

Debt Limit Analysis

AUGUST 2017

SUMMARY OF FINDINGS



- Treasury Secretary Steven Mnuchin has <u>notified</u> Congress that it is "critical" for the **debt limit to be extended by September 29th** in order to ensure that Treasury can continue to fund the obligations of the federal government.
- This is consistent with BPC's latest <u>projection</u> from July: If policymakers do not act on the debt limit, Treasury would have insufficient cash to meet all financial obligations sometime in **early or mid-October** (what we call the "X Date").
 - The Congressional Budget Office (CBO) has similarly <u>estimated</u> this point in early to mid-October 2017.
- Due to the unpredictability of cash flows and thus, all of these projections – policymakers would need to act in advance of October if they intend to ensure that all obligations of the U.S. government are paid in full and on time.

SUMMARY OF FINDINGS



- After running out of cash, **Treasury would be unable to meet** approximately 23 percent of all obligations due in the several weeks that follow. How Treasury would operate in such an environment is unclear. Prioritization and delayed payments are two possibilities, but there is substantial uncertainty about operationalizing them.
- October 2 is a particularly difficult day for federal finances due to a large payment that is owed to the Military Retirement Trust Fund. This payment amounted to \$81 billion in 2016.
- Financial and economic risks grow as the debt limit impasse goes on. Already, interest rates have risen on short-term Treasury securities that mature around the time Treasury is projected to run short on extraordinary measures and cash on hand.
- Ongoing risks include increasing costs to taxpayers, delayed payments to individuals and businesses, and catastrophic market impacts if the U.S. government actually defaulted on its debt (unprecedented in modern history).

THE BASICS



The <u>debt limit</u> is:

- the maximum amount that Treasury is allowed to borrow
- set by statute (Congress must act to change it)
- covers 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).
- The debt limit was temporarily suspended from November 2, 2015, until March 16, 2017. It was then reinstated at a higher level and Treasury immediately bumped up against it.
- Since March, the Treasury Secretary has used emergency borrowing authority – known as "extraordinary measures" – to allow for an additional period of fully-funded government operations.
- Total public debt subject to limit is now about \$19.8 trillion.
 - In comparison, the U.S. gross domestic product (GDP) was \$18.6 trillion at the end of 2016.

REACHING THE DEBT LIMIT – WHAT IT MEANS



Layers of Defense Against Default

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

Debt Limit Reached EXTRAORDINARY MEASURES EM Exhausted DAILY REVENUE AND CASH ON HAND The "X Date" DEFAULT ON FINANCIAL OBLIGATIONS



Extraordinary Measures

THE BIG THREE EXTRAORDINARY MEASURES



1. The G-Fund of the Thrift Savings Plan

 Each day, 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 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.

STATUS OF EXTRAORDINARY MEASURES



EXTRAORDINARY MEASURES	March 2017	Remaining, as of July 2017 <i>(estimated)</i>
Do not reinvest the Federal Employees' Retirement System G-Fund	\$225 billion	\$35 billion
Do not reinvest the Exchange Stabilization Fund	\$22 billion	\$22 billion
Do not make new investments to the civil service and postal retirement funds	\$141 billion	\$46 billion
Shift funds from the Federal Financing Bank	\$2 billion	\$2 billion
Total	\$390 billion	\$105 billion

<u>Notes</u>: The totals indicate *available* measures. These totals only include the value of extraordinary measures that can be used to extend the "X Date." Treasury has additional measures available that assist with cash flow and debt management.

AFTER EXTRAORDINARY MEASURES



- At the end of July, Treasury had approximately \$105 billion in available extraordinary measures remaining, with \$189 billion in cash on hand.
- Once Treasury has utilized all of its emergency borrowing authority, only two sources will remain from which to continue funding government operations:
 - Remaining cash on hand
 - Daily cash inflows (federal revenues received each day)



The "X Date"

WHAT IS THE "X DATE"?



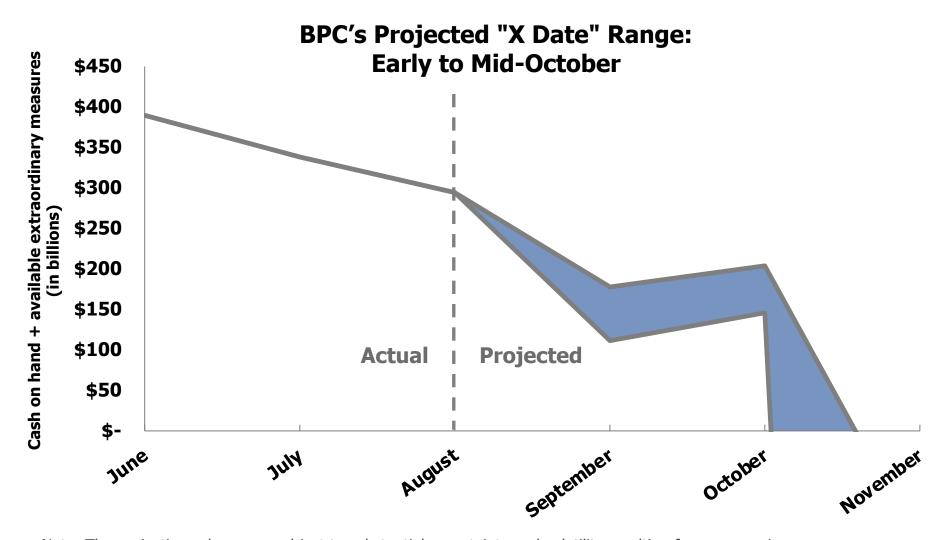
- <u>"X Date"</u>: The first day on which Treasury has exhausted its borrowing authority and no longer has sufficient funds to pay all of its bills in full and on time.
 - In other words, if the debt limit has not been raised by the "X Date," the federal government will begin defaulting on some of its obligations.
 - After the "X Date," bills must be paid solely out of incoming cash flows, which will be insufficient to cover all government spending.
- BPC estimates that the "X Date" will most likely occur in early or mid-October.
 - October 2 the first business day of Fiscal Year 2018 is particularly notable because of a large payment owed to the military retirement trust fund.

COST OF APPROACHING THE "X DATE"



- Researchers at the Federal Reserve issued a <u>study</u> finding that approaching the "X Date" in 2011 and 2013 increased the government's borrowing costs by hundreds of millions of dollars.
 - The substantial cost to taxpayers stemmed from elevated interest rates on U.S. securities issued in 2011 and 2013 leading up to the date when the debt limit was extended.
 - The Government Accountability Office (GAO) conducted a similar study of the 2013 impasse, finding that federal borrowing costs increased by tens of millions of dollars for that year alone, and much more if calculated over the duration of all the debt that was issued.
- The cost of these impasses to the federal government continues to accrue beyond a single year because many of the securities issued during that period remain outstanding and accruing interest for several years (2, 10, 30, etc.).





<u>Note</u>: The projections above are subject to substantial uncertainty and volatility resulting from economic performance, cash flow fluctuations, and other factors.

MAJOR SOURCES OF UNCERTAINTY



Timing of Revenue

- Revenue is the most volatile part of the federal government's cash flows. It varies from month-to-month and from day-to-day, making the prediction of an exact "X Date" impossible.
- Certain types of revenue, such as the quarterly tax payments due in April,
 June, and September, are especially volatile.

Intragovernmental Transfers

 Transfers required by law to government trust funds are often unpredictable in terms of timing and precise magnitude.

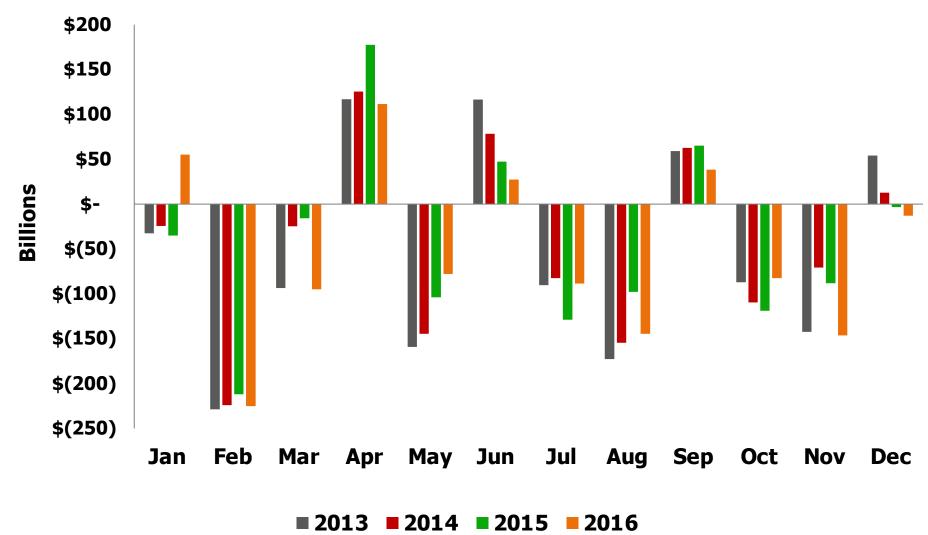
Policy Changes

 Major upcoming fiscal policy decisions could impact Treasury cash flows and therefore the "X Date." These include decisions about the Fiscal Year 2018 budget, healthcare, and tax reform, among others.

OCTOBER IS TYPICALLY A "DOWN" MONTH







Source: Daily Treasury Statements

MAJOR EVENTS & TRANSACTIONS, SEP. 24 – OCT. 28



Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
24	• \$1.5b Federal Salaries	26	• \$15.5b Social Security	28 • \$2.5b Medicaid	**Deadline set by Sec. Mnuchin • \$21.8b Medicare Advantage Payments	30
1	 \$81b Transfer to Military Retirement Trust Fund \$24.1b Social Security \$7.4b Interest Payments \$5.4b Civil Service Retirement 	3	4	5 • \$2.8b Medicaid	6 • \$3.3b Federal Salaries	7
8	9 Columbus Day	\$1.7b Federal Salaries	11 • \$15.8b Social Security	12	13 • \$3.3b Medicare	14
15	16 • \$2.7b Military Active Pay	• \$2.0b Interest Payments	18 • \$15.4b Social Security	19 • \$3.0b Medicaid	• \$3.3b Federal Salaries	21
22	• \$3.6b Marketplace Payments	24	• \$15.6b Social Security	26 • \$3.4b Medicaid	27	28

Note: Figures are BPC projections and subject to significant uncertainty.



Prioritization

BEYOND THE "X DATE"



- Treasury has stated that it has no secret bag of tricks to finance government operations past the "X Date."
 - Treasury will not attempt to "firesale" assets during a crisis.
 - Other ideas are deemed impractical, illegal, and/or inappropriate (e.g., platinum coins, IOUs).
- There is no recent precedent; all other debt limit impasses have been resolved without reaching the "X Date."

Fed Chair Janet Yellen:

"Frankly, it would be catastrophic to not raise the debt limit."

BEYOND THE "X DATE" – HOW WOULD TREASURY PROCEED?



- If the "X Date" is reached, Treasury might either prioritize payments or make full days' worth of payments once they receive sufficient revenues to cover all of a day's obligations.
 - Interest on the federal debt would likely be prioritized in either scenario it is paid on a separate computer system (FedWire).
 - In 2014, Treasury sent a letter to the House Financial Services Committee stating it is technically capable of prioritizing interest payments.
- Scenario #1: Pay some bills, but not others
 - Treasury might attempt to prioritize some types of payments over others. Prioritized payments would be made on time, others would not.
 - This option may not be possible to implement using Treasury's current financial systems. It would involve sorting and choosing from nearly 100 million monthly payments.

PRIORITIZATION



If the "X Date" arrives on October 2 (the beginning of the BPC range):

- Treasury would be about \$80 billion short of paying all bills owed in October.
- Approximately 23% of the funds owed for the period would go unpaid.
- The reality would inevitably be chaotic:
 - Unfair results, unanswered questions
 - Treasury picking winners and losers
 - Public uproar
 - Financial market uncertainty

<u>Note</u>: This scenario is presented purely for illustrative purposes and simplifies the situation. There are a number of caveats to its feasibility (some of which are mentioned elsewhere in this presentation), including the fact that revenues and obligations are lumpy, such that even if all of the payments on the previous slide could be afforded from the vantage point of aggregate figures for the covered period, the specific cash situation on particular days would make certain payments unaffordable. Further, this scenario assumes that that trust fund operations continue as normal and that Treasury enters October 2 with no cash balance and exactly enough extraordinary measures to cover that day's Military Retirement Trust Fund payment.

ILLUSTRATIVE SCENARIO: PRIORITIZATION



If Treasury chooses to pay:

Program	Cost for October
Interest on Treasury Securities	\$9 b
Medicare / Medicaid	\$66 b
Social Security Benefits	\$72 b
Military Pay	\$6 b
Defense Vendor Payments	\$24 b
Education Program Payments	\$15 b
Miscellaneous Withdrawals (including Homeland Security Emergency Preparedness, State Department, Centers for Disease Control, and many others)	\$75 b

for a total of \$267 billion...

ILLUSTRATIVE SCENARIO: PRIORITIZATION



• ...then it can't fund these programs, costing \$80 billion:

Program	Cost for October
IRS Tax Refunds	\$6 b
Federal Salaries	\$13 b
Veterans Benefits	\$6 b
Health and Human Services Grants	\$8 b
Other Spending, including: - Department of Justice (FBI, federal courts) - Department of Energy - Federal Highway Administration (road construction) - Federal Aviation Administration (air traffic control) - Environmental Protection Agency - FEMA and National Flood Insurance Program	\$47 b

CONSEQUENCES



 Realistically, on a day-to-day basis, handling all payments for important and popular programs (e.g., Social Security, Medicare, Medicaid, defense, military active duty pay) would quickly become impossible.

Economic disruption:

- Immediate 23% cut in federal spending would affect broader economy
- Many service providers unpaid
- Individuals not receiving government checks
- Widespread uncertainty as decisions are made day-by-day

PRIORITIZATION – COULD IT BE DONE?



- The Treasury Department's Office of Inspector General (OIG)
 released a <u>report</u> in 2012 on post-"X Date" strategies that Treasury
 was considering during the summer of 2011.
 - Some senior Treasury officials were skeptical of the prioritization scenario for two reasons:
 - 1. Choosing to pay certain obligations before others would be of questionable legality
 - 2. Given the sheer number of daily payments and Treasury's computerized payment system, prioritization would require a massive overhaul and reprogramming of these operations that may be impossible
- One other mechanical possibility for the prioritization scenario is that Treasury (via the Office of Management and Budget) would instruct agencies to withhold processing of certain groups or types of bills so as to prevent them from entering Treasury's system.
 - BPC does not know the feasibility of this approach.

BEYOND THE "X DATE" – HOW WOULD TREASURY PROCEED?



Scenario #2: Delay all bills

 Treasury might wait until enough revenue is deposited to cover an entire day's payments, and then make all of 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 of the 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.)

- In the 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, these payments could likely still be prioritized under this scenario although legal and operational question marks would remain.

ILLUSTRATIVE SCENARIO: DELAYED PAYMENTS



Potential Payment Delays (assuming an October 2 "X Date")

Payment	Date	Delayed Until
Social Security Benefits	October 2	October 6
Military Active Pay & Veterans Benefits	October 2	October 6
Medicare Benefit Payments	October 3	October 10
Defense Vendor Payments	October 3	October 10
Federal Salaries	October 6	October 13
Social Security Benefits	October 11	October 17
TANF Payments	October 13	October 19

<u>Note</u>: These projections incorporate a set of assumptions, including (for illustrative purposes) that the "X Date" occurs at the beginning of the BPC estimated window (October 2) and that federal trust fund operations continue as normal. Further, this scenario assumes that Treasury enters October 2 with no cash balance and exactly enough extraordinary measures to cover that day's Military Retirement Trust Fund payment.



Daily Analysis

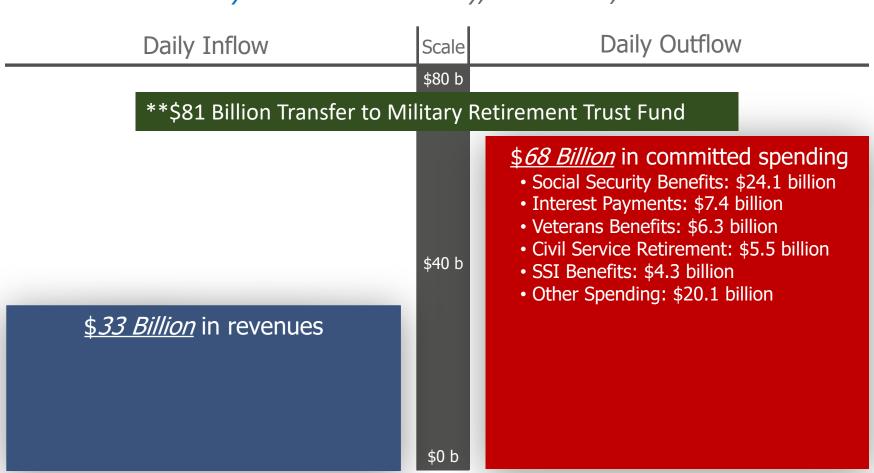


- The following slides project daily revenue and expenditures, by category, from the beginning of October.
- Projections are estimates and subject to change. Revenue flows and tax refunds are particularly volatile.
- For purely illustrative purposes, the "Running Cash Deficit" is the cumulative day-to-day change in operating cash flow calculated starting on October 2.

Running Cash Deficit: \$35 billion



Treasury Cash Flow: Monday, October 2, 2017

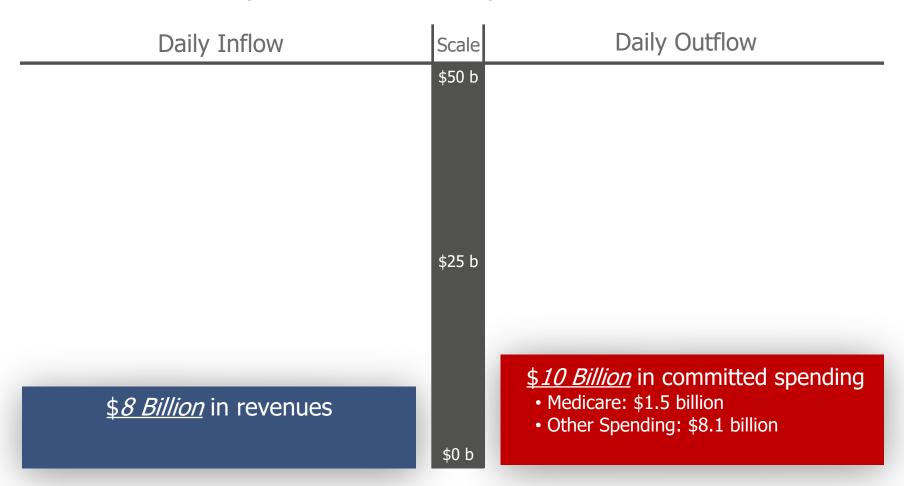


<u>Note</u>: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding. Scale on this slide differs from all following ones.





Treasury Cash Flow: Tuesday, October 3, 2017

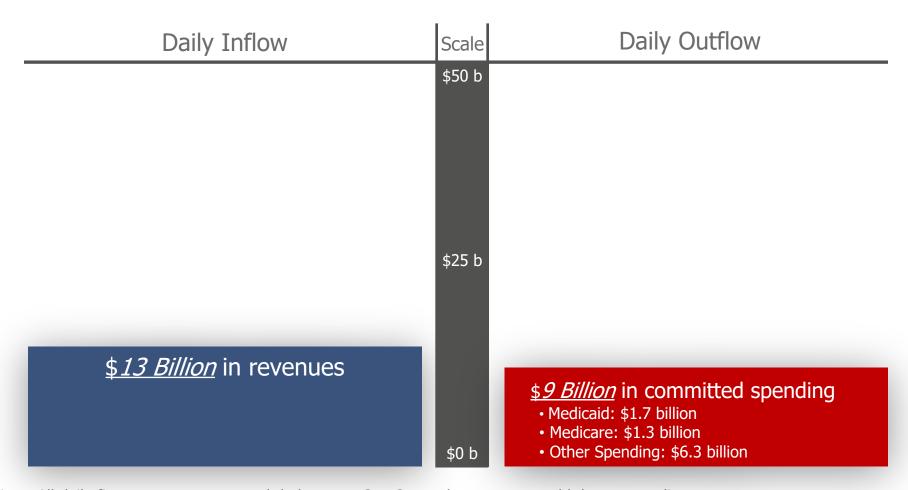


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: \$32 billion



Treasury Cash Flow: Wednesday, October 4, 2017

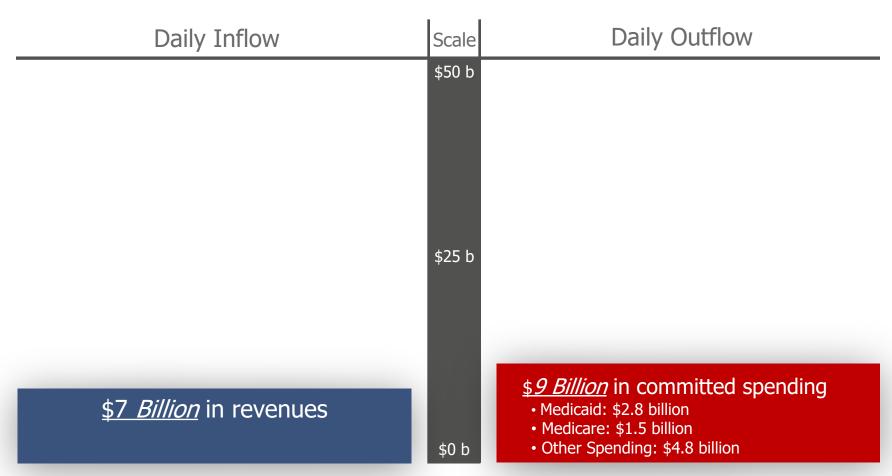


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: \$34 billion



Treasury Cash Flow: Thursday, October 5, 2017

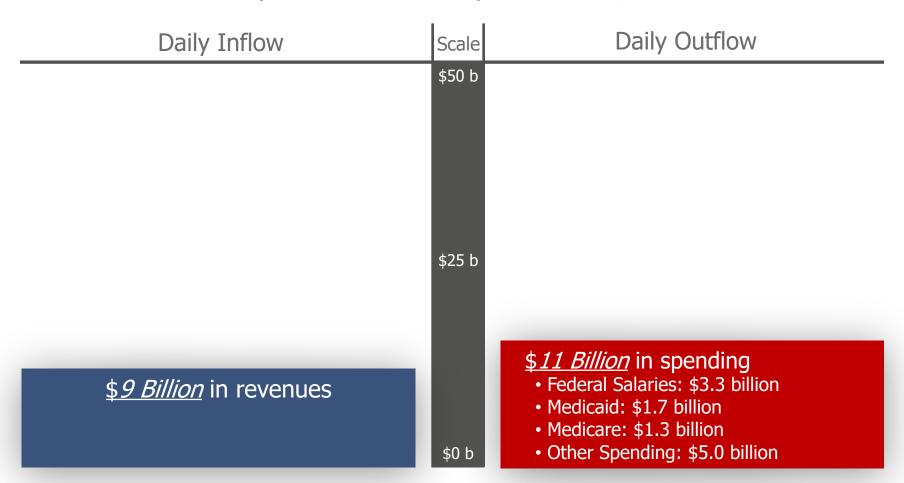


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: **\$37 billion**



Treasury Cash Flow: Friday, October 6, 2017

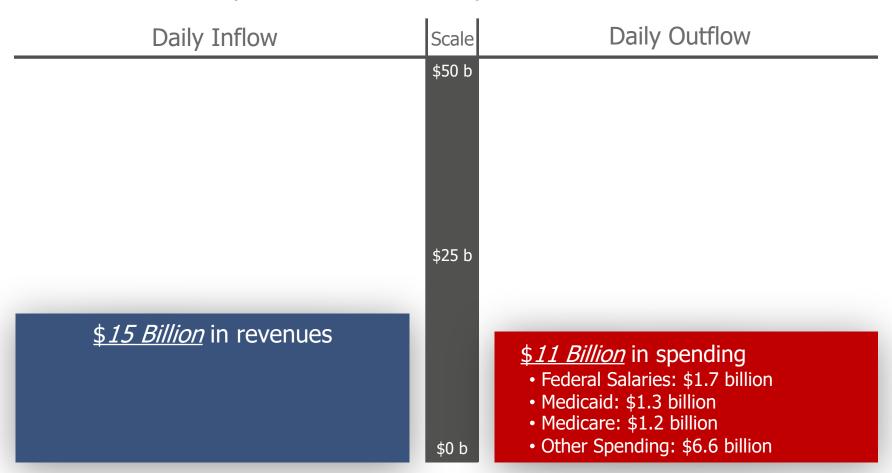


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: \$33 billion



Treasury Cash Flow: Tuesday, October 10, 2017

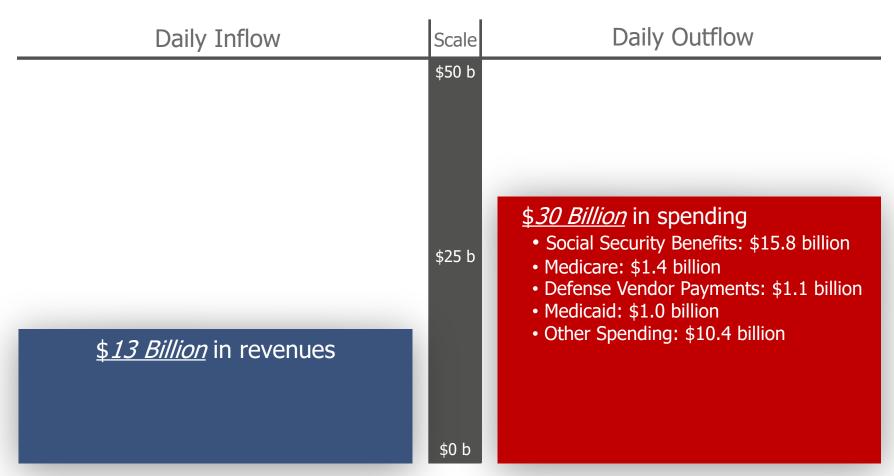


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.





Treasury Cash Flow: Wednesday, October 11, 2017

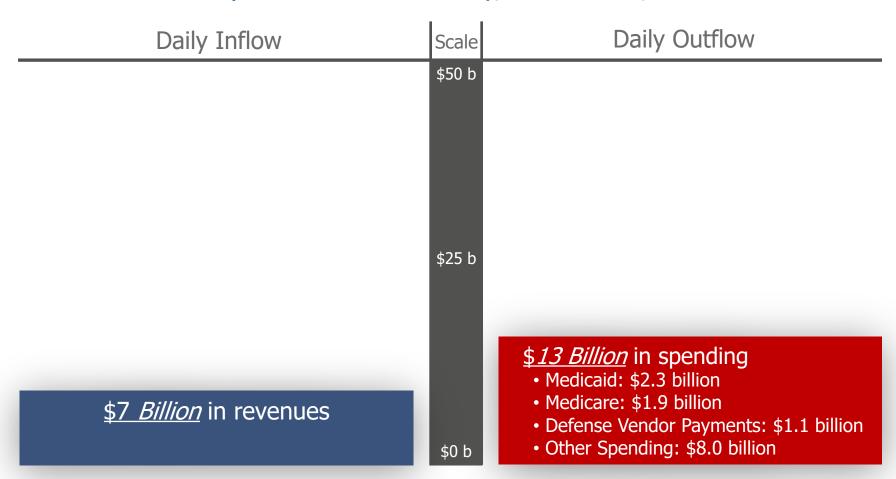


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.





Treasury Cash Flow: Thursday, October 12, 2017

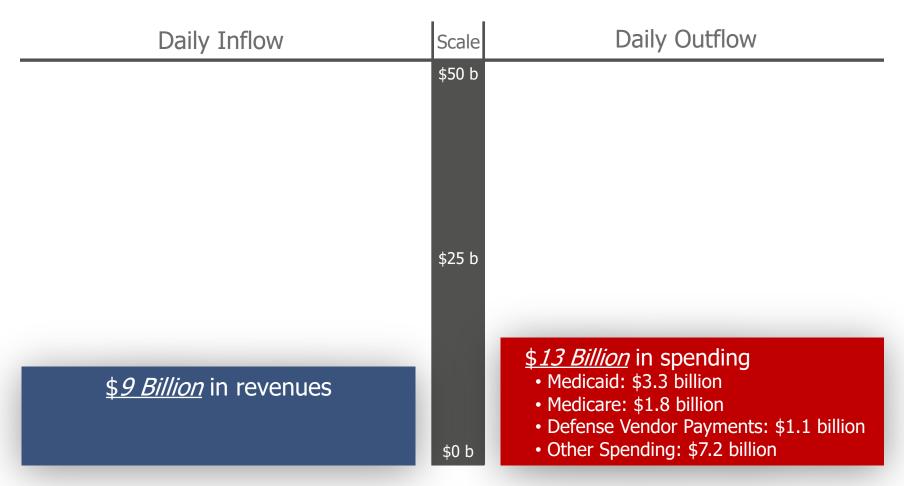


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.





Treasury Cash Flow: Friday, October 13, 2017

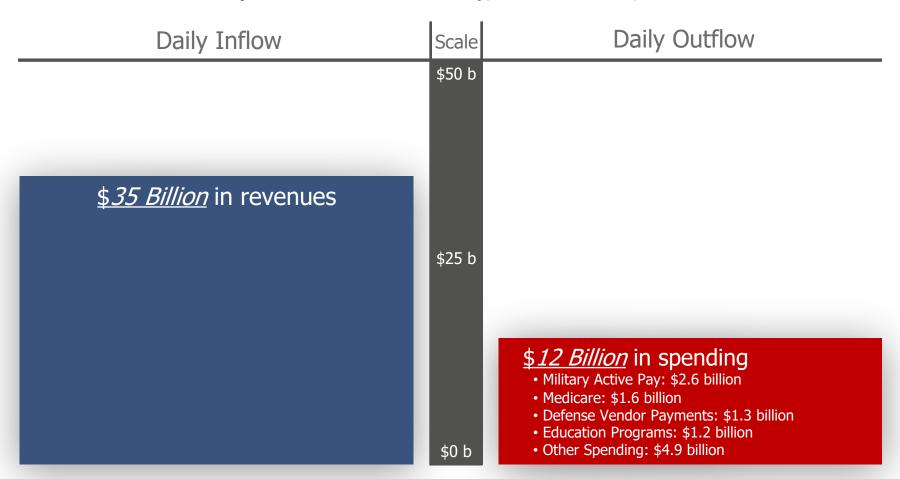


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: \$38 billion



Treasury Cash Flow: Monday, October 16, 2017

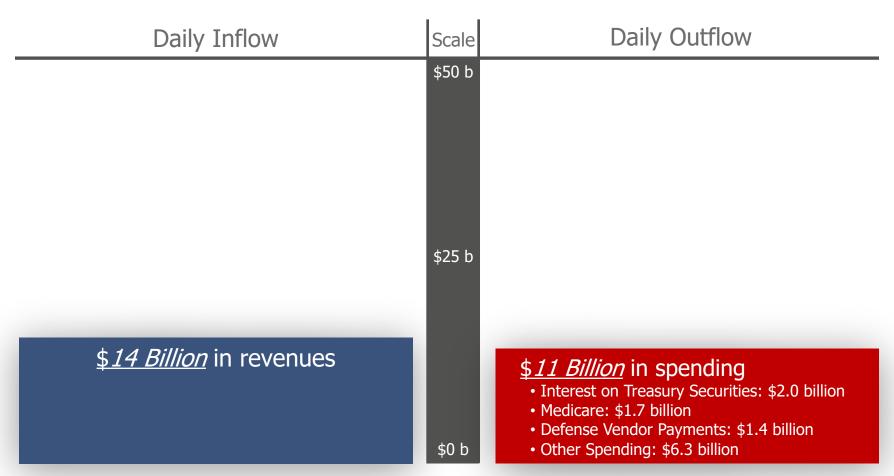


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

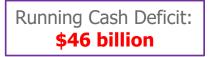
Running Cash Deficit: \$35 billion



Treasury Cash Flow: Tuesday, October 17, 2017

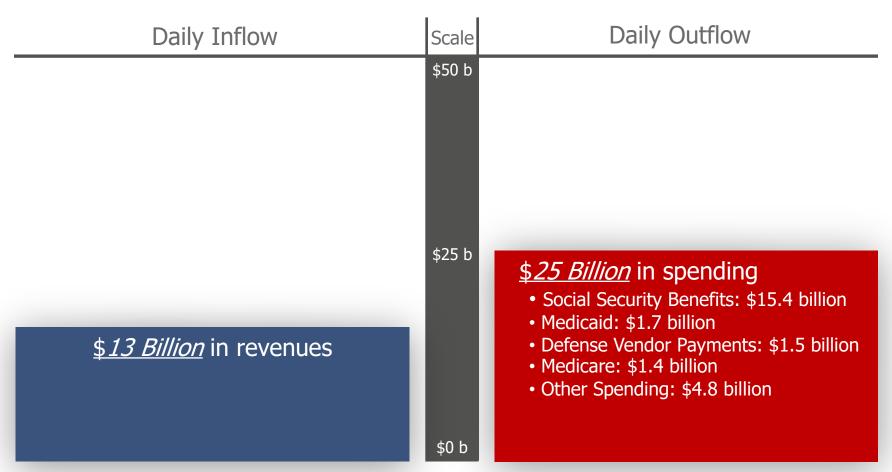


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.





Treasury Cash Flow: Wednesday, October 18, 2017

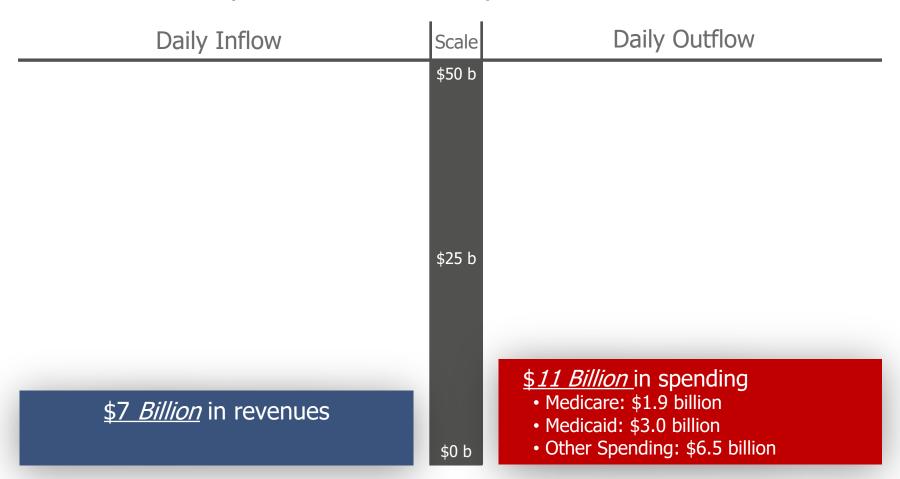


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: **\$51 billion**



Treasury Cash Flow: Thursday, October 19, 2017

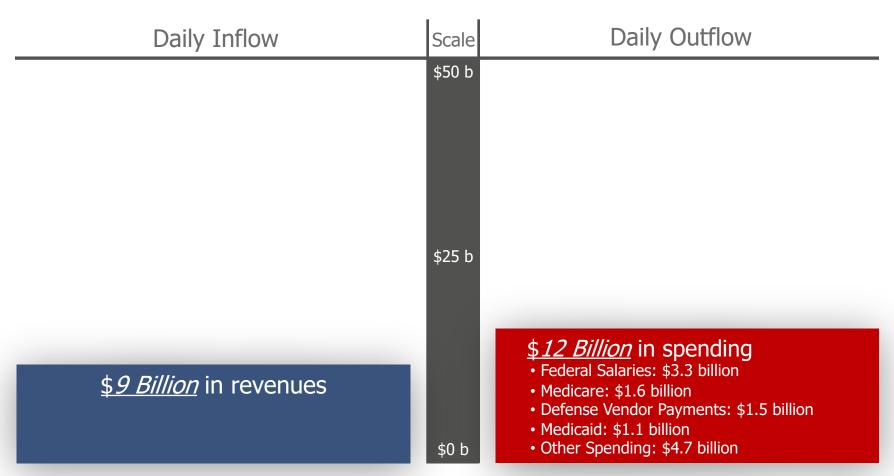


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: **\$55 billion**



Treasury Cash Flow: Friday, October 20, 2017

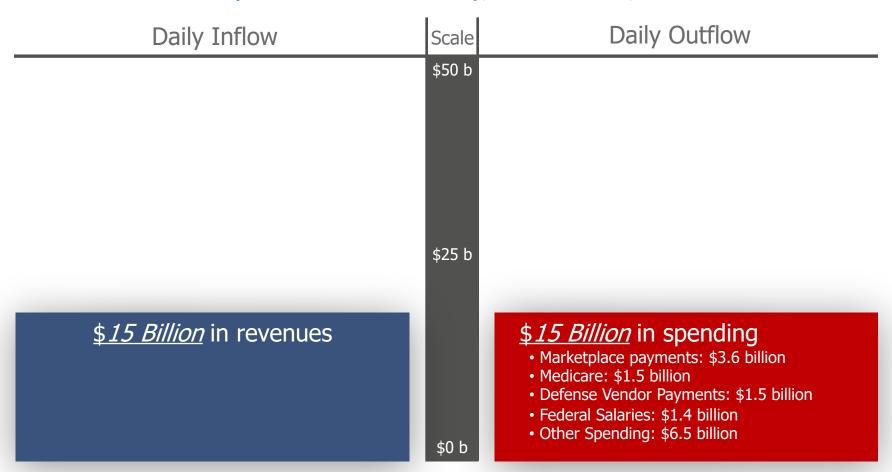


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: **\$54 billion**



Treasury Cash Flow: Monday, October 23, 2017

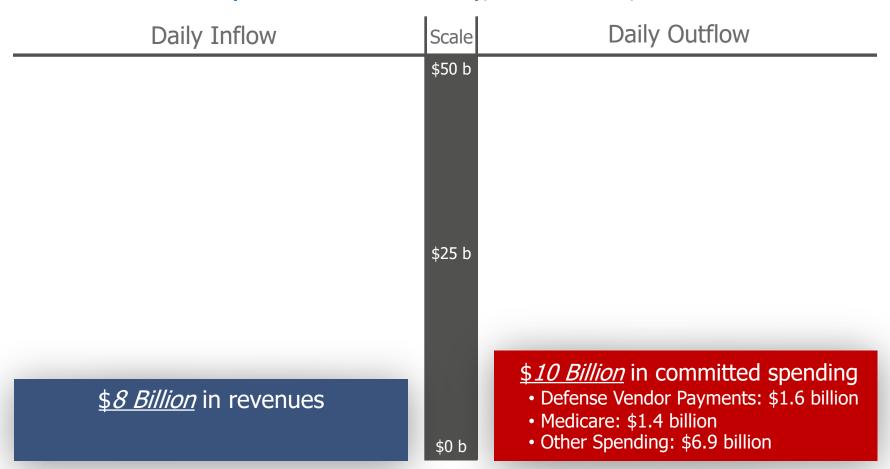


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

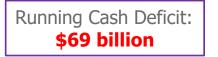
Running Cash Deficit: **\$56 billion**



Treasury Cash Flow: Tuesday, October 24, 2017

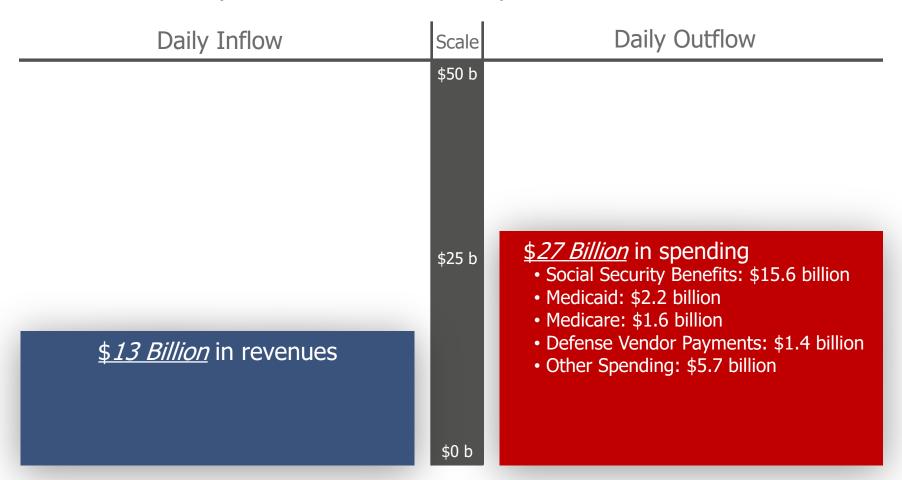


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.





Treasury Cash Flow: Wednesday, October 25, 2017

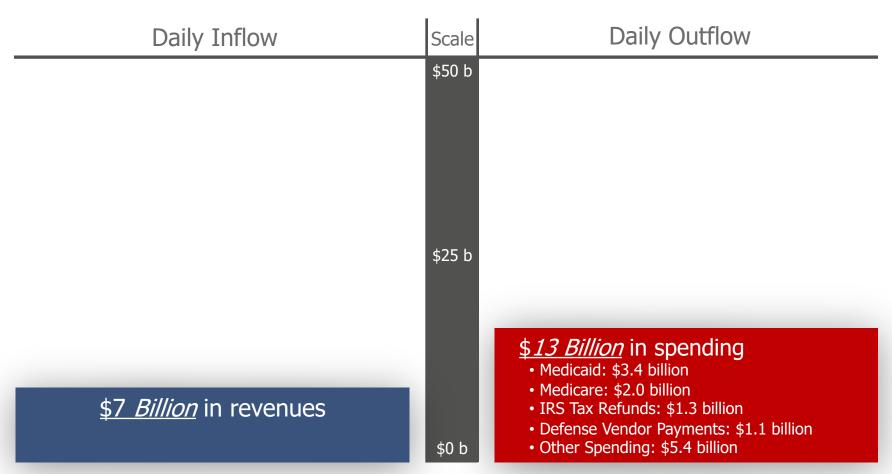


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: **\$75 billion**



Treasury Cash Flow: Thursday, October 26, 2017

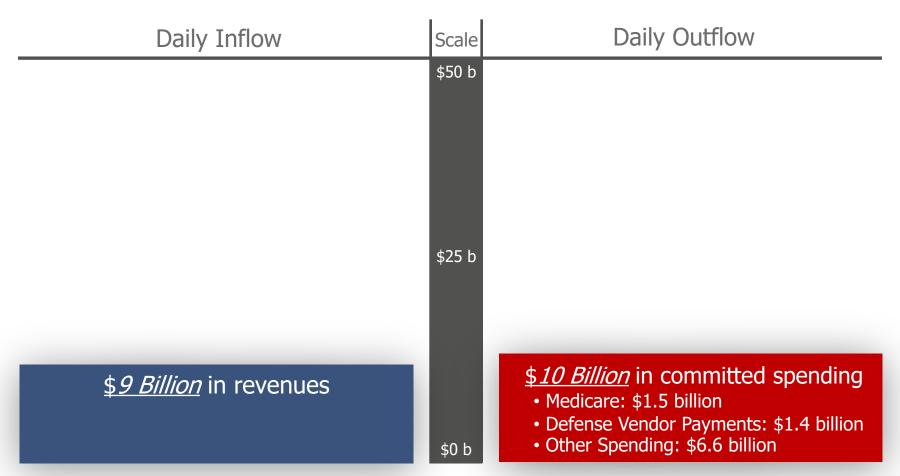


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: **\$76 billion**



Treasury Cash Flow: Friday, October 27, 2017

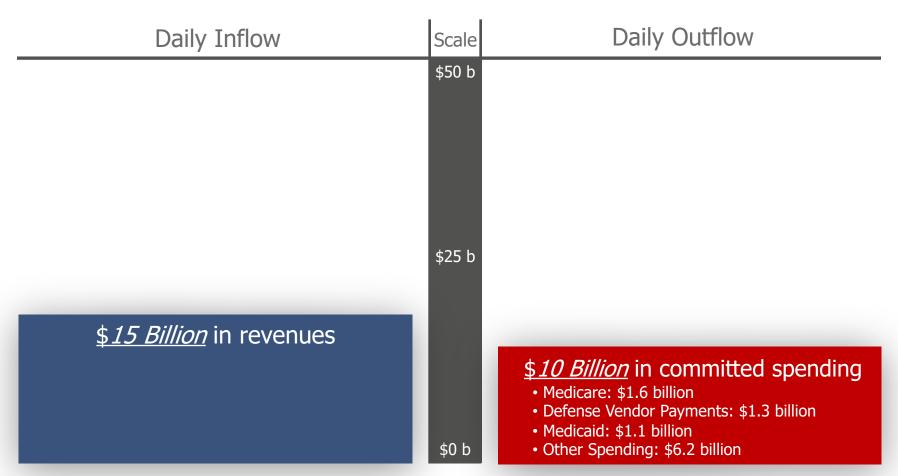


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: **\$71 billion**



Treasury Cash Flow: Monday, October 30, 2017

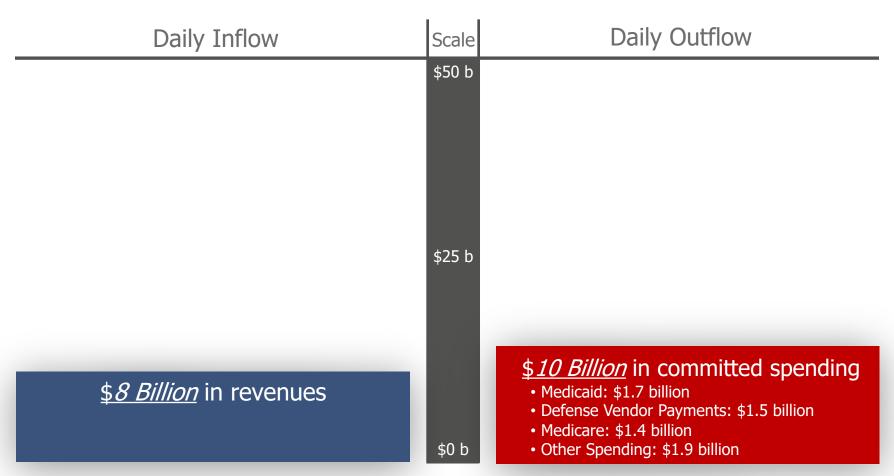


Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.

Running Cash Deficit: **\$73 billion**



Treasury Cash Flow: Tuesday, October 31, 2017



Note: All daily figures assume zero cash balance on Oct. 2; numbers may not add due to rounding.



Market Risk

THE RISKS ARE REAL – WARNING SIGNS

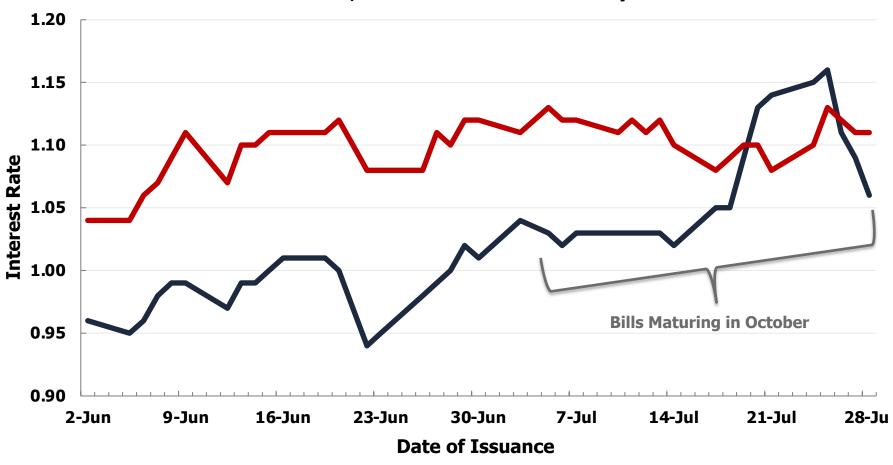


- As the "X Date" range approaches, markets have begun to flash warning signs and costs are already racking up.
 - While the risk of default isn't high, markets have nonetheless started pricing such risk into the value of Treasury bills that mature shortly after the projected "X Date."
 - In an unusual fashion, the interest rate on 3-month Treasury bills maturing in late October exceeded that of the 6-month bills issued during the same period (mid to late-July).
 - Elevated interest rates cause future interest payments to be higher than they otherwise would be; the federal government is now obligated to pay these higher costs.
 - This inversion has only occurred three times in the past decade: in the time period around the Great Recession, during the 2013 debt ceiling impasse, and July 2017.

THE RISKS ARE REAL – WARNING SIGNS







─3-Month Treasury Bill **─**6-Month Treasury Bill



- Treasury securities are normally considered safe and liquid. They are treated as the foundation of the global financial system because of the perception that the risk of default is negligible.
- Treasury must "roll over" roughly \$259 billion in debt that matures this year during the early to mid-October period.
 - When a Treasury security matures, Treasury must pay back the principal plus interest due. Under normal circumstances, Treasury would simply "roll over" the security.
 - This means that as one security matures, the principal and interest for that security would be paid for with cash from the issuance of a new security.



Debt Maturing in Early to Mid-October

Date	Debt Maturing
October 5	\$71 billion
October 12	\$90 billion
October 15	\$27 billion
October 19	\$71 billion

Note: Does not include estimates of 4-week maturities that have yet to be auctioned.

Source: TreasuryDirect

TREASURY SECURITY MARKET DISRUPTION



- In a post-"X Date" environment, the roll over operation may not run as smoothly.
 - Two elements of market risk:
 - Treasury will have to pay higher interest rates to attract new buyers.
 - It is possible, if unlikely, that not enough bidders would appear, forcing Treasury to either use cash on hand to pay off securities that came due or, in a worst-case scenario, default on the debt.
 - The 2012 Office of Inspector General's report found that there was substantial concern about this issue among Treasury officials during the 2011 debt limit event.
 - In 2013, Fidelity's money-market funds <u>refused</u> to hold any U.S. government debt maturing in late October and early November (the period surrounding the projected "X Date" in that year).



- Further rating agency downgrades are possible.
 - S&P downgraded U.S. government debt in 2011 and market reaction was 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.
- Additional borrowing costs for the federal government from delay in increasing the debt limit.



- The Government Accountability Office on Treasury securities, market risk, and how to reduce it:
 - 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."
 - "As we have also previously reported, delays in raising the debt limit can create uncertainty in the Treasury market. To avoid such uncertainty and the disruption to the Treasury market that it creates as well as to help inform the fiscal policy debate in a timely way, we have suggested in our February 2011 and July 2012 reports related to the debt limit that Congress should consider ways to better link decisions about the debt limit with decisions about spending and revenue at the time those decisions are made."



Market risks beyond the "X Date":

- Treasury market, interest rates
- Potential for serious equity market reaction (401(k)s, IRAs, other pensions)
- U.S. economy
- The global financial system
- No guarantee of the outcome; risks are risks



Potential Actions on the Debt Limit

IF THE DEBT LIMIT IS SUSPENDED AGAIN...



- ...for three months and reinstated on January 1, 2018,
 - BPC estimates the new debt limit would be approximately \$20.4 trillion, about \$600 billion higher than on October 2, 2017.
- ...for one year and reinstated on October 1, 2018,
 - BPC estimates the new debt limit would be approximately \$21.1 trillion, about \$1.3 trillion higher than on October 2, 2017.
- ...for two years and reinstated on October 1, 2019,
 - BPC estimates the new debt limit would be approximately \$22.0 trillion, about \$2.2 trillion higher than on October 2, 2017.

<u>Note</u>: Long-range projections are subject to significant uncertainty. These estimates assume no significant policy or economic change over these time periods. Additionally, the figures assume that extraordinary measures are unwound and available for use again after the reinstatement (as has been the case in recent suspensions).



Methodology & Assumptions

BPC METHODOLOGY



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 growth
- Adjustments for anticipated issues (e.g., extraordinary measures that become available on certain dates)

Assumptions:

 Fiscal Year 2018 budget is funded under a continuing resolution. No major shocks (e.g., recession, natural disaster, new overseas conflict) that could materially affect government finances.



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