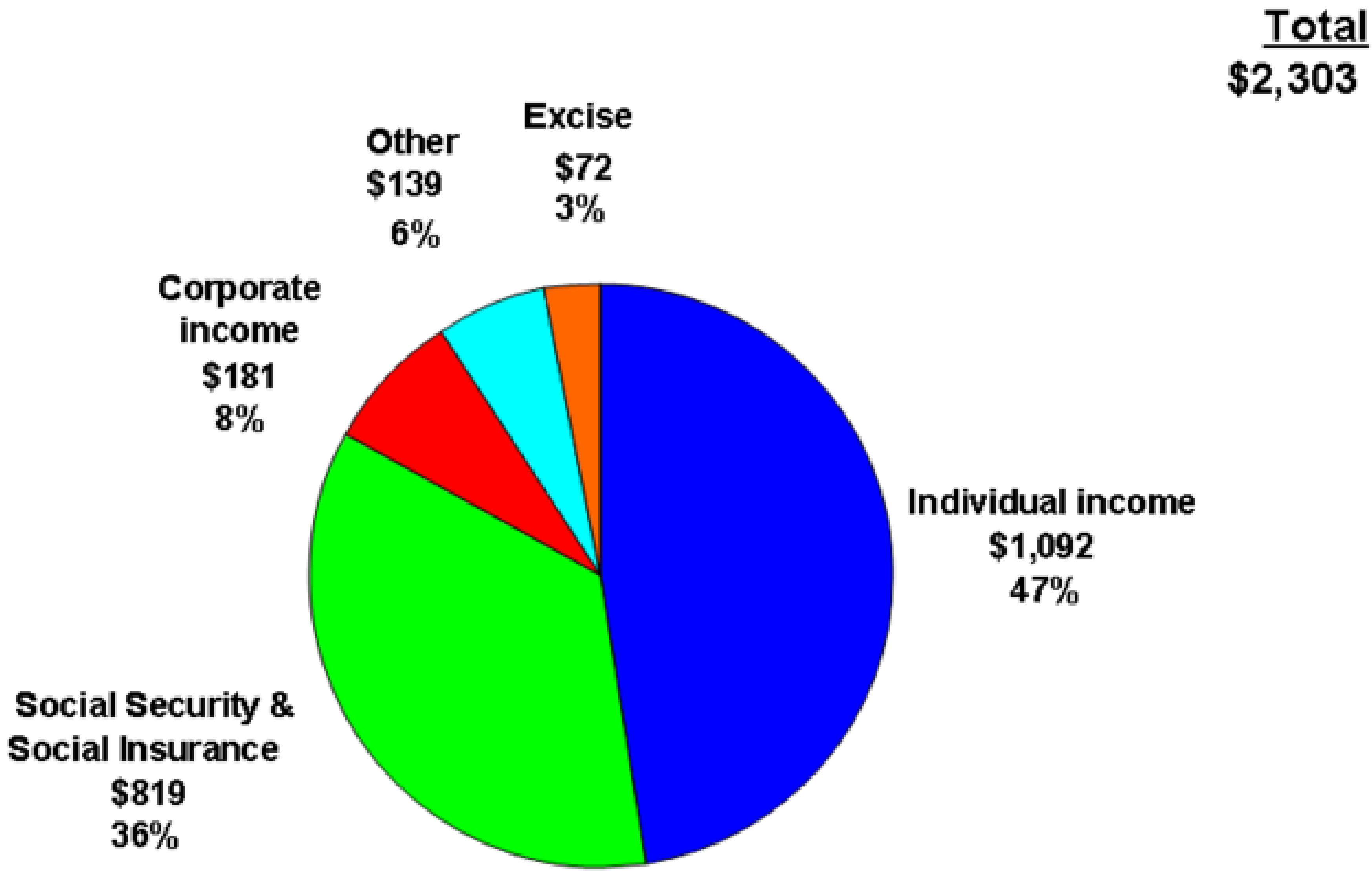
- Obi, Pat, Job Dhubihlela, and Jeong-Gil Choi (forthcoming 2012). "Equity Market Valuation, Systematic Risk, and Monetary Policy," *Applied Economics*.

Government bailouts = ⇧National debt

LEGISLATION	DATE	SIGNED BY	BAILOUT AMOUNT
1. Econ Stimulus Act, 2008	2/13/2008	Bush	$152B
2. Emergency Econ Stabilization Act , 2008	9/28/2008	Bush	$700B
3. American Recovery and Reinvestment Act, 2009	2/17/2009	Obama	$787B
TOTAL			$1.6Tr

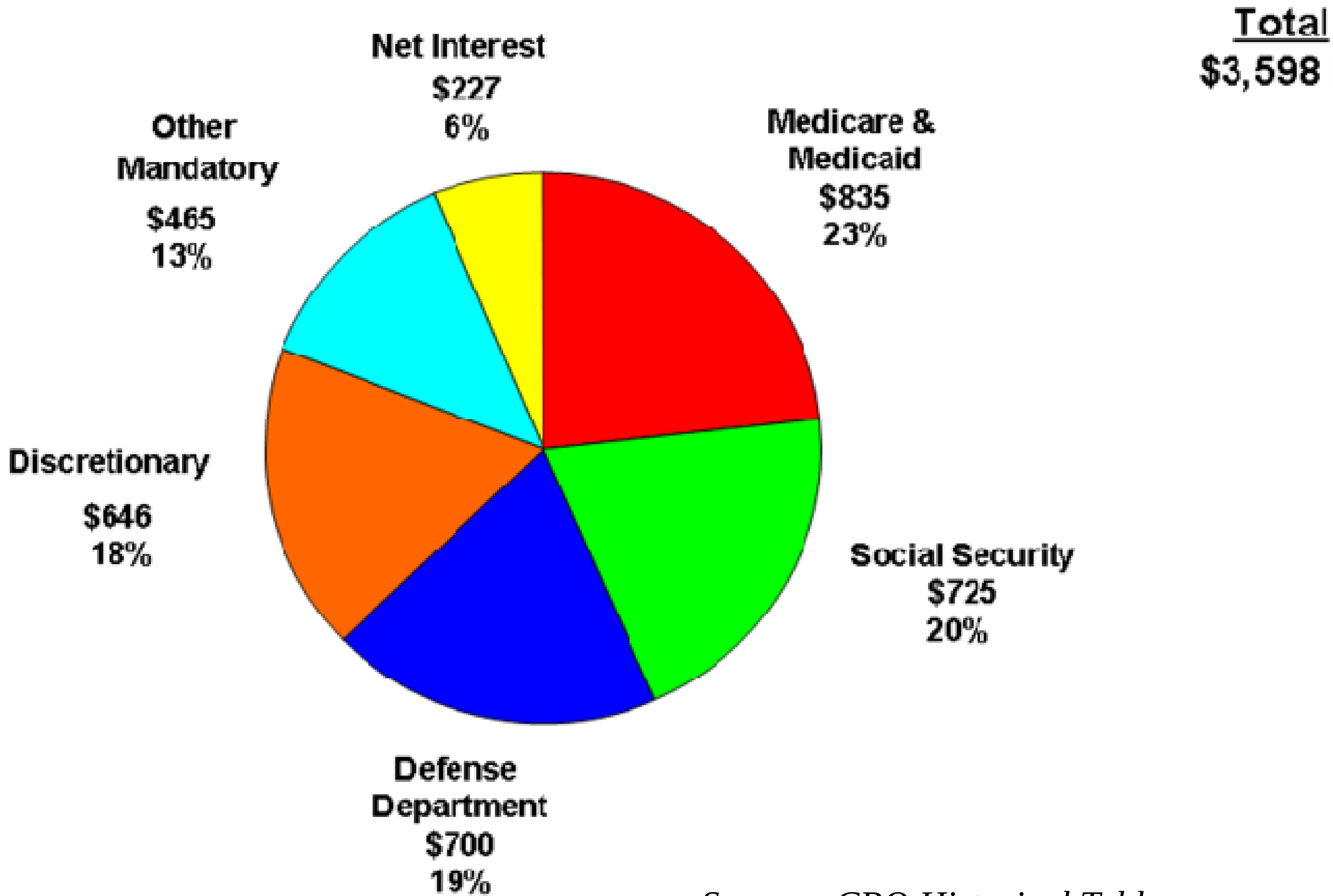
A Look at our Federal Budget

Tax Receipts – Fiscal Year 2011 ($Billions)



Source: CBO Historical Tables

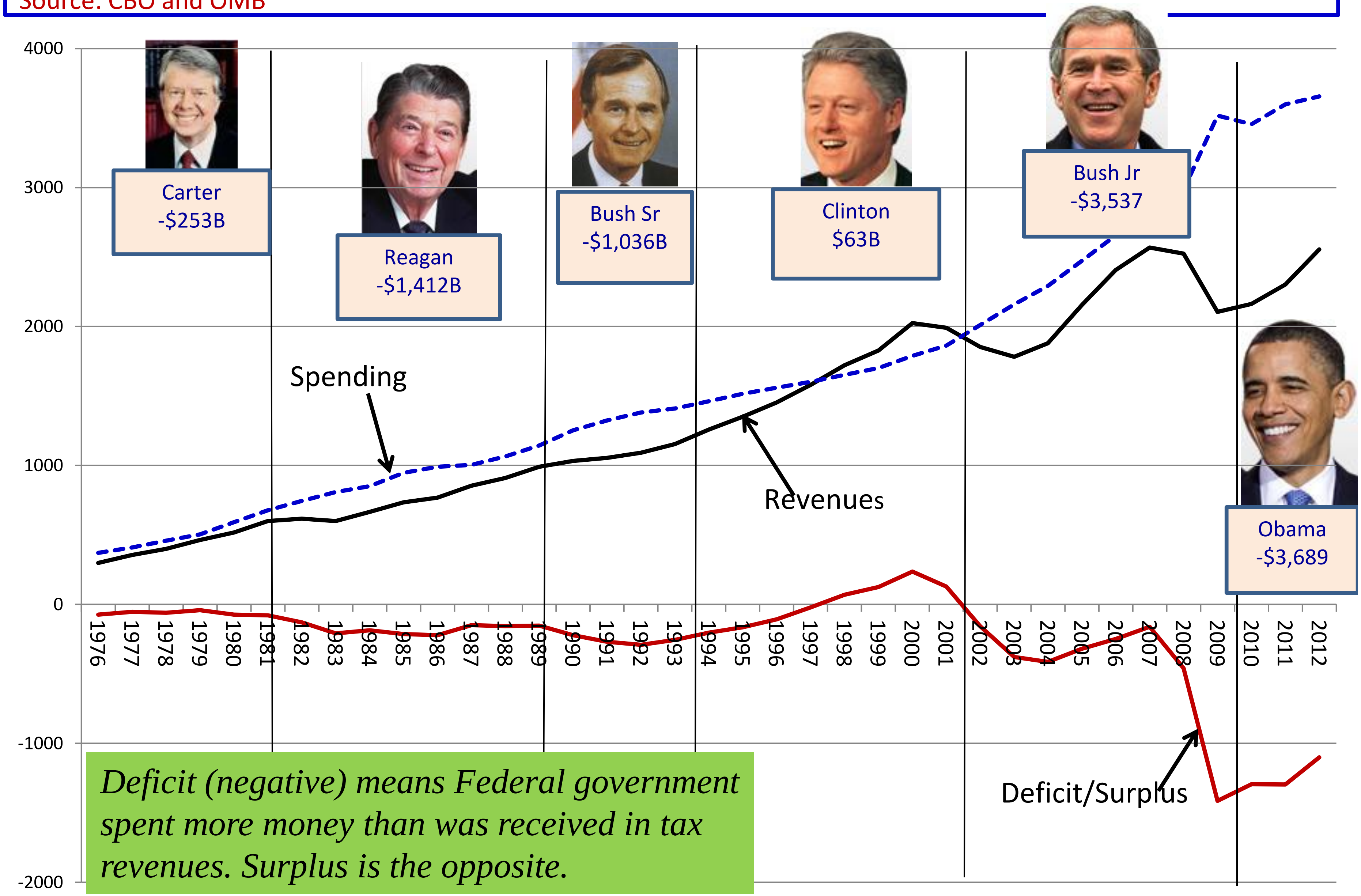
Spending – Fiscal Year 2011 ($Billions)



Source: CBO Historical Tables

Budget Deficits and Surpluses (bill of $)

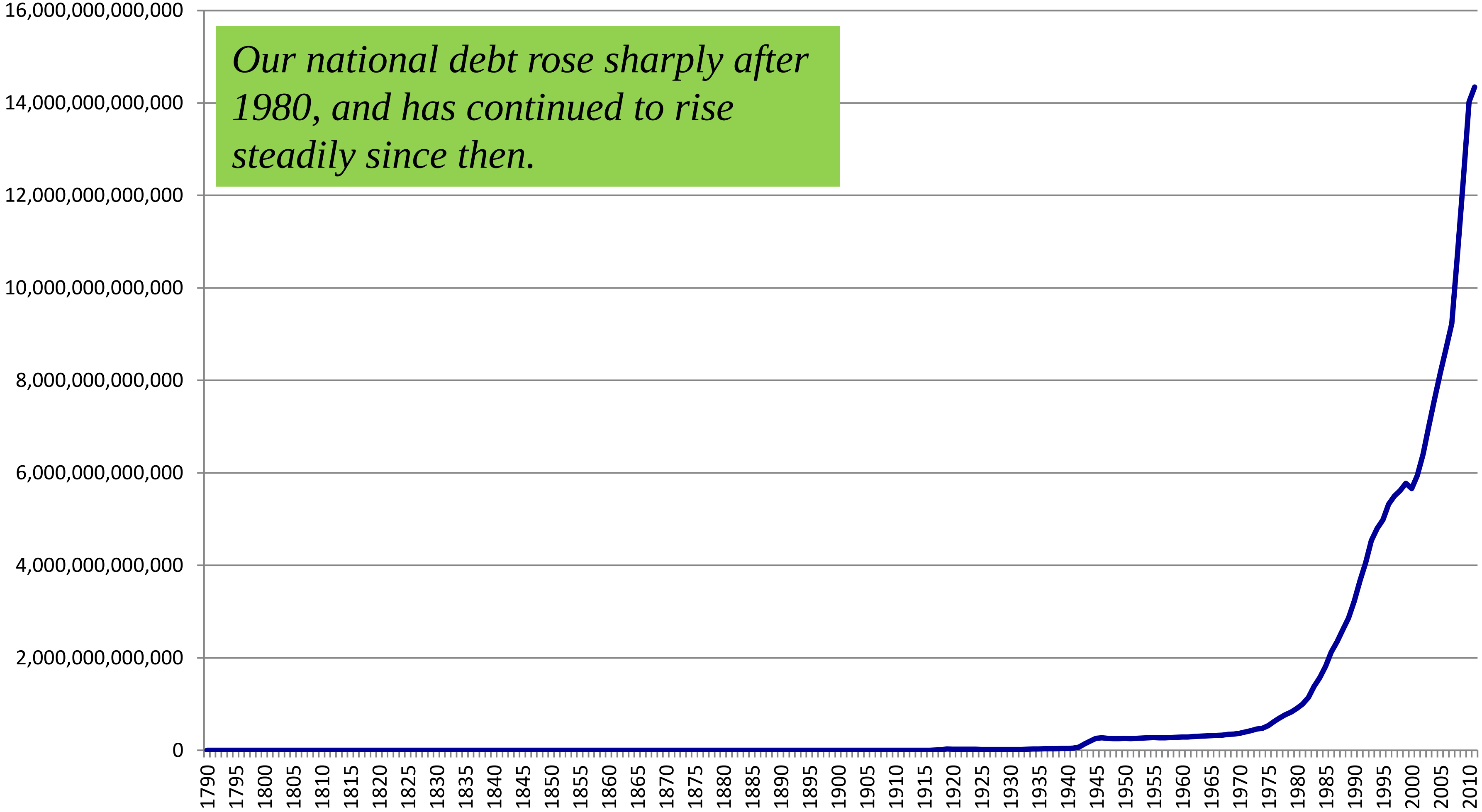
Source: CBO and OMB



Our National Debt

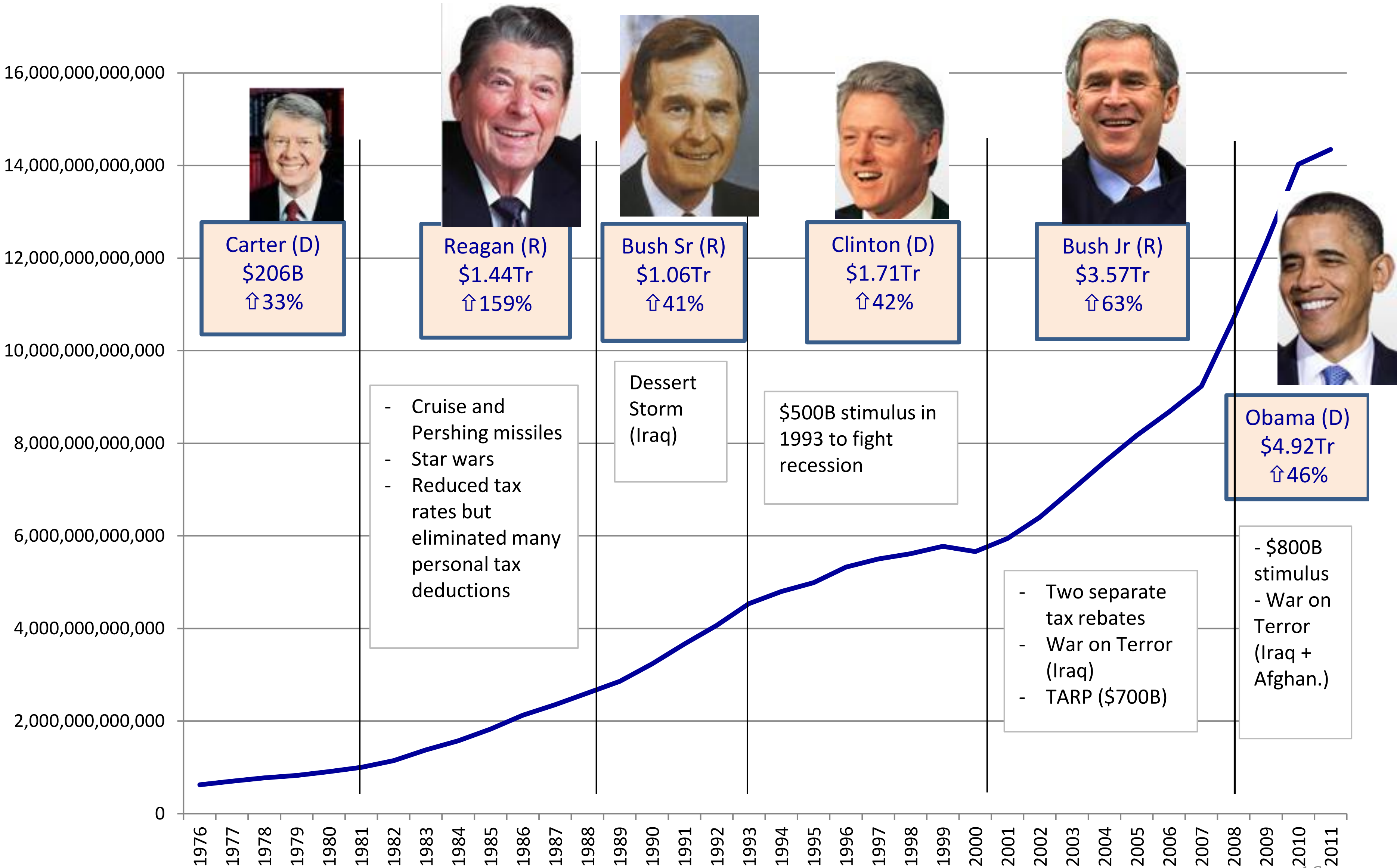
U.S. National Debt since 1790

Data source: Department of the Treasury



U.S. Debt in Recent Years ($ Tr)

Source: Department of the Treasury



The National Debt Components

1. Intragovernmental debt: Money borrowed from other government agencies, e.g. Social Security Trust Fund (SSTF) and Medicare Trust Fund (MTF)

2. Federal Reserve. Money borrowed from the Fed.

3. Debt held by the public: Money borrowed from U.S. citizens, foreigners, corporations, state and local governments, and others.

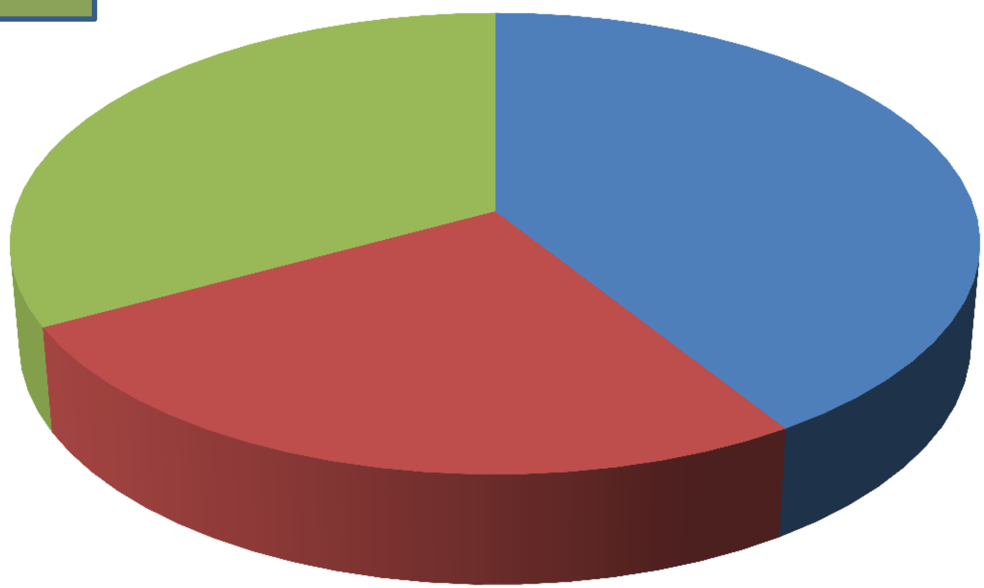
Our Money Lenders

Source: U.S. Department of Treasury, Ownership of Federal Securities, Table OFS-2: www.fms.treas.gov/bulletin/b2012_3ofs.doc
Secondary source: http://www.gao.gov/special.pubs/longterm/debt/debtbasics.html

Total Federal Debt = $15.6Tr [March 2012]

Intra-govt + Fed = $6.4Tr [41%]

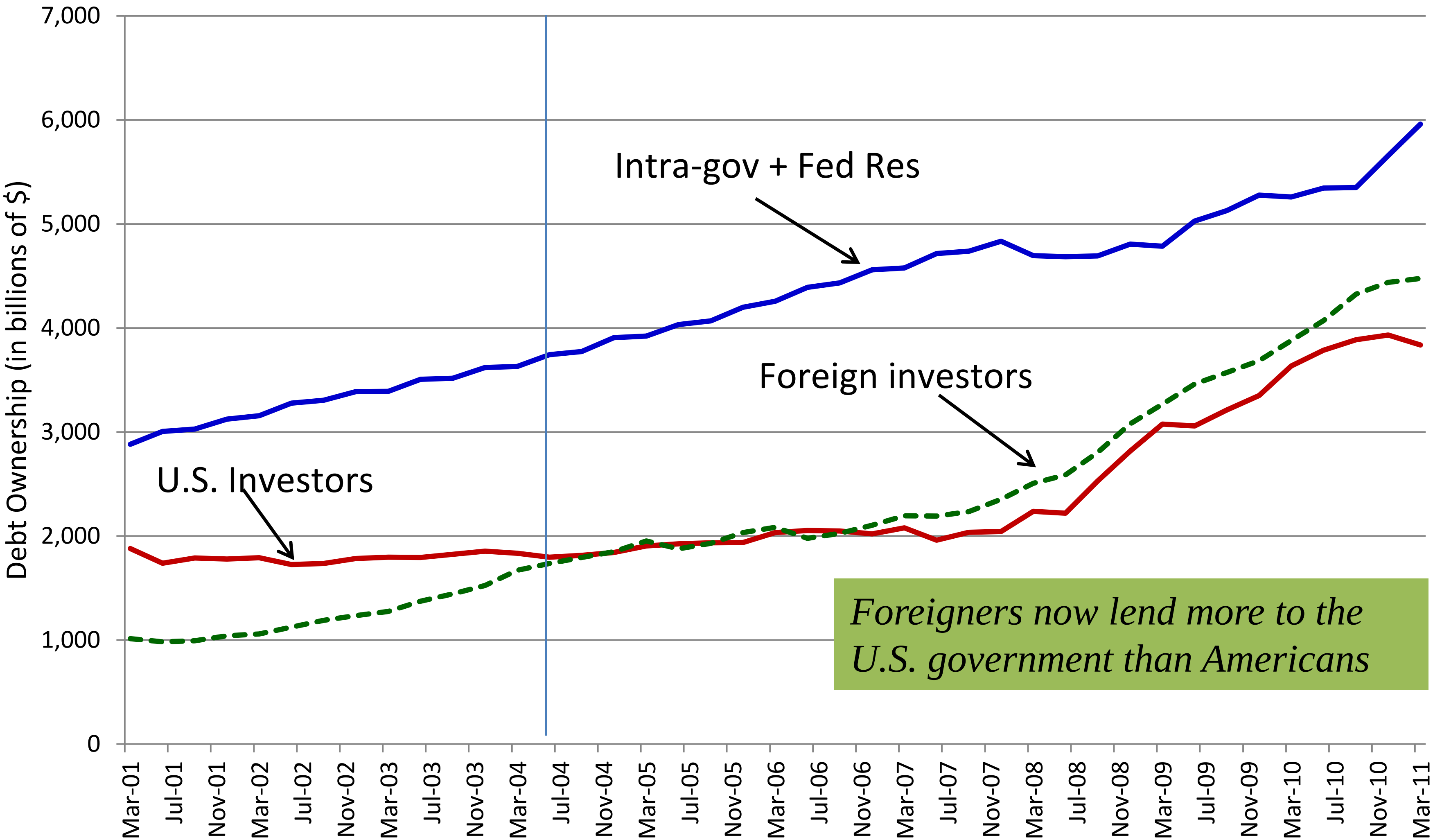
Foreigners = $5.14Tr [33%]



U.S. investors = $4.05Tr [26%]

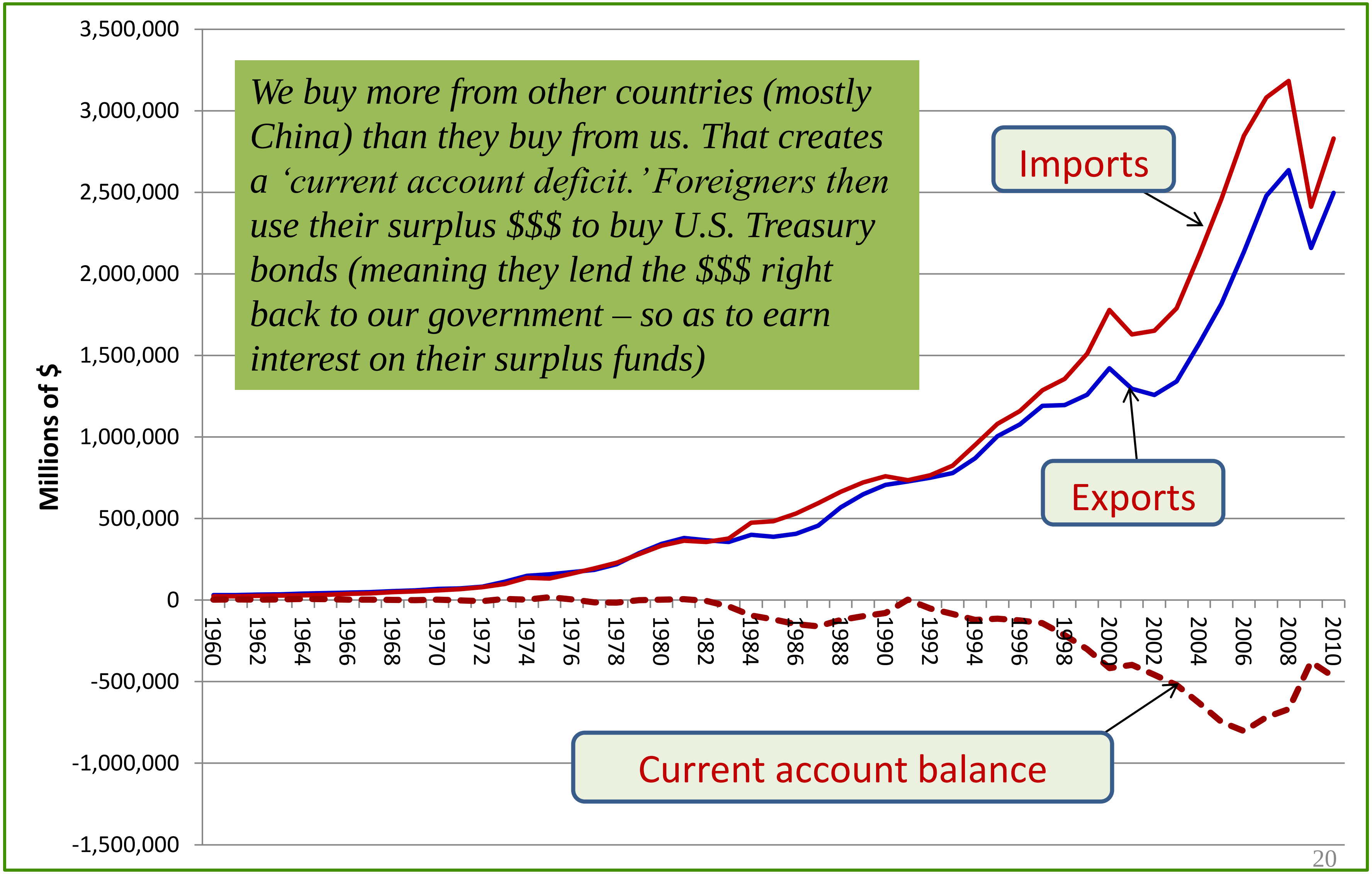
Our Money Lenders?

Source: U.S. Department of Treasury, Ownership of Federal Securities, Table OFS-2: www.fms.treas.gov/bulletin/index.html
Secondary source: http://www.gao.gov/special.pubs/longterm/debt/debtbasics.html



U.S. International Trade

Source: US Census Bureau, Foreign Trade Division. www.census.gov/foreign-trade/statistics/historical/index.html Source file: "US Intl Trade" in Research folder



The Big Question…

Has our debt reached a crisis point?

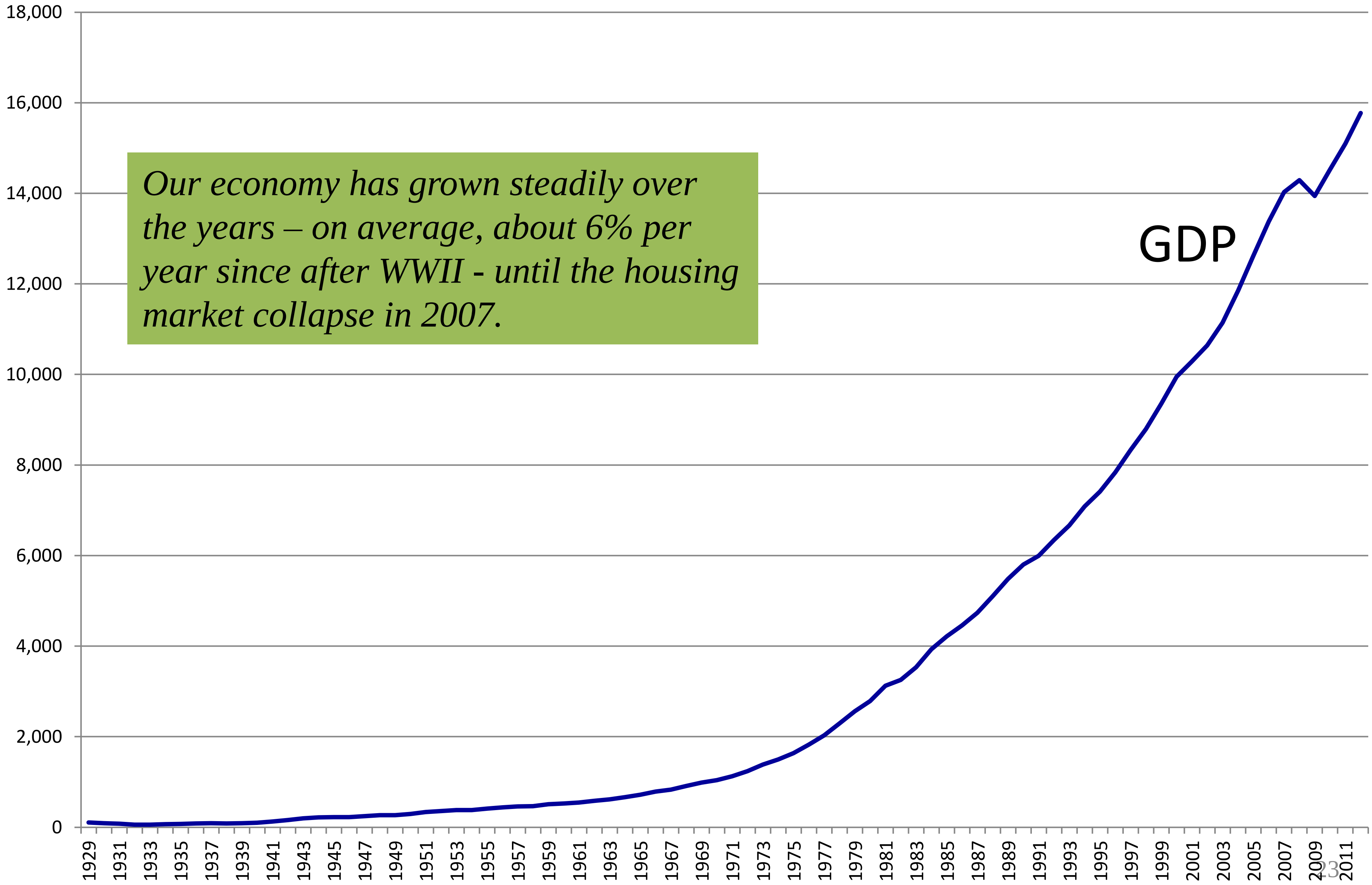
- One way to consider this question is to line up our <u>debt</u> against our nation's <u>ability to pay</u>

- The ability to pay is tied to the size of our economy – measured by <u>GDP</u>

Our Economy

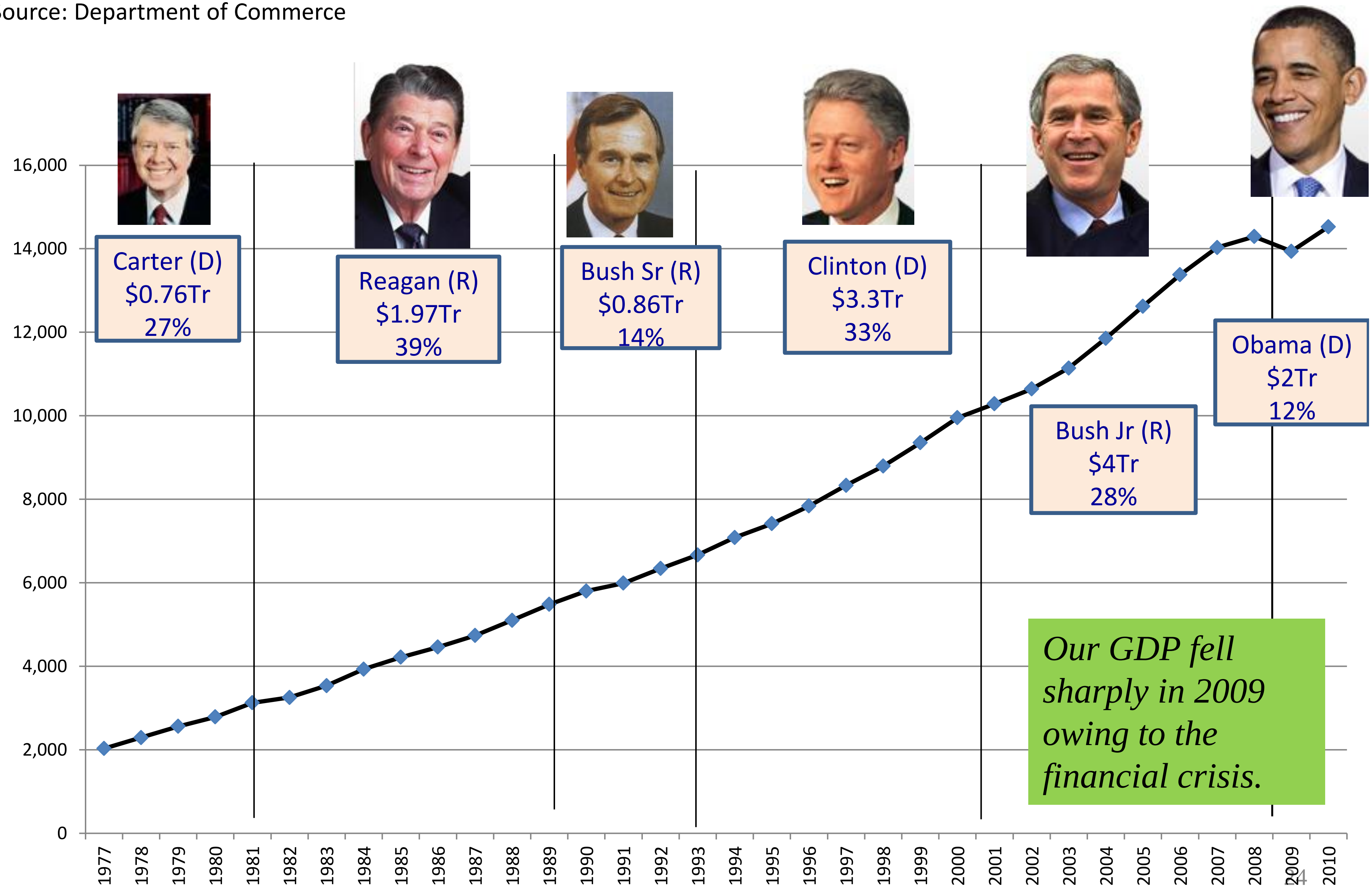
U.S. Economy since Market Crash of 1929 (bill of $)

Source: Department of Commerce



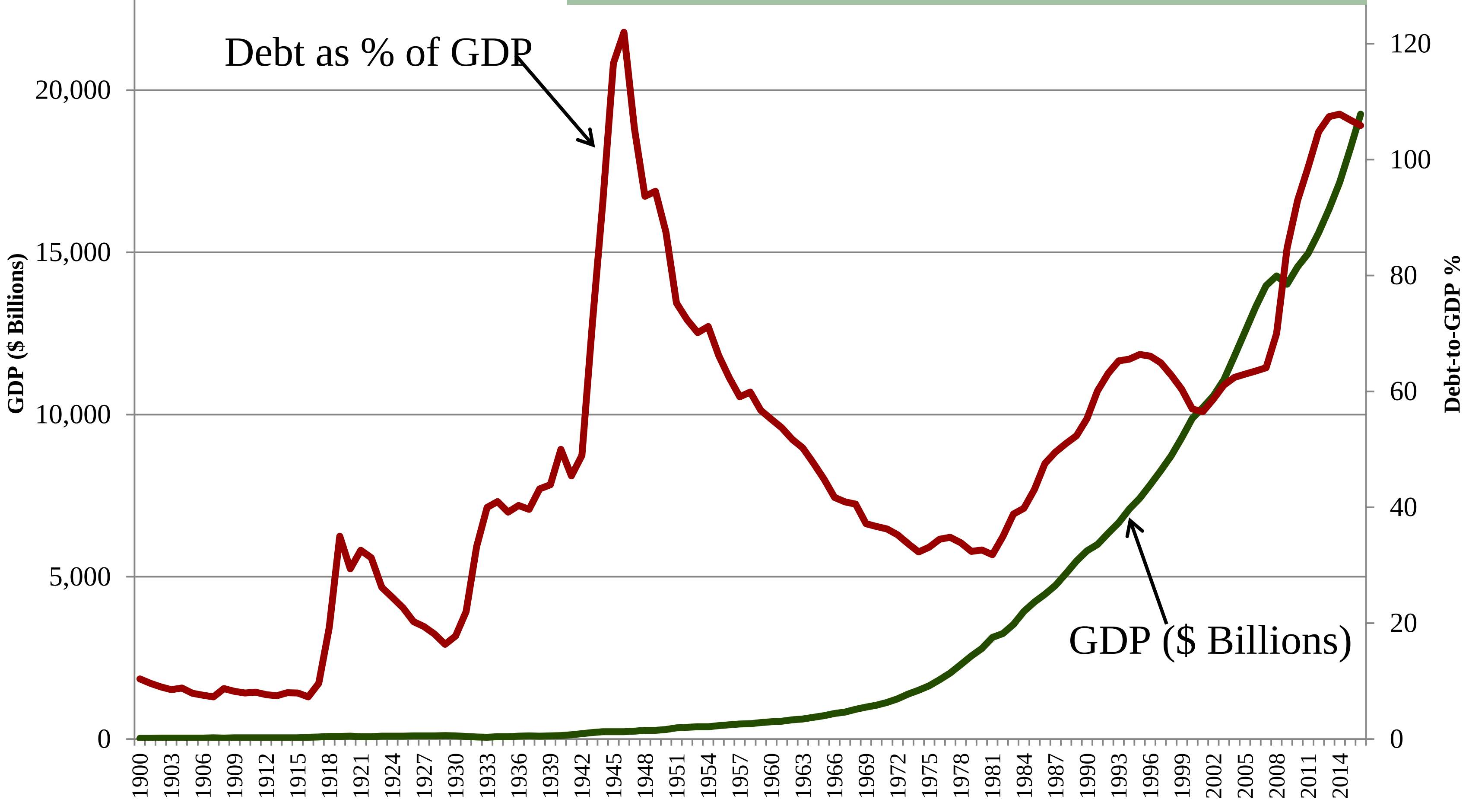
GDP Contribution by Recent U.S. Presidents (bill of $)

Source: Department of Commerce



Looking at our National Debt v. GDP through the years

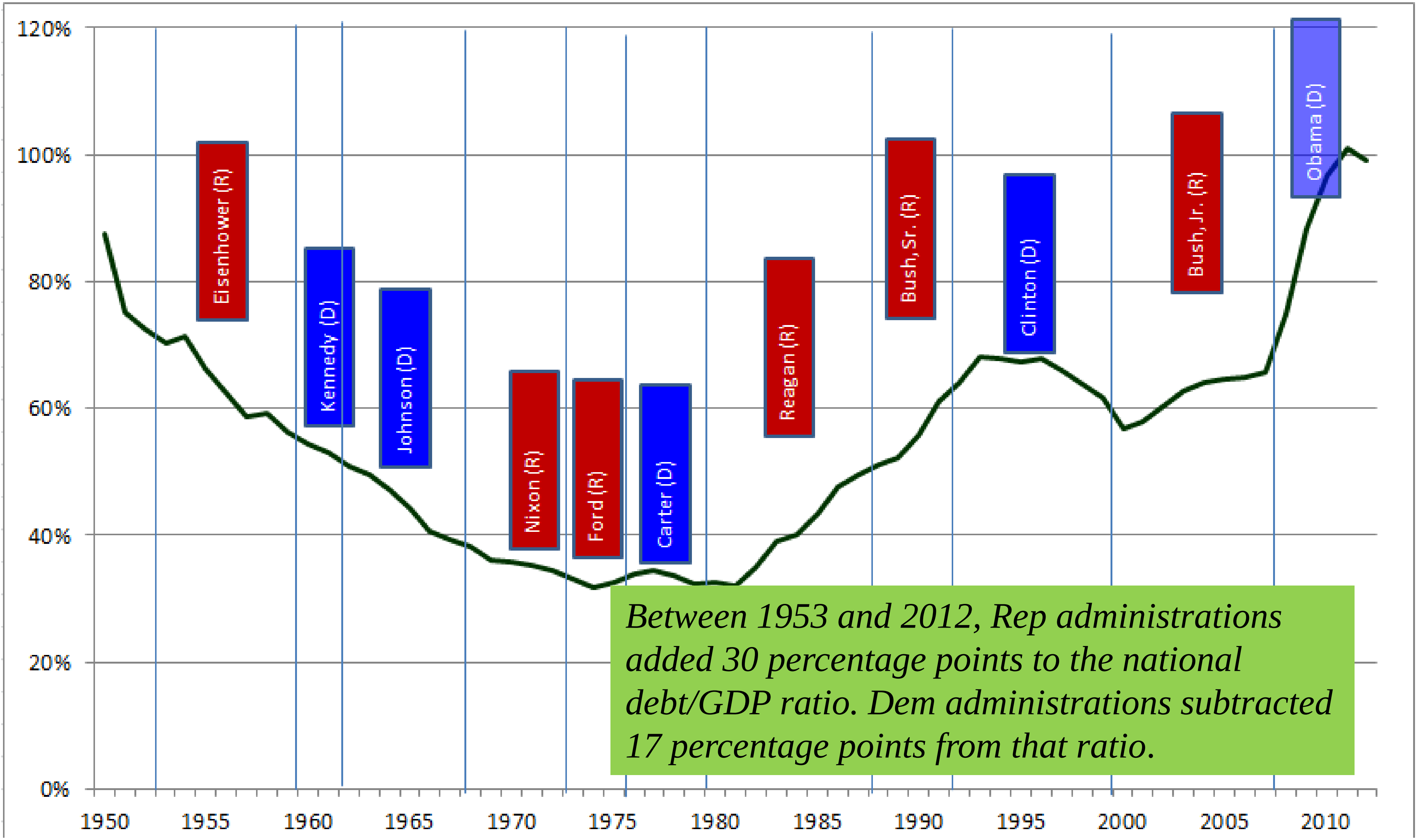
The only time our debt grew to more than 100% of GDP was right after WWII. But that was due to the Marshall Plan.



This shows how much our debt grew as a % of our GDP – under each president, since 1981.

Year	Debt (bill$)	GDP(bill$)	Debt/GDP	President	
1981	997.86	3,127	11%	32% Reagan	
1982	1,142.03	3,253	4%	35%	
1983	1,377.21	3,535	8%	39%	
1984	1,572.27	3,931	11%	40%	
1985	1,823.10	4,218	7%	43%	
1986	2,125.30	4,460	6%	48%	
1987	2,350.28	4,736	6%	50%	
1988	2,602.34	5,100	7%	51%	19%
1989	2,857.43	5,482	7%	52% Bush, Sr.	
1990	3,233.31	5,801	6%	56%	
1991	3,665.30	5,992	3%	61%	
1992	4,064.62	6,342	6%	64%	12%
1993	4,535.69	6,667	5%	68% Clinton	
1994	4,800.15	7,085	6%	68%	
1995	4,988.66	7,415	5%	67%	
1996	5,323.17	7,839	6%	68%	
1997	5,502.39	8,332	6%	66%	
1998	5,614.22	8,794	5%	64%	
1999	5,776.09	9,354	6%	62%	
2000	5,662.22	9,952	6%	57%	-11%
2001	5,943.44	10,286	3%	58% Bush, Jr.	
2002	6,405.71	10,642	3%	60%	
2003	6,997.96	11,142	5%	63%	
2004	7,596.14	11,853	6%	64%	
2005	8,170.42	12,623	6%	65%	
2006	8,680.22	13,377	6%	65%	
2007	9,229.17	14,029	5%	66%	
2008	10,699.80	14,292	2%	75%	17%
2009	12,311.35	13,939	-2%	88% Obama	
2010	14,025.22	14,527	4%	97%	
2011	15,222.94	15,094	4%	101%	
2012	15,620.33	15,776	4%	99% *as of March*	11%

Debt as % of GDP since after WWII



The Debt Crisis

Federal Government Revenue and Spending (% of GDP)

Sources: Congressional Budget Office; Office of Management and Budget

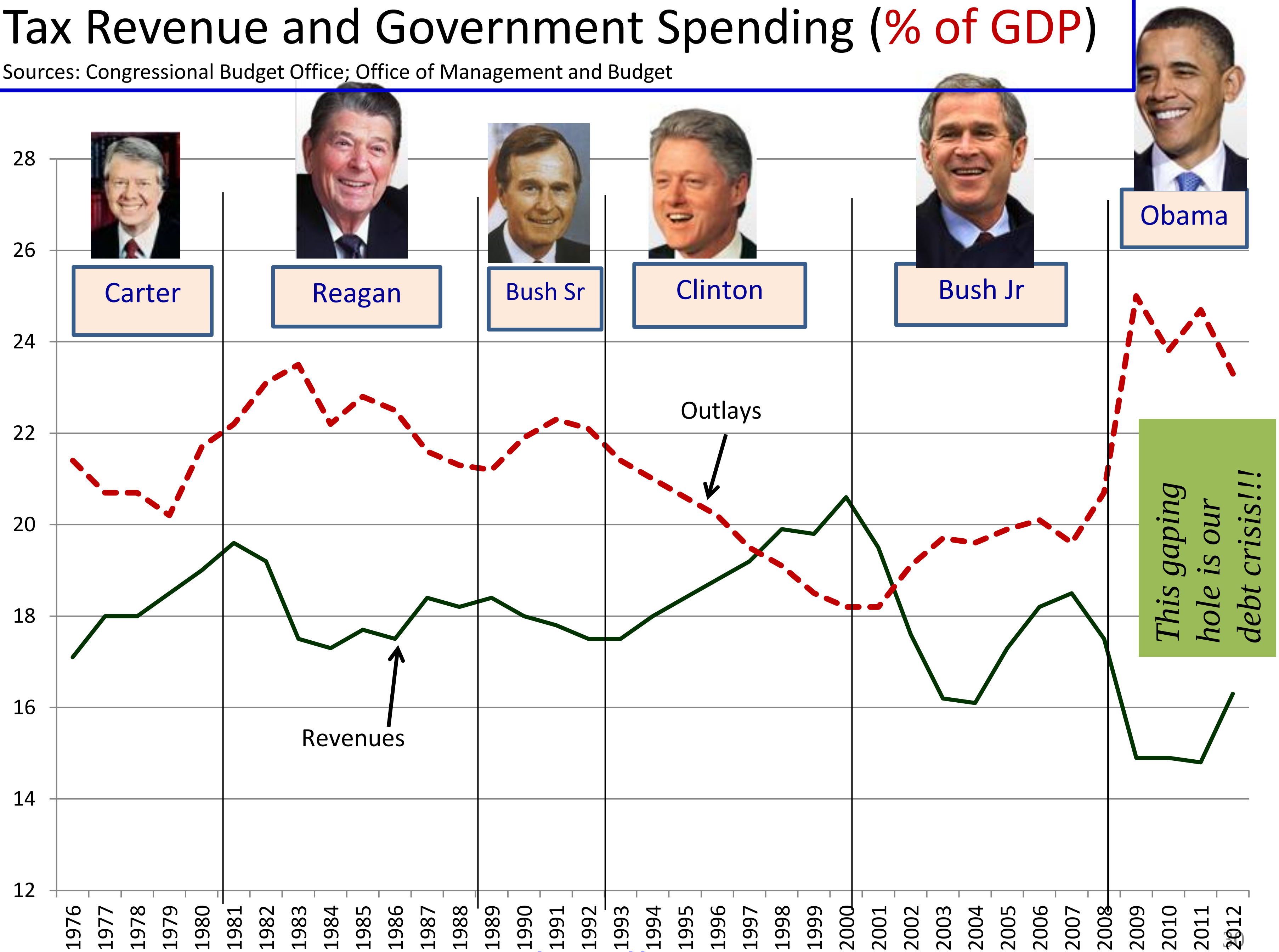
	Year	Revenues	Spending
Clinton	1993	17.5	21.4
	1994	18.0	21.0
	1995	18.4	20.6
	1996	18.8	20.2
	1997	19.2	19.5
	1998	19.9	19.1
	1999	19.8	18.5
	2000	20.6	18.2
Bush Jr	2001	19.5	18.2
	2002	17.6	19.1
	2003	16.2	19.7
	2004	16.1	19.6
	2005	17.3	19.9
	2006	18.2	20.1
	2007	18.5	19.6
	2008	17.5	20.7
Obama	2009	14.9	25.0
	2010	14.9	23.8
	2011	14.8	24.7

www.cbo.gov/publication/21999

How much we collect in tax revenue has fallen as % of GDP. Correspondingly, government spending has risen sharply as % of GDP. The combination of these two facts has led to widening budget deficits (next slide) and therefore, growing national debt.

Tax Revenue and Government Spending (% of GDP)

Sources: Congressional Budget Office; Office of Management and Budget



www.cbo.gov/publication/21999

Failed Attempts to Resolve the Debt Crisis

1. Bowles-Simpson Commission (empanelled 2/18/10)
   – $4T in savings over 10 years
   – Failed to pass committee stage (required supermajority of 14/18 votes ; 11 were in favor)
2. Obama-Boehner 'grand bargain' (summer 2011)
   – Spending cut $3.5T + $1T in revenue increase (total of $4.5Tr) over 10 years
   – On 7/22/11, Boehner pulled out; did not want tax increase
3. Budget Control Act of 2011 (passed 8/2/11)
   – Only $1Tr in cuts; no revenue increase
   – Additional automatic $1.2Tr, if no budget agreement by Jan 2013 (this is the so-called "fiscal cliff")

National Embarrassment…

- Friday, August 5, 2011. S&P downgraded U.S. credit rating from AAA to AA+

- Stock market plunges 7% next day!
- Financial markets were unhappy with the failed attempts

Debt as % of GDP Around the World

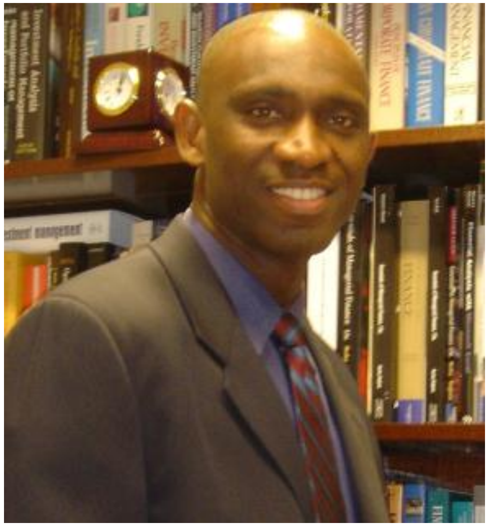
Many other industrialized economies face mounting debt problems!

Global Finance: www.gfmag.com/tools/global-database/economic-data/10394-public-debt-by-country.html#axzz1nRkIi2W5

	Country	2006	2007	2008	2009	2010	2011	2012 (est)	2013 (est))
1	Estonia	8.0	7.3	8.5	12.7	12.5	12.3	13.1	13.0
2	Australia	15.5	14.4	13.7	19.4	23.6	26.8	27.9	27.9
3	Luxembourg	11.5	11.3	18.3	18.0	24.5	28.2	30.9	34.6
4	Korea	28.5	28.7	30.4	33.5	34.6	35.5	36.3	36.8
5	Switzerland	50.2	46.8	43.6	43.7	42.6	42.0	41.2	40.7
6	Sweden	53.9	49.3	49.6	52.0	49.1	46.2	45.3	43.1
7	New Zealand	26.6	25.7	28.9	34.4	37.8	44.1	47.6	50.2
8	Czech Republic	32.6	31.0	34.4	41.1	44.5	47.1	48.7	49.7
9	Norway	59.4	57.4	55.0	49.1	49.7	56.5	51.3	48.6
10	Slovak Republic	34.1	32.9	31.8	40.0	44.8	49.8	53.4	55.3
11	Denmark	41.2	34.3	42.6	52.4	55.6	56.1	58.0	58.2
12	Slovenia	33.8	30.7	30.4	44.3	48.4	53.7	58.1	61.0
13	Poland	55.2	51.7	54.4	58.5	62.4	64.9	65.4	64.7
14	Finland	45.6	41.4	40.4	51.6	57.6	61.2	65.5	68.5
15	Israel*	84.7	78.1	77.0	79.4	76.0	74.6	73.8	72.4
16	Netherlands	54.5	51.5	64.8	67.4	70.6	72.5	75.3	76.9
17	Spain	46.2	42.3	47.7	62.9	67.1	74.1	77.2	79.0
18	Austria	66.4	63.4	68.4	74.4	78.2	79.9	81.9	83.2
19	Germany	69.8	65.6	69.7	77.4	87.1	86.9	87.3	86.4
20	Hungary	72.4	73.4	77.0	86.7	86.9	89.8	90.8	91.5
21	Canada	70.3	66.5	71.1	83.4	85.1	87.8	92.8	96.6
22	United Kingdom	46.0	47.2	57.4	72.4	82.2	90.0	97.2	102.3
23	Belgium	91.6	88.0	93.0	100.0	100.2	100.3	101.5	101.0
24	France	71.2	73.0	79.3	90.8	95.2	98.6	102.4	104.1
25	United States	60.9	62.1	71.4	85.0	94.2	97.6	103.6	108.5
26	OECD-Total	74.6	73.3	79.7	91.4	97.9	101.6	105.7	108.4
27	Ireland	29.2	28.7	49.6	71.1	98.5	112.6	118.8	122.4
28	Portugal	77.6	75.4	80.7	93.3	103.6	111.9	121.9	123.7
29	Iceland	57.4	53.3	102.1	119.8	125.0	127.3	127.4	126.2
30	Italy	116.9	112.1	114.7	127.1	126.1	127.7	128.1	126.6
31	Greece	116.9	115.0	118.1	133.5	149.1	165.1	181.2	183.9
32	Japan	172.1	167.0	174.1	194.1	200.0	211.7	219.1	226.8

The Path to Debt Elimination

[my contribution]



This part of the presentation is slightly technical. You may find it more helpful to watch the following YouTube video to fully understand the argument: www.youtube.com/watch?v=1NdeJSqwJ7w

Step 1. Set max debt/GDP goal (based on historical GDP growth rate)

- Avg annual GDP growth rate (1980-2006) ≈ 6%
- Avg annual Debt/GDP ratio (1980-2006) ≈ 60%

Using this approach:

- Based on 2011 GDP of $15T
- Max debt level should be $9T (i.e. 0.6 x $15)
- But 2011 debt level was $15.22T
- Giving us *excess debt* of $6.22T (i.e. $15.22 - $9)

Step 2. Set <u>spending</u> and <u>revenue</u> levels to fit within the debt ceiling

- Focus: Bowles-Simpson 2010 debt reduction plan
  - Spending cut = $3T
  - Revenue increase = $1T
  - Combined savings of $4 trillion spread over 10 years
  - Min spending cut = $300B / year
  - Min revenue increase = $100B / year
  - Approach is also consistent with recommendation of the Debt Reduction Task Force set up by the Bipartisan Policy Center (which Called for a national "debt reduction sales tax")

Using our 2012 budget components as a starting point…

Revenues	Amount	% of Total
Individual income taxes	$1,128	44%
Corporate income taxes	279	11%
Social insurance taxes	943	37%
Other revenues	205	8%
Total revenues	$2,555	100%
Outlays		
Mandatory spending	$2,038	56%
Discretionary spending	1,352	37%
Net interest	264	7%
Total outlays	$3,655	100%
Deficit (-) or Surplus	-$1,100	

Source: Congressional Budget Office (CBO's Baseline Budget Projections)

- Begin with total outlay of $3.655Tr
- Then reduce spending by $300B per year
- Adjust each budget item based on its % contribution to budget
- Correct for inflation and place selected limits, e.g. mil and Medicare

Year	Unadjusted Spending	Deficit Reduction	Adjusted Spending
2012	$3,655		$3,655
1	3,655	$300	3,355
2	3,355	300	3,055
3	3,055	300	2,755
4	2,755	300	2,455
5	2,455	300	2,155
6	2,155	300	1,855
7	1,855	300	1,555
8	1,555	300	1,255
9	1,255	300	955
10	955	300	655

Ten-Year Spending Projections ($ billions)

			Mandatory Spending Items			
Year	Defense	Discretionary	Social Security	Medicare/ Medicaid	Other Mandatory	Net Interest
	19%	19%	20%	23%	12%	7%
2012 +	694	694	731	841	439	256
1	637	637	671	903	403	256
2	580	580	611	970	367	256
3	523	523	551	1,041	331	256
4	466	466	491	1,118	295	256
5	409	409	431	1,201	259	256
6	400	400	500	1,290	300	256
7	400	400	500	1,386	300	256
8	400	400	500	1,488	300	256
9	400	400	500	1,598	300	256
10	400	400	500	1,717	300	256

\+ Base year is 2012

Ten-Year Revised Budget, Debt, and GDP Projections ($ billions)

Year	Net New Interest	Total Adjusted Spending	Projected Revenue (3% growth +$100B/yr)	Deficit/ Surplus	Total Debt	Projected GDP (growth rate = 3%)	Debt-to-GDP
2012	-	-	$2,555	-$1,100	$15,223	$15,693	97%
1	-	$3,507	2,732	-776	15,998	16,164	99%
2	$21	3,385	2,914	-471	16,470	16,649	99%
3	21	3,247	3,101	-146	16,616	17,148	97%
4	21	3,114	3,294	180	16,435	17,663	93%
5	21	2,987	3,493	506	15,929	18,192	88%
6	21	3,167	3,698	531	15,398	18,738	82%
7	21	3,262	3,909	646	14,752	19,300	76%
8	21	3,365	4,126	761	13,992	19,879	70%
9	21	3,475	4,350	874	13,117	20,476	64%
10	21	3,593	4,580	987	12,130	21,090	58%

Takeaways…

1. Uncontrolled debt buildup began in early 1980s
2. National debt reached a crisis point in 2010 due to:
   – Huge spending increases (from 19% to 25% of GDP)
   – Drastic tax revenue reductions (from 20% to < 15% of GDP)
3. My proposed solution: Peg debt to GDP
   – E.g. set long-term <u>debt target</u> no more than 60% of GDP
   – Then set budget limits: spending (ceiling) and revenue (floor)
4. There should be a national conversation on
   – Social Security - cuts
   – Medicare - cuts
   – Comprehensive tax reform to get rid of loopholes and simplify tax code
   – Corporate taxation (Focus on a corporate tax system that stimulates growth)

DISCLAIMER

The material in this presentation is based on information that I considered reliable at the time of my data collection. I do not warrant that it is accurate or complete. It should therefore not be relied upon as such.

The U.S. Debt Crisis

Thank you!

Questions? Please email me at cpobi@purdue.edu