The Impending Crisis: Assessing the Dangers of Excessive US Debt

Joao Gomes
Wharton School of the University of Pennsylvania

March 20, 2024

Introduction

The current projections for federal debt pose a major threat to the United States' position as a global beacon of financial prowess and stability. While government debt is a necessary tool for financing government operations and even sustaining economic growth during times of crisis, its unchecked accumulation over the past two decades poses grave dangers to the economy at large, as well as individual consumers and businesses.

My testimony delves into the perils of the rising debt, drawing primarily on the historical record and on economic projections from the Congressional Budget Office (CBO) and the Penn Wharton Budget Model (PWBM), to illuminate the impending crisis and its ramifications. It is divided in three parts: (i) a preview of what the coming crisis will look like; (ii) a discussion of why federal deficits will be more costly, and economically damaging, over the next decade; and (iii) an estimate of the fiscal adjustment necessary to prevent, or at least greatly mitigate, the likelihood of a fiscal crisis.

To be clear, I am much less concerned with reducing current levels of federal debt than I am with the projections that these debt levels will nearly double in the next 20 years or so, relative to the size of the U.S. economy.[1] As a result, I am not advocating for large and immediate increases in taxes, or drastic reductions in fiscal spending. I estimate that, under plausible assumptions, it is enough for the federal deficit to settle at the current equivalent of $1.1 Trillion. That is still nearly twice its value in 2016 - hardly a radical request for fiscal responsibility.

1 The coming crisis

The coming fiscal crisis will be triggered by a sudden loss of confidence by the general public in the federal government's finances and on those tasked with managing them.

[1]Penn Wharton Budget Model, When does the federal debt reach unsustainable levels.

The projected path for the US federal debt makes this loss of confidence inevitable in the not too distant future. Moreover, even before a full fledged crisis develops, we will see significant upward pressure in real interest rates, which will increase reference rates for borrowing for US consumers and businesses, and further narrow the window for a possible fiscal correction.[2]

While I cannot foresee the exact timing for these events, their outline will surely follow other well known episodes from recent and past history. The most likely scenario, starts with a major financial crisis where the federal government and its agencies feel compelled to intervene to recapitalize banks and/or stimulate aggregate demand through some combination of tax cuts and increased discretionary spending. The proposed large scale rescue package plus the ongoing collapse in tax revenues instantly increase government debt by perhaps 10% or more, while the economy, under the deadweight of debt overhang and undercapitalized banks, recovers very slowly.[3]

Eventually, the sharp increase in near term federal borrowing needs, combined with the prospect of a prolonged economic slump, proves unpalatable to domestic and global investors who balk at the idea of financing further deficits. The onset is sudden, and government yields move sharply higher, by perhaps 2% or more in the first few weeks, while the dollar falls sharply, likely at least 10% on impact, and probably over 20% in future years.[4] Mortgage rates, and those on various other key loans, increase, both to reflect the higher yields on government bonds and a significantly higher risk premia.

The second, possible, scenario is that of a newly elected (or reelected) administration proposing an ambitious fiscal plan, that significantly worsens the outlook for federal debt, without a perceived material impact in the US's long term growth po-

[2]Penn Wharton Budget Model, Unsustainable debt.

[3]Debt help by the public increased by 13% of GDP in 2009 and 19.7% in 2020.

[4]These numbers are very conservative. During the recent UK mini-budget fallout, 50-year yields jumped almost 5% in a few days while the British pound fell by 10%. Similarly, a 2010 Congressional Budget Office study, based on a survey of recent crises, assumed a 4% interest rate increase. For details see CBO, Federal debt and the risk of a fiscal crisis.

tential. Again, bond markets react negatively and treasury yields jump as soon as the plan's outline becomes clear.

Importantly, this scenario can unfold either because of the poor design of the fiscal package itself, or due to a general lack of trust in the administration's perceived competence. Moreover, it is not even necessary for the fiscal plan to be approved in Congress. Any poorly conceived, or communicated, budget proposal that has a credible probability of final approval could be enough to trigger a sharp market response. The United Kingdom's experience in September of 2022 offers a timely reminder that a seemingly robust G-7 economy is not immune from such episodes.

For the United States, the aftermath of the crisis will depend on the precise responses of the Federal Reserve and the US Treasury. It is possible that the Federal Reserve will try to accommodate any proposed fiscal expansion and to stabilize bond yields by buying large quantities of US debt. This worked well in 2009, and even better in 2020, but it is unlikely to be effective during a full fledged fiscal crisis, when confidence in US institutions will be very low. Instead, I expect that any such intervention will compromise the Federal Reserve's perceived independence and its commitment to price stability. As a result, the intervention will only raise long run inflation expectations, rendering any attempt to stabilize bond yields essentially futile.

Under almost any scenario, the US Treasury will be forced to scale back most of its fiscal plans. Even more worrisomely, it may be forced to adopt significant deficit reduction measures, perhaps counter-cyclically, to restore confidence in the US bond market. These measures would have a further devastating effect in the economy, leading to a decade long stagnation. They would also compound the decline in projected tax revenues, undermining our commitments to social programs and public investment. Given our projected demographic challenges, many older, and marginally attached, workers are likely to leave the labor force never to return again.

Whatever the exact causes of the crisis and the federal government's immediate response, the loss of confidence in the US treasury market will be permanent and the value of the US dollar will not recover.

2 A world of higher real interest rates

Since 1945 the average interest rate on the US federal debt has been relatively low.[5] This allowed the US Treasury to roll over the outstanding debt without making significant efforts to reduce its nominal amount. In addition, high inflation both in the immediate aftermath of World War II and during the 1970s, combined with strong economic growth in the second half of the 20th century, significantly reduced the real burden of the federal debt in relation to the size of the US economy.

This exceptionally benign macroeconomic background no longer exists. Some reasons are temporary, but most are structural, and likely to persist until, at least, the mid 2030s. For example, our aging population now creates a significant drag on economic growth. While the US economy grew at nearly 3% per year between 1945 and 2000, it is expected to grow below at slightly below 2% per year over the next 30 years.[6]

More importantly, the era of low real interest rates is probably over, as the post-2000 global savings glut morphs into a mega investment cycle. Factory automation, artificial intelligence, green energies and demand for new commodities, together with an urgency to build more resilient global supply chains, all require investments of an unprecedented scale, stretching global saving and creating strong upward pressure on real interest rates.[7]

Beyond these structural developments, the large federal funding needs also face some important near term headwinds. First, the Federal Reserve's ongoing Quantitative Tightening is projected to inject a further $400 to $500 billion in US Treasury

[5] See Olivier Blanchard, Public debt and low interest rates. American Economic Review, 2019.

[6] Congressional Budget Office, Budget and economic data.

[7] For a survey of recent estimates for global demand for green investment see World Economic Forum, Costing the earth: how to make the green transition work.

securities in the economy though the end of 2024.[8] Second, despite the large increase in US government debt outstanding, foreign holdings of US treasuries have actually declined from a peak of $4,254 Billion in July of 2021 to $3,788 Billion in December of 2023.[9]

The reduction in net foreign buying of US treasuries removes an important margin of adjustment and increases the pressure on domestic savers to absorb domestic debt, so that future issuances are likely to crowd out private sector needs. Even during the ultra low interest rate environment of 2021, the PWBM estimated that access to international markets greatly mitigated the adverse impact of deficit spending on GDP. [10] Future deficits are, thus, likely to be far more deleterious to domestic consumers and businesses.

All together, there are many reasons to expect that real interest rates will be much higher in the next decade, even if no fiscal crisis occurs. The latest CBO projections abstract from many of the forces I identify above, but still predict a rise of nearly 2.5% for the average interest cost on government debt over the next 10 years. More plausible estimates, by the Social Security Administration and PWBM, put this increase at 3% or more. But, even under the most optimistic projections, the cost of servicing existing debt eventually becomes unbearable, with higher interest rates creating a relentless spiral that greatly compounds the country's fiscal challenge over the next decade.

3 Mitigating the Risks

Addressing the dangers of excessive debt might be politically complex, but from my viewpoint as an economist, this is a fairly straightforward issue. The conventional policy options are well understood and fall largely into two main categories: (i) accelerating economic growth; and (ii) directly reducing the federal deficit. Faster economic

[8] Federal Reserve Bank of New York, Survey of primary dealers.

[9] US Department of Treasury, Portfolio holdings of US and foreign securities.

[10] Penn Wharton Budget Model, Explainer: capital crowd-out effects of government debt.

growth also generates additional tax revenues which help in reducing the deficit. Conversely, policies that reduce the fiscal deficit will harm short term GDP growth.

Prioritizing growth is more desirable and may be achieved through a myriad of different policies and regulations. There is much agreement among economists and nearly all would prefer measures that accelerate productivity growth. Unfortunately, the scale of the federal deficit means that a significant fiscal adjustment is urgently needed. Still, the current resilience of the US economy should allow for solutions that achieve fiscal sustainability without plunging the country into a recession.

Let me state clearly that the required fiscal correction is not drastic. We certainly do not need to repay any part of the outstanding debt to prevent a crisis. In fact, government debt can continue to grow steadily over time without posing an immediate threat to the nation's fiscal solvency - as long as the yearly deficits are not excessive.

Using the latest CBO projections we can easily calculate the scale of the fiscal adjustment required to stabilize federal debt as a share of GDP. I estimate that the federal government would need to run a primary deficit (net of interest expenses) equal to 0.78% of GDP in 2024, falling to 0.23% of GDP in 2033. In dollar terms, this translates into an overall deficit of nearly $1.1 Trillion in 2024, down from a current projection of $1.5 Trillion. That requires a fiscal adjustment of about $400 billion or 1.4% of GDP.[11]

To mitigate its impact on the economy and avoid a recession, the fiscal adjustment can also be spread over two to three years. Larger deficit reductions are not necessary, but would greatly expand the menu of options available to the federal government if, and when, the economy experiences the next major downturn.

By comparison, the required fiscal adjustment to stabilize the federal debt in 2033 would be twice as large. At that late stage, the federal government will need to trim a projected deficit of $2.55 Trillion to just slightly over $1.7 Trillion. Naturally, all the resources committed to the excessive debt service over the coming decade will no

[11]See Appendix A for the calculation details.

longer be available to fund medicare benefits, national defense or public investment.

Concluding Remarks

In the last 20 years, the US federal government abandoned all forms of fiscal discipline. This was facilitated by the legacy of a large fiscal buffer at the end of the 1990s and the ultra low levels of interest rates, especially after 2008. The situation today is vastly different and further complicated by the dramatic reduction in potential GDP growth and associated federal tax revenues. Although the federal government's ability to service the existing debt remains unquestioned for now, additional growth in federal debt will face progressively higher interest costs while crowding out needed investments by the business sector and damaging home ownership and the housing market.

Without an urgent, but manageable, course correction, the federal debt will continue to accumulate quickly and will ultimately become unsustainable, as interest rates rise and economic growth slows. A fiscal crisis might occur around 2030 as the bleak outlook for Social Security comes into broader view and general revenue is diverted to cover promised benefits. Perhaps it will be delayed until 2040 when the federal debt crosses 150% of GDP and interest costs become impossibly large. But it may happen as soon as 2025, as a newly elected, or re-elected, administration proposes yet another expensive fiscal package that relies on implausibly rosy economic assumptions.

Regardless, its consequences will be severe and leave lasting - probably irreversible - scars on our economy and society. As Carmen M. Reinhart and Kenneth S. Rogoff comprehensively demonstrate, such crises are recurrent phenomena, triggered by a combination of excessive debt accumulation, amnesia and hubris.[12] The US will be no exception and, to paraphrase Fed Chairman Jerome Powell, it is well past time we all have an adult conversation about fiscal responsibility.[13]

[12] Carmen M. Reinhart and Kenneth S. Rogoff, This time Is different: eight centuries of financial folly', Princeton University Press, 2009.

[13] The 1933 abrogation of the Gold clause for US debt was, for all practical purposes, a default event.

A Appendix

To ensure that the ratio of debt to GDP remains stable over time, a government must run primary surpluses (exclusive of interest payments) just large enough to repay the interest on the debt, adjusted by the rate of economic growth. We can express this relationship mathematically as:

$$S = (i - g)B$$

where, S represents the primary surplus as share of nominal GDP, i is the nominal interest rate on the debt, g represents the nominal growth rate of the economy, and B denotes the amount of currently outstanding debt relative to GDP.

The following example illustrates the current US Fiscal position using CBO data:[14]

- total debt outstanding, B, is currently equivalent to 98% of GDP.
- long-term growth projections for nominal GDP growth average around $g = 3.7\%$ per year (real growth rate of 1.7% plus an inflation rate of 2%.).
- projections for long-term interest rates on government debt are estimated to range between $i = 2.9\%$ (in 2024) and $i = 3.3\%$ (in 2033).

For these baseline scenarios, stabilizing public debt would require a primary surplus of

- -0.78% in 2024 (computed as $(2.9\%\text{–}3.7\%) * 0.98$)
- -0.39% in 2033 (computed as $(3.3\%\text{–}3.7\%) * 0.98$)

[14] Congressional Budget Office, Budget and economic data