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Debt and the US Debt Ceiling: Part I

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We currently find ourselves entangled in a dilemma related to the debt ceiling, which the US hit in January 2023. The debt ceiling is a controversial issue, and it has increasingly been the subject of debate and political wrangling over the past twelve years. In part this is because of the broader context of federal spending and the national debt.

In part one of this research note, we explore the debt ceiling by providing a brief explanation of the debt limit, its history, and how it is unique compared to other countries. We also discuss the present situation and the potential implications of not resolving the current impasse. In part two, we will step back and explore the broader impact of debt on the economy.

Background

The debt ceiling is a statutory limit on the amount of debt that the US government can legally issue, and it is determined by Congress. When the debt ceiling is reached, Congress must vote to increase it or risk defaulting on the government's debts and other obligations.

The debt ceiling was first established in 1917 as part of the Second Liberty Bond Act, which was passed to finance the US involvement in World War I. Since 1960, the debt ceiling has been raised 78 times.[1] The debt ceiling was last raised in December 2021 to the current level of $31.4 trillion.

The US has hit the debt ceiling many times in recent history. In all cases, the debt ceiling was eventually raised, though sometimes only after being temporarily suspended. Suspending the debt ceiling allows the Treasury to continue to meet obligations through normal measures despite being over the allowable limit of issued bonds. It is only more recently (since 1995) that Congress has tried to attach conditions to increasing the debt ceiling.

[1] Source: US Treasury. https://home.treasury.gov/policy-issues/financial-markets-financial-institutions-and-fiscal-service/debt-limit#:~:text=Congress%20has%20always%20acted%20when,29%20times%20under%20Democratic%20presidents.

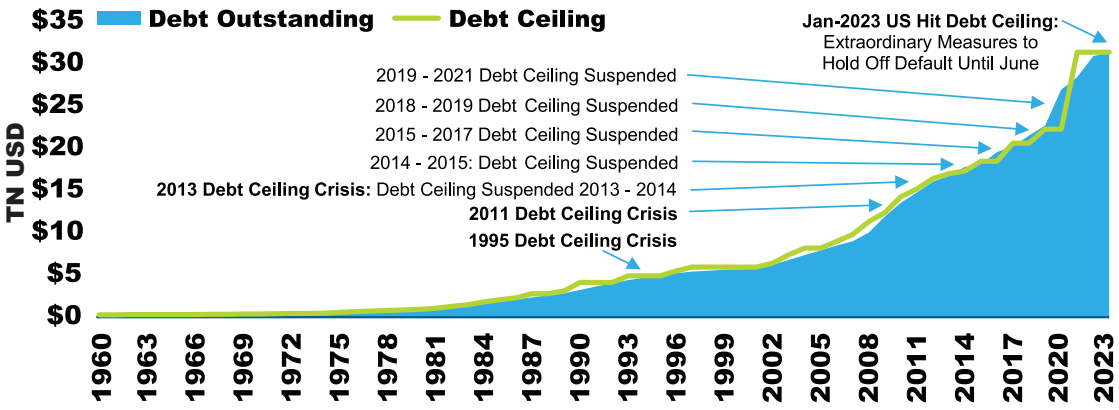

FIGURE 1
US Debt vs Debt Ceiling (TN USD)

Sources: Congressional Research Service, "The Debt Limit: History and Recent Increases," November 2, 2015. Fiscal Data (created by the Department of the Treasury & the Bureau of the Fiscal Service), as of April 2023.

Potential benefits of a debt ceiling

One of the main arguments in favor of the debt ceiling is that it provides a check on government spending. Theoretically, if the government is not allowed to borrow more money, it will be forced to "live within its means" and cut back on spending. This, in turn, should help to reduce the deficit and slow down the growth of the national debt.

Another argument in favor of the debt ceiling is that it helps to maintain the credibility of the US government in the eyes of investors. The US government borrows money by issuing Treasury bonds, and these bonds are widely regarded as one of the safest and most reliable investments in the world. Hence the debt limit can be perceived as a means of ensuring that the US government does not issue so much debt that it is unable to meet its obligations.

Potential challenges of a debt limit

On the other hand, opponents of the debt ceiling point out that the spending has already been authorized by Congress, hence the debt limit is redundant. Further, the debt ceiling has been raised routinely, and the government has never defaulted on its debt. They also argue that the debt ceiling is an arbitrary limit that has no real economic significance.

Opponents of the debt ceiling also argue that it can be harmful to the economy. If the government is unable to borrow more money when its expenses exceed its revenues, it could lead to a default on its debt and broad economic hardship. In this scenario, the government may furlough workers and would not be able to pay all of its bills on a timely basis, including those for entitlement programs. It could also lead to financial challenges as a loss of faith in the ability to pay its debt could cause interest rates to rise, making it more expensive for the government and consumers to borrow money.

The US debt limit is unusual

Many countries have no debt ceiling. For those that do, it can be measured in one of two ways: debt as a percent of GDP or debt as a fixed amount. The majority of countries that have a debt limit use the debt as a percent of GDP approach, as this allows the debt limit to automatically adjust with the size (i.e., growth) of the economy rather than having to be reset on a periodic basis. Only the US and Denmark use a fixed amount, and Denmark's ceiling is approximately six times their current debt level, making it unlikely to be reached any time soon.[2]

[2] Denmark's debt was estimated to be 323 billion krone, based on the IMF's 2023: World Economic Outlook (General Gov Gross Debt) as of April 2023.

Country	USA	Denmark	EU
Type of Debt Ceiling	Fixed	Fixed	% of GDP
Current Debt Ceiling	$31.4T USD	2000B KR	60% per country
National Debt as a % of GDP	98%	30%	84%*

FIGURE 2

Debt Ceiling Structures

Sources: Eurostat, General Gov Gross Debt to GDP as of Q4 2022. US Congressional Budget Office, "The Budget and Economic Outlook: 2023 to 2033," ratio is Federal Debt Held by the Public as a % of GDP for yearend 2022.

Note: *While the EU has overarching debt policies, countries within it may also impose their own policies. The EU is 24% over their debt limit because many countries within the EU are well above the limit, including Italy, Portugal, Spain, France, among others.

Furthermore, the consequences of hitting the US debt ceiling are unusually severe in comparison. At the very least, it can result in a temporary delay in the US government paying its obligations and a partial shutdown of the federal government.[3] In contrast, the debt limit in the European Union is more of a guideline than a hard limit, as hitting it does not result in debt default or a government shutdown.[4]

What happens when the debt ceiling is reached?

If the debt ceiling is reached, the Treasury is authorized to take "extraordinary measures" to continue paying government obligations as they can no longer issue debt to do so. These are not long-term solutions; rather, they are band-aids to temporarily prevent default. The Treasury has used all of the extraordinary measures listed below to prevent a default in the past, and it may use some or all of them again to prevent a default in 2023:[5]

- Suspend sales of State and Local Government Series Treasury securities
- Redeem existing, and suspend new, investments of the Civil Service Retirement and Disability Fund ("CSRDF") and the Postal Service Retiree Health Benefits Fund
- Suspend reinvestment of the Government Securities Investment Fund (G Fund) of the Federal Employees Retirement System Thrift Savings Plan
- Suspend reinvestment of the Exchange Stabilization Fund

The US Secretary of the Treasury estimates these measures, combined with the Treasury's regular income stream that primarily includes tax receipts, could prevent a default until June 2023.[6] After that, if the debt ceiling is not lifted or temporarily suspended, the US would most likely experience a "technical" default on its outstanding debt by not making interest payments as they come due.[7]

How likely is a default?

It is hard to know how close our political leaders are to resolving the current impasse. However, by looking at market data, we get a glimpse of how investors perceive the issue. For example, prices for credit default swaps (CDS) based on the sovereign risk of US Treasuries are elevated from one year ago, implying that the odds of a default have increased (see Figure 3). Yet, despite these higher CDS prices, the implied probability of a default remains quite low (approximately 4%), and it is lower than the peak default probability was in 2011.[8]

[3] We address the repercussion for the US more fully later in this paper.

[4] According to European Parliament, when an EU country goes over the 60% limit, "Excessive Debt Procedure" is initiated, and the country must provide a corrective plan of action and time frame. If the plan is not met, the country may be fined. That said, Greece, Ireland and Spain all had to cut their spending in the 2010's to meet EU "guidelines" in exchange for a debt bailout from the EU, IMF and ECB since they were running significant deficits.

[5] Source: Department of the Treasury: Description of the Extraordinary Measures, January 19, 2023. Note that after the use of these extraordinary measures has ceased, the law requires uninvested principal and interest losses be restored to the CSRDF, Postal Fund, and G-Fund.

[6] Department of the Treasury: Secretary Yellen Letter to Congress, January 24, 2023.

[7] There are some "creative" ideas being proposed to resolve the issue, such as the Treasury minting a $1 trillion coin, or invoking the 14th Amendment to continue issuing debt above the legal ceiling. However, their feasibility is uncertain. On May 11, Secretary Yellen said that "It's legally questionable whether or not that's a viable strategy" in reference to invoking the 14th amendment to challenge the constitutionality of the debt limit.

[8] It is impossible to make an apples-to-apples comparison of the probability of a default based solely on current CDS prices versus those from 2011 or 2013. This is because, in the event of a default, the collateral that would be provided would likely be the cheapest to deliver Treasury. As of this writing, that would be the 30-year Treasury issued in 2020, the price for which has fallen to $55.3 (source: Bloomberg, as of May 16, 2023). Taking this into account, the current default probability was lower than for the period leading up to the 2011 debt ceiling episode and similar to that for the 2013 episode. See Federal Reserve working paper: "What Does the CDS Market Imply for a US Default?" Luca Benzoni, Christian Cabanilla, Alessandro Cocco, and Cullen Kavoussi, May 17, 2023.

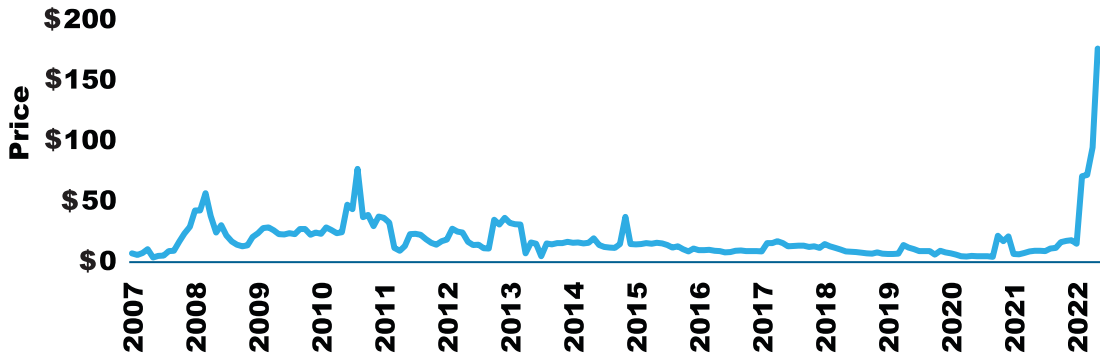

FIGURE 3
Price of CDS for 1-Year US Treasuries

Source: Bloomberg. Represents the price for CDS based on 1-year Treasuries as of May 10, 2023.

In addition, there appears to be a temporary anomaly in the pricing of Treasury Bills maturing in the very near future. Those issues maturing before the market's anticipated default date (or "X date") of June 1 are trading at much lower yields (i.e., higher prices) than those maturing just days or weeks later (see Figure 4).[9] This implies that the market has less faith that the latter group of T-Bills will be paid on a timely basis.

[9] The actual X date is uncertain due to the inexact nature of tax collections and government payments.

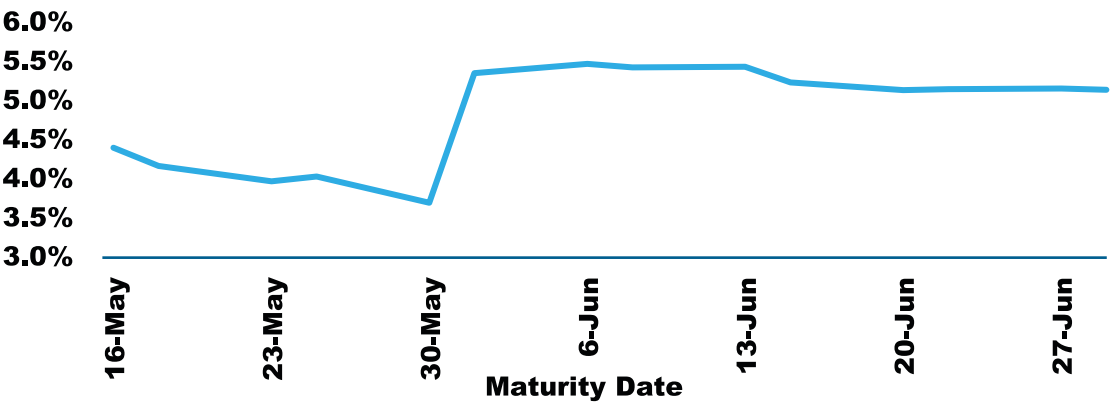

FIGURE 4
Near-Term T-Bill Yields

Source: Bloomberg. Represents the yield on Treasury Bills maturing on the respective dates as of May 10, 2023.

What happened the last time the US came close to a default?

The last major debt crisis was in 2011, when there was a different political atmosphere than today. Republicans held a significant majority in the House, backed by strong political support for the Tea Party movement. Thus when the Treasury Secretary warned in January 2011 that the debt ceiling might be hit in May of that year, there was a push to link raising the debt ceiling to spending cuts. The debate lasted for nearly seven months, with Congress narrowly avoiding a government shutdown in April, and the Treasury employing extraordinary measures once the debt ceiling was reached in May. Ultimately a deal was reached at the 11th hour, as an Act of Congress that increased the debt limit was passed the day before the Treasury was expected to default.[10]

Days later, the credit rating agency S&P downgraded US Treasuries. The prolonged impasse had an impact on the stock and bond markets. The S&P 500 index declined 16.3% during the crisis, and it took five months to recover to pre-crisis prices.[11] Equity market volatility nearly tripled from before hitting the debt ceiling to just after the credit rating downgrade.[12] The credit spread for Baa/Bbb corporate bonds increased by 30 basis points in the month of the downgrade.[13] Surprisingly, however, yields on 10-year US Treasuries *declined* and remained low for nearly 2.5 years.[14] This may have been due to a "flight to safety," as investors continued to perceive Treasuries as among the lowest-risk assets available.

In addition to the stock and bond markets, the debt crisis impacted a variety of other measures. Household net worth fell by nearly 3% ($1.8 trillion USD).[15] Consumer sentiment declined in the months prior to and during the credit rating downgrade.[16] However, because of the drop in Treasury yields, mortgage rates declined in the month of and just after the downgrade.[17]

[10] The Budget Control Act of 2011 was signed into law on August 2, 2011.

[11] Source: Bloomberg. The price peaked in April 2011 and declined 16.3% to its trough in September; it did not recover back to its pre-decline peak until February 2012 (5 months after the trough). Note that this downturn was also likely effected & prolonged by the European debt crisis in 2011.

[12] Source: FRED, monthly CBOE Volatility Index: VIX, as of May 2023.

[13] Source: FRED, monthly Moody's Seasoned Baa Corporate Bond Yield Relative to Yield on 10-Year Treasury Constant Maturity & Moody's Seasoned Aaa Corporate Bond Yield Relative to Yield on 10-Year Treasury Constant Maturity.

[14] Source: FRED, monthly Market Yield on US Treasury Securities at 10-Year Constant Maturity. This, too, was also likely effected by the European debt crisis in 2011.

[15] Source: FRED, quarterly Household Net Worth in Q3 2011.

[16] Source: FRED, monthly Consumer Sentiment, as of May 2023.

[17] Source: FRED, monthly 30-Year Fixed Rate Mortgage Average in the US.

1995 – 1996 Crisis

July 1995: Secretary of the Treasury warns the debt ceiling will be reached in October

October 1995: US hits the debt ceiling & extraordinary measures are taken

November 14–20 1995: Federal government shutdown for "non-essential personnel"

December 1995 - January 1996: Total federal government shutdown (2nd longest in US history)

March 1996: Debt ceiling raised

2011 Crisis

January 2011: Secretary of the Treasury warns the debt ceiling will be reached in May

April 2011: Congress narrowly avoids a government shutdown with budget cuts and a short-term funding extension

May 2011: US hits debt ceiling & extraordinary measures taken (expected to run out August 2nd)

August 1, 2011: "Budget Control Act" raises debt ceiling

August 5, 2011: The US credit rating downgraded for the first time ever

2013 – 2015 Crisis

December 2012: US hits debt ceiling & extraordinary measures taken

February 2013: Extraordinary measures nearly exhausted & debt ceiling suspended

May 2013: Debt ceiling re-instated & extraordinary measures taken

Oct 2013: Treasury issues study on the effects of a US default (markets negatively react). Shortly after, debt ceiling suspended

February 2014: Debt ceiling suspension extended

March 2015: Debt ceiling re-instated & extraordinary measures taken

October 2015: Extraordinary measures exhausted & debt ceiling suspended until 2017

FIGURE 5

Timelines of Several Major US Debt Ceiling Crises

Sources: US Government Accountability Office, "Analysis Actions During the 1995-1996 Crisis," August 1996; "Analysis of 2011-2012 Actions Taken and Effect of Delayed Increase on Borrowing Costs," July 2012; Congressional Research Service, "The Debt Limit: History and Recent Increases," November 2015.

Note: Extraordinary measures are described later in this document.

What are the potential repercussions of a default?

If the United States were to default on its debt, it could have serious consequences for the US economy and potentially for the global financial system.[18] Firstly, a default on US government debt would likely cause interest rates to rise. This is because investors have historically demanded higher yields from debt issuers who are perceived as having a higher default risk. This would make it more expensive for the US government to borrow money in the future, and it could also lead to higher borrowing costs for consumers and businesses, thus potentially slowing down economic growth.

Higher interest rates could lead to knock-on effects such as wider credit spreads and declining stock prices, though to some extent this may already be (partially) priced into the respective markets. Perhaps counter-intuitively, Treasury yields could actually decline in the short term if investors fear a widespread economic and stock market downturn, as Treasuries (especially long-term bonds) are often perceived as a safe haven that few other assets can rival.

Secondly, a default on US debt could lead to a decline in the value of the US dollar, as investors lose confidence in the US economy. This could cause inflation to rise, making it more expensive for Americans to buy goods and services.

Thirdly, a default could impair certain financial markets. For example, the functioning of the repo market could be compromised and some money market funds could experience liquidity pressures if the Treasury market ceases to function normally.

Fourth, though less likely, a default could trigger a global financial crisis or movement away from the dollar as the world's reserve currency. Many countries hold US government bonds as part of their foreign exchange reserves, as the US dollar is the world's primary reserve currency. A default on these bonds could lead to a loss of confidence in the US dollar's role as the global economy's reserve currency and potentially even strain the global financial system. At the least, it might lead to a gradual decline in the use of the dollar as the world's reserve currency and the political and economic benefits that conveys.

[18] There has been some discussion that the Fed would purchase any debt obligations that are on the verge of defaulting so as to avoid a technical default, but this may require an emergency exemption (13-3) to the Reserve Act that both the Fed and Treasury would need to approve.

"If investors perceive that a stalemate will be short lived and it turns out the debt ceiling is resolved quickly...it is unlikely there will be long-lasting damage to the markets."

However, *all of these outcomes are highly dependent upon the duration of the political impasse*. If investors perceive that a stalemate will be short lived and it turns out the debt ceiling is resolved quickly (e.g., in a matter of weeks or perhaps even months), it is unlikely there will be long-lasting damage to the markets. Rather, yields and the dollar will likely return to somewhere near their prior levels relatively unaffected. If, however, the impasse turns into something more prolonged, that is where these repercussions becoming more serious and long-lasting.

Finally, once the Treasury's outlays exceed its income despite the extraordinary measures taken, it would impair the US government's ability to provide essential services and pay its bills. This could lead to a temporary government shutdown or furlough of government employees, as well as a delay in payments to Social Security recipients, Medicaid providers, veterans, and other beneficiaries. It is unknown if the Treasury would choose to delay all of these payments or prioritize the payment of some obligations over others.[19] Although any potential payment delays would initially be relatively short, the delays would increase if the impasse is not resolved quickly. While households should eventually be made whole, they may experience significant pain navigating the disruption to their incomes. Moreover, the longer any such shutdowns or delay of payments last, the more likely they will serve as a drag on the economy and cause expanding hardships (e.g., job losses as the economy falters).

[19] There has been some discussion around prioritizing certain payments, such as H.R. 187, which would require the Treasury to prioritize payment of obligations using a five-tiered payment structure that includes payments for public debt, Social Security, and Medicare in Tier I.

What can investors do?

First, we want to caution investors whose governance structure does not lend itself to tactical decision making against considering meaningful changes. This is because the risk associated with the current predicament could evaporate overnight and prices would likely change more rapidly than such investors could respond to them.

A default would likely be painful for equity and credit markets, along with some higher quality bond markets, which together comprise the vast majority of most institutions' public markets portfolios. We believe that institutional investors who have a risk mitigating strategies (RMS) structure are better situated, as we anticipate that a "first responders" component (e.g., tail risk hedges) could provide some protection in such an uncertain, but potentially volatile, environment. Longer-duration Treasuries should provide a bit of a hedge, especially if traditional risk assets crater, as there would likely be a resulting flight to quality. In addition, gold is viewed by many investors as a hedge against the dollar as well as a safe haven asset during periods of significant market dislocation or political uncertainty, so it could serve as a reasonable hedge.[20]

[20] See our 2021 white paper on Gold as a Strategic Allocation for more information on the role of gold as a hedge in a portfolio. Some investors may also consider crypto-currencies to serve a similar role.

Investors should also check and be prepared to revise or temporarily suspend their bond managers' guidelines. A number of institutional investors have policies that do not allow them to hold defaulted securities. The abrupt liquidation of these securities due to a technical default could cause unnecessary harm to their portfolio, and widespread action of this sort could add volatility to and reduce the liquidity within money markets.

Summary

The US debt ceiling, which is unusual both for its structure and severity, places a hard limit on how much debt the US Treasury can issue. The debt limit has been raised many times in the past, most recently in December 2021 to $31.4 trillion. The US reached the current debt limit earlier this year and has since been taking extraordinary measures to meet its obligations. Despite these measures, the Treasury expects to be unable to pay its bills as soon as June. The markets perceive that there is a higher risk of default than in many past crises, but it is possible that a default will be avoided via a temporary suspension of the debt limit or some other unconventional measure.

In the event that the debt limit is not raised by the X date (i.e., before the market's anticipated default date), the government would probably delay interest payments on its debts, thus technically defaulting. The repercussions of a default by the federal government would likely depend on the length of the political impasse. In the short term, there would almost certainly be disruptions to the stock and bond markets. In the long term, it could result in higher borrowing costs, slower economic growth, a decline in the value of the dollar, and a loss of faith in the dollar as a reserve currency. Moreover, a default of any length could result in economic hardship, as the federal government could temporarily shut down, furlough employees, or delay payments to social programs.

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