Eight Questions–and Some Answers–on the US Fiscal Situation

AUTHOR

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ABSTRACT

This paper examines the current US fiscal situation and outlook through eight key questions. It finds that the fiscal trajectory is unsustainable, with deficits and debt projected to rise indefinitely. An adjustment of 0.7 to 4.6 percent of GDP in higher taxes or lower spending is likely needed to stabilize the debt. The consequences of inaction are potentially severe but highly uncertain. The paper reviews possible catalysts for fiscal reform, including shifts in public opinion, legal/accounting events like trust fund exhaustion, or economic pressures. The paper emphasizes that fiscal projections and their economic impacts are highly uncertain. This uncertainty argues for taking some precautionary action soon, while retaining options to adjust course as the outlook evolves. Based on this analysis, the paper recommends targeting primary budget balance (that is, the budget excluding interest) by 2030. The four elements of a framework to achieve this goal are: (1) let the tax cuts expire or replace them with revenue-increasing reform; (2) establish Super PAYGO so that each law slightly reduces the deficit; (3) reform Social Security and Medicare to eliminate their actuarial deficits; and (4) allow limited exceptions for economic and other emergencies.

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Introduction

The United States has near record debt relative to its economy. Deficits are currently larger than they have been during any period except World War II, the financial crisis and COVID. These deficits are adding more to the debt which is likely to soon reach record levels as a share of the economy—and looks poised to continue increasing indefinitely.

This paper takes stock of the US fiscal situation by going through eight questions that are essential for understanding the US fiscal outlook, the options for reform, and the consequences of not reforming. Many of these issues are highly uncertain—the fiscal outlook often defies projections, and it is hard to be certain about the economic consequences of something that operates very differently in different times and places. This uncertainty is not necessarily a cause for inaction—but it should shape how we think about acting.

The eight questions and answers are proposed in a spirit of neutral, broad agreement, a table setting of facts and analysis that will allow different readers to draw their own conclusions. In my conclusion to this paper, I provide a sketch of a fiscal-policy framework that I personally would recommend adopting based on the facts and analysis—but different readers will, presumably, have their own ideas. Specifically, I propose that—based on a reasonable economic outlook—policymakers establish a limiting principle of balancing the primary budget deficit within a decade by taking a number of smaller and more incremental steps. All these steps will be deficit reducing, with a limited set of exceptions for emergencies.

Ultimately, however, some of the most important issues are in the details. What additional investments are needed? Which spending is pared back? How exactly are taxes reformed? These issues are beyond the scope of this short paper—but they can and will need to fit within an overall numerical-deficit frame informed by the type of economic and fiscal analysis I attempt to undertake here.

1. Is the US fiscal situation sustainable? No, with high confidence.

On average, in the 2022, 2023, and 2024 fiscal years, the United States ran a deficit of 6 percent of GDP despite having a very strong economy, with an unemployment rate that averaged 3.8 percent and real GDP growth of 3.0 percent annually.[1] The primary deficit, which excludes interest payments, was about 3½ percent of GDP over this period. These deficits are larger than those in any years except during World War

1 The average is more meaningful than the individual numbers for the fiscal years, which are distorted by timing shifts related to capital-gains revenue and student loan forgiveness. Henceforth, all years mentioned are fiscal years unless otherwise specified.

II, the global financial crisis, and COVID. As a result, 2024 ended with the debt at about 98 percent of GDP, higher than it had been in any years except 1945, 1946, and 2020 (CBO, 2024d).

The Congressional Budget Office's (CBO) latest June 2024 projection predicts that the primary deficit will improve from the last few years, falling to an average of 2.5 percent of GDP over the next decade (CBO 2024d). Even if this favorable development occurs, the CBO still projects that the deficit will average 6 percent of GDP as interest rises as a share of GDP—because of both the increase in debt and the fact that more debt is expected to be refinanced at higher interest rates. With a deficit of 6 percent of GDP, the debt would continue to rise as a share of GDP under any plausible forecast for nominal GDP growth.[2] Under the CBO's forecast, the debt is expected to rise by about 2 percentage points of GDP per year.

Moreover, the entire improvement in the primary deficit in the CBO's forecast comes from higher tax rates and other tax changes scheduled to go into effect mostly in 2026, as most of the individual tax provisions in the Tax Cuts and Jobs Act (TCJA) of 2017 expire. In total, expiring tax provisions raise revenue by about 1.5 percent of GDP. If this assumption about adherence to current law by allowing tax rates to rise is violated, the debt would rise even faster as a share of GDP.[3] (In addition, the CBO's discretionary-spending assumptions are arguably an unreasonable benchmark, but the latest baseline includes roughly offsetting errors, so it is not altered in this analysis.)[4]

Finally, the CBO economic forecast will be wrong, but exactly how it will be wrong is unknown. Some economists have argued that generative AI and other technological developments may increase productivity growth going forward, although others are skeptical (Acemoglu 2024). Even with a more optimistic trajectory for productivity, the debt is still likely to rise as a share of GDP.

The more likely risk to the CBO forecast is that deficits will be higher than forecast because interest rates may come in above CBO's forecast. The federal-funds rate was above 5 percent from the spring of 2023 until September 2024. The CBO projects

2 The debt rises as a share of GDP if: *(deficit / GDP) > nominal GDP growth * (debt / GDP)*.

3 The tax-cut extension estimates are from CBO 2024b and include the expiring 2017 individual, estate, and business tax cuts; premium tax credits; trade promotion programs; and other expiring tax provisions. Three-quarters of the cost of the extension is from the individual and estate provisions.

4 The CBO baseline builds in the cost of the $62 billion emergency-defense law for Ukraine, Israel, and other purposes—effectively making the unrealistic prediction that something of this scale plus inflation will be passed annually. On the other hand, the CBO baseline fails to reflect the fact that current policy would require discretionary spending to grow with population. It also fails to reflect "side deals" for discretionary spending that restored some of the reductions legislated in the Fiscal Responsibility Act (FRA) of 2023. Adjusting for all three of these factors results in a discretionary path very similar to CBO's latest discretionary baseline. As a result, this paper uses CBO's discretionary numbers for both the current-law and current-policy baselines.

that the federal-funds rate will eventually fall back to 3.0 percent. That number is well above the rates in effect immediately before COVID and slightly higher than the median long-run forecast by members of the Federal Open Market Committee (FOMC 2024), but it is still about 50 basis points below the forward market forecast.[5] Similarly, the market forecast for the 10-year Treasury rate ten years from now is about 50 basis points higher than CBO's forecast of 4.1 percent in 2034.[6]

Figures 1a to 1d[7] show the deficit, primary deficit, debt, and real net interest—all as a share of GDP over the next decade—under six scenarios that vary along two dimensions:

- **Policy assumptions: (a) current law or (b) current policy.** Current law uses the CBO numbers, which assume the expiration of tax cuts and adherence to the spending caps. Current policy assumes that Congress passes legislation to keep policies where they are now—specifically, that it passes $4.5 trillion of tax cut extensions (1.5 percent of GDP in 2034) and makes offsetting changes to discretionary spending levels that are roughly equivalent to ensuring that underlying discretionary spending grows with inflation plus population.

- **Economic assumptions: (a) CBO, (b) bonus productivity growth, or (c) market interest rates.** The two different policy scenarios are each shown under three different sets of economic assumptions.[8] The first is CBO's economic assumptions. The second is that productivity growth is 0.5 percentage point faster than assumed by CBO. The third is that interest rates are 50 basis points higher than CBO's forecast starting in 2027, a proxy for a plausible market forecast for interest rates (see figure 1d).

Under all six scenarios, the deficit ranges from 6 to 9 percent of GDP by the end of the window. The debt is rising as a share of GDP in every scenario, ending the decade at between 111 and 138 percent of GDP. Real net interest as a share of GDP is also rising in all cases; in three of the cases, it exceeds 2 percent of GDP within the ten-year window.[9]

5 Market forecast is based on Chatham Financial as of August 29, 2024.

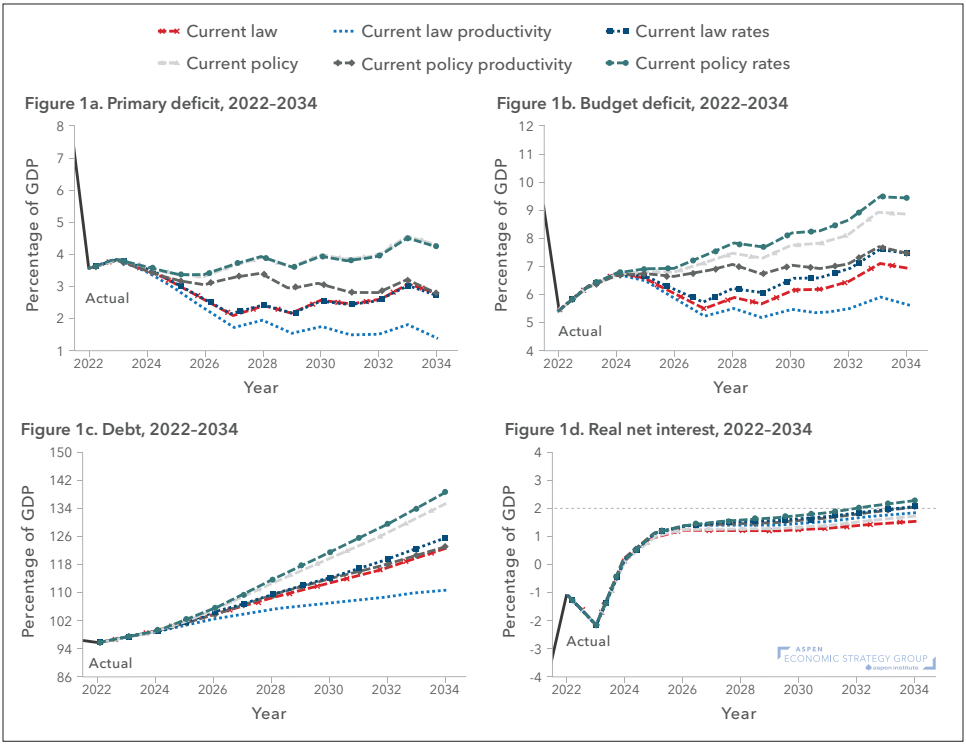
6 My calculations are based on Treasury interest-rate data as of August 29, 2024 (Treasury 2024).

7 All budget figures and estimates throughout this paper are the author's calculations, based primarily on CBO 2024a; CBO 2024b; and CBO 2024d. Figures for earlier CBO forecasts draw on various earlier editions of the CBO's *Budget and Economic Outlook*.

8 All modeling assumes that interest rates are 2 basis points higher per percentage point of debt. This endogenous response raises interest rates in the current policy case because extending the tax cuts is assumed to increase debt and drive up interest rates.

9 *Real net interest = interest – inflation*debt*. The concept is analytically useful because it omits the portion of interest that is just offsetting the inflation-related erosion of debt. Furman and Summers (2019) emphasize it.

Figure 1: Fiscal Scenarios



Source: Author's calculations based on data from CBO 2024 documents (2024a, 2024b, 2024d); Treasury 2024.

A 0.5 percentage point increase in annual productivity growth would improve the debt trajectory but is not sufficient to stabilize the debt over the next decade, even if higher tax rates go into effect in 2026 (CBO 2024a; CBO 2024b). Part of the issue is that although higher productivity growth raises revenue growth, it also raises spending growth. One of the reasons is that the associated faster wage growth would lead formulaically to higher Social Security payments and economically to faster cost growth for healthcare.[10] All else equal, an approximate 1 percentage point increase in productivity growth would be required to stabilize the debt as a share of GDP.

Moreover, the CBO assumes—consistent with macroeconomic theory—that higher productivity growth would lead to greater demand for capital and thus to a higher neutral real interest rate.

10 From its inception, Social Security has based initial benefits on some version of average wages. To the degree that wages are higher, Social Security benefits will be higher. (Note that this rule does not apply to current beneficiaries whose benefits are indexed to price inflation.) One of the major Medicare costs is wages of medical personnel; to the degree that productivity growth is higher, their wage growth will be higher.

Could the debt end up being stable as a share of the economy without any changes in policy? There is a small chance we might get lucky and achieve this outcome. But to expect it is not reasonable. A temperature above 50 degrees in Boston on Christmas Day 2024 is possible, after all—which is to say that something *could* materialize due to pure chance but still be unreasonable to forecast ex ante.

2. Where does the debt need to stabilize? At some value—with very low confidence about exactly what value.

The debt as a share of GDP needs to stabilize. If the debt rises as a share of GDP indefinitely, then at some point it will become impossible to roll the debt over. The debt would then either need to be monetized by the central bank (causing default through unexpected inflation) or formally defaulted on. Forward-looking macroeconomic models are generally not even solvable unless they satisfy a "no-Ponzi-game" condition that the present value of the debt, in the limit, be zero.

It is much less clear what debt-stabilization level would be optimal. Should debt go back to the 35 percent of GDP that prevailed before the financial crisis? Or would it be OK for it to rise to the 150 percent that prevails in Japan today? Or would an even higher level be feasible or even desirable? Argentina had a massive fiscal crisis in 2001, with debt at 45 percent of GDP, while Japan has had no comparable crises—not even with debt exceeding 100 percent of GDP for over two decades.

The United Kingdom sustained debt well above that level for about half the last 250 years (Mussa 2002; Broda and Weinstein 2004; UK Public Spending 2024). Part of the issue is that debt levels are only one factor in predicting interest rates and fiscal crises; such outcomes also depend on the market's perception of whether the political system will address fiscal shortfalls, the reasons the debt was accumulated, how the debt compares to other countries, and other considerations.

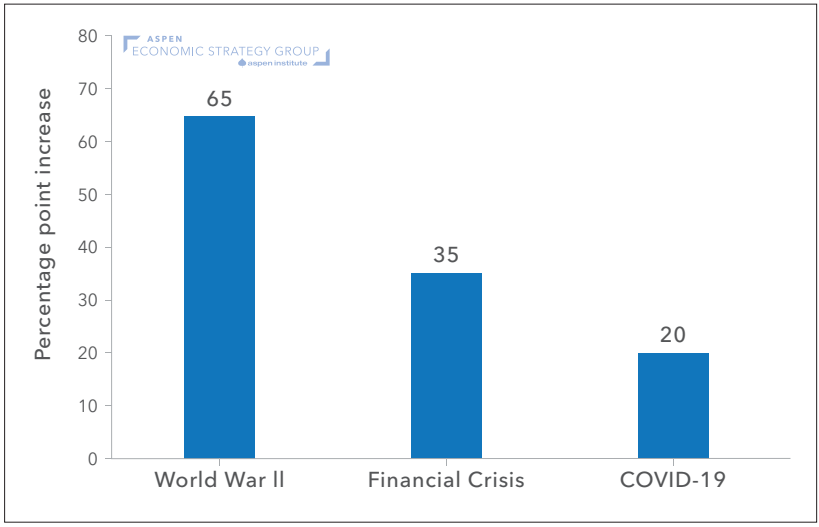
"Even if the goal were to stabilize the debt-to-GDP at some value, an optimal policy would have it on a downslope in normal times and ratcheting up in emergencies."

As the debt has risen, our understanding has also increasingly suggested that the United States has more fiscal space than previously appreciated. If you had asked someone in 2000 to predict what the economy would look like in a world where the debt was 100 percent of GDP and the deficit was 6 percent of GDP, they would likely have expected extremely high interest rates and possibly even a dramatic economic crisis.

Instead, interest rates are lower than they were in 2000, and the job market is stronger than it was then. As recently as 2010, fiscal hawks were advocating that debt should be kept below 90 percent of GDP and probably well below that threshold (Reinhart and Rogoff 2010). Now, many of them would probably be pleased if it stabilized at 100 percent of GDP.

On the other hand, the last fifteen years have been a dramatic reminder that debt dynamics are dominated by large, discrete events and not by normal dynamics based on analyzing projections for revenues and spending (Dynan 2023). The debt-to-GDP ratio increased by 35 percentage points in the global financial crisis and by 20 percentage points during COVID—increases that combine to be nearly as much as the 65-percentage-point increase in debt during World War II, as shown in figure 2. So, even if the goal were to stabilize the debt-to-GDP at some value, an optimal policy would have it on a downslope in normal times and ratcheting up in emergencies.

Figure 2: Change in US debt-to-GDP ratio around major world events



Source: Author's calculations based on data from OMB 2024a and CBO 2024d.

3. How large an adjustment is needed for the debt to stabilize a decade from now? Probably between 1 and 5 percent of GDP in higher taxes or lower noninterest spending.

How much would policy need to change in order to stabilize the debt as a share of the economy? The answer depends somewhat on the level at which the debt needs to stabilize. This analysis asks how much of a change would need to be made in the primary deficit—that is, in noninterest spending or taxes—to stabilize the debt at a

given year's level or, alternatively, at 100 percent of GDP. The analysis uses the debt dynamics equation:

$$\textit{Primary deficit for stability} \approx (g - i)\ \textit{debt / GDP}$$

where g is the nominal growth rate and i is the nominal interest rate (equivalently, one could use real rates for both variables). The adjustment is simply the CBO baseline deficit compared to the target deficit.

Table 1 shows the results for the six different scenarios: current law and current policy under the CBO forecast, under a higher productivity-growth forecast, and under a market interest rate forecast.[11] In all cases, the estimates are for the deficit reduction required to stabilize the debt starting in 2034.[12]

To understand this table, start with the CBO forecast and current law. Under these parameters, a combination of tax increases and spending cuts would need to total 2.5 percent of GDP annually to stabilize the debt. If this measure went into effect in 2034, then the debt would stabilize at 122 percent of GDP.

Table 1. Noninterest spending and/or tax adjustments needed to stabilize the debt by 2034

	CBO forecast	*CBO + 0.5pp productivity growth*	*CBO + market interest rates*
Percentage of GDP			
Current law	2.5%	0.7%	3.1%
Current policy	4.2%	2.3%	4.6%
Dollars (if phased in)			
Current law	$6 trillion	$2 trillion	$7 trillion
Current policy	$10 trillion	$6 trillion	$11 trillion
Debt stabilization level			
Current law	122%	111%	126%
Current policy	135%	123%	138%

Source: Author's calculations based on data from CBO 2024 documents (2024a, 2024b, 2024d); Treasury 2024.

11 All estimates are the author's calculations based on the CBO documents and market rates referenced above. The "steady state" is based on the average of the last two years of the forecast, which is 2033–2034 for the current budget window.

12 The fiscal adjustments required to stabilize the debt-to-GDP ratio at its current value of 100 percent are generally within 0.2 percentage points of the adjustments shown in table 1. This analysis does not use the CBO's long-term budget forecast outside the ten-year window. Using that forecast would alter the results by about 0.1 percentage point of GDP: the primary deficit is roughly unchanged after 2034, as rising costs relative to GDP for Social Security and Medicare are offset by reduced outlays relative to GDP for most other government programs. In addition, real bracket creep raises revenue to GDP over time.

The exact dollar figure of these required figures over the ten-year budget window used in Washington policy debates depends on the time path; the table shows the ten-year total—assuming that savings are linearly phased in from the first year to the full $1.0 trillion in 2034—of $6 trillion. Assuming higher productivity growth reduces these fiscal gaps, but some adjustment is still needed. This requirement is consistent with the observation that debt is still rising as a share of GDP even with productivity growth 0.5 percentage points higher. If interest rates are higher, then an even larger fiscal adjustment is necessary.

Under current policy, the tax cuts will be extended, adding about 1.6 percent of GDP to the needed adjustment. Overall, the needed fiscal adjustment ranges from 0.7 percent of GDP to 4.6 percent of GDP—which, if phased in, would amount to $2 to $11 trillion over the ten-year budget window.

The Omnibus Budget and Reconciliation Act (OBRA) 1990 legislated 2.0 percent of GDP of deficit reduction; it was followed by OBRA 1993, which reduced the deficit by another 1.5 percent of GDP. The Budget Control Act of 2011, which resolved the debt-limit impasse, had a much smaller impact, reducing the deficit by only 0.5 percent of GDP.

Notably, all three of these laws included substantial defense-spending reductions: the first two reflected the end of the Cold War, while the third reflected the wind-down in Iraq and Afghanistan. In some of these laws, some of the legislated deficit reduction was undone by subsequent legislation that, for example, spent above the caps. Table 2 provides some context for these magnitudes by comparing them to past and current deficit-reduction proposals.

President Biden's FY 2025 budget proposes $2.8 trillion in deficit reduction over ten years, or 1.1 percent of GDP in the last year.[13] The president's proposal, however, does not include explicit offsets or budget to continue the expiring tax cuts for incomes below $400,000. Extending these tax cuts would, alone, add about $2.8 trillion in costs to the total budget—resulting in a presidential proposal with no net deficit reduction (OMB 2024b).

13 This figure is the administration's estimate. The CBO has not done a re-estimate, but conceptually such a re-estimate should be comparable to the CBO-based numbers above.

Table 2. Impact of major deficit legislation or proposal on the primary deficit

	Impact in final year of forecast
Omnibus Budget and Reconciliation Act 1990	-2.0%
Omnibus Budget and Reconciliation Act 1993	-1.5%
Balanced Budget Act 1997	-0.5%
Affordable Care Act 2010	-0.1%
Budget Control Act 2011	-0.5%
Fiscal Responsibility Act 2023	-0.5%
Bush tax cuts	2.0%
Trump tax cuts	1.0%
President's FY 2025 budget	1.1%
Bowles-Simpson	-3.6%

Source: Author's calculations based on data from the Bureau of Economic Analysis, the Congressional Budget Office, and the Office of Management and Budget.

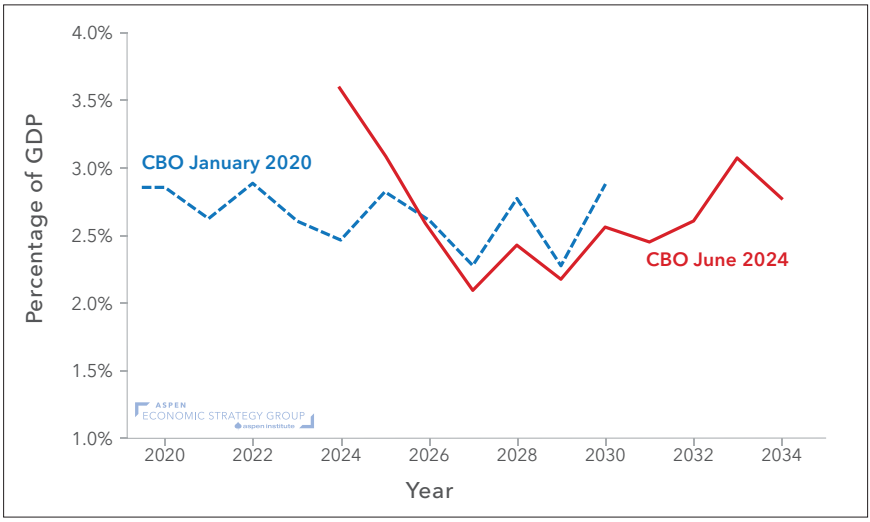
4. Has our fiscal challenge gotten worse in recent years? The fiscal challenge may be worse than the pre-COVID forecast, depending on the outlook for interest rates.

The deficit and debt have been much higher than the CBO expected prior to COVID. In its January 2020 forecast, the CBO projected that debt would rise to 86 percent of GDP at the end of 2023; instead, COVID and its response swelled the debt to 97 percent of GDP.[14] More surprisingly, on a flow basis the deficit was higher than projected as well. It was so despite the fact that by many measures, including GDP and employment, the economy has been stronger than expected over the last two years.

Nevertheless, CBO's current *forecast* for the primary deficit is somewhat improved from what was expected prior to COVID. This has happened because even though the cumulative impact of legislation enacted since COVID has been to increase spending and cut taxes the large increase in nominal GDP has lowered deficits as a share of GDP relative to what had been forecast. Thus, relative to pre-COVID forecasts, the primary-deficit outlook is more favorable. Figure 3 compares the CBO's current-law primary-deficit forecasts in January 2020 and June 2024.

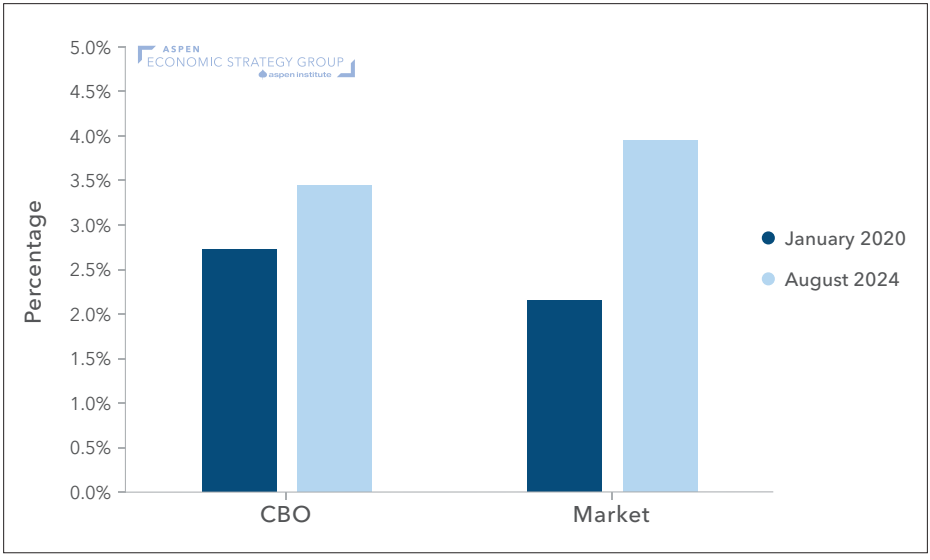
14 Note that the cumulative response to COVID plus other government programs has been substantially more than 11 percent of GDP. But nominal GDP is also considerably above pre-COVID forecasts—thereby offsetting the magnitude of that government spending and those tax cuts, when measured relative to GDP.

Figure 3: CBO's current-law primary-deficit forecast, 2020–2034



Source: CBO 2020a; CBO 2024d.

Figure 4: Average interest-rate forecasts, January 2020 vs. August 2024



Source: Author's calculations based on CBO 2020a; CBO 2024d; FRED via the Federal Reserve Bank of St. Louis; Treasury 2024.

At the same time, the forecast for interest rates has worsened, as shown in figure 4. The CBO forecast for the average long-run interest rate on federal debt has risen by about 75 basis points, while the market forecast for interest rates has risen by about 225 basis points, with market forecasts going from below CBO in 2020 to well above it in 2024.

On net, the combination of better primary-deficit and worse interest-rate forecasts means that the deficit reduction needed to stabilize the debt as of June 2024 is basically unchanged from the January 2020 forecast—when using CBO figures. Using market interest rates, however, the gap has grown dramatically, as shown in table 3.

Table 3. Noninterest spending and/or tax adjustments needed for fiscal sustainability

	January 2020 forecast (current law)	June 2024 forecast (current law)
CBO interest-rate forecast	1.6%	2.5%
Market interest rate forecast	1.0%	3.7%

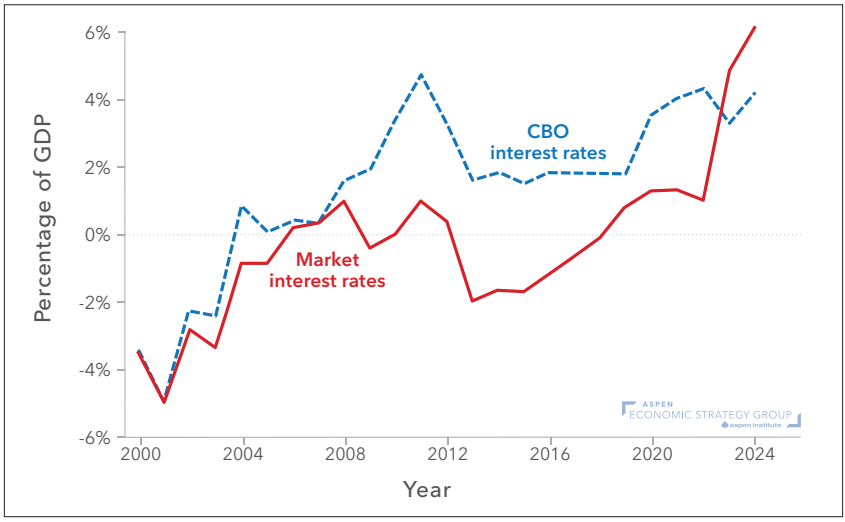
Source: Author's calculations based on CBO 2020a; CBO 2024d; Federal Reserve Board 2024a; Federal Reserve Board 2024b.

Finally, figure 5 repeats the same exercise for the CBO's first forecast of the year for every year starting in 2000.[15] It shows how much of a fiscal adjustment would have been needed under each forecast to stabilize the debt, in this case showing it under current policy. These results should be interpreted with a large grain of salt for two reasons. First, there are difficulties in making fully comparable adjustments to CBO's forecasts to reflect current policy over time. Second, these estimates are based on the adjustment needed in the last part of the ten-year budget window; earlier forecasts showed a larger increase in out-year deficits beyond that period.

Based on the CBO forecast, the fiscal gap has worsened substantially in the last few years relative to its pre-2020 size. Using market interest rates, the budget was expected to be on a sustainable course up through 2018, but it is now expected to be very short of sustainable—with the large change driven by the rise in expected interest rates.

15 This method has the advantage of using reasonably comparable annual ten-year budget forecasts from the CBO instead of the CBO's long-term budget outlooks, which vary in methodology and frequency. It has the disadvantage that it misses any additional adjustment that is needed to offset budget deterioration outside the ten-year window due to the growth of entitlements. That missing adjustment is a larger factor early in the first decade of the 2000s because most of the retirement of the baby boomers was outside the budget window and projected health spending growth was faster. In the latest forecasts, there is little deterioration outside the window, as discussed in footnote 13.

Figure 5: Needed fiscal adjustment over time



Source: Author's calculations based on CBO (first ten-year forecast release of each year from 2000 to 2024); Auerbach and Gale 2020; Auerbach and Gale 2023; Federal Reserve Board 2024a, 2024b, and 2024c.

5. What would it take to cut spending or raise taxes by this amount? A menu of options—consistent with past deficit-reduction efforts—could achieve this adjustment.

Under current law, the fiscal adjustment needed to stabilize the debt is 2 to 3 percent of GDP, depending on whether you use the CBO's interest-rate forecast or market rates. An extension of expiring tax cuts would add another 1.5 percent of GDP to this fiscal gap.

Table 4 shows an illustrative menu of fiscal-adjustment options. A few takeaways from this menu: First, the high-income and corporate tax increases proposed by President Biden would raise about 1.3 percent of GDP in revenue (OMB 2024b). These proposals include raising the corporate rate to 28 percent; raising taxes on overseas income; allowing the top rate to return to 39.6 percent; raising the capital gains rate to the ordinary income rate, taxing gains as they accrue rather than when they are realized; and limiting pass- through tax benefits.

Table 4. Menu of proposals

Proposal	Deficit impact in last year of forecast
Raise corporate rate from 21% to 28% and implement other Biden corporate 0.4% proposals	0.4%
Implement Biden high-income tax increase proposals	1.3%
Raise payroll tax rate by 4 percentage points	1.2%
Raise all income tax rates by 6 percentage points	2.0%
Levy a 10 percent value added tax	2.0%
Let tax cuts expire after 2025 (relative to current policy)	1.5%
Spending Proposals	
Cut all income security programs by 20 percent	0.4%
Cap Medicaid spending at CPI+1	0.3%
Shift to Medicare vouchers (depending on the details)	0.3%
Raise Social Security normal retirement age from 67 to 69 and index (NPV)	0.5%
Slow Social Security benefit growth by ~1.2 percentage points per year (NPV)	1.0%
Increase defense spending as GDP grows	-0.5%
Memorandum	
Social Security actuarial deficit (trustees)	1.2%
Medicare hospital insurance actuarial deficit (trustees)	0.2%

Source: Author's calculations based on figures from CBO 2022b; OMB 2024b; Board of Trustees, Social Security 2024; Board of Trustees, Medicare 2024.

A more aggressive set of proposals could raise a bit more but would likely run into Laffer-curve constraints before it reached about 2 percent of GDP in revenue. Accordingly, high-income revenue is not sufficient to close the fiscal gap under current law, let alone to pay for the extension of the tax cuts or other priorities.

Second, the expiration of the tax cuts is a substantial factor—1.5 percent of GDP—that is of the same order of magnitude as many other substantial proposals. The bulk of this category is taken up by the 2017 tax cuts, which would entail individual income-tax rates rising by 1 to 4 percentage points from their current levels for all but the bottom-10-percent bracket.[16]

Third, outside Social Security, not even relatively dramatic proposals come close to cutting spending by even 1 percent of GDP—let alone by the 2 percent needed for

16 The 2017 tax cuts also made substantial changes to the tax base, including increasing the standard deduction, expanding the child tax credit, eliminating dependent exemptions, reducing the Alternative Minimum Tax (AMT), and limiting deductions, including for mortgages and state and local taxes (SALT). These changes are collectively roughly revenue neutral (Clausing and Sarin 2023).

fiscal sustainability under CBO's current-law assumptions. For example, a 20-percent reduction in every income security program classified in budget function 600—which includes the Supplemental Nutrition Assistance Program (SNAP), Supplemental Security Income (SSI), Temporary Assistance to Needy Families (TANF), Section 8 housing vouchers, and dozens of other programs—would only reduce the primary deficit by 0.4 percent of GDP.

Finally, most but not all of the current-law deficit would be closed by whatever tax or benefit changes restored solvency to Social Security and Medicare. The Social Security trustees estimate that it would require an immediate and permanent 1.2 percent of GDP increase in taxes or reduction in benefits to ensure the OASDI trust funds were funded for at least 75 years (Board of Trustees, Social Security 2024).[17] Doing the same for the Medicare Hospital Insurance trust fund would require another 0.2 percent of GDP (Board of Trustees, Medicare 2024).

Ultimately, even to stabilize the debt, a broad set of tax increases and/or spending cuts will be required—and even more will be required to the degree that policymakers want to undertake gross policy initiatives like defense spending increases, more spending on children, or tax cut extensions.

6. What will happen if policymakers do not make this fiscal adjustment? The known knowns of failing to reduce the deficit are relatively small economic harms; the unknown unknowns are potentially much more worrisome.

The known knowns of fiscal unsustainability, at least over the next few decades, are negative but not particularly large. The unknown unknowns are also negative and likely much larger. A number of papers over the years have considered the costs of deficits and debt, but so much of them are contingent on specific circumstances that there is no widely accepted version (see, for example, Ball and Mankiw 1995; Rubin, Orszag, and Sinai 2004; Reinhart and Rogoff 2010).[18] Recent research by International Monetary Fund (IMF) economists has shown, for example, that the impact of debt surges on future incomes is highly dependent on the debt surges' context (Jalles and Medas 2022).

17 The CBO has generally been more pessimistic about Social Security's financial outlook. The CBO (2024e) estimated that it would take a 1.5 percent of GDP change to keep the trust fund solvent for 75 years.

18 See de Rugy and Salmon 2020 for a useful survey of studies.

6.1 Higher interest rates and crowd-out

The conventional channel through which debt accumulation affects the economy is by driving up interest rates, crowding out private investment and thus reducing future GDP growth. Debt accumulation also leads to an increase in foreign borrowing, thus reducing future national income—as that debt needs to be repaid.

Estimates vary widely for the effects of debt accumulation on interest rates. A reasonable middle-ground guess is that every 1 percentage point of debt accumulation adds about 2 basis points to interest rates (Gale and Orszag 2004). If so, debt accumulation in the coming decades could add, say, 1 percentage point to interest rates over time. Higher interest rates reduce capital formation. Moreover, deficits require more borrowing from abroad, so a larger fraction of future GDP has to be devoted to repaying foreigners—thus reducing national income.

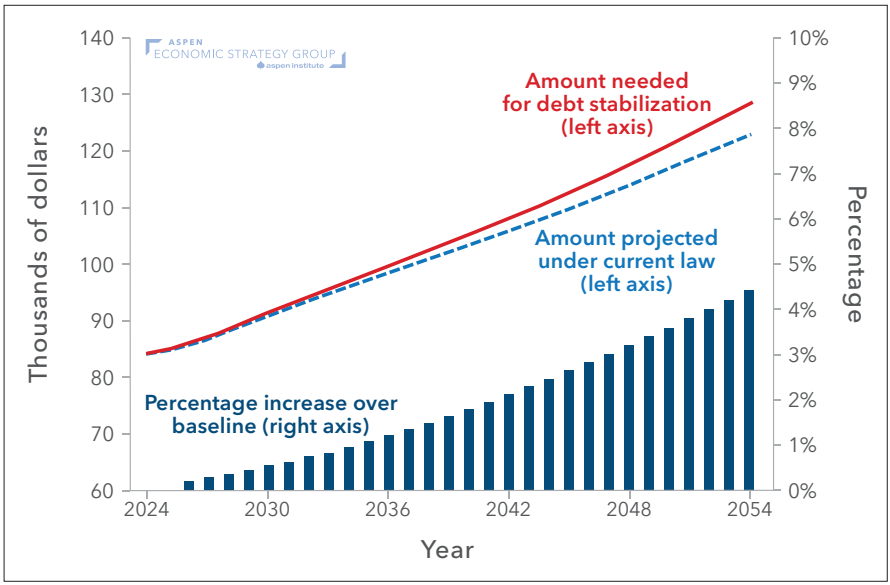
One indication of the relative smallness of these conventional channels comes from the CBO's long-run budget outlook. The CBO projects that the debt will rise to 166 percent of GDP in 2054 and continue to spiral higher thereafter. Their model incorporates macroeconomic feedback and predicts that this accumulation in debt, after taking into account offsetting factors, will result in the ten-year Treasury yield rising from 4.0 percent in 2023 to 4.4 percent in 2054. The economy would grow at a 1.6 percent rate in that year, barely below the current pace of potential growth.

Overall, using these types of conventional models, the CBO estimated that a plan to stabilize the debt at around 100 percent of GDP would result in a growing increase in real GNP per capita that totals about 4 percent above baseline in 2054, as shown in figure 6.[19]

Note that to achieve these gains would require raising taxes and/or reducing spending in the interim—measures that could reduce living standards along the transition path. Although many consider it wrong to pass a cost on to future generations (for example, Committee for a Responsible Federal Budget 2022), this issue is distributional and cannot be settled in a value-neutral way. From my perspective, future generations will very likely be richer—and so it makes sense to redistribute away from them to poorer current generations.

19 The chart shows GNP instead of GDP because that number is closer to living standards. GNP subtracts net factor payments to foreigners. One of the benefits of deficit reduction would be to reduce these net factor payments and thus raise living standards—allowing Americans to keep more of the GDP they produce instead of using it to repay foreigners.

Figure 6: United States real GNP per capita, 2024–2054



Source: Author's calculations based on CBO 2024c.

6.2 Longer delays, larger adjustments

Another consideration is that the longer policymakers wait to address fiscal sustainability, the larger the adjustments will need to be. This requirement arises for three reasons. First, waiting means that there will be a shorter window for people to prepare for changes. Second, spreading changes over a shorter window means that those changes must be larger to achieve the same present value. Finally, waiting could mean that interest rates increase, which would require a smaller primary deficit for sustainability and thus a larger adjustment. Barro (1979) emphasized this channel; it was quantified in subsequent research (for example, CBO 2022a).

6.3 Spare space for future contingencies

Much of the debt accumulated by the United States in its entire history was because of two events: the global financial crisis and COVID. The Treasury had no problem borrowing in those two episodes, in part because of substantial de facto coordination with the Federal Reserve, which purchases substantial amounts of federal debt—thus enabling this borrowing while, if anything, interest rates fell. In general, it may be easier to borrow in an obvious national emergency because financial markets

will not penalize the government based on the perception that it is irrational. Nevertheless, it is a risk that money might be unavailable in the future precisely when it is most needed. Even if that risk is relatively small for the United States, it still would mean that each emergency would lead to a ratcheting up of the debt—with concomitant ratcheting up of the other costs associated with the debt.

Some economists are concerned about future geopolitical contingencies in which a future adversary deliberately uses the debt as an economic weapon against the United States (for example, Committee for a Responsible Federal Budget 2022). I think the risks such a scenario poses are very minimal. In theory, China could choose to undertake a fire sale of US debt in response to geopolitical tensions. In practice, however, it doing so would have very little impact on the Treasury market—and, if anything, could hurt China more than it could hurt the United States. China has been steadily reducing the dollar value of Treasuries it holds for more than a decade now and currently holds less than 3 percent of outstanding US Treasuries. Moreover, if it tried to sell all of them immediately—or, more realistically, if it did not roll them over when they matured (most of them are short duration)—then private investors or, in a last resort, the Federal Reserve could easily step in. Some short-term dislocation in Treasury markets might result, but even that dislocation could likely be contained, as it would be smaller than the dislocations caused by other recent events, like extraordinary COVID financing needs.

6.4 Fiscal crisis

History is littered with fiscal crises, including some that are extremely devastating—like the Greek crisis, which has been considerably worse than the Great Depression was in the United States (Alderman et al. 2015). The United States has several features that reduce the chances of a fiscal crisis, including the fact that it borrows in its own currency and controls its own monetary policy. Even when a country borrows in its own currency, markets can still be concerned about de facto default through inflation, requiring higher interest rates to allow debt to be rolled over. For example, in 1994 investors lost confidence in Canada's fiscal situation, and long-term interest rates rose nearly 3 percentage points in six months. It took a dramatic fiscal plan and two years to bring rates back down.

"Even if the chance of a crisis is very small, basic finance theory tells us it could also be very costly."

Moreover, even if the chance of a crisis is very small, basic finance theory tells us it could also be very costly. Specifically, policymakers should be willing to pay a large cost to avoid a contingency in which money costs much more (that is, interest rates spike) at precisely the time in which money is most valuable (for example, when it is needed to combat an emergency or a recession).

7. What are the consequences of uncertainty about the magnitude and economic impact of the fiscal outlook? Forecasts of debt and its consequences are always uncertain; thus, for insurance, we should likely do more sooner—but there may also be an option value to waiting.

As should be clear to even a semi-alert reader by now, many unknowns remain about both the outlook for the deficit and the consequences of not acting relatively quickly on that outlook. Nevertheless, it would require an unlikely—but not impossible—set of circumstances for the debt to stabilize as a share of the economy without policy changes.

This point is especially true given that some sources of uncertainty are asymmetrical, especially future events like pandemics, financial crises, and wars—which can result in very large jumps in the debt-to-GDP ratio.

Nevertheless, the forecast errors are still large relative to the estimated magnitude of the problem. Under current law, with the CBO's interest rates, the fiscal adjustment needed to stabilize the debt is 2 percent of GDP. The CBO, however, routinely makes prediction errors of that magnitude. As a particularly dramatic example, in September 2020 the CBO projected that the debt would reach 106 percent by the end of 2023 (CBO 2020b). After that projection, Congress passed legislation costing $3 trillion through the end of 2023, but the debt ended up at 97 percent of GDP—largely because of the large increase in nominal GDP.

One source of uncertainty is the economic forecast. In particular, the forecast is especially sensitive to real interest rates—which both matter more than other economic variables per tenth-of-a-percentage-point deviation in the forecast and because a tenth-of-a-percentage-point deviation in the forecast is more common and likely.

Table 5 shows the CBO sensitivity analysis to different economic deviations, along with the forecast error for the 2014–2023 period, to give a sense of the magnitude by which these variables might deviate from the forecast in the future. It would take a relatively implausible combination of economic changes to stabilize the debt—for example, a 1-percentage-point increase in productivity growth or a 2-percentage-point reduction in real interest rates.

Table 5. CBO sensitivity analysis to different economic assumptions

	2013 forecast error for 2014–2023	Change in 2034 (percentage points)	
Change of 0.1 percentage points		*Deficit*	*Debt*
Productivity down	0.6	0.3%	2.4%
Labor force down	-0.8	0.1%	1.1%
Interest rate up (real rate)	-2.4	1.2%	7.8%
Interest rate and inflation up (nominal rate)	n/a	0.0%	0.6%

Source: Author's calculations based on CBO 2013 and CBO 2024a; Bureau of Labor Statistics; and Bureau of Economic Analysis via Macrobond.

The economy is not the only or perhaps even the largest source of uncertainty. What are classified as "technical factors" can loom even larger. In February 2023, the CBO projected that the deficit in 2023 would be 5.4 percent of GDP—a "forecast" that was made more than partway through the fiscal year, as shown in table 6 (CBO 2023).

Instead, the deficit, adjusted for student-loan timing shifts, turned out to be 7.5 percent of GDP—an error of more than 1.5 percent of GDP. The CBO made this error despite the fact that the de facto recession it had forecast did not materialize. In this case, the largest source of the error was tax receipts coming in well below CBO's expectations, which were conditional on the size of the economy.

Table 6. CBO forecast vs. actual for FY 2023

	CBO forecast (February 2023)	Actual
Deficit ($)	$1.4 trillion	$2.0 trillion
Deficit (percentage of GDP)	5.4%	7.5%
Real GDP (Q3 / Q3)	-0.1%	2.9%
Unemployment rate (Q3)	4.9%	3.7%
10-year interest rate (Q3)	3.9%	4.1%
PCE inflation (Q3 / Q3)	3.6%	3.3%

Sources: CBO 2023 and CBO 2024d.

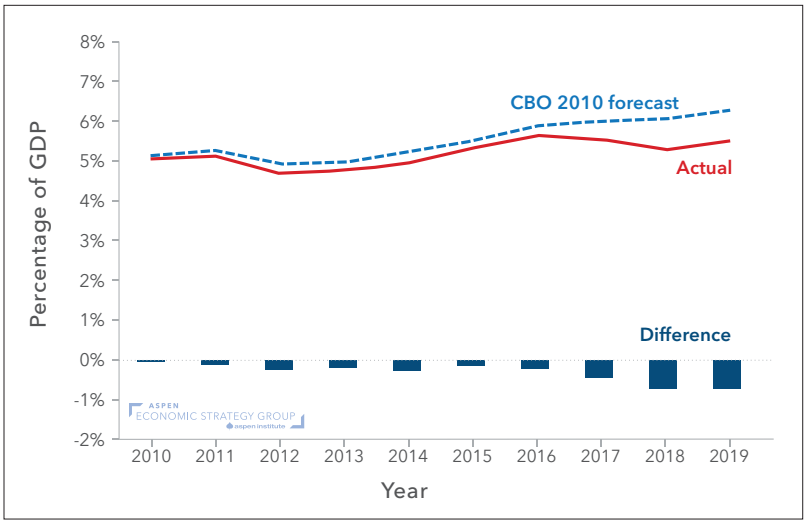
Another example of revisions due to technical factors is in the case of health spending. Figure 7 shows the CBO forecast for spending on mandatory health programs (mostly Medicare and Medicaid), made in September 2010 (which incorporated CBO's projection of the impact of the Affordable Care Act), compared to actual spending levels. By 2019, spending was nearly 1 percent of GDP below what CBO had forecast in 2010 (or a nearly one-sixth reduction), with more than

90 percent of that difference classified as resulting from "technical changes"—like, for example, the reduction in expensive blockbuster drugs (CBO 2010). That amount constitutes nearly half the fiscal gap under CBO's current-law forecast.

"Periodic events like wars, pandemics, and financial crises can result in the debt rising by a double-digit percentage of GDP."

Finally, as discussed above, periodic events like wars, pandemics, and financial crises can result in the debt rising by a double-digit percentage of GDP. While this kind of outcome is not technically counted as a CBO prediction error—because these changes largely stem from laws passed in response to these events, and because CBO's forecast is conditional on no new changes in law being passed—to all intents and purposes, these events should be thought of as highly asymmetrical sources of prediction errors.

Figure 7: CBO forecast for spending on mandatory health programs (percentage of GDP)



Source: Author's calculations, based on CBO 2010 and CBO 2024d.

On the other hand, to the degree that adjustments entail large, fixed costs, there is an option value to waiting to learn more about the magnitude of the problem and the necessity of solving it. Opponents of climate change action cite this principle as a motivation for doing less today.

Similarly, on fiscal issues, some economists argue that it would be foolish, for example, to dramatically cut Social Security benefits only to discover a few years later that doing so was unnecessary because the budget forecast was wrong.

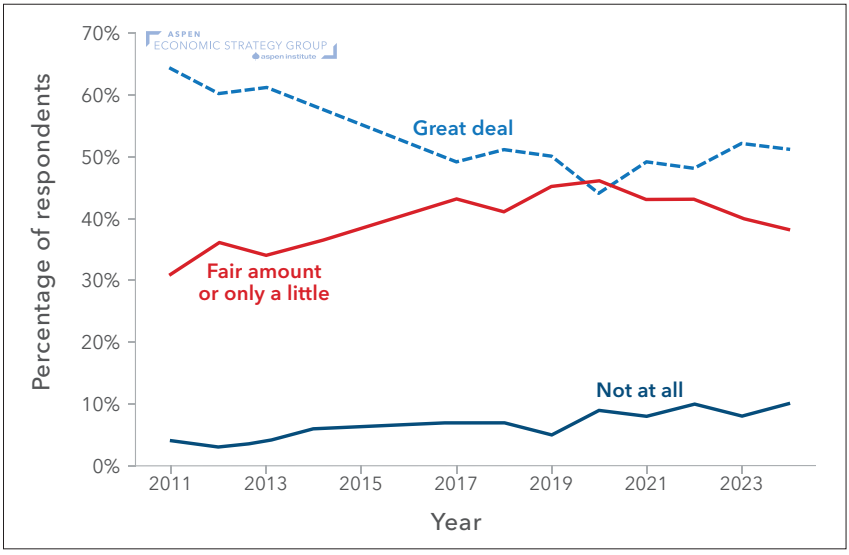
At a minimum, the combination of these countervailing considerations says that we should do no harm. It may not make sense to have a massive fiscal plan when the magnitude of the problem is uncertain, but in such a case, neither the insurance consideration nor the option value of waiting provides any rationale as to which steps will make the fiscal problem worse.

8. What could cause policymakers to act? This scenario is extremely hard to predict, but three possibilities are (1) increased political support for deficit reduction, (2) fiscal forcing events, and (3) economic forcing events.

Finally, what will cause policymakers to act? I will resist the temptation to say that reading this paper will do it—and instead I will speculate about three possible impetuses to action.

The obstacles are substantial. Although public concern about the debt has been growing, that concern is still less than it was in the 2011–2013 period, which was dominated by discussions of the "grand bargain," Bowles-Simpson, and other deficit debates, as shown in figure 8. It is not clear whether the public's interest in this earlier period was a function of politicians talking about the deficit or, alternatively, whether politicians were talking about the deficit because the public was interested.

Figure 8: Survey: How much do you worry about federal spending and budget deficit?



Source: Gallup 2024.

Beyond public opinion, the American political system presents serious obstacles to action. In total, 42 senators and 189 House members, all Republicans, have signed the Americans for Tax Reform pledge that they will not vote for a penny in tax cuts, with the first pledge dating to 1986 (Good 2012).

Many Republicans have actively supported trillions of dollars in additional defense spending, and the party is divided and mostly unspecific about any reductions in entitlement spending. Democrats have drawn fewer hard lines, with President Biden's budget including both tax increases and reductions in Medicare spending. Nevertheless, President Biden has pledged not to raise taxes on anyone making less than $400,000 per year—ruling out about 80 percent of taxable income from being subject to tax increases. He has also opposed reductions in Medicare payments to beneficiaries.

Finally, the two parties have proven able to work together to avert disaster or increase the deficit (as, for example, with the bipartisan infrastructure bill or the CHIPS Act), but many of the Republican lawmakers who supported this legislation have since left Congress. The ability to pass meaningful legislation—let alone achieve something even harder, like deficit reduction—going forward is very unclear.

I can see three broad ways in which deficit reduction might come about:

First is a shift in public opinion or a political candidate who exploits what might be latent public support for deficit reduction. Historically, there have been moments where candidates focused on the deficit in their campaigns. For example, in 1992 Ross Perot made it a centerpiece of his campaign; the deficit was likewise a big emphasis of then-governor Clinton's plan. As president, Clinton began his administration with an economic plan that centered around deficit reduction (Clinton White House Archives 2001).

The second possible forcing event would be related to the law and government accounting. One possibility is the expiration of the TCJA tax cuts in 2025, although that event poses more of a risk for increasing the deficit relative to current law than it does for reducing it. More promising as an action-forcing event is the exhaustion of the combined Social Security trust funds, projected for 2035, and of the Medicare Hospital Insurance trust fund, projected for 2036. If policymakers address these exhaustions with a combination of revenue increases or spending reductions, the present value deficit would be cut by about 1.5 percent of GDP. Of course, policymakers could squander this opportunity by choosing to instead use budget gimmicks to transfer funds to these programs without making any fiscal changes.

The third possible forcing event would be economic. It could result from a gradual increase in interest rates; for example, the ten-year Treasury interest rate could rise

to 6 percent on a sustained basis, with mortgage rates in the double digits. Or it could result from rapid change of the type that, for example, Canada experienced in 1994 (Henderson 2010). In either case, markets could "force" action by raising the cost of inaction and giving policymakers the opportunity to tout deficit reduction as the solution to widely perceived problems like high mortgage rates.

Conclusion: What I Would Do

So far, I have been laying out analysis and menus of options without putting my own cards on the table. A limiting principle that is some combination of optimal, achievable, and understandable goals is critical if policymakers are to approach budgetary issues. My recommendation for a limiting principle that, based on current forecasts, would meet these needs would be for policymakers to target balancing the primary budget—that is, the budget excluding interest—no later than 2030. Assuming that interest rates are below the growth rate of nominal GDP, which is true under both the CBO forecast for interest rates and even the market forecast for interest rates, the result would be that debt gradually falls as a share of GDP.

The more fundamental consideration underlying this proposed target is keeping real interest rate payments comfortably below 2 percent of GDP, as proposed by Furman and Summers (2019). Assuming that interest rates are roughly halfway between market and CBO forecasts, achieving this goal would require stabilizing the debt at around 125 percent of GDP, roughly where it is currently projected to be at the end of the budget window. But given periodic emergencies, staying well below this level, with debt declining as a share of GDP in "normal" times, is essential.

If the economic outlook changed substantially, then the primary deficit target could be adjusted—for example, if interest rates look set to stay even higher, then a primary surplus could be needed, whereas a big increase in growth could allow modest primary deficits going forward. However, the necessity of keeping any budget target "understandable" would suggest a high(ish) threshold for adjusting it.

Here is a broad approach to balancing the primary budget by the end of a decade and generating a growing primary surplus beyond the budget window:

1. **Do not pass any tax legislation in 2025 unless policymakers can agree on a tax reform that raises revenue by 0.5 percent of GDP (or about $2 trillion) relative to current law.**

When you are in a hole, the first rule is to stop digging. The biggest short-term fiscal risk the United States faces is passing tax cuts that would add 50 percent or more to the magnitude of the country's fiscal challenge. If Congress passes no tax laws in

2025—or if the president vetoes anything they pass—then the individual tax code would go back to what it was in 2016. While the temporary provisions in the 2017 tax law improved on the 2016 law in a number of respects—including simplifying taxes by increasing the standard deduction and making the tax code more efficient by broadening the tax base—those changes came at a very high cost that, in my judgment, is not remotely commensurate to the benefits.

Ideally, Congress would pass a law that improves on the 2016 law. Most importantly, it should remedy the 2016 law's failure to raise sufficient revenue. I would suggest a target of 0.5 percentage points of GDP in deficit reduction. Beyond that, tax reform should increase efficiency, help families, and simplify the tax code. It is beyond the scope of this paper to present a detailed proposal, but any reform should at least (a) raise the corporate rate while making expensing of investment permanent (Furman 2020); (b) retain most of the structural changes in the 2017 law while allowing *all* the rate reductions to lapse; and (c) making the child tax credit fully refundable.

2. Adopt Super PAYGO for future legislation so that savings exceed costs by at least 25 percent.

Congress enacted statutory PAYGO in 2010, requiring that all mandatory spending increases or tax cuts be fully offset and not add to the deficit. Congressional procedures impose similar rules, although in the House they just apply to spending. Given the fiscal outlook, PAYGO is no longer sufficient. Considering the option value of waiting on fiscal reform, Congress may not want to make a grand bargain, but under just about any scenario, the current trajectory falls well short of sustainable—so a series of smaller adjustments will be needed. This paper supports Maya MacGuineas's proposal for "Super PAYGO" that legislation should more than satisfy PAYGO. Specifically, I would operationalize the MacGuineas proposal by requiring that offsets exceed costs by 25 percent. So, for example, if a tax cut or spending increase costs 1 percent of GDP, then it should be offset with at least 1.25 percent of GDP—leading to a deficit reduction of 0.25 percentage points.

To provide dynamic feedback, estimates under this proposal should take the CBO's estimates into account. For example, if the CBO estimates that legislation will pay for itself over time, then it does need to be offset.

Personally, I believe substantial desirable investments exist by which we can increase economic growth through innovation, expand opportunity through investments in children, and increase national security through more defense spending. All of these investments should be more than offset. In addition, a carbon tax and dividend proposal could help address climate change—a portion of the proceeds could be devoted to deficit reduction, with the remainder designated for compensation.

3. Reform Social Security and Medicare.

Reforming Social Security and Medicare by making tax and benefit changes that would ensure the trust funds are solvent for 75 years would reduce the present value of the deficit by about 1.5 percent of GDP according to projections from the Trustees of these two programs and slightly more under the CBO forecast. It is beyond the scope of this paper to make explicit proposals, but personally I would make the main Social Security proposal an increase in the payroll tax. Medicare reform could combine a very small tax change with provider and beneficiary reforms.[20]

4. Make limited exceptions for economic and international emergencies.

Finally, there should be an exception for economic and international emergencies like major recessions, pandemics, and wars. These kinds of crises can and should be paid for with temporary measures whose cost is spread out over time.

Overall, this broad outline of an approach would be sufficient to balance the primary budget, putting the debt on a slight downward path as a share of the economy in normal times, with increases in emergencies—keeping real net interest below 2 percent of GDP. As the economy evolves, and especially as interest rates change, this approach would need to be dialed up or down.

20 See Duggan 2023 for a Social Security reform proposal.

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