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# Debt Limit Analysis

February 2023

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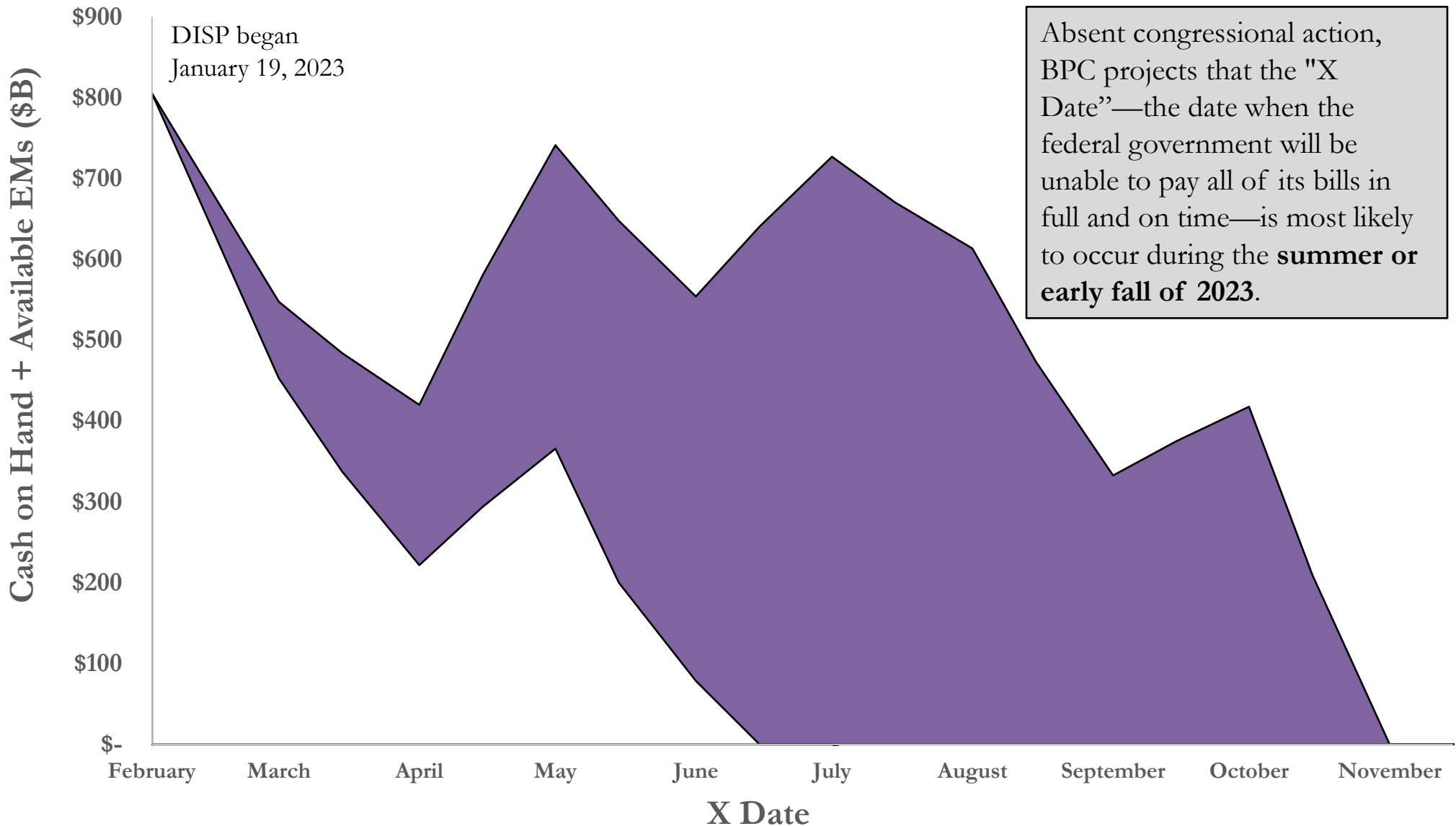
# Executive Summary

# SUMMARY OF FINDINGS

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- On December 16, 2021, President Biden signed legislation that raised the federal [debt limit](#) by \$2.5 trillion to approximately \$31.4 trillion.
- On January 19, 2023, the Treasury Department (Treasury) ran up against this limit and exhausted its traditional borrowing authority.
- At that point, Treasury Secretary Janet Yellen [deployed](#) emergency borrowing authority—known as “[extraordinary measures](#)”—to continue fully funding government operations.
- If Congress does not raise or suspend the debt limit, BPC [projects](#) that Treasury will most likely be unable to meet its financial obligations at some point during the summer or early fall of 2023 (what we call the “X Date range”).

# WHEN IS THE X DATE?



Notes: Dates shown are the 1st of the month. This projection is subject to substantial uncertainty and volatility resulting from economic performance, cash flow fluctuations, and other factors, such as the impending tax season. Extraordinary measures are reflected at the time that they are expected to become available. Range reflects cash on hand plus available extraordinary measures, or in other words, remaining room under the debt limit.

- **Rather than predict a specific day when the U.S. is most likely to begin defaulting on its obligations, BPC releases a range during which we are confident that will occur.**
  - Significant uncertainty exists when attempting to assess millions of payments flowing in and out of the federal government on a daily basis.
  - It is helpful for lawmakers to grasp the earliest that the X Date is likely to occur and understand there are risks and costs even leading up to that date.
- **Policymakers should not interpret BPC's projection to suggest that they can delay action on the debt limit until the beginning of the X Date range without consequence.**
  - [History](#) has shown time and time again that real [costs and risks](#) to debt limit brinkmanship begin appearing in the weeks and months prior.
  - In fact, interest rates on short-term Treasury securities that mature this summer have already started to [rise](#), demonstrating a degree of concern in the market.

- **At this point in the estimation process—roughly five months from the *start* of BPC's X Date range—trillions of dollars have yet to flow in and out of government to sustain critical programs and services.**
  - The government is projected to spend more than \$3 trillion and take in roughly \$2.5 trillion between February and June.
  - Variation of a few hundred billion dollars in either direction would not be shocking yet would markedly affect the X Date.
- **Beyond usual fluctuations in government cash flows, the X Date's timing will depend heavily on how 2022 tax collections evolve in a rapidly changing yet fragile post-pandemic economy with low unemployment, persistent inflation, and recession fears.**
  - Notably, if tax season revenues fall far short of expectations, there could be a “too close for comfort” situation immediately prior to quarterly tax receipts due on June 15.



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# The Debt Limit

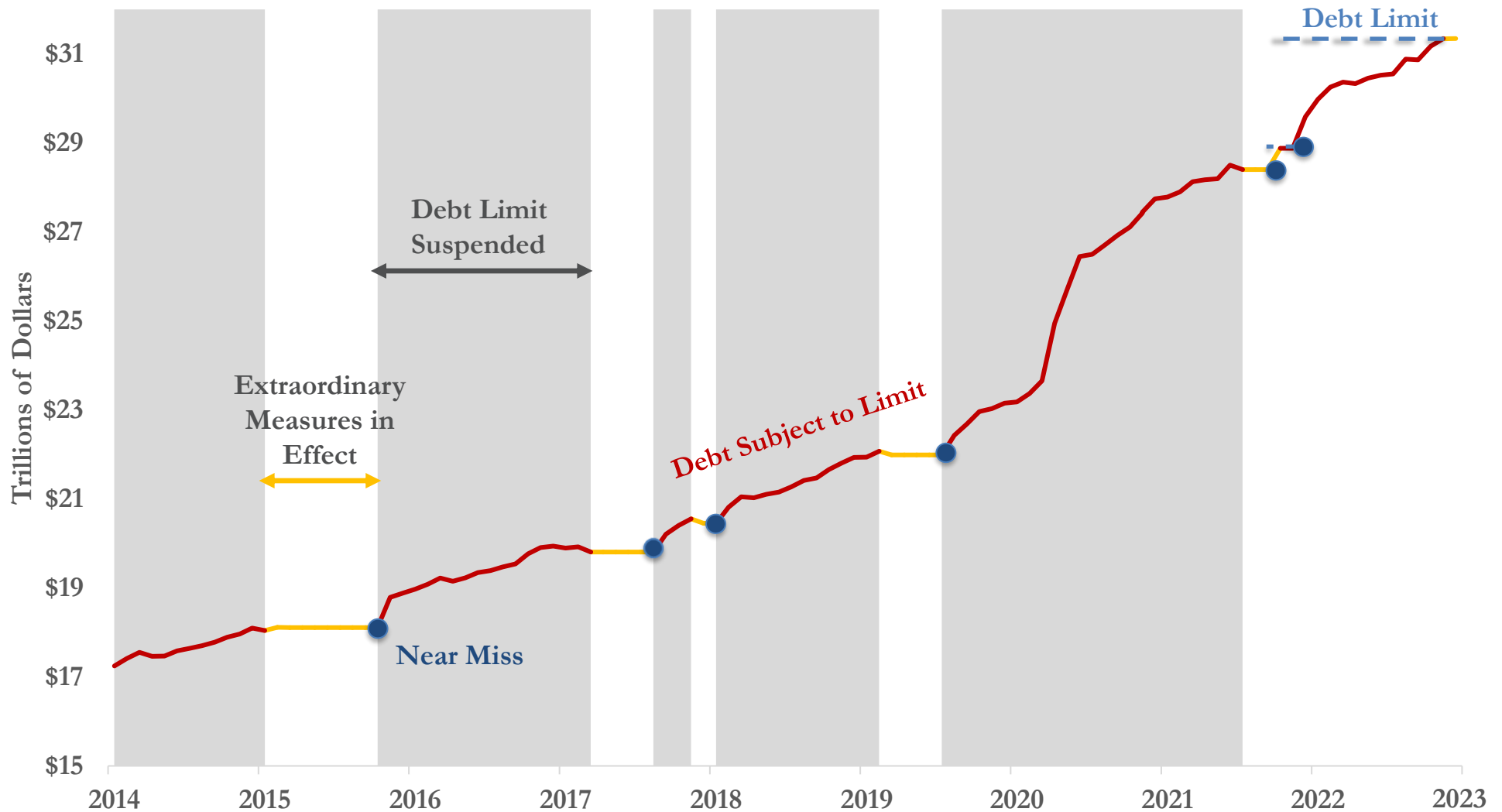


- **The debt limit is...**
  - ...the maximum amount that Treasury is allowed to borrow;
  - ...set by statute (Congress must act to change it); and
  - ...inclusive of most debt issued, whether held by the public (such as Treasury bills and savings bonds) or intragovernmental (such as debt held by the Social Security trust funds).
- **Because the federal government is running a deficit, Treasury needs to borrow from the public (i.e., domestic and foreign investors) to cover its obligations. The debt limit restricts its ability to do so.**
- **Extending the debt limit does not authorize new spending—rather, it enables the federal government to pay its bills and spend what Congress has already approved.**

- **First set by Congress in 1917, the debt limit has a 100+ year history.**
  - Prior to World War I, Congress maintained tight control over federal borrowing and authorized each issuance of public debt.
  - The first debt limit was implemented to give the Treasury Department more, not less, flexibility to manage federal finances.
- **Since then, congresses led by both parties have repeatedly raised and suspended the debt limit to accommodate additional borrowing.**
- **In recent years, the issue of the debt limit has grown increasingly political, and debt limit brinkmanship has damaged the creditworthiness of the U.S. government and increased borrowing costs for taxpayers.**

# RECENT HISTORY

## Federal Debt Subject to Limit



Source: U.S. Treasury Department, Daily Treasury Statement.

# RECENT HISTORY

## Hours to Deadline

On August 2, 2011, with hours to act before Treasury's deadline and after months of deadlocked negotiations, the Budget Control Act authorizes a debt limit increase to \$16.4T. S&P, citing the political brinkmanship, downgrades the U.S.'s credit rating from AAA+ to AAA

## Weeks to Deadline

Weeks from the deadline, a three-month budget deal suspends the debt limit until December 8, 2017. Analysts worry an October payment to the Military Retirement Trust Fund could have triggered a default on obligations. The limit reinstates in December at \$20.5T.

## Month to Deadline

On August 2, 2019, about a month before the estimated deadline, the Bipartisan Budget Act suspends the debt limit until August 1, 2021. Congress was prepared to head into summer recess without action when BPC's projection [accelerates negotiations](#).

## Months to Deadline

On January 19, 2023, Treasury hits its \$31.4T debt limit and deploys extraordinary measures. BPC currently [projects](#) that extraordinary measures and Treasury's existing cash on hand will allow it to fully fund the government's obligations until the summer or early fall of 2023.



## Day to Deadline

Just one day before Treasury's deadline, the Continuing Appropriations Act suspends the debt limit until February 7, 2014. The Government Accountability Office (GAO) concludes that borrowing costs increased by tens of millions of dollars, which taxpayers bore through higher interest rates on Treasury securities.

## Month to Deadline

On February 9, 2018, about a month before Treasury's deadline, the Bipartisan Budget Act suspends the debt limit until March 2, 2019. The debt limit is reinstated in March 2019 at \$22T.

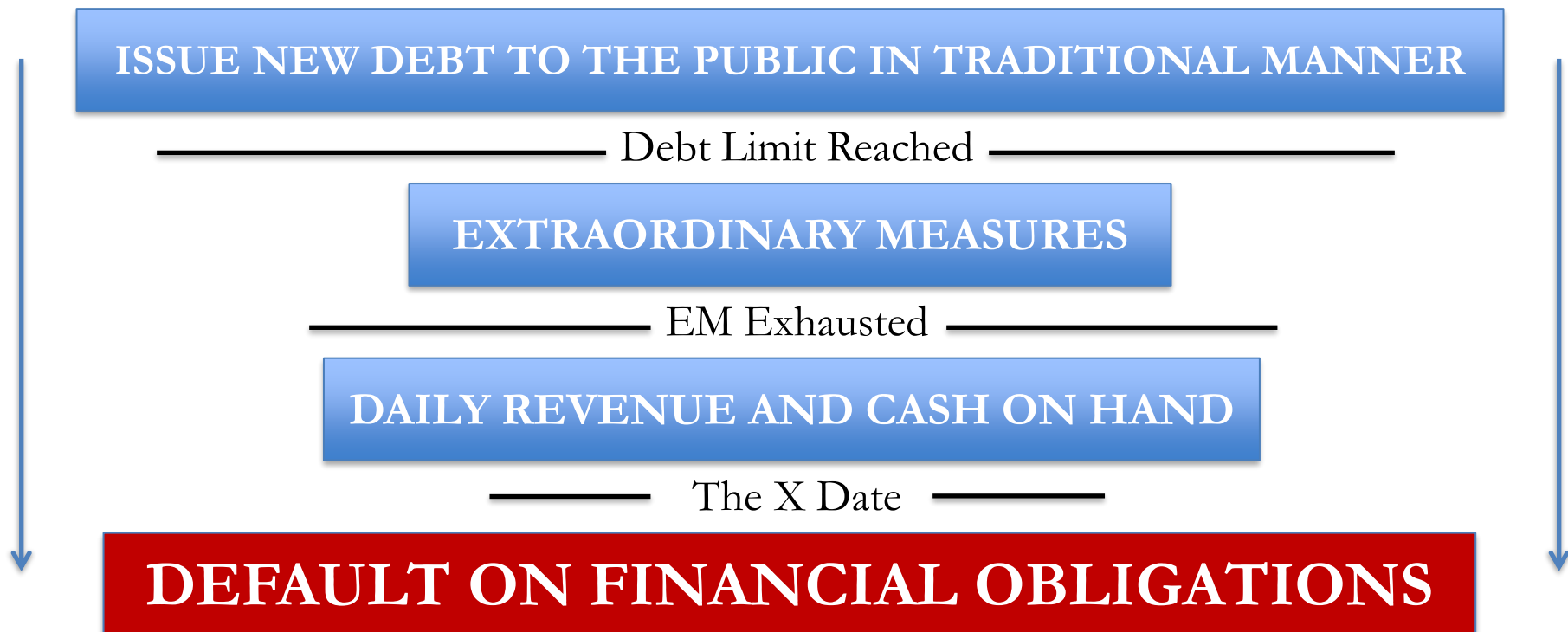
## Days to Deadline

On October 14, 2021, with days to act, Congress raises the debt limit by \$480B to secure enough borrowing authority for a few months. On December 16, 2021, Congress again passes legislation increasing the debt limit by \$2.5T to \$31.4T.

# WHAT DOES REACHING THE DEBT LIMIT MEAN? <sup>13</sup>

## Layers of Defense Against Default

Treasury has multiple means that may be used to pay the nation's bills. If the debt limit is reached and policymakers do not act in time, however, these layers of defense will be breached, and the nation will default on its obligations.





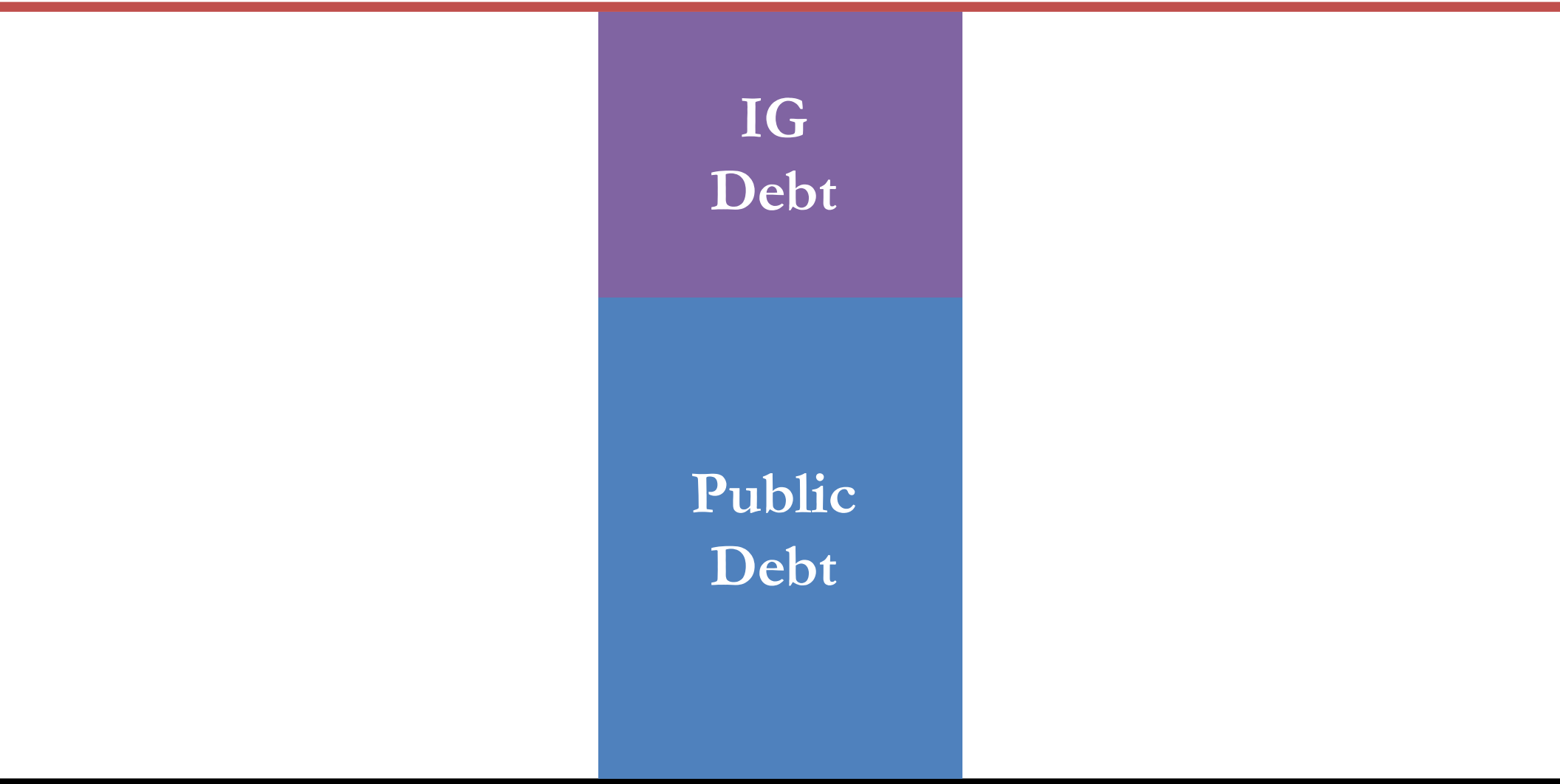
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# Extraordinary Measures

- Existing statutes allow Treasury to adjust the normal operations of certain government accounts when the debt limit is reached.
  - Most of Treasury's added borrowing capacity derives from three "extraordinary measures" that permit reducing certain types of government debt held in trust funds (which count towards debt subject to limit).
  - Reducing this debt allows Treasury to auction more debt to the public and continue meeting all its obligations for an additional period.
  - Once exhausted, Treasury only has residual cash on hand (\$568 billion as of January 31, 2023) and daily cash inflows (e.g., federal revenues) to sustain operations.
- The Treasury Secretary may declare a debt issuance suspension period (DISP) to deploy extraordinary measures when the U.S. is up against its debt limit, such that deposits of some securities into certain government trust funds cannot be made without causing the federal debt to exceed its limit.
  - The length of a DISP is determined by the amount of available extraordinary measures, existing cash on hand, and the timing of federal cash flows. This period is often extended by Treasury as more information becomes available.

# Both intragovernmental (IG) and public debt count toward the limit.

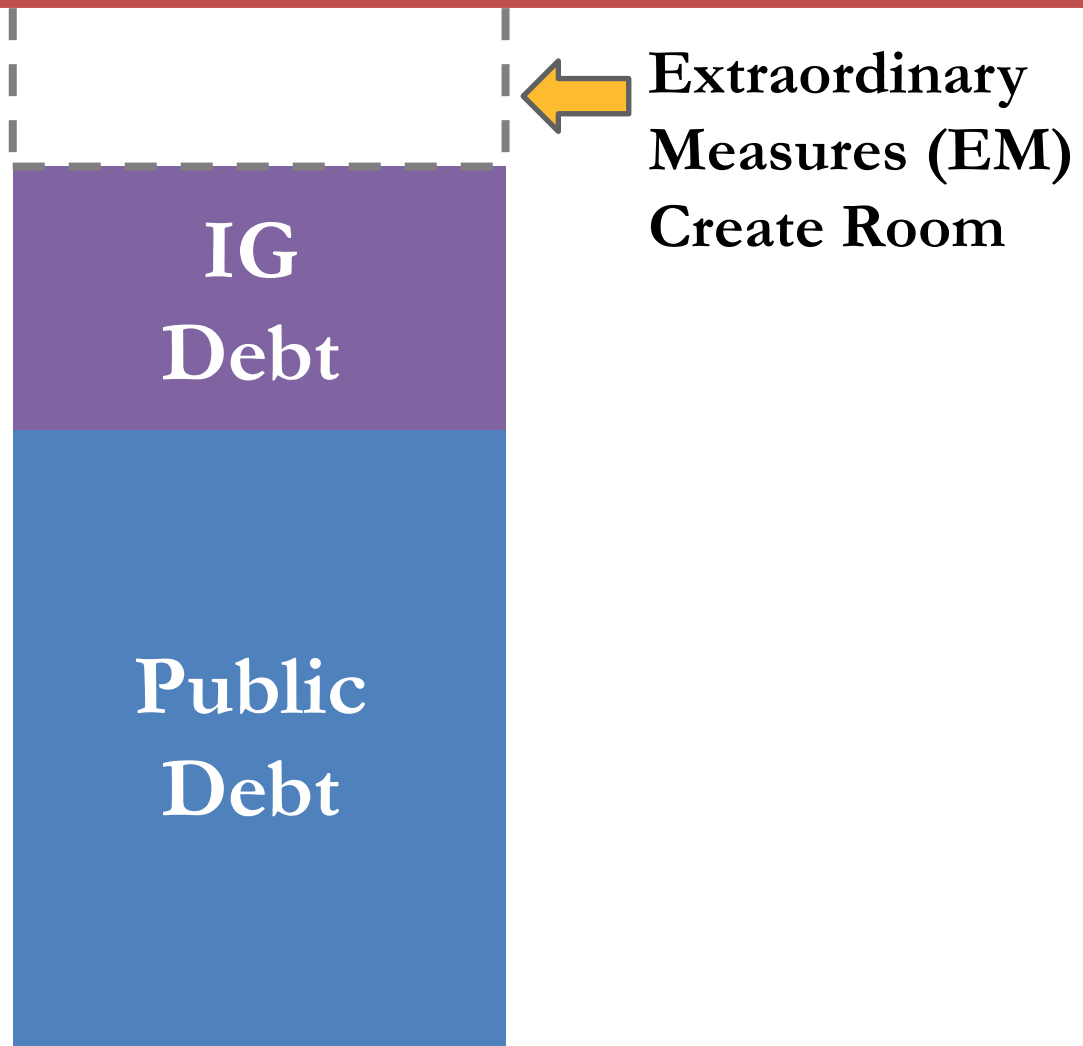
Debt Limit





# Treasury reduces certain types of debt using extraordinary measures...

Debt Limit



...to issue more debt to the public.

Debt Limit

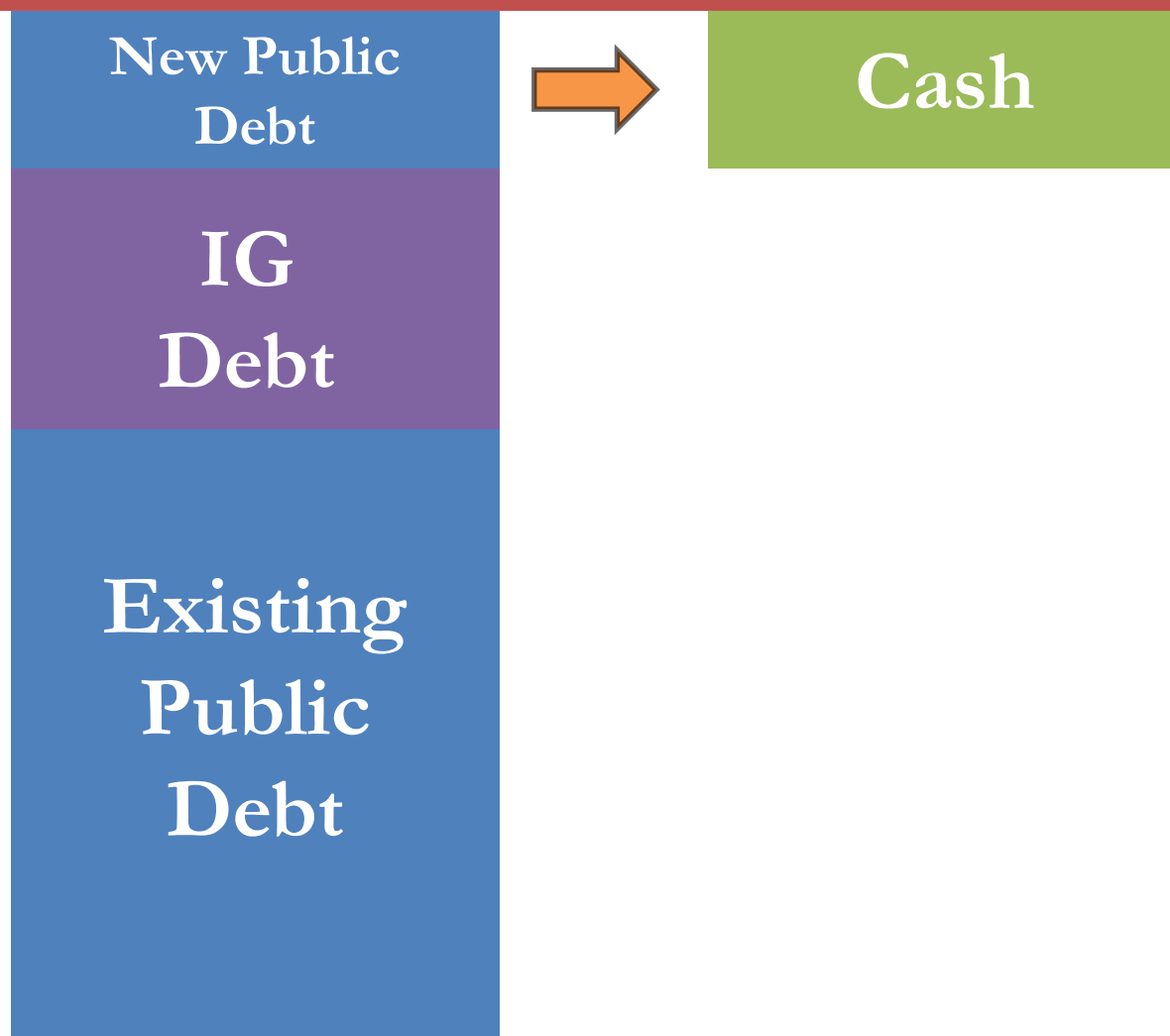
New Public  
Debt

IG  
Debt

Existing  
Public  
Debt

# Issuing debt raises cash to pay bills.

Debt Limit



# When the debt limit is increased...

New Debt Limit

Old Debt Limit



...extraordinary measures are immediately restored.

New Debt Limit

EM Debt

Restored EM  
Debt

Immediately  
Paid Back

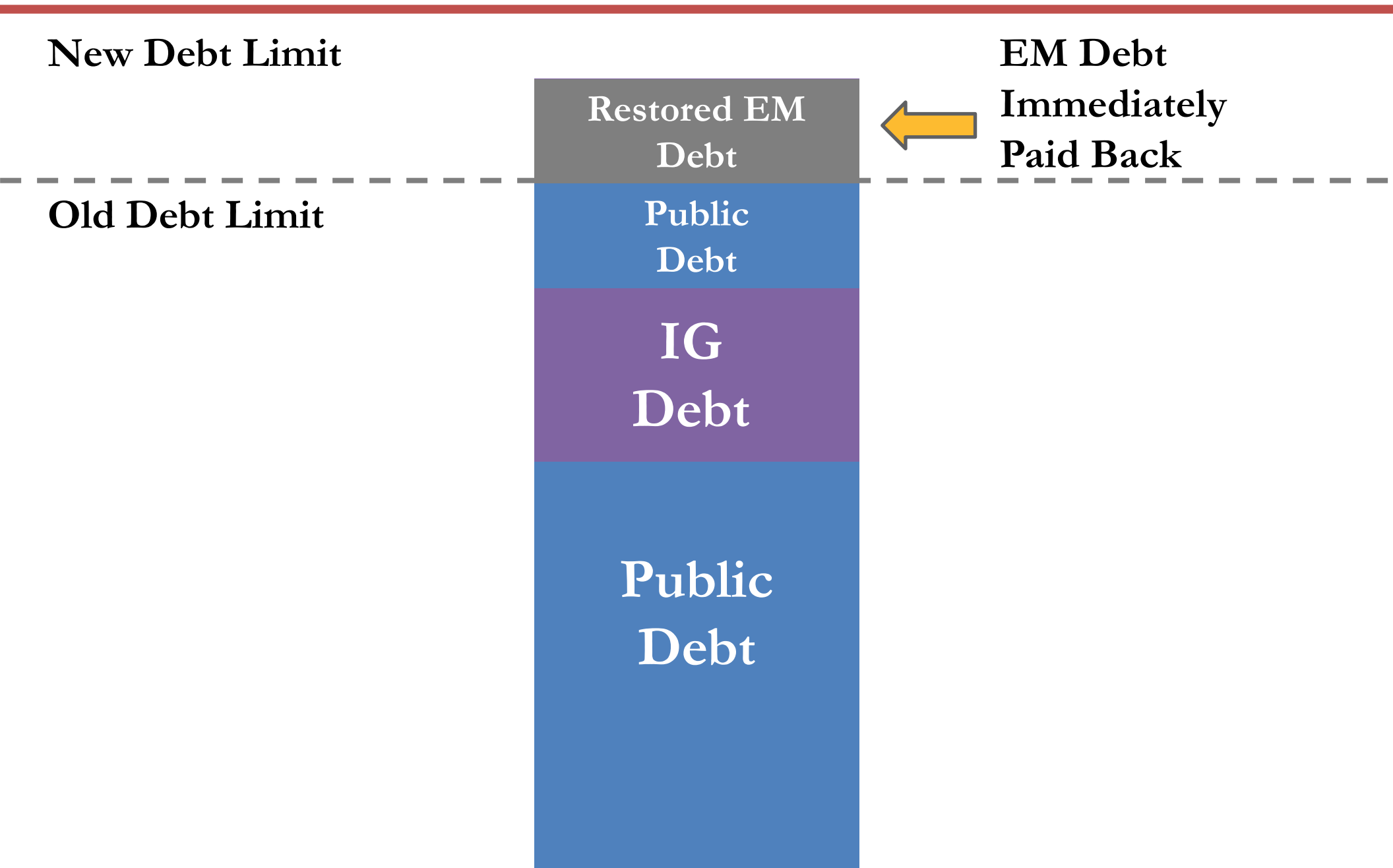


Old Debt Limit

Public  
Debt

IG  
Debt

Public  
Debt



## 1. The G-Fund of the Thrift Savings Plan

- Treasury may temporarily reduce the amount of debt held by this fund, which holds government bonds for federal employee retirement accounts.

## 2. The Civil Service Retirement and Disability Fund (CSRDF)

- Treasury may postpone new investments in this pension fund. The CSRDF measure is most useful in June, September, and December, when major interest credits and reinvestments of maturing securities typically occur.

## 3. The Exchange Stabilization Fund (ESF)

- Each day, Treasury may temporarily reduce the amount of debt held by this fund, which is used to facilitate foreign exchange transactions.

For more detail on extraordinary measures and how they work, see this [primer](#).

## Example: Federal Employees' Retirement System G-Fund

- Federal employees with savings in the Thrift Savings Plan invest some retirement assets in government bonds.
- Treasury may temporarily reduce the amount of debt held by this fund, thereby freeing up room under the debt limit.
- This allows Treasury to issue additional securities to the public and raise cash to pay federal obligations.
- After the debt limit is increased, Treasury must fully reimburse the retirement fund for the principal and interest.
- There is no impact on federal employees' retirement savings.

# EXTRAORDINARY MEASURES UPDATE

EXTRAORDINARY MEASURES REMAINING	January 31, 2023 (estimated)
Do not reinvest the Federal Employees' Retirement System G-Fund	\$169 billion
Do not reinvest the Exchange Stabilization Fund	\$17 billion
Do not make new investments to the civil service and postal retirement funds	\$41 billion
Do not make new investments in the Federal Financing Fund	<\$10 billion
<b>Total</b>	<b>~\$230 billion</b>

Notes: Totals indicate all *available* measures that generate room under the debt limit between January 31, 2023, and the conclusion of Treasury's debt issuance suspension period (DISP) on June 5, 2023. The exact number may change over time depending on any potential extension of the DISP. Treasury also has additional measures that assist with cash flow and debt management that it could choose to deploy at a future date. Figures may not add due to rounding.

Source: U.S. Treasury Department, *Description of Extraordinary Measures, January 2023; Monthly Statement of the Public Debt.*



- **X Date**: The first day on which Treasury has exhausted its borrowing authority and no longer has sufficient funds (via extraordinary measures, residual cash on hand, and daily revenues) to meet all of its obligations in full and on time.
  - In other words, if the debt limit has not been extended by the X Date, the federal government will begin defaulting on some of its obligations.
  - After the X Date, bills must be paid out of incoming cash flows, which will generally be insufficient to cover all government spending.
- **BPC projects that the X Date will most likely occur during either the summer or early fall of 2023.**
  - In the event of much-lower-than-expected revenues through tax season, there is a small chance of a “too close for comfort” situation prior to quarterly tax receipts due on June 15.
- **No one—not even the Treasury secretary—can know precisely when the X Date will arrive.**



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# Cash Flows

# TRADITIONAL SOURCES OF UNCERTAINTY<sup>27</sup>

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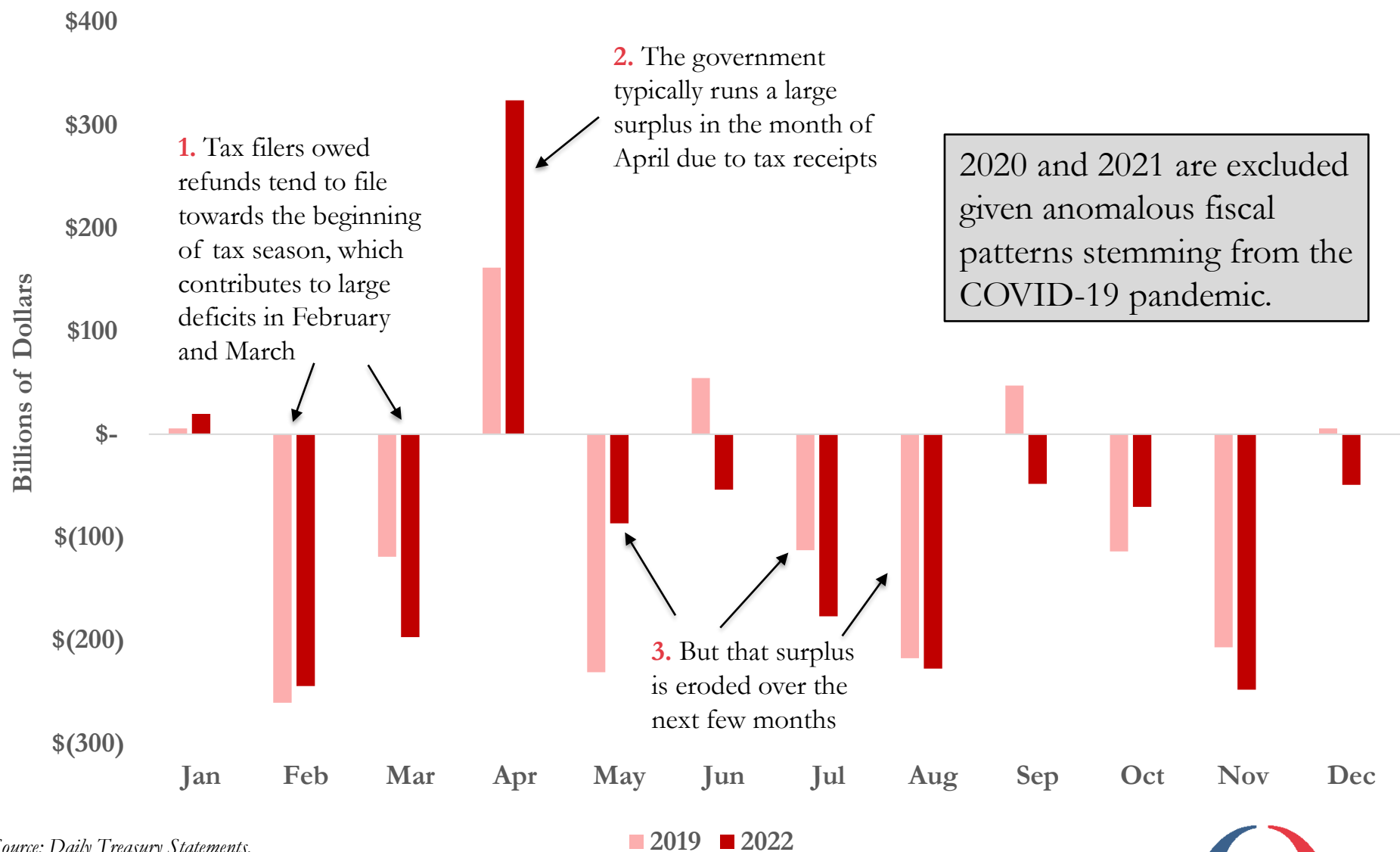
- **Revenue Growth**

- Revenue is always the more volatile part of the federal government's cash flows, varying from month-to-month and from day-to-day. Certain types of revenue, such as the January-April tax season and quarterly tax payments due in June and September, are especially unpredictable.
- Revenues for fiscal year 2022, for example, were running at a rate of nearly [\\$500 billion](#) above CBO's expectations at the close of April, owing to higher than anticipated corporate and personal income tax payments. If revenues surprise on the downside this year, the risk of an earlier X Date would rise.

- **Major Changes in Policy (e.g., emergency spending)**

- Major fiscal policy decisions can alter Treasury cash flows, and therefore, the X Date. For example, in the past, emergency spending on natural disasters has accelerated the X Date's timing. This year, no major legislation appears imminent, but that could change.

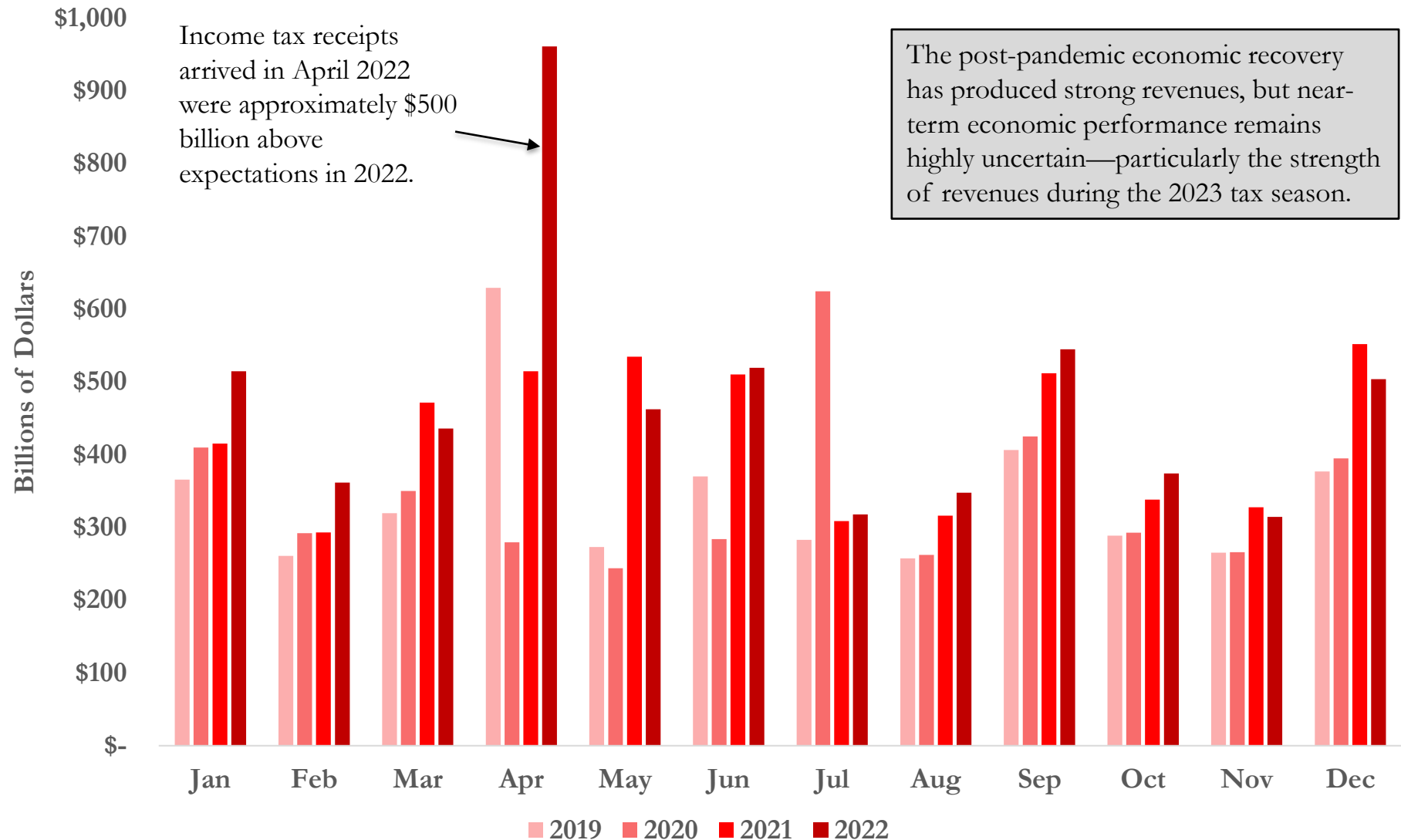
## U.S. Treasury's Monthly Net Operating Cash Flows



Source: Daily Treasury Statements.

# REVENUE UNCERTAINTY IS GREATER THAN USUAL

## U.S. Treasury Monthly Deposits



Source: Daily Treasury Statements.

- **Pandemic Aftermath**

- The uncertainty over certain pandemic-related policies, such as the pause on student loan repayments and recent federal action on loan forgiveness, inject further volatility into Treasury's cash balances.
- State and local governments continue to spend down pandemic relief resources at varying rates, complicating efforts to forecast cash flows at the federal level.

- **Inflationary Pressures**

- Among the five types of Treasury marketable securities, one type—Treasury Inflation-Protected Securities (TIPS)—are designed to protect investors against inflation. Unlike other Treasury securities that have a fixed principal amount, the TIPS principal amount adjusts with inflation, eating up headroom.
- Efforts by the Federal Reserve to tame persistent inflation by raising interest rates directly impact interest owed on our national debt.

- **Recession Fears**

- If economic conditions take a turn for the worse, spending and revenue flows can be greatly impacted, thereby affecting the X Date.



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# Costs to Brinkmanship

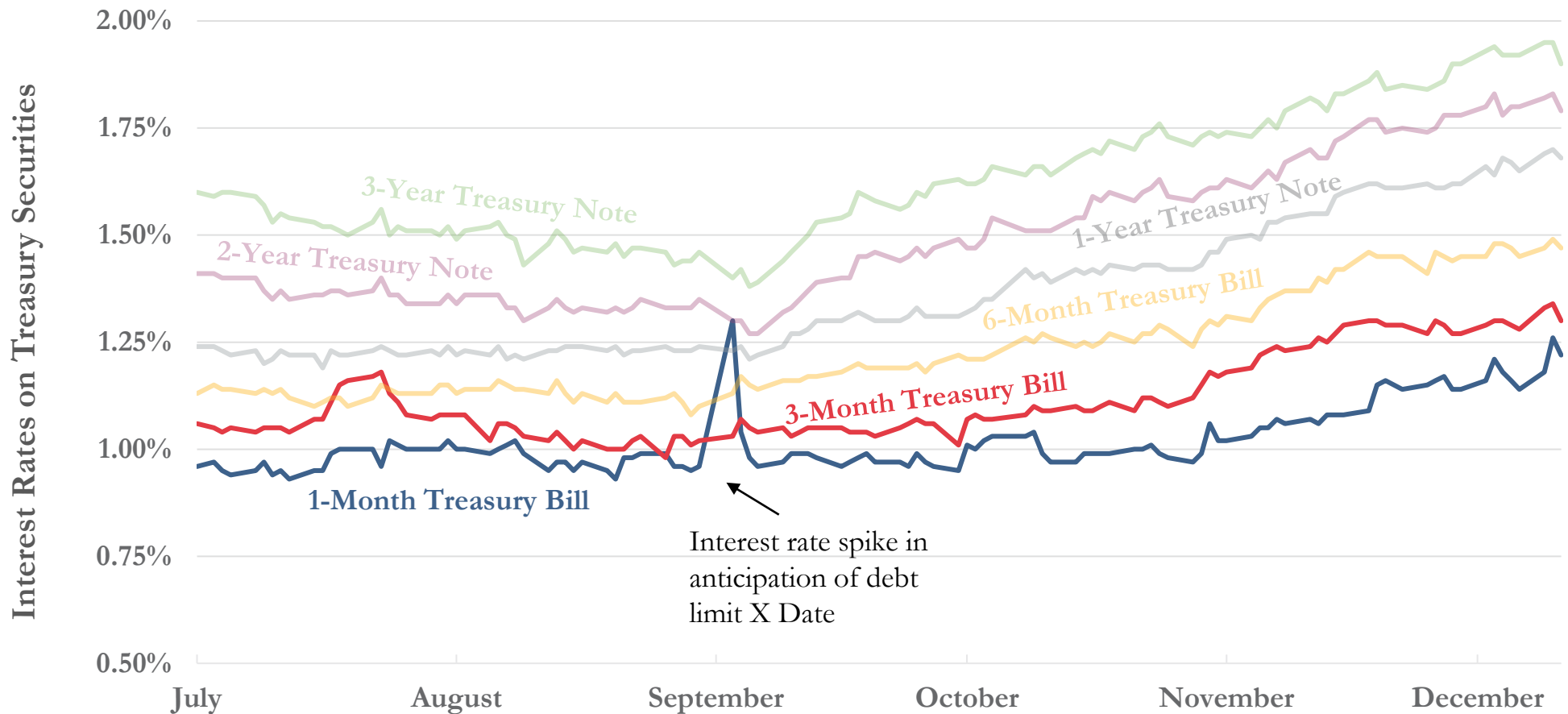
- **American taxpayers foot the bill for additional borrowing costs that come from delays in extending the debt limit.**
  - In 2013, Fidelity’s money-market funds [refused](#) to hold any U.S. government debt maturing in late October and early November (the period surrounding the projected X Date in that year).
  - Both the Federal Reserve and GAO [found](#) that approaching the X Date in 2011 and 2013 increased the government’s borrowing costs by hundreds of millions of dollars, stemming from elevated interest rates on U.S. Treasury securities issued leading up to the date when the debt limit was extended.
  - The costs continue to accrue far beyond the debt limit episode because many of the securities issued at elevated rates remain outstanding and accruing interest for several years.
- **State and local governments are negatively impacted by debt limit episodes.**
  - In 2021, Treasury suspended the issuance of State and Local Government Series (SLGS) securities that help them comply with tax regulations, yielding additional expenses and administrative costs.



# COSTS PILE UP BEFORE THE X DATE

- During the 2017 debt limit episode, market uncertainty increased interest rates on some Treasury bills maturing near the September X Date range.

### 2017 Debt Limit Episode & U.S. Treasury Bill Interest Rates



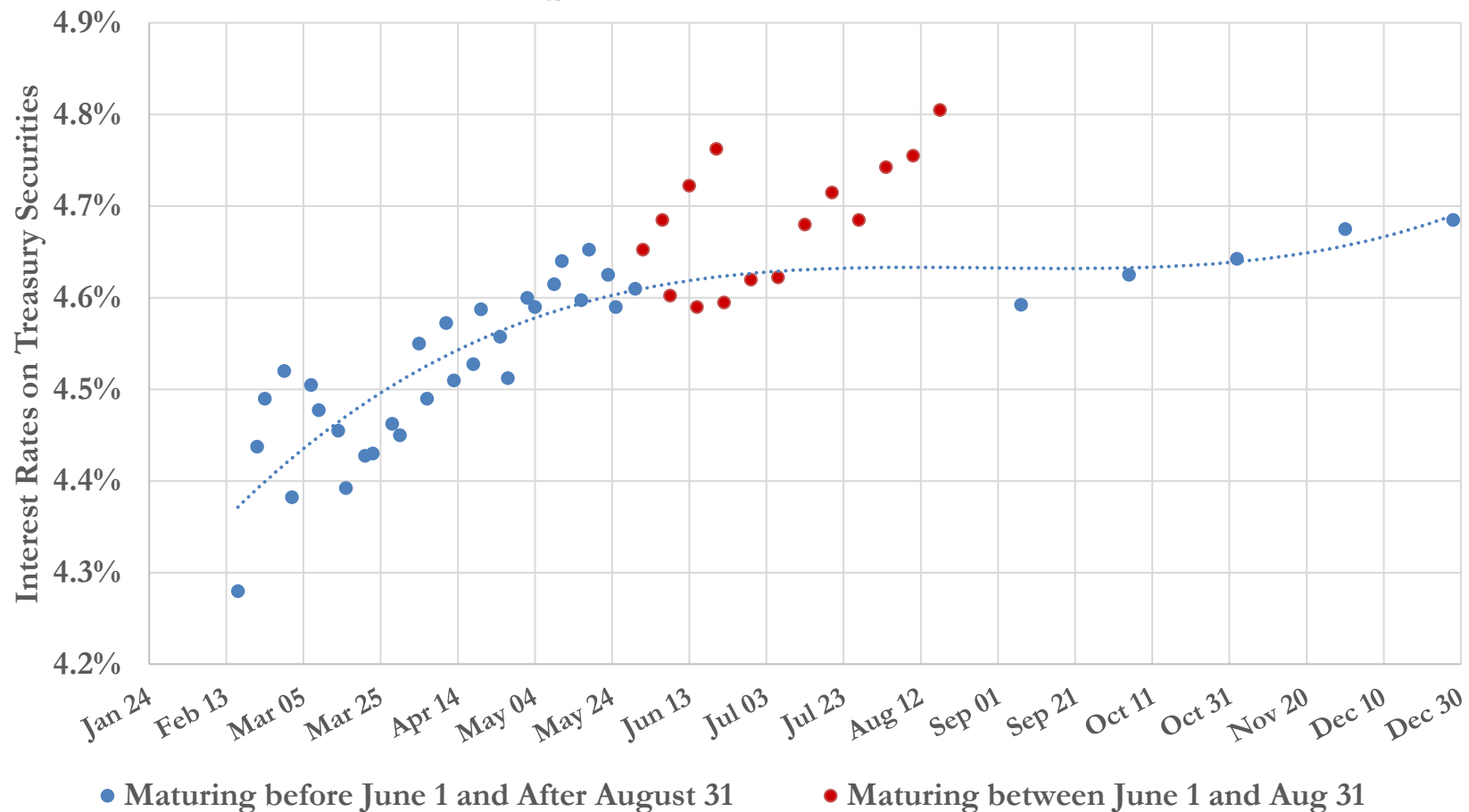
Interest rate spike in anticipation of debt limit X Date

Source: TreasuryDirect.

# COSTS PILE UP BEFORE THE X DATE

- A similar pattern is emerging in bills maturing this summer, following Secretary Yellen’s [notification](#) that cash and extraordinary measures would maintain government operations through at least early June 2023.

2023 Debt Limit Episode & U.S. Treasury Bill Interest Rates



Source: Don Schneider, Piper Sandler. Accessed via Bloomberg Terminal.

# COSTS PILE UP BEFORE THE X DATE

- Even months before the projected X Date, U.S. credit default spreads (CDS) have reached their highest level since the 2011 debt limit episode.

## U.S. CDS 1-Year Spreads Jumped in January 2023 to Levels Comparable to 2011



Source: Gunjan Banerji, Wall Street Journal. Accessed via Bloomberg Terminal, Goldman Sachs Global Investment Research.



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# Prioritization

- **Treasury has stated that it has no secret bag of tricks to finance government operations past the X Date.**
  - It will not attempt to “fire sale” assets during a crisis.
  - Other ideas (e.g., trillion-dollar [coins](#) or [IOUs](#)) have been deemed impractical, illegal, and/or inappropriate.
- **There is no modern precedent; all other debt limit impasses have been resolved without reaching the X Date.**

- If the X Date is reached, Treasury might either:
  - (1) prioritize payments, or
  - (2) make full days' worth of payments once they receive sufficient revenues to cover a full day's obligations.
- Treasury seems to have the technological capability to prioritize interest payments on the federal debt over other obligations.
  - In 2014, Treasury sent a letter to the House Financial Services Committee stating it is technically capable of prioritizing interest payments.
  - That does not preclude legal challenges, operational risks, or severe reactions by various economic actors.

- Treasury might attempt to sort and choose among hundreds of millions of monthly payments to prioritize some over others. Prioritized payments would be made on time, others would not.
- Realistically, on a day-to-day basis, fulfilling all payments for important and popular programs (e.g., Social Security, Medicare, Medicaid, defense, military active duty pay) would quickly become chaotic and unsustainable.
- It would raise operational and legal challenges for Treasury and could yield significant economic disruptions:
  - An immediate cut in federal spending would affect the broader economy
  - Many service providers would go unpaid
  - Individuals and business owners would not receive government checks
  - Widespread uncertainty would only grow as decisions are made day-by-day
  - Potential legal challenges would mount over payment prioritization

- Treasury might wait until enough revenue is deposited to cover an entire day's payments, and then make all those payments at once.
  - For example, upon reaching the X Date, it might take two days of revenue collections to raise enough cash to make all payments due on day 1. Thus, the first day's payments would be made one day late. This, in turn, would delay the second day's payments to a later day, and so on.
- In a 2012 [OIG report](#), some senior Treasury officials stated that they believed this to be the most plausible and least harmful course of action.
- Since debt operations (interest and principal payments) are handled by a separate computer system, those payments could likely still be prioritized under this scenario, although significant legal and operational questions would remain.





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# Market Risk

- **Fed Chairman Jerome Powell on approaching the X Date:**

”Failure to increase the debt ceiling creates a lot of uncertainty ... and a lot of distraction.”

- **Treasury securities are normally considered safe and liquid. They serve as the foundation of the global financial system because the risk of default is perceived to be negligible.**

- **GAO on Treasury securities and market risk:**

“The United States benefits from the confidence investors have that debt backed by the full faith and credit of the United States will be honored. Because Treasury securities are viewed as one of the safest assets in the world, they are broadly held by individuals—often in pension funds or mutual funds—and by institutions and central banks for use in everyday transactions. Treasury securities are also the cheapest and one of the most widely used forms of collateral for financial transactions. In many ways U.S. Treasury securities are the underpinning of the world financial system...[and] delays in raising the debt limit can create uncertainty in the Treasury market.”

- **Crossing the X Date would be unprecedented.**
- **Potential for significant market disruption.**
  - **GAO**: “Disruptions in the financial sector due to [a] debt limit impasse could ultimately result in...increased costs for providing credit in the economy, either through increases in interest rates or in transaction costs. Consequently, lending in the economy may be reduced, and loans may become more costly. Reducing availability of capital may translate into lower levels of economic activity and growth.”
- **The worst-case scenario would be a Treasury auction that fails to attract enough buyers to roll over maturing U.S. government debt.**

Source: [Government Accountability Office](#), *Audit of the U.S. Government's Consolidated Financial Statements for Fiscal Years 2013 and 2014*

- **Further rating agency downgrades are possible.**
  - S&P [downgraded](#) U.S. government debt to AA+ in 2011. Market reaction at the time was thankfully not severe. But there is uncertainty about the effects of another downgrade, since many funds are prohibited from holding non-AAA securities.
  - Fitch: *“Arrears on [various federal government] obligations would not constitute a default event from a sovereign rating perspective but very likely prompt a downgrade even as debt obligations continued to be met.”*
    - **Translation:** If we go past the X Date without a debt limit increase, prepare for a downgrade.
- **Treasury Secretary Janet Yellen on crossing the X Date in 2021:**

“Failing to increase the debt limit would have absolutely catastrophic economic consequences. It would precipitate a financial crisis. It would threaten the jobs and savings of Americans.”

- The Federal Reserve has previously considered how to respond to a default, with the likely impact ranging from damaging to catastrophic.
  - The Fed has limited options, but it could continue to transact with defaulted Treasury securities and conduct reverse repurchase operations to provide the market with clean Treasuries.
  - As a last result, the Fed would likely move defaulted securities onto its balance sheet.
  - These measures could significantly damage the credibility of the Fed and hamper its ability to respond to future crises.

*“The institutional risk would be huge. The economics of it are right, but you’d be stepping into this difficult political world and looking like you are making the problem go away.”*

- Fed Chairman Powell on purchasing defaulted securities

- **Market risks beyond the X Date:**
  - Treasury market, interest rates
  - Equity markets (including 401(k)s, IRAs, and other pensions)
  - U.S. economy, including missed payments to businesses and individuals
  - The global financial system
- **No guarantee of the outcome; risks are risks**



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# Methodology & Assumptions

- **Analyze financial data from the Treasury Department:**
  - Daily Treasury Statements
  - Government Account Statements
- **Project monthly operating cash flow and change in intragovernmental debt using:**
  - Historical financial data
  - CBO analysis of spending and revenue growth
  - Adjustments for anticipated issues (e.g., extraordinary measures that become available on certain dates)
  - Adjustments for changes in revenue and spending due to COVID-19, pandemic aftermath, persistent inflation, etc.
- **Assumptions:**
  - No major shocks (e.g., deep recession, natural disaster, new overseas conflict) that could materially affect government finances.



- **BPC's Debt Limit Analysis**

- Home page for all of [BPC's debt limit analysis](#)—past and present—including information on our [X Date range](#) and [reform proposal](#).

- **Treasury Department**

- Leading up to and during a DISP, Treasury [releases](#) updates to the public on the status of extraordinary measures and available headroom.

- **Congressional Budget Office (CBO)**

- CBO's [Budget and Economic Outlook](#) forecasts 10-year spending and revenues patterns, and the agency projects its own estimate of when extraordinary measures and Treasury's existing cash on hand will exhaust.

- **Congressional Research Service (CRS)**

- CRS has [chronicled](#) each recent debt limit episode since 2011, and provides useful [explainers](#) on several fiscal issues, including the debt limit.

- **Government Accountability Office (GAO)**

- GAO [summarizes](#) information for the public on the federal debt and offers its own analysis of our country's debt management challenges.



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# **Authors**

**SHAI AKABAS**

**DIRECTOR OF ECONOMIC POLICY**

**RACHEL SNYDERMAN**

**SENIOR ASSOCIATE DIRECTOR**

**ARIANNA FANO**

**ECONOMIC POLICY ANALYST**

## **MEDIA INQUIRIES:**

ERIN MEADE, BPC

[EMEADE@BIPARTISANPOLICY.ORG](mailto:EMEADE@BIPARTISANPOLICY.ORG)

(412) 389-4790

[WWW.BIPARTISANPOLICY.ORG](http://WWW.BIPARTISANPOLICY.ORG)

## **CONGRESSIONAL INQUIRIES:**

MICHAEL KELLEY, BPC ACTION

[MKELLEY@BPCACTION.ORG](mailto:MKELLEY@BPCACTION.ORG)

(703) 509-7052