



Projecting Revenue Increases versus Mandatory Spending Increases (2003-2027)

By: Patrick Hedger*

There has never been greater awareness or concern about the size of the deficits and the level of debt accrued by the U.S. Government. The financial crisis of 2008 and the subsequent recession triggered a knee-jerk reaction by the federal government in the form of hundred billion dollar spending packages. In fact, the American Recovery and Reinvestment Act alone spent roughly \$831 billion alone.¹

The sheer enormity of these spending increases created a greater interest among Americans as to where exactly all this money was coming from. Many discovered for the first time what the economists and politicians knew all along: the federal government has

had a long history of spending beyond its means, taking on a growing level of debt for all but 8 combined years since 1934.²

With the gross national debt having surpassed \$16 trillion this year, well past 100% of the gross domestic product (GDP) of the nation, Americans across the political spectrum, despite some being more serious than others, have recognized that this is a problem that requires addressing.

Many were quick to blame recent spending on military engagements in Iraq and Afghanistan. Others laid the blame on wasteful government pork-barrel spending programs and other means of waste. While these are definitely debatable issues concerning government spending, they are forms of recent

¹ Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output from October 2011 Through December 2011, CBO, February, 2012.
<http://www.cbo.gov/sites/default/files/cbofiles/attachments/02-22-ARRA.pdf>

² OMB Historical Table 1.4—Receipts, Outlays, and Surpluses or Deficits (-) by Fund Group: 1934–2017.
<http://www.whitehouse.gov/omb/budget/historicals>

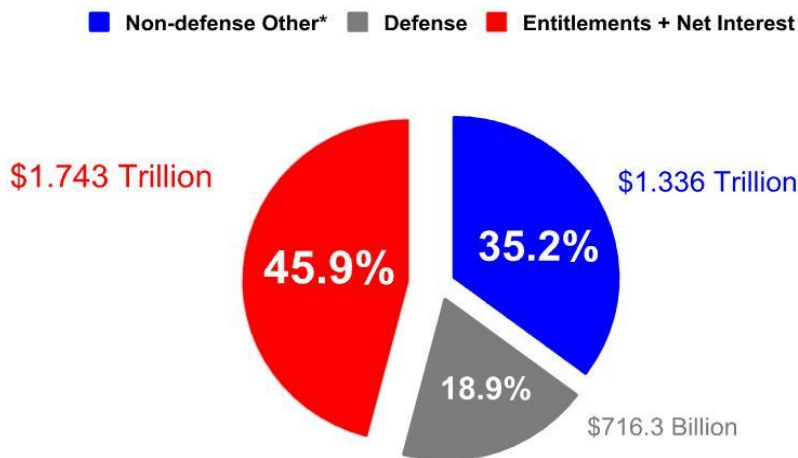
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and discretionary spending, respectively. While many of those wasteful and often silly programs would surely receive the bi-partisan axe, many amount to mere drops in the bucket of spending. Additionally, military funding is bound to fluctuate and change as often as the world around us does.

So what's been the historical driver of this country's debt addiction? This snapshot of federal spending in 2012 provides the answer. In the following figure we see discretionary spending and some minor mandatory spending vs. defense spending vs. the combined spending on the entitlement programs (Social Security, Medicare, and Medicaid) plus the net interest on the national debt:

Figure 1. Discretionary Spending vs. Defense vs. Entitlements + Net Interest 2012³



Nearly half of the federal budget is devoted to paying off mandatory liabilities.

As many would argue, some of the programs encapsulated in the discretionary and defense categories, while non-mandatory, are essential. So if you cut the non-essential programs, attack the problems of waste, fraud, and abuse in Defense Department and the rest of the federal bureaucracy, you have still failed to address nearly half of the problem. To deal with the problem of debt, the entitlement programs have to be on the table. As the principle programs of the federal budget, they are thus the main drivers of debt.

What are the options then? There are two basic philosophies. These programs must either be paid for at their current rates, or the rate at which the government pays into these programs must be cut. Given the rapid accumulation of debt, the former option will require an increase in revenue. The latter option will require these programs to be

reformed, cut entirely, replaced, or a combination of all three.

Many politicians consider the latter option to be a last resort, if not impossible, mainly due to the fact that

such plans aren't exactly politically expedient. Enough of them are under such pretense that whether reforming or cutting these programs is possible or not is irrelevant, as the current political climate makes doing so impossible anyway.

One such politician that has bought into the cuts-as-a-last-resort mentality is President Barack Obama. Despite failing to

³ OMB Historical Table 3.2—Outlays by Function and Subfunction: 1962–2017
Table 8.5 Outlays for Mandatory and Related Programs: 1962–2017 *Includes some mandatory programs.

sign a budget into law in almost 3 years, leaving us with only proposals, continuing resolutions, and speculation, the president has given no indication that he would consider cutting back expenditures on or reforming these programs. His approach to the solvency issue with these programs and the federal budget as a whole is geared more towards revenue increases.

The president's plan most specifically targets the individual income tax, and, even more precisely, those in the top two income brackets.

Under current law, the top two rates pay a 33 percent and 35 percent rate respectively. The president's plan calls for these rates to rise to 36 percent and 39.6 percent respectively.⁴ But by President Obama's own admission, "the last thing you want to do is to raise taxes in the middle of a recession because that would just suck up — take more demand out of the economy and put businesses in a further hole."⁵ While the current economic situation isn't technically a recession, growth has been stagnant and unemployment has remained above 8.1 percent since the beginning of the Obama administration.⁶ Given these conditions, you would need a compelling case to raise taxes; a case that includes tackling the cyclical drivers of annual deficits and the accumulating debt as a result.

⁴ 2012 Tax Parameters, Tax Policy Center, Urban Institute and Brookings Institution.
http://www.taxpolicycenter.org/taxtopics/TCE_CompareRates_2012.cfm

⁵ President Barack Obama, Interview with Chuck Todd TRANSCRIPT, MSNBC, 8/5/2009
http://www.msnbc.msn.com/id/32301534/ns/us_news-the_elkhart_project/#.UFid2IHmVfw

⁶ Labor Force Statistics from the Current Population Survey, Bureau of Labor Statistics.
<http://data.bls.gov/timeseries/LNS14000000>

The problem is that the tax rate increases proposed by the president do very little to alleviate the deficit problem. The following study demonstrates that rhetoric about deficit reduction and President Obama's tax increases hardly belong in the same thought. Despite assuming rosy growth and exempting the increases from a potential run in with the peak of the Laffer Curve, the projections show that tax increases would have an insignificant impact on federal revenue.

When considering raising these taxes, the president ought to pay close attention to the cyclical drivers of the annual deficit and mind the growing gap between available revenue and money owed to these programs under current law.

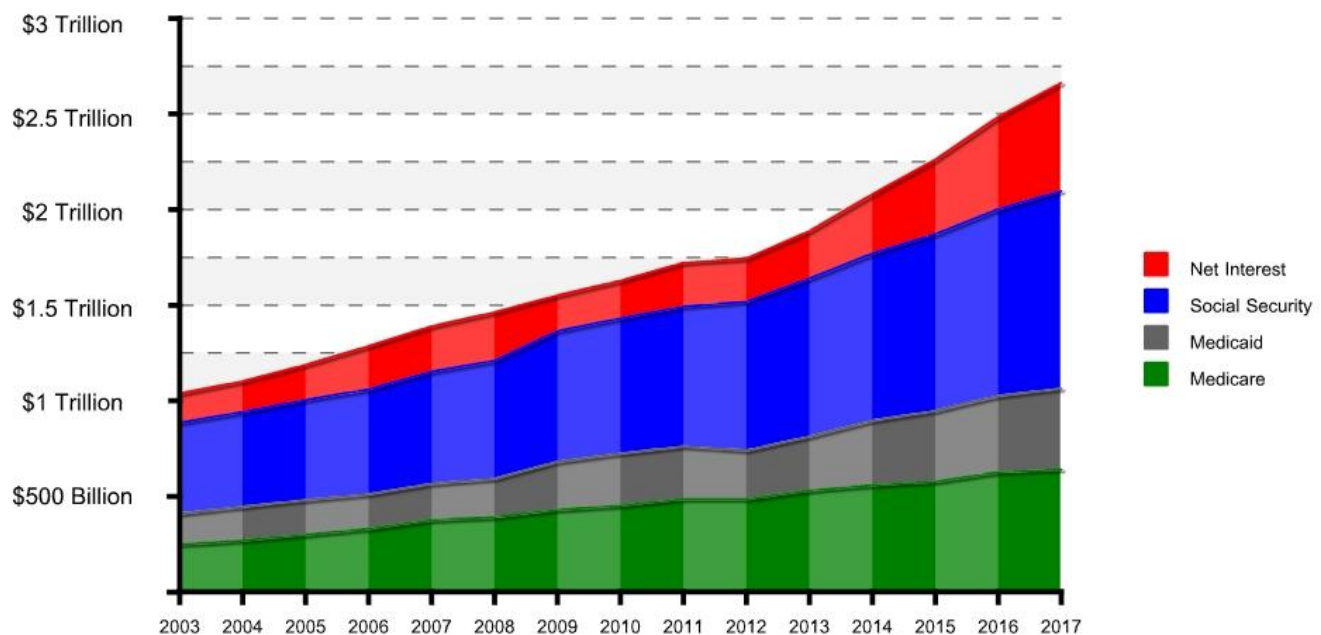
Drivers of the Deficit: the Road Ahead

The Office of Management and Budget (OMB), an office of the executive branch, keep accurate historical tables of federal revenue and spending, sometimes dating back to the late 18th century. OMB is also able to project spending and revenue out about 5 years from the current fiscal year. To discover an unsettling trend in the expansion of government spending on Social Security, Medicare, Medicaid, (the Big 3) and the net interest paid on the national debt taken out to fund these programs, we need only to look back a few years.

The following figure shows OMB records and projections of combined spending on the Big 3 entitlement programs, plus net interest on the debt from 2003 to 2017, the end of the current projections from OMB.

Figure 2. Annual Outlays: Social Security, Medicare, Medicaid, and Net Interest on the Debt. 2003-2017⁷

each year through 2017, then add the given figures to the projected amount for each program in 2017 and continue to do so each



The data clearly demonstrates an explosion of spending, on the programs and on financing the associated debt. From 2003, the first year of the Bush-era tax policy, through 2017, the last projected year on the books of the 2012 Office of Management and Budget, spending on the Big 3 programs plus interest on the debt will rise by more than 150 percent. These projections bring us to the year that President Obama, if he wins a second term, will be leaving office. So where will current law leave succeeding administrations?

For the purposes of this study we need only average the annual increase in spending on each of the individual Big 3 programs plus interest on the debt over the past years of current law combined with projected spending

year until we wish to conclude our projection. The average annual increases from 2003 through 2017 for each program are as follows:

- Medicare: \$27,991,000,000.
- Social Security: \$39,871,000,000
- Medicaid: \$18,714,000,000
- Net Interest: \$ 29,458,000,000

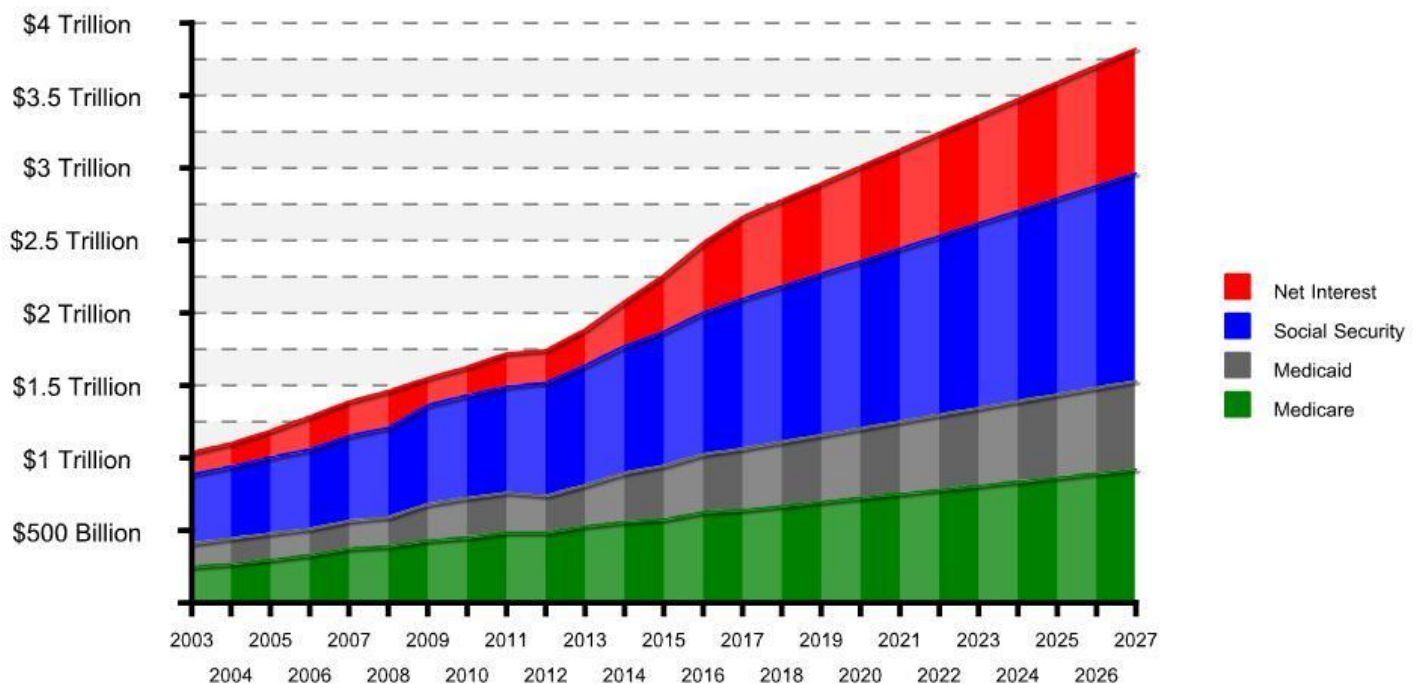
Year to year spending has generally increased between 2003 and 2017, meaning that extrapolating the average spending during this time frame on these programs out for a given number of years will not result in perfectly accurate figures. However, the figures provided will sufficiently demonstrate a guaranteed growth in federal spending on these programs, albeit slightly below the annual increases we can expect. Put plainly, the following projections over the next ten years are, in all likelihood, lower than actual spending will be; an important detail to consider.

⁷ OMB Historical Table 3.2—Outlays by Function and Subfunction: 1962–2017
Table 8.5 Outlays for Mandatory and Related Programs: 1962–2017 *Includes some mandatory programs.

Additionally, the averages capture policy of both the conservative Bush administration and the liberal/progressive Obama administration. Assuming the absence of a seismic shift in American politics, the figures projected should reflect the type of spending policy of either an establishment Democrat or Republican administration that subscribes to the narrative that the current funding structures cannot be significantly tampered with.

With that being said, let us see where these reserved annual average increases will lead. The following figure uses the stated average annual increase in spending on each program from 2003-2017 and adds that figure to each succeeding year through 2027.

Figure 3. Annual Outlays: Social Security, Medicare, Medicaid, and Net Interest on the Debt. 2003-2027



As Figure 3 shows, federal spending on these 4 programs will exceed \$3.75 trillion annually by 2027. By contrast total federal outlays, including defense, discretionary, and

spending on these four programs will total \$3.795 trillion by the end of 2012.⁸ Within 15 years, 3 programs and the associated debt will approach the total amount of money spent by the entire federal government this year, 2012.

Given that the federal government has already run at least a \$1.29 trillion dollar deficit each of the past four years⁹, spending at these levels is completely unsustainable. As discussed before, the current administration hasn't made any serious indication they are willing to manipulate the current law to alter the rate at which funding for these programs is expanded. What Barack Obama has put forth is a plan for revenue increases to supposedly slow down the accumulation of the debt through deficit reduction.

Now that we have identified and quantified the current and future drivers of the deficit and accumulation of debt, we have to

⁸ OMB Historical Table 1.1—Summary of Receipts, Outlays, and Surpluses or Deficits (-): 1789–2017

⁹ Ibid.

see just how much of a difference in revenue increases the president's tax proposal will have, and whether or not this revenue increase is worth the risk it poses to an already fragile economic growth.

Tax and Spent

Current law, enacted in 2003 and commonly referred to as the Bush Tax Cuts, sets the top two tax rates at 33 percent and 35 percent. In order to find out how much revenue will be generated by the higher tax rates proposed by President Obama, we must first figure out how much revenue each bracket, the 33 and 35 percent brackets, has generated and will generate for the duration of the projection through 2027. To do so, Internal Revenue Service historical data will be combined with Office of Management and Budget historical data.

The 33 percent bracket:

According to the IRS, the following statistics show the amount of revenue generated by taxable income at the 33 percent bracket each year from 2003 through 2009¹⁰:

2009 -	\$71,123,960,000
2008 -	\$82,768,354,000
2007 -	\$85,870,342,000
2006 -	\$78,362,564,000
2005 -	\$71,728,148,000
2004 -	\$63,212,923,000
2003 -	\$56,210,960,000

¹⁰ Taxable Income and Tax, Classified by Marginal Tax Rate and by Filing Status, Individual Complete Report (Publication 1304), Table 3.6 2003-2009. <http://www.irs.gov/uac/SOI-Tax-Stats---Individual-Statistical-Tables-by-Tax-Rate-and-Income-Percentile>

According to the Office of Management and Budget, over the same period of time, the government collected the following total revenue from the entire individual income tax¹¹:

2009 -	\$915,308,000,000
2008 -	\$1,145,747,000,000
2007 -	\$1,163,472,000,000
2006 -	\$1,043,908,000,000
2005 -	\$927,222,000,000
2004 -	\$808,959,000,000
2003 -	\$793,699,000,000

To calculate the average percentage that the 33 percent bracket composes of total individual tax revenue, the revenue generated by the 33 percent bracket for each year was divided by the total individual income tax revenue of the same year, for each of the seven years. The resulting percentages were summed and then divided by 7. The average percentage of revenue that the 33 percent bracket contributed to the total individual income tax revenue for these seven years was 8 percent.

The 35 percent bracket:

The same data and method was used to calculate the average contribution of the 35 percent bracket to total individual income tax revenue from 2003 through 2009.

The following statistics show the amount of revenue generated by taxable income at the 35 percent bracket each year from 2003 through 2009¹²:

¹¹ OMB Historical Table 2.1—Receipts by Source: 1934–2017

¹² Taxable Income and Tax, Classified by Marginal Tax Rate and by Filing Status, Individual Complete Report (Publication 1304), Table 3.6 2003-2009

2009 -	\$169,765,160,000
2008 -	\$217,971,577,000
2007 -	\$240,123,406,000
2006 -	\$217,952,702,000
2005 -	\$197,887,191,000
2004 -	\$158,328,165,000
2003 -	\$128,766,230,000

Using the same formula and data used to calculate the 33 percent bracket's portion of the total individual income tax revenue, the calculated average percentage that the 35 percent bracket contributed 19 percent of the total individual income tax revenue from 2003 through 2009.

2010-2017

Since current IRS data only provides us with the data on total revenue generated from these brackets through 2009, to calculate revenue from 2010 to 2012 and project revenue beyond that through 2027, we will have to rely on Office of Management and Budget revenue tables and projections, and multiply their statistics of total revenue generated by our bracket percentage averages of 8 and 19 percent per the 33 and 35 percent brackets from 2003 through 2009.

As we know, the OMB has only projected out through 2017. So, their figures for revenue generated by the entire individual income tax for 2010 through 2017 are as follows¹³:

2010 -	\$898,549,000,000
2011 -	\$1,091,473,000,000
2012 -	\$1,164,650,000,000
2013 -	\$1,359,260,000,000
2014 -	\$1,476,315,000,000
2015 -	\$1,617,381,000,000
2016 -	\$1,762,873,000,000
2017 -	\$1,912,189,000,000

Using our average of 8 percent for the 33 percent bracket, we can estimate that the federal government has and will generate the following amount of funds from this particular tax bracket from 2010 to 2012 and through 2017:

2010 -	\$67,408,771,020
2011 -	\$81,881,849,000
2012 -	\$87,371,557,000
2013 -	\$101,971,117,990
2014 -	\$110,752,535,250
2015 -	\$121,335,247,700
2016 -	\$132,249,996,830
2017 -	\$143,451,620,840

Using our average of 19 percent, we can estimate that the 35 percent tax bracket will generate the following each year over the same time period:

2010 -	\$174,865,507,290
2011 -	\$212,410,207,830
2012 -	\$226,651,093,110
2013 -	\$264,523,904,030
2014 -	\$287,303,832,510
2015 -	\$314,756,511,940
2016 -	\$343,070,529,740
2017 -	\$372,128,731,450

2018-2027

Since the Office of Management and Budget has only projected total revenue of the individual income tax through 2017, we will have to calculate our own figures for total individual income tax revenue from 2018 through 2027 to apply our 8 percent and 19 percent averages.

To calculate the total revenue each of those years, we calculated the average difference, and growth, in federal individual income tax revenue year-to-year from 2010 through 2017. That average results in an

¹³ OMB Historical Table 2.1—Receipts by Source: 1934–2017

average annual revenue increase of \$144,805,714,290.

For the purpose of the argument, it was not necessary to include the average revenue increase year-to-year from 2003 through 2009. During the latter part of that time period, the government began losing individual income tax revenue year-to-year. The point of this study is to discover whether or not increased tax rates will cover the cyclical drivers of debt, barring further negative economic conditions which would drive down revenue.

This average annual increase was used to calculate potential individual income tax revenue from 2017 through 2027 at the average rate of growth over the past two and next 5 years projected by the Office of Management and Budget. The following are estimated total revenues of the individual income tax each year:

2018 -	\$2,056,994,714,290
2019 -	\$2,201,800,428,570
2020 -	\$2,346,606,142,860
2021 -	\$2,491,411,857,140
2022 -	\$2,636,217,571,430
2023 -	\$2,781,023,285,710
2024 -	\$2,925,829,000,000
2025 -	\$3,070,634,714,290
2026 -	\$3,215,440,428,570
2027 -	\$3,360,246,142,860

These growth figures are more than fair to the Obama administration and proponents of its economic plan because they assume positive growth over the next two decades and assume the recession does not “double dip”, so-to-speak. This is a far rosier picture than most free-market economists would paint.

When the 8 percent average for the 33 percent bracket is applied, the revenue per year for that bracket is the following:

2018 -	\$154,314,885,100
2019 -	\$165,178,149,360
2020 -	\$176,041,413,620
2021 -	\$186,904,677,880
2022 -	\$197,767,942,140
2023 -	\$208,631,206,400
2024 -	\$219,494,470,660
2025 -	\$230,357,734,920
2026 -	\$241,220,999,180
2027 -	\$252,084,263,440

When the 19 percent average for the 35 percent bracket is applied, the revenue per year for that bracket is the following:

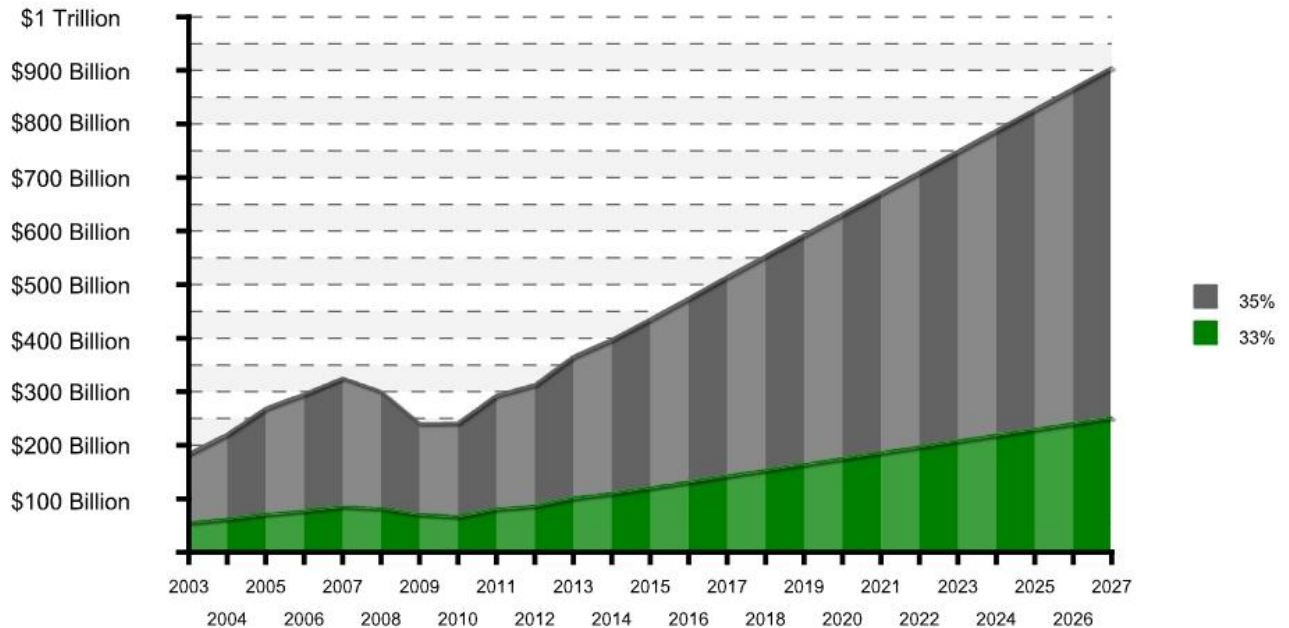
2018 -	\$400,309,192,050
2019 -	\$428,489,652,640
2020 -	\$456,670,113,240
2021 -	\$484,850,573,830
2022 -	\$513,031,034,430
2023 -	\$541,211,495,020
2024 -	\$569,391,955,620
2025 -	\$597,572,416,210
2026 -	\$625,752,876,810
2027 -	\$653,933,337,400

Through these various calculations, we can track the increase in revenue under current law, assuming stable economic conditions and growth, over the same time frame of the projected spending increases on the Big 3 plus net interest.

The following figure shows how much revenue, assuming these conditions, will grow under current law.

Figure 4. Growth in Revenue Under Current Law: 33 and 35 percent Brackets 2003-2027

Nr is new revenue for that year, Cr is current projected revenue, Y is the new rate of taxation and X is the current rate of taxation.



Just these two brackets combined, will result in roughly \$900 billion in federal revenue by 2027, if the economic situation remains stable and current law remains in place.

The President's Proposal

The president is proposing that these top two rates be elevated, beginning in 2013. The 33 percent bracket will rise to 36 percent and the 35 percent bracket will rise to 39.6 percent.

Assuming the same economic conditions between now and 2027, the total amount of additional revenue per year, if these rates go into effect, can be calculated easily. The formula is simple:

$$Nr = Cr * (Y/X)$$

The new rate of the 33 percent bracket is 36 percent. This means that, assuming no drop off in economic activity as a result of the new tax, that you will generate roughly 109.09 percent of funds of the old rate at the new rate. For the top bracket (35 to 39.6 percent) that new amount is roughly 113.14 percent.

For example, in 2013 the current revenue for the 33 percent bracket at current law is slated to be \$101,971,117,990. If the equation is filled in:

$$\begin{aligned} Nr &= \$101,971,117,990 * (Y=.36/X=.33) \\ Nr &= \$101,971,117,990 * 1.090909 \\ Nr &= \$111,241,219,630 \end{aligned}$$

So the new rate at this bracket, 36 percent, will hypothetically generate \$111 billion in 2013 than \$102 billion.

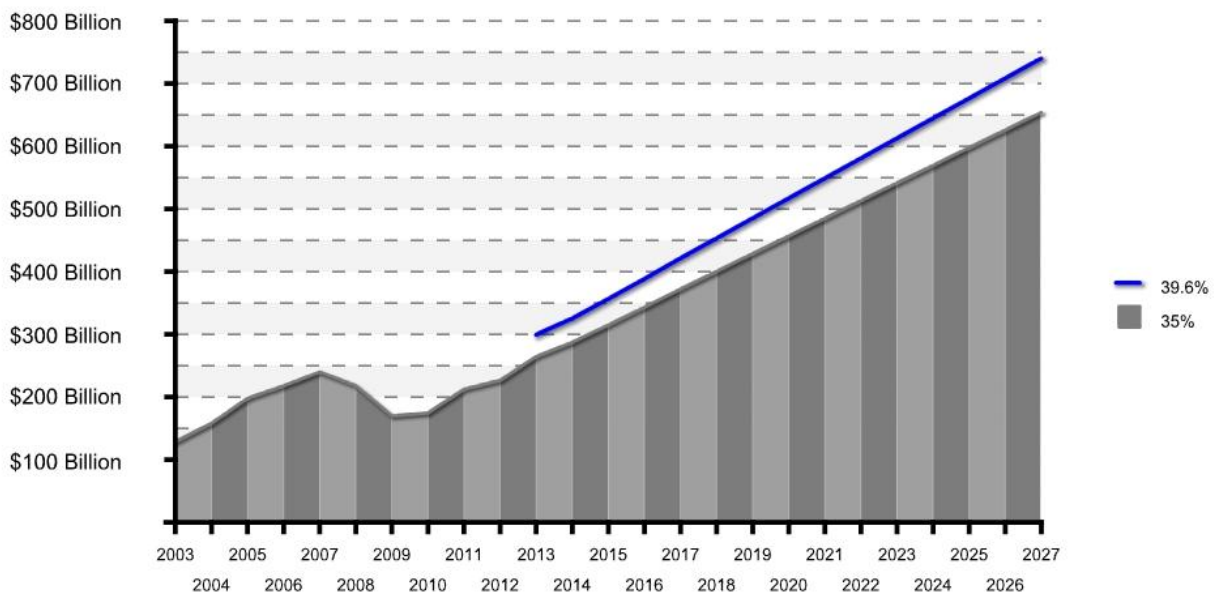
When this formula is applied to the total revenue each year for both of these top two tax brackets, we of course will see an

increase in total revenue each year, once again assuming the stability of the economy and identical growth figures. The question is ultimately, how significant are the increases? The following two figures plot the increase from the current rate projections to revenue under the new rates for both brackets.

**Figure 5. 33 to 36 percent Rate Bracket
Revenue Increase 2013-2027**



**Figure 6. 35 to 39.6 percent Rate Bracket
Revenue Increase 2013-2027**



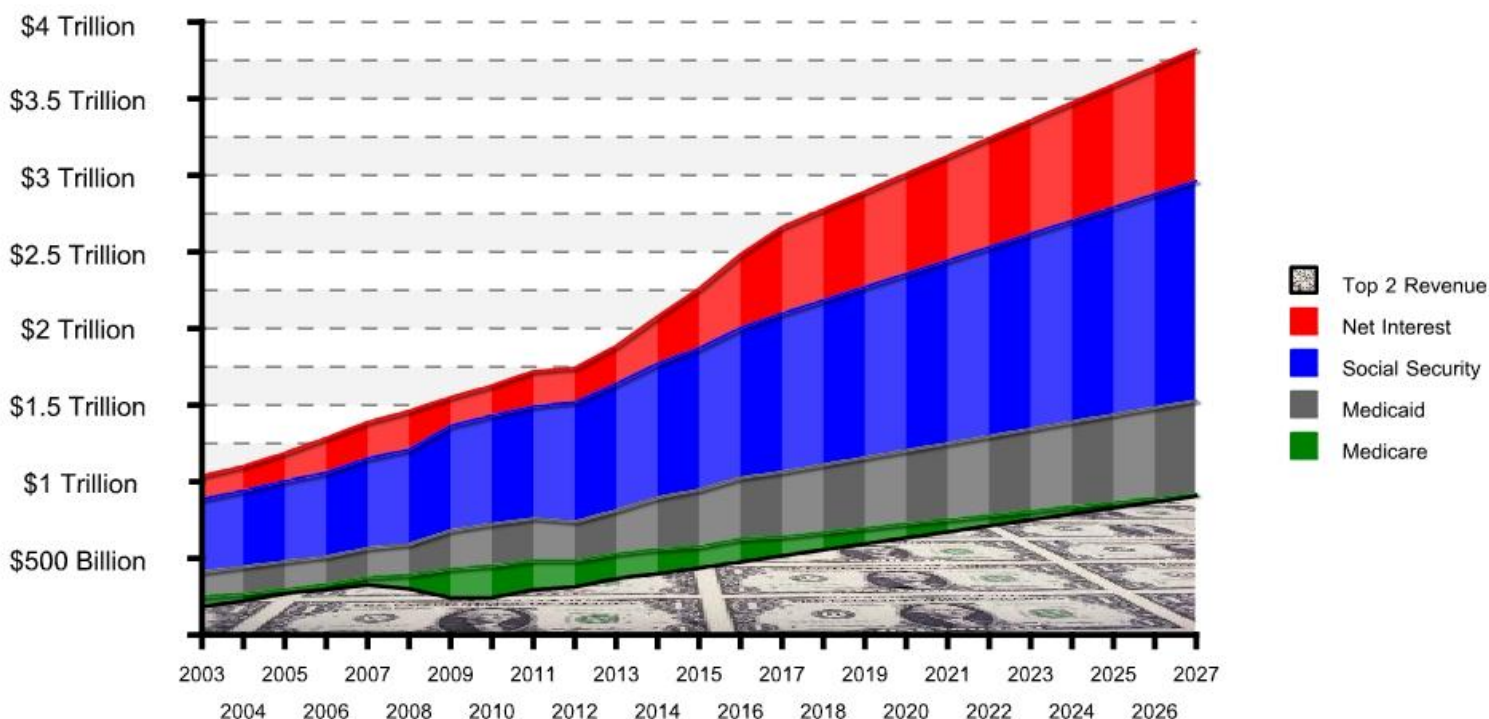
Assuming this hypothetical economic scenario, by 2027, the second highest bracket will generate an additional \$50 billion per year. The top bracket will generate just shy of \$100 billion per year by 2027.

Mind the Gap

An increase of \$150 billion per year in revenue sounds like a statistically significant number, but is it? Is the possibility of raising an additional \$150 billion per year 15 years from now worth the risk of stunting economic growth with new taxes on the economy?

First let's visualize just how much of the current spending on Medicare, Social Security, Medicaid, and net interest on the debt is covered by revenue by the top two brackets under current law through 2027.

Figure 7. Annual Outlays: Social Security, Medicare, Medicaid, and Net Interest on the Debt VS. Revenue from Top Two Individual Income Tax Brackets under Current Law. 2003-2027



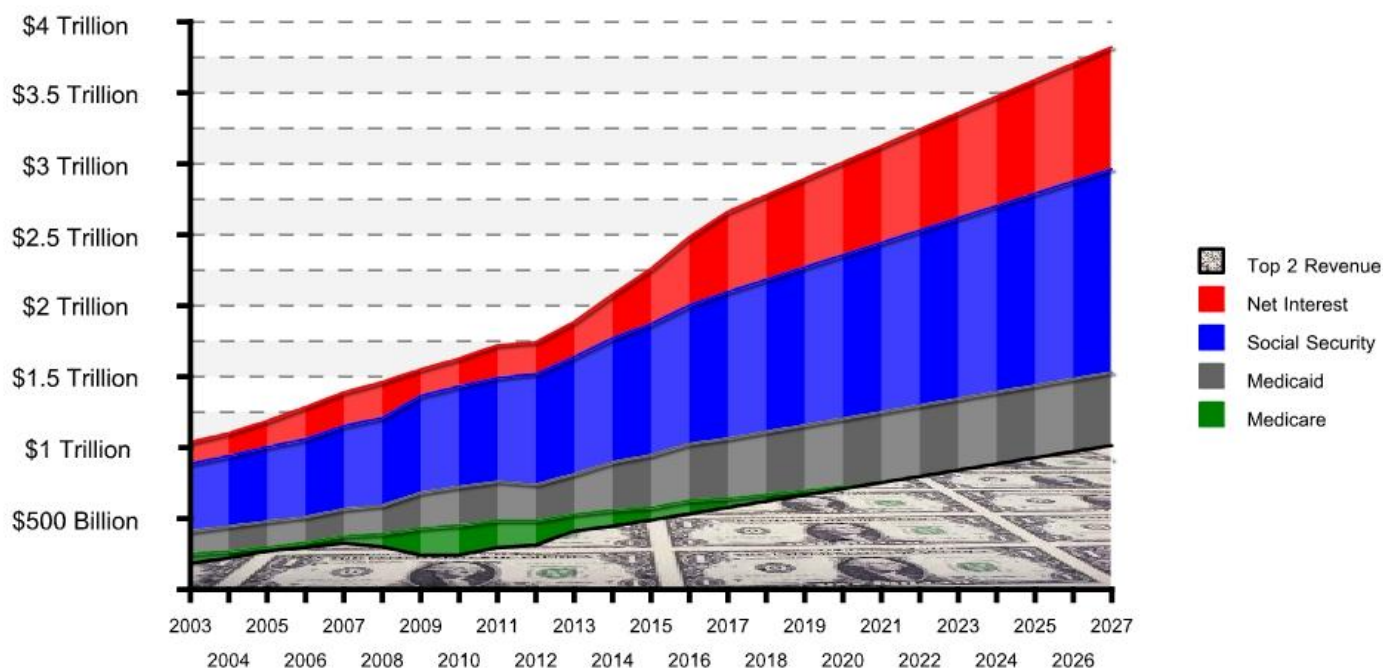
The data shows that revenue from these top two brackets under current law will barely finance payments to Medicare by 2027, leaving the rest of the federal government's revenue streams to finance the remainder of the programs in addition to defense and discretionary spending.

The inability to fund three of the other programs that comprise 46 percent of all federal outlays, give or take, requires action. The president's first course of action would be increases to these top two rates to cover the difference between spending and receipts.

The next figure will plot the amount of revenue generated in our scenario of the president's proposed higher rates, with stable growth and no diminishing returns, against the same projected growth in spending of the same four major drivers of the federal budget through 2027.

Figure 8. Annual Outlays: Social Security, Medicare, Medicaid, and Net Interest on the Debt VS. Revenue from Top Two Individual Income Tax Brackets under Proposed Rate Increases. 2003-2027

receives \$2.47 trillion in revenue total per year¹⁴, it is inconceivable that this same government will be able to finance \$3.6 trillion in spending on just four programs alone in less than 15 years; without incredible economic



Despite a \$150 billion per year revenue increase in this scenario, when scaled against the sheer magnitude of spending on entitlement programs and the payments towards the debt, the revenue increase is insignificant. On the scale of nearly \$4 trillion in spending on these programs, achieving \$150 billion in additional revenue per year in 15 years is statistically insignificant, resulting in Figure 7 and 8 appearing identical, despite billions of dollars of additional revenue.

Conclusion

America is facing a budgetary crisis in the midst of an economic catastrophe. At a time when the federal government only

consequences such as hyper-inflation. President Barack Obama is correct in realizing the need to address this problem, but his solution fails to mind a significant gap that will still exist between revenue and spending on these programs, even assuming that the tax increases in his plan don't slow the growth of the economy even further.

Forget 2027, the fact of the matter is that the tax increases required to solve this problem would grind the economy to a halt overnight. No amount of possible revenue can fund these programs and they therefore must be drastically reformed. Increasing taxes ignores this gap and only risks further handicapping an already crippled economy.

¹⁴ OMB Historical Table 1.1—Summary of Receipts, Outlays, and Surpluses or Deficits (-): 1789–2017