



## Research

# Thinking the Unthinkable: The Risks of a U.S. Treasury Default

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## Executive Summary

- The United States is rapidly approaching the “X-date,” the day on which the Treasury Department will run out of cash unless Congress enacts an increase in the federal debt limit.
- Failure to increase or suspend the debt limit would require the federal government to reduce financial activities to the amount of cash inflow and consequently prioritize which expenses the federal government pays.
- This scenario – prioritization of payments – is highly risky, and significantly raises the potential for a real or perceived default by the U. S. government, which would materially harm U.S. governance, impose more than \$800 billion in lasting costs on taxpayers, and inflict substantial economic damage that could lead to recession and cost nearly 8 million American jobs.

## Introduction

The United States is not yet the closest it has ever been to default, but that may soon change. The secretary of the Treasury has indicated that it is unlikely the federal government will have sufficient cash or borrowing authority to pay all anticipated obligations due on June 1. Congress and the White House are currently negotiating an increase in the debt limit paired with additional policy changes, including spending restraints. In the absence of an increase in Treasury’s borrowing authority, Treasury and other federal payment processes would essentially have to reduce payments to the cash inflow of the federal government to ensure that bondholders are paid, and to thus avoid a default on federal securities. This “prioritization” would require deferring timely payment of other obligations and would likely be perceived as a *de facto* technical default. Such an outcome would be highly disruptive to federal governance and financial markets and would impose enduring costs on U.S. taxpayers and the U.S. economy.

## What Is the Debt Limit?

In fiscal year 2023, the United States will run a federal budget deficit of \$1.5 trillion – the gap between the \$4.8 trillion in taxes the federal government will collect and the more than \$6.3 trillion the government will spend. To finance that deficit, the Treasury Department regularly auctions debt to the public. That debt is subject to a statutory limit, also known as the debt limit. Periodically, Congress raises or suspends this provision in law to accommodate the additional borrowing needed to finance the nation’s growing deficits.

The debt limit, also known as the debt ceiling, is the legal limit on certain types of borrowing by the federal government. It was first enacted in 1917, when Congress agreed to give the executive branch more flexibility for borrowing as the nation entered World War I, rather than authorizing every debt issue Treasury could borrow, as long as total borrowing was under the limit. Because the limit restricts the ability to borrow, it also restricts the ability to pay obligations already incurred. It is important to note, however, that the debt limit has

no direct impact on running deficits or limiting future obligations.

Federal debt subject to the limit includes both debt held by the public and debt held by governmental accounts (i.e., debt the government “owes to itself”). With the exception of certain *de minimis* accounting measures and relatively small tranches of other obligations, the debt limit covers virtually all federal debt issuance. At present, debt subject to limit stands at about \$31.4 trillion.[1] The Treasury Department effectively reached this limit on January 19, 2023, and has been using a number of accounting measures known as “extraordinary authorities” to liquidate federal obligations while operating close to the constraints of the debt limit.[2] According to Treasury Secretary Janet Yellen and a number of third-party estimates, there is a high likelihood these authorities will be exhausted as soon as June 1.[3]

## **Mechanics of a Failure To Increase the Debt Limit**

To understand the risks that attend to exhausting Treasury’s borrowing authority, it is essential to understand the mechanics of that scenario and how a debt limit crisis would unfold. History can serve as a partial guide. The United States has flirted with a potential exhaustion of Treasury’s authority in the past, most recently in 2011, and those experiences can inform how a 2023 debt ceiling crisis could begin and the channels through which such a crisis would initially be transmitted to the broader economy.

Financial markets will be the first channel through which the risk of default will be communicated. As JP Morgan noted, in the lead up to the 2011 debt-limit standoff, “The closest call in recent past was 2011, when Congress increased the ceiling just 2 days before the Treasury was expected to exhaust its efforts. Days later, Standard & Poor’s downgraded the U.S. credit rating to AA+ (from AAA). Risk assets reacted negatively: the dollar sold off, stocks sank, and credit spreads widened...”[4] That is an apt characterization of the breadth of financial markets’ response to the perception of increased risk of default. More specifically, the Treasury Department summarized financial markets’ reaction to the 2011 episode and noted that the S&P 500 fell 17 percent, and that between the second and third quarter of 2011, household wealth fell \$2.4 trillion.[5] Distortions were similarly observed in bond markets.[6]

It is important to note that financial markets and ratings agencies, being forward looking in orientation, will signal risk as the X-date nears.[7] Nevertheless, to the extent that the United States always eventually raises the debt limit, despite the proximity to the X-date, financial markets have been somewhat muted. They have clearly not priced in the risk of default. Part of this calculus may rest on the notion that even if the United States were to exhaust its borrowing authority, that event is not in and of itself a default on a Treasury security. There is some capacity to ensure that bond payments are made even in the case of Treasury being unable to raise cash through new debt auctions. Yet upon exhaustion of its borrowing authority, the risks that Treasury *could* default on bond payments and likely would default on payments for other obligations coming due – such as Social Security payments – escalate rapidly and become an inevitability over a longer period of time.

The need to raise the debt limit has usually been couched as essential to avoid defaulting on the nation’s debts. Some policymakers and observers have noted that annual tax revenues more than cover interest payments on the federal debt, which suggests a failure to increase the debt limit would not risk a default on Treasury securities. But this assumption belies the fact that under such a scenario, Treasury would have to ensure timely interest payments on a *daily* basis. While it is true that over the course of a year, revenue exceeds interest payments, Treasury’s daily cash position can have significant deficits – as much as *tens of billions* in a single day.[8]

Minutes from Federal Reserve discussions, as well as correspondence from the Treasury Department’s inspector

general, provide insight into past debt limit challenges, and highlight the practical reality, and the associated risks, of a failure to increase or suspend the debt limit in a timely fashion.[9] Treasury and the Federal Reserve have developed contingency plans to prioritize interest payments on debt securities, which assume that principal payments could be made by rolling over maturing securities. This is a significant assumption, however. If investors were unwilling to accept rollovers – realized in an undersubscribed Treasury auction – Treasury would require substantially higher cash balances to redeem maturing Treasury securities. Indeed, during the debt limit impasse of 2011, if Congress had not increased the debt limit on August 2, and if Treasury had not been able to roll over maturing debt, Treasury would have needed \$87 billion in cash to redeem maturing securities. At the time, Treasury projected that it would only have \$20 billion in cash on hand on August 4 – resulting in a default on some portion of those maturing securities.

Assuming investors would be willing to accept rollovers, Treasury would have to defer other due payments to ensure it had sufficient cash to pay interest. Such a scenario would require reliance on uncertain cash projections. Indeed, Treasury has disclosed that the margin of error for its cash projections, even with 98 percent confidence, is plus or minus \$18 billion over a one-week period and \$30 billion over a two-week horizon. Delayed payments to non-interest recipients would likely be perceived as a *de facto* default, and in the context of other related adverse market conditions, would further damage the credibility of Treasury securities as a riskless asset in the global financial system.

## **Financial Implications**

The primary credit instrument of the United States is a Treasury security – a bond, note, or bill – and it fundamentally reflects the creditworthiness of the U.S. government. At present, it retains the presumption of being essentially riskless. As the X-date nears, markets will increasingly price in risks for certain tranches of Treasury debt coming due over the period where observers believe the ability of the U.S. government to repay those debts would be impaired. Ratings agencies may attach negative outlooks to certain debt issuances, but all of these signals are nevertheless couched in a historic perspective where default never occurs. Yet there is risk that the unthinkable may become reality.

When Treasury is forced to engage in “extraordinary measures” and otherwise alter Treasury auctions, those disruptions are not viewed favorably by investors. When close to the debt limit, Treasury can issue cash management (CM) bills to raise cash to liquidate obligations over the near-term. Because this strategy involves altering regularly scheduled securities auctions and borrowing less money over a shorter time, the Government Accountability Office (GAO) has said that it likely increases the long-term cost of borrowing money. Overall, GAO’s analysis indicated that CM bills had higher-yield premiums, on average, of 4–48 basis points (bp).[10]

Costs grow higher if the United States draws the ire of capital markets during a perceived default. Interest payments would certainly increase, but it’s not clear by how much. GAO estimated that uncertainty surrounding the 2011 debt limit negotiations raised federal borrowing costs by \$1.3 billion in the following year.[11] This sum represents a lasting cost from a brief stalemate, and it would likely be dwarfed by the adverse consequence of a potential default or a perceived *de facto* default due to delays in payments on other federal obligations. In the 1970s, the United States technically defaulted on an interest payment because of a confluence of equipment failure and unusually high investor demand. The price it paid was a 60-bp premium on interest payments. While transient, it does reflect how markets penalize even inadvertent and arguably excusable disruptions in timely credit payment.

Simple debt management disruptions have seen borrowing costs increase by 4–48 bp, while an accidental default saw a premium of 60 bp. A 2021 report by Moody’s estimated that Treasury yields would spike relative

to baseline levels by 1.47 percent.[12]

The U.S. Treasury security is the benchmark for the cost of funds and underpins all manner of consumer financial products. This spike in interest rates would impact financial markets throughout the world, to include housing finance, consumer finance, and the macro-economy in general. For example, mortgage rates are highly correlated to Treasury notes, such that a spike in Treasuries can be expected to pass through to mortgage rates. Accordingly, one can estimate the effect on mortgage rates in a default scenario. For the sake of comparison, at today's rates, monthly interest and principal payments on a \$516,5000 home loan (the current average U.S. sale price) would amount to \$3,191.[13] Over the life of the loan, the homeowners would pay just over \$1 million in combined principal and interest. If mortgage rates jumped 1.47 percentage points, that same house would be significantly more expensive. Indeed, over the life of the loan, the homeowners would pay nearly \$150,000 more in interest, and their monthly payment would increase by 13 percent – essentially a \$400 monthly tax courtesy of Washington, D.C.

The example holds true in other matters of consumer finance, which rely on Treasury securities as benchmarks. According to Kelly Blue Book, the average price of a new car sold at the end of 2022 was \$49,507.[14] If rates increased by 1.47 percentage points, that same car would cost \$2,030 in additional interest payments.[15]

These estimates reflect the ripple effect of the financial implications of a potential debt default and are just examples of the myriad ways in which a default would materially harm the well-being of Americans. But these broad-based estimates belie the effect on more vulnerable populations, such as seniors. Senior Americans could be particularly exposed to default risk depending on their circumstances. Seniors solely dependent on Social Security would be exposed to the risk that Treasury would be unable to make timely benefit payments, and this is true of any retirement benefit paid by the federal government, including veterans' retirement benefits. Indeed, on June 1, there is a \$12 billion payment due for these benefits.[16] Seniors with diversified retirement income likely rely on retirement savings. The average 401(k) balance for seniors is about \$280,000.[17] While seniors are likely substantially less invested in riskier assets, a unique feature of a Treasury default scenario is that global investors would no longer flee to the safety of Treasuries. Thus, even for seniors invested in "safe" Treasuries, a potential default could be materially harmful to their retirement savings. For context, if these seniors' 401(k)s declined commensurately with the 17 percent S&P decline observed in a previous debt limit standoff, their retirement savings would decline by over \$47,000.

## **Governance Challenges**

If Treasury were to prioritize payments, it would likely do its utmost to assure investors they would be paid on a timely basis. There is no legal basis for Treasury to prioritize one obligation over another, however. The United States has two laws on the books, the Antideficiency Act and the Impoundment Control Act that work in concert to require that the executive branch spends funds appropriated by the legislative branch as intended – no more, no less. Yet there is no law that establishes seniority of one set of federal payees over another. Benefits owed to retired seniors, veterans, and other federal beneficiaries are all enshrined in law. Nothing about the rapidly diminishing balance in Treasury's General Account with the Federal Reserve changes that obligation.

Instead, Treasury is likely to prioritize payments to holders of U.S. Treasuries because federal officials would judge those payments, correctly, as the most harmful to miss over other obligations coming due. And as mentioned previously, there are federal payment systems that could facilitate that effort, at least for a time. There would be no ultimate authority on who and what to pay next, however. And the legal process would move too slowly to settle the issue. Accordingly, federal agencies would have little to no sense as to which bills from which claimants could be paid. Federal salaries may be suspended. The Antideficiency Act governs how

agencies and employees can operate in the absence of appropriations – a government shutdown – but agencies are without similar guidance during a potential default or prioritization scenario.

The disruption to federal services is unclear. Current law requires agencies to continue to function, to the extent funds have been appropriated. But if employees and service providers will not be paid in a timely fashion, it is unclear how federal services may suffer. While there are routine matters that could presumably be throttled, other federal services cannot. For example, given the pressures at the Southern border upon the expiration of Title 42, a default or prioritization scenario may exacerbate an already fraught policy challenge.

Ultimately, the taxpayer will suffer. In addition to financial market turmoil, diminished standards of governance, and macroeconomic risk, the end result of a potential exhaustion of Treasury’s borrowing authority would be higher interest costs paid by taxpayers.

Historical episodes such as those in 1979 and 2011 are just illustrations of how transient disruptions can increase federal borrowing costs, and ultimately increase spending. Simple debt management disruptions have seen borrowing costs increase by 4–48 bp, and an accidental default saw a premium of 60 bp. To the extent that in the unprecedented event Treasury exhausted its borrowing authority and had to prioritize payments, the interest-rate spike would be higher, and likely longer lived, even in the eventuality of an increase in Treasury’s borrowing authority. Moody’s estimated that even after the debt limit was increased, U.S. Treasuries would enduringly face a 27-bp premium. From the standpoint of the taxpayer, this would have the perverse incentive of increasing the national debt by raising the federal government’s borrowing costs permanently. The United States will spend an estimated \$663 billion in debt service costs, which is expected to more than double in 10 years to \$1.4 trillion. A permanent premium on Treasuries would raise debt service costs even more. If interest rates remained elevated consistent with Moody’s expectations, taxpayers would have to foot an additional \$850 billion in higher debt due to increased interest costs over the next decade.<sup>[18]</sup>

## Macroeconomic Implications

Ordinarily, one could be forgiven for assuming that financial markets and the macroeconomy, or “real” economy, are separate worlds. The stock market can fluctuate for any number of reasons beyond the health of the U.S. economy. Yet a potential default scenario would illuminate the linkages between the financial and real economies. The tightening cycle currently underway at the Federal Reserve *relies* on this linkage to control inflation. As well understood as that relationship is, it is not sufficiently well understood to paint a clear picture as to how the macroeconomy would respond to a potential default scenario.

A 2013 Treasury study on the macroeconomic implications of debt-limit brinksmanship observes: “The United States has never defaulted on its obligations, and the U.S. dollar and Treasury securities are at the center of the international financial system. A default would be unprecedented and has the potential to be catastrophic: credit markets could freeze, the value of the dollar could plummet, U.S. interest rates could skyrocket, the negative spillovers could reverberate around the world, and there might be a financial crisis and recession that could echo the events of 2008 or worse. Political brinksmanship that engenders even the prospect of a default can be disruptive to financial markets and American businesses and families.”<sup>[19]</sup> In substance, this characterizes the scope of the potential risks from exhausting Treasury’s borrowing authority and should serve as a stark warning to policymakers who appear to be entertaining these heightened risks.

The economic implications of this unprecedented event are difficult to gauge, but an internal 2013 Federal Reserve study estimated that U.S. gross domestic product (GDP) growth would be nearly halved for two

consecutive years, and unemployment would have remained significantly above baseline estimates for at least five years.[20] The study estimated that a default scenario would push the U.S. into recession. Within three years of the default, as estimated by the Federal Reserve, unemployment would increase 1.7 percentage points above baseline estimates. At present, a 1.7-percentage-point increase would equal over 2.8 million more unemployed Americans.

This scenario is just one, possibly conservative, estimate. Moody's more recently estimated that a prolonged default scenario would pare real GDP by 4.6 percent and put 7.8 million Americans out of work, while simultaneously wiping out \$10 trillion in household wealth.[21]

## Conclusion

The United States is not yet the closest it has come to default, but policymakers currently appear willing to entertain even the risk of a default. The Treasury Department has largely exhausted its extraordinary authorities, and as of June 1, may be forced to cash-flow the entire U.S. government. While Treasury has some technical capability to ensure holders of U.S. Treasuries are paid on time, the same cannot be said of other legitimate claims. There is no legal authority for Treasury to pick and choose due payments. Such a scenario would raise the risk of a default – and likely create the perception of default on other obligations. The result would be a rapid and deleterious repricing of assets throughout financial markets, significant turmoil in federal governance, and a high likelihood of recession.

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[2] <https://home.treasury.gov/system/files/136/Debt-Limit-Letter-to-Congress-McCarthy-20230113.pdf>

[3] <https://home.treasury.gov/system/files/136/Debt-Limit-Letter-to-Congress-20210928.pdf>

[4] <https://www.jpmorgan.com/wealth-management/wealth-partners/insights/debt-ceiling-drama-what-you-need-to-know>

[5] <https://home.treasury.gov/system/files/276/POTENTIAL-MACROECONOMIC-IMPACT-OF-DEBT-CEILING-BRINKMANSHIP.pdf>

[6] <https://www.federalreserve.gov/monetarypolicy/files/FOMC20110801confcall.pdf>

[7] <https://www.moodyanalytics.com/-/media/article/2023/debt-limit-scenario-update.pdf>

[8] Daily Treasury Statement: Cash and debt operations of the United States Treasury: Wednesday, December 3, 2012,” United States Treasury Financial Management Service, December 3, 2013, <https://www.fms.treas.gov/fmsweb/viewDTSFiles?dir=w&fname=12120300.pdf>.

[9] <https://www.federalreserve.gov/monetarypolicy/files/FOMC20110801confcall.pdf>;  
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[10] “Debt Management: Treasury Has Refined Its Use of Cash Management Bills but Should Explore Options That May Reduce Cost Further,” GAO-06-269, March 30, 2006.

[11] <https://www.gao.gov/products/GAO-12-701>

[12] <https://www.moodyanalytics.com/-/media/article/2022/playing-a-dangerous-game-with-the-debt-limit.pdf>

[13] <https://fred.stlouisfed.org/series/ASPUS>; <https://www.bankrate.com/mortgages/mortgage-calculator/>

[14] <https://www.kbb.com/car-news/average-new-car-price-tops-49500/>

[15] <https://www.bankrate.com/loans/auto-loans/auto-loan-calculator/>

[16] <https://www.npr.org/2023/05/22/1177169711/debt-ceiling-limit-default-veterans-social-security-government-benefits>

[17] <https://www.usatoday.com/money/blueprint/retirement/average-401-k-balance-by-age/>

[18] <https://www.thirdway.org/report/the-dominos-of-debt-limit-default>

[19] <https://www.treasury.gov/initiatives/Documents/POTENTIAL%20MACROECONOMIC%20IMPACT%20OF%20DEBT%20LIMIT%20DEFAULT>

[20] <https://www.federalreserve.gov/monetarypolicy/files/FOMC20131004memo02.pdf>

[21] <https://www.moodyanalytics.com/-/media/article/2023/debt-limit-scenario-update.pdf>