THE U.S. TREASURY DEPARTMENT recently released its year-end report on the federal government’s spending and revenue for fiscal year (FY) 2018. Once again, both spending and revenues rose, but spending is clearly driving the budget problem. Total spending increased 3 percent to $4.1 trillion for the first time ever, while revenues were $3.3 trillion, a slight increase over FY2017. The federal deficit increased by 17 percent to $779 billion.\(^1\)

This continues a pattern of a burgeoning federal budget. While federal spending and revenues both typically increase, spending is continuing to clearly outpace revenues. This becomes more pronounced when examining the budget over time.

HOW WE GOT HERE

Looking at the past three decades, government revenues have steadily increased. Average annual revenue growth – after adjusting for inflation – since 1989 was 2.2 percent. Spending grew an average of 2.3 percent annually over the past 30 years (0.1 percentage points greater than average annual revenue growth).

But because the average annual growth rate is linear in nature, it often masks large year-over-year changes and can result in an incomplete picture over time.

Calculating the compound annual growth rate (CAGR) helps to smooth one-off yearly changes from such things as recessions or extraordinary policy changes such as the TARP bailouts or the stimulus package. This provides a better measure of growth in baseline spending and revenues. When looking at the 30-year compounded rate, annual revenues increased by nearly 2.0 percent. Compound annual spending growth was 2.2 percent (0.2 percentage points greater than the compound annual revenue growth).\(^2\)

Though a 0.2 percentage point gap between revenue and spending growth may seem relatively small, the effects of this growth represents trillions of dollars over time.\(^3\)

Under both metrics, spending growth outpaces revenue, but with a compounded rate, the difference is even greater.\(^2\)

Though a 0.2 percentage point gap between revenue and spending growth may seem relatively small, the effects of this growth represents trillions of dollars over time. Looking at the cumulative changes in spending and revenue over 1989 levels, revenue collections increased nearly $19 trillion. Government spending, however, increased by a cumulative $24 trillion – a difference of $5 trillion over that time frame.\(^3\)

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3. Using 1989 as the base year, this looks at cumulative changes in annual revenue and spending expressed in 2009 dollars and accordingly does not match current nominal figures, or nominal changes in debt, spending or revenues over the 30 year time frame.
Cumulative Changes In Federal Spending And Revenue
(Billions Of Fiscal Year 2009 Dollars)

1989-2018

Source: Treasury Department; Office of Management & Budget

Cumulative Changes In Federal Spending And Revenue
(Billions Of Fiscal Year 2009 Dollars)

2014-2018

Source: Treasury Department; Office of Management & Budget
RECENT SPENDING TRENDS

Over the past five years, the difference between revenue and spending growth has become more pronounced. From 2014-2018, the compound rates of spending and revenue growth were roughly 2.6 percent and 1.1 percent respectively; spending grew more than twice as fast as revenue.

Like the compounded growth rates, cumulative differences in revenues and spending over 2014 levels show the same trend. Over the last five years, government annual spending increased by a cumulative $1.1 trillion, where revenue collections increased a cumulative $664 billion.4

Simply put, over the past five years spending growth has outpaced revenue in terms of both the compound annual growth rates and cumulative increases over both the short term (five years) and the long term (30 years).

THIS YEAR

FY2018 spending topped $4 trillion for the first time ever, a $129 billion or 3 percent increase, while the deficit was $779 billion.5

The biggest drivers of FY2018 spending increases were Social Security (5 percent increase), Medicaid, (4 percent increase) defense (5 percent increase), and interest on the debt, (20 percent increase).

Revenues increased slightly by almost $14 billion about ½ percent — after tax cuts. Corporate tax revenues decreased. But individual income tax revenues increased by even more—a sign of a healthy, robust economy, with more workers returning to the work force and wages beginning to rise. This is thanks, in part, to the Trump agenda of tax cuts and regulatory reforms. While tax revenues increased — albeit slightly—from increased economic growth, responsible tax cuts must be paired with spending cuts.

LOOKING AHEAD

We are returning to trillion-dollar deficits shortly – possibly as soon as next year.6 Unlike the stimulus and TARP bailout years, these deficits are structural, driven by ever higher spending, and they will be permanent and growing.

Part of the problem stems from Congress consistently failing to adhere to its own spending caps that it established in the Budget Control Act of 2011.7 Just this spring Congress passed a budget deal that increased spending caps by more than $300 billion over just two years (nominal dollars). This is just the beginning of a dramatic increase in federal government spending.

Over the next decade, total federal spending is projected to top $7 trillion,8 an increase of roughly 72 percent, or nearly $3 trillion higher than FY 2018. This will dwarf the spending growth seen over the last five and 30 years. Revenues are also projected to increase in keeping with the historical trends. Total revenues will increase by over $2 trillion or 40 percent over the next decade. Revenues will continue to grow even after the Trump administration's tax cuts are made permanent, by $1.6 trillion or 30 percent,9 according to a static score by the Joint Committee on Taxation. Actual revenue growth will be greater in keeping with continued higher economic growth.10

Most troubling is mandatory spending, mainly Social Security, Medicare, and Medicaid. These are three of the four largest federal programs and are the biggest drivers of federal spending today and in the future.

We are returning to trillion-dollar deficits shortly – possibly as soon as next year.

Social Security, Medicare, and Medicaid will increase by nearly 90 percent over the next ten years, or over $1.7 trillion. Together these three programs alone comprise nearly 60 percent of the increase in total government spending.11

These mandatory spending programs are driving future spending, and absent significant and meaningful reform will drive debt and/or taxes to levels that imperil the economy and our prosperity.

REFORM IS IMPERATIVE FOR A SUSTAINABLE FUTURE

With spending growth outpacing revenues and accelerating ever faster in the future, it is imperative that Congress turn its attention to getting spending under control. Reforming the biggest mandatory spending programs so they are affordable and sustainable is imperative for the taxpayers of today and tomorrow.

4. Using 2014 as the base year, this looks at cumulative changes in annual revenue and spending expressed in 2009 dollars, and accordingly is different from nominal budget figures.
APPENDIX

TABLE 1. GROWTH RATES

<table>
<thead>
<tr>
<th>Category</th>
<th>SPENDING</th>
<th>REVENUE</th>
<th>SPENDING</th>
<th>REVENUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Change ($B)</td>
<td>$1,678.99</td>
<td>$1,254.54</td>
<td>$351.89</td>
<td>$119.84</td>
</tr>
<tr>
<td>Avg, Annual Change ($B)</td>
<td>$57.90</td>
<td>$43.26</td>
<td>$87.97</td>
<td>$29.96</td>
</tr>
<tr>
<td>Total Change (%)</td>
<td>88.93%</td>
<td>76.68%</td>
<td>10.94%</td>
<td>4.33%</td>
</tr>
<tr>
<td>Annual Average Growth Rate (%)</td>
<td>2.29%</td>
<td>2.17%</td>
<td>2.64%</td>
<td>1.12%</td>
</tr>
<tr>
<td>CAGR (%)</td>
<td>2.22%</td>
<td>1.98%</td>
<td>2.63%</td>
<td>1.06%</td>
</tr>
</tbody>
</table>


NOTE 1: METHODOLOGY

In this table we present the differences in growth rates between federal outlays and tax collections. We present this data in two forms, an annual average growth rate (AAGR) and a compounded average growth rate (CAGR).

The AAGR takes into account the percentage change in revenue and spending each year and derives a flat average rate, whereas the CAGR better normalizes large fluctuations year-over-year. In the example below, we show how the CAGR presents a smoother picture of how an amount of spending or revenue collection changes year-over-year.

Values:
- Beginning/base: $1,000
- End of year one value: $5,000
- End of year two value: $5,500
- End of year three value: $6,000

The annual growth rates for each year:
- Year one growth: ($5,000/$1,000) – 1 = 400 percent
- Year two growth: ($5,500/$5,000) – 1 = 10 percent
- Year three growth: ($6,000/$5,500) – 1 = 9.1 percent

In this example the AAGR = (400 percent +10 percent +9.1 percent)/3 = 139.7 percent

Compared with the CAGR:

CAGR = (Ending value/Beginning value) ^ (1/(years)) – 1

Years = number of years of growth

CAGR = ($6,000/$1,000) ^ (1/(years)) – 1 = 81.7 percent

The compounded rate better normalizes how spending or revenue builds on each previous year, over time, to reach the final value. This helps to account for large, possibly one-off differences in year-over-year spending changes that may throw off the simple average and paint an incomplete picture.
NOTE 2: EXPLANATION OF TABLE 1

For our table, the AAGR and CAGR while similar, show spending has outpaced revenue in both the short and long term. When looking at real annual spending and revenues from 1989-2018, we found that average annual spending and revenue grew by rates of 2.29 percent and 2.17 percent respectively. When looking at the compounded rates, which better normalize large year-over-year changes, average annual spending outpaced revenue by a larger margin of 2.22 percent vs. 1.98 percent.

When looking at the five-year period (2014-2018), the gaps between average annual spending and revenue growth becomes more dramatic. When looking at spending, both the CAGR and the AAGR are similar at roughly 2.6 percent. The same follows revenue at roughly a 1.1 percent rate.

Like above, since the compounded rate better normalizes changes in year-over-year spending and revenue, we will refer to those rates. Looking at the CAGR, we find that over the past five years, average annual spending has grown at a rate nearly 2.5 times that of revenue collections. While the differences between percentages may not seem significant, over time this can add up to large sums of dollars and shows that in fact spending is the true driver of debt.

NOTE 3: DEFINING FISCAL YEAR 2018 IN REAL 2009 DOLLARS

For the purposes of this table, we used the values of spending and revenue collections found in Table 1.3 of the Office of Management and Budget (OMB) Historical Tables. In order to define the fiscal year 2018 value in real terms, rather than list the projection, we inserted the most recent figures for fiscal year 2018 from the Treasury Department and applied the 2018 composite deflator found in column H of the OMB Historical Table.