BEHIND CBO’S $100 TRILLION IN PROJECTED DEFICITS OVER 30 YEARS
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The latest long-term budget estimates from the Congressional Budget Office (CBO) show unsustainable growth of government debt (Chart 1). This debt—which was 40% of the economy before the 2008 recession—will surpass 100% this year, on its way to 195% of the economy in 30 years.¹ And this is under the rosy scenario of no new tax cuts, no stimulus bills, and no spending programs—and it even assumes that most of the 2017 tax cuts expire on schedule.

CBO also assumes that interest rates will permanently remain well below historical averages, with the average rate paid by the government gradually rising to 4.4% over 30 years, despite an enormous debt. By comparison, rates averaged 6.9% in the 1990s and 4.8% in the 2000s, before falling to 2.1% during the 2010s (Chart 2). Each gradual 1-percentage-point rise in interest rates over 30 years would add 22% of GDP to the debt—about $15 trillion in new debt.² In short, 195% of GDP is the rosy scenario.

These trends are unsustainable. CBO projections show spending and tax revenues each consuming a larger share of the economy indefinitely, with federal spending leaping past 31% of GDP by 2050 (likely topping 40% of GDP when including state and local government spending) and continuing to grow steeply thereafter (Charts 3, 4). A government that continues to grow as a share of the economy indefinitely would eventually crowd out and swallow the private sector. Furthermore, a debt that doubles as a share of the economy every few decades will eventually crowd out investment and also drown the federal budget in interest expenses, even at low interest rates.³ While economists disagree on the “right” debt level, virtually none argue that the debt’s share of the economy can steeply rise forever.

The drivers of this unprecedented increase in debt are Social Security and Medicare shortfalls. CBO projects that—as a share of the economy—tax revenues will continue rising well above historical averages, while discretionary spending (both defense and nondefense functions such as transportation, housing, K–12 education, and health and science research) will continue falling well below their own historical averages. The cost of most smaller entitlement programs such as SNAP, unemployment benefits, veterans’ income aid, and Supplemental Security Income will also continue falling as a share of the economy. Instead, the rapidly rising costs of Social Security and Medicare are responsible for nearly all the projected debt increase. In contrast to popular belief, these programs are not wholly funded by payroll taxes and senior premiums. Paying all annual benefits requires annual infusions of general revenues that will grow sharply over time (and, in fact, drive nearly the entire $1 trillion projected deficit increase between 2019 and 2030). These shortfalls are driven by the retirement of 74 million baby boomers into a system that pays most retirees benefits far exceeding their lifetime contributions into the Social Security and Medicare systems (even after adjusting their older contributions into their present value) (Chart 5).⁴

Chart 6 shows that, of the $104 trillion in budget deficits forecast over the next 30 years, the general revenue transfers needed to pay all Social Security and Medicare benefits (plus interest) account for $101 trillion. The rest of the budget will run a shortfall of just $3 trillion (to adjust these amounts for inflation, trim by one-third).

All in all, by 2050, the Social Security and Medicare systems will collect 5.8% of GDP in dedicated revenue and cost 20.0% of GDP (including interest). In other words, two federal programs will run a shortfall equal to 14.2% of GDP. The rest of the budget, by that point, will be running a 1.5% surplus as a share of GDP (Chart 7).

The amount of revenue that Social Security and Medicare collect in payroll taxes and related dedicated revenues has remained steady, at about 6% of GDP—and is projected by CBO to remain at that level for the next 30 years (Charts 8 and 9).
Yet Social Security and Medicare spending rose from 7% to 9% of the economy since 2005, and is headed toward 12.4% of GDP by 2050. If one includes the share of the annual projected interest on the national debt that is directly attributable to these shortfalls, the combined cost rises to 20% of GDP by 2050.

We can dive deeper into these costs.

Chart 8 shows rising Social Security shortfalls that level off at just under 2% of GDP—plus interest costs rising to 2.3% of GDP.

Chart 9 shows that the Medicare system is projected to continue collecting 1.4% of GDP in payroll taxes and other trust fund revenues. Yet spending levels (net of senior premiums) will rise from 3% to 6% of GDP between 2019 and 2050. To be sure, Medicare payroll taxes were not intended to cover all program spending (but only that of Medicare Part A). Yet the portion funded by general revenues is rising dramatically, from 1.6% to 4.6% of the economy, plus 5.3% in annual interest payments on the national debt that are directly attributable to Medicare shortfalls.

Charts 10 and 11 put these shortfalls in nominal dollars. Between 2020 and 2050, the Social Security system will collect $52 trillion in payroll and benefits taxes and spend $74 trillion on benefits—plus $12 trillion more in interest costs on the national debt from these shortfalls. Had the Social Security trust fund been “saved” rather than spent, it would have closed just $3 trillion of this gap.

Medicare is in even worse shape. Between 2020 and 2050, it will collect $17 trillion in payroll taxes and other trust-fund revenues and spend $60 trillion in benefits—plus $27 trillion in interest costs.

Closing these unsustainable shortfalls will not be easy. Stabilizing the debt as a share of the economy requires a combination of tax increases and program savings that gradually ramp up to 6% of GDP by the 2040s, relative to the baseline spending and revenue levels. It is mathematically impossible to achieve more than a small fraction of those savings from the already declining defense and domestic discretionary spending levels. As Chart 12 shows, taxing the rich can close only a small portion of the gap as well. Ultimately, the U.S. faces the same long-term decision as Europe: it can either trim back Social Security and Medicare spending levels, or it must drastically raise middle-class taxes.

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CHART 1.

CBO Long-Term Baseline Shows Unsustainable Debt

Note: This scenario assumes no wars, no recessions, and continued low interest rates. It also assumes all tax cuts expire as scheduled.
Source: CBO 2020 Long-Term Budget Outlook

CHART 2.

Rising Interest Rates Could Push the National Debt Past 250% of GDP Within 30 Years

Average interest paid rate on national debt:
- 1980s: 10.5%
- 1990s: 6.9%
- 2000s: 4.8%
- 2010s: 2.1%
- 2020s: 1.4% (CBO projection)
- 2050: 4.4% (CBO projection)

Alternative scenarios assume higher interest rates phase in between 2031 & 2050. Most economists agree that a steeply rising debt will raise interest rates.
Source: Calculations using the 2020 CBO Long-Term Baseline.
CHART 3.
Rising Spending—Not Falling Revenues—Drives the Long-Term Deficit

CHART 4.
Federal Budget, 1960–2050 (Projected)

This scenario assumes:
• No more wars
• No more recessions
• Temporary 2017 tax cuts expire
• Health costs slow
• The interest rate paid on the national debt remains far below average even as the debt rises to 195% of GDP

Source: CBO 2020 Long-Term Budget Outlook and OMB Historical Tables.
Behind CBO’s $100 Trillion in Projected Deficits over 30 Years

CHART 5.
The Typical Retiring Couple Turning 65 in 2020 Will Receive $3 in Medicare Benefits for Every $1 Paid the System—and Also Come Out Ahead in Social Security

Calculations represent expected present values.

CHART 6.
What is Causing $104 Trillion 2020-2050 Budget Deficit?
Social Security & Medicare: $101 Trillion Deficit
The Rest of the Budget: $3 Trillion Deficit

Source of $104.7 Trillion Budget Deficit Projected over 2020–2050 Period ($Nominal)

Note: Social Security & Medicare deficits are the benefits that must be paid from general revenues because payroll taxes, premiums, and other non-interest trust-fund revenues are insufficient. CBO assumes full benefits will continue even after trust-fund insolvency.
Source: Calculations from CBO 2020 Long-Term Budget Outlook. To adjust for inflation, trim amounts by one-third.
CHART 7.
Projected 2050 Budget Deficits Are Entirely Driven by Social Security & Medicare Shortfalls

Note: 2050 is the final year of the latest CBO 30-year budget projection.
Source: CBO 2020 Long-Term Budget Outlook.
Each outlay category includes portion of national debt interest attributed to its 2020-2050 deficits

CHART 8.
Social Security’s Cash Shortfalls are Driven by Retiring Baby Boomer Costs and Resulting Interest Costs

Source: Calculated using CBO 2020 Long-Term Baseline. Revenues do not include trust fund interest transfers.
Interest costs are those directly attributable to Social Security’s annual deficits over this period.
**CHART 9.**

**Medicare’s Cash Shortfalls are Driven by Rising Benefit Costs and Resulting Interest Costs**

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Medicare Outlays</th>
<th>Medicare Outlays plus Interest Costs</th>
<th>Medicare Payroll Taxes &amp; Dedicated Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>3.5%</td>
<td>1.5%</td>
<td>1.4%</td>
</tr>
<tr>
<td>2025</td>
<td>6.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>9.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2035</td>
<td>11.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2040</td>
<td>13.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2045</td>
<td>15.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2050</td>
<td>16.8%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Calculated using CBO 2020 Long-Term Baseline. Outlays are net of premiums paid. Interest costs are those directly attributable to Medicare’s annual deficits over this period.

**CHART 10.**

**Social Security Faces a $31 Trillion Shortfall over 30 Years—$28 Trillion If the Trust Fund Is Included**

<table>
<thead>
<tr>
<th>2020–50 Revenues</th>
<th>Payroll Taxes &amp; Benefit Taxes $51.6</th>
<th>Interest Costs $11.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020–50 Outlays</td>
<td>Program Outlays $73.5</td>
<td></td>
</tr>
</tbody>
</table>

Green = Transfers from redeeming the Social Security Trust Fund. The Trust Fund contains no economic resources and must be redeemed by new taxes and borrowing. In other words, it does not future save taxpayers a dime or reduce the true shortfall.

Source: Calculated using the CBO 2020 Long-Term Budget Outlook. Interest costs reflect those directly attributable to 2020–2050 Social Security shortfalls.
Medicare’s $71 trillion shortfall equals 67% of the total federal budget deficit projected by CBO over the 2020-2050 period. Annual projected shortfall: 2020: 2.0% of GDP | 2050: 4.6% of GDP (4.9% including interest cost).

Source: Calculated using the CBO 2020 Long-Term Budget Outlook. Benefits are net of senior premiums. Interest costs reflect those directly attributable to 2020-2050 Medicare shortfalls.
### Chart 12.

#### No “Easy” Pay-Fors for Social Security & Medicare: Programs Face Shortfalls of 6% of GDP by 2040s

<table>
<thead>
<tr>
<th>Tax Proposals</th>
<th>10-Yr Savings ($Billions)</th>
<th>Long-Term Savings (%GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raise Payroll Tax by 10 Percentage Points, no wage limit</td>
<td>$8,982</td>
<td>3.60%</td>
</tr>
<tr>
<td>Impose a 20% Value-Added Tax (VAT) – like a national sales tax</td>
<td>$7,680</td>
<td>3.35%</td>
</tr>
<tr>
<td>Raise Income Tax Rates Across-the-Board by 10 Percentage Points</td>
<td>$9,054</td>
<td>3.30%</td>
</tr>
<tr>
<td>Double 35% and 37% Tax Brackets to 70% and 74% (plus 15% state/payroll)</td>
<td>$4,504</td>
<td>1.70%</td>
</tr>
<tr>
<td>Impose Bernie Sanders’s 8% Wealth Tax (data from Penn-Wharton)</td>
<td>$2,809</td>
<td>1.07%</td>
</tr>
<tr>
<td>Eliminate FICA Cap – 15.3% Payroll Tax on All Wages (data from SSA)</td>
<td>$2,180</td>
<td>0.84%</td>
</tr>
<tr>
<td>Raise Corporate Tax Rate by 20 Percentage Points</td>
<td>$1,926</td>
<td>0.87%</td>
</tr>
<tr>
<td>Repeal All Itemized Tax Deductions</td>
<td>$1,312</td>
<td>0.99%</td>
</tr>
<tr>
<td>Carbon Tax of $25/Metric Ton – no rebate for households hit</td>
<td>$1,099</td>
<td>0.43%</td>
</tr>
<tr>
<td>Impose a 0.1% Tax on Financial Transactions</td>
<td>$777</td>
<td>0.37%</td>
</tr>
<tr>
<td>Repeal Entire 2017 Tax Law (data from CBO/JCT)</td>
<td>$455</td>
<td>(Mostly scheduled)</td>
</tr>
<tr>
<td>Tax Dividends &amp; CapGains as Income over $1M &amp; End Step-Up (data from TPC)</td>
<td>$448</td>
<td>0.19%</td>
</tr>
<tr>
<td>Impose Bernie Sanders’s 77% Estate Tax (data from Sanders)</td>
<td>$336</td>
<td>0.13%</td>
</tr>
<tr>
<td>Impose a 0.15% “Bank Tax” on Large Financial Institutions</td>
<td>$103</td>
<td>0.03%</td>
</tr>
<tr>
<td>30% Minimum “Buffett Tax” for Millionaires</td>
<td>$66</td>
<td>0.03%</td>
</tr>
<tr>
<td>Tax Carried Interest as Ordinary Income</td>
<td>$14</td>
<td>0.01%</td>
</tr>
</tbody>
</table>

| Spending Proposals                                                            |                            |                          |
|--------------------------------------------------------------------------------|                            |                          |
| Cut Defense Budget to European Target of 2% of GDP (data from CBO baseline)    | $2,899                     | 0.80%                    |

Source: Dec. 2018 CBO “Budget Options” book unless otherwise noted. These static estimates do not account for revenues lost to the economic impact. Combining policies may also create interaction effects or duplicate the same policies, so these cannot be summed.
Endnotes

1 Unless stated otherwise, all data in this brief are calculated from “The 2020 Long-Term Budget Outlook,” Congressional Budget Office, Sept. 21, 2020, at https://www.cbo.gov/publication/56516, as well as the supplemental data tables.

2 These calculations assume that higher interest rates phase in between 2031 and 2050.


5 For a blueprint of how to produce these savings, see Brian Riedl, “A Comprehensive Federal Budget Plan to Avert a Debt Crisis,” Manhattan Institute, Oct. 10, 2018.