Committee for a Responsible Federal Budget

Chairmen
Mitch Daniels
Leon Panetta
Tim Penny

President
Maya MacGuineas

Directors
Barry Anderson
Erskine Bowles
Charles Bowsher
Kent Conrad
Dan Crippen
Vic Fazio
Willis Gradison
William Hoagland
Jim Jones
Lou Kerr
Jim Kolbe
Dave McCurdy
James McIntyre, Jr.
David Minge
Marne Obernauer, Jr.
June O'Neill
Paul O'Neill
Bob Packwood
Rudolph Penner
Peter Peterson
Robert Reischauer
Alice Rivlin
Charles Robb
Alan K. Simpson
John Spratt
Charlie Stenholm
Gene Steuerle
David Stockman
John Tanner
Tom Tauke
Paul Volcker
Carol Cox Wait
Joseph Wright, Jr.

Q&A: Gross Debt versus Debt Held by the Public
September 11, 2017

On September 8, the federal government's gross debt exceeded $20 trillion for the first time. This mark serves as an important reminder of the nation's unsustainable rising national debt. At the same time, the nominal amount of gross debt is just one of a few measures of debt and is actually considered less economically meaningful than some other measures such as debt held by the public as a share of Gross Domestic Product (GDP). This explainer will lay out everything you need to know about the different measures of debt and what they mean for the government's fiscal situation.

What is the difference between debt and deficits?

Deficits are how much the country borrows each year, while debt is the total amount it has borrowed. In other words, the deficit measures the flow of borrowing while debt measures the total stock of borrowing. The federal government runs a deficit when outlays (i.e. spending) exceed revenue, and it must borrow money to make up the difference. When revenue exceeds outlays, the government runs a surplus. The debt is the sum of all past deficits and surpluses (plus additional borrowing from federal credit and related programs) and reflects how much the government has borrowed over its history.

What is the gross federal debt? How big is it?

The gross federal debt is the sum of virtually all debt the federal government owes, including what it owes to itself. Specifically, gross federal debt is the sum of debt held by the public and intragovernmental debt.

As of today, the gross debt is $20.2 trillion, up from $9.0 trillion a decade ago. Over the next decade, the Congressional Budget Office (CBO) projects gross debt to rise to roughly $31 trillion. As a share of the economy, gross debt is currently 105 percent of GDP, headed to 110 percent by 2027.

What is debt held by the public? How big is it?

Debt held by the public is all debt that the federal government owes to those outside of the federal government. It includes debt held by individuals, businesses, banks, insurance companies, state and local governments, pension funds, mutual funds, foreign governments, foreign businesses and individuals, and the U.S. Federal Reserve Bank. However, it does not include intragovernmental debt.

As of today, publicly held debt is $14.6 trillion, up from $5.1 trillion a decade ago. CBO projects that this will rise to about $25.5 trillion by 2027. As a share of the economy, debt held by the public is currently 76 percent of GDP -- the highest since World War II -- and is projected to reach 91 percent of GDP by 2027.

Fig. 1: U.S. Federal Debt

	Trillions of Dollars	Percent of GDP
Debt Held by the Public	$14.62	76%
Intragovernmental Debt	$5.54	29%
Gross Debt	**$20.16**	**105%**

Source: Treasury Department, BEA, debt as of September 8, 2017

What is intragovernmental debt? How big is it?

Intragovernmental debt is debt that one part of the government owes to another part. In almost all cases, it is debt held in government trust funds, such as the Social Security trust funds. These debts represent assets to the part of the federal government that owns it (i.e., Social Security), but a liability to the part of the government that issues them (the Treasury Department), and so they have no net effect on the government's overall finances.

As of today, intragovernmental debt totals $5.5 trillion, up from $3.9 trillion a decade ago. However, it is projected to fall to $5.2 trillion by the end of the decade, as some major trust funds will soon be forced to begin selling off the debt they hold in order to continue covering their expenses.

Which is a more important measure of debt, gross debt or debt held by the public?

Both gross debt and debt held by the public are important measures, but for different reasons. Most economists regard debt held by the public -- particularly as a share of GDP -- as the most economically meaningful measure of debt. Debt held by the public measures the amount of U.S. debt held by entities other than the federal government and traded publicly. It is thus relevant for understanding the extent to which debt is providing fiscal stimulus, crowding out private investment, influencing interest rates, and consuming fiscal space.

Gross federal debt also has some significance as one measure of the government's total obligations. With some minor adjustments, gross debt is also used to determine when the government has or will hit the national debt limit.

Are there other measures of federal debt?

There are several lesser known measures of federal debt besides gross debt and debt held by the public. One is debt held by the public net of financial assets. This measure subtracts the government's financial assets -- most significantly its student loan holdings, but also any stocks or bonds it may own -- from its liabilities. Currently, these financial assets total about $1.4 trillion, so debt held by the public net of financial assets totals roughly **$13.2 trillion, or 69 percent of GDP.** While debt held by the public net of financial assets does give a more comprehensive picture of federal finances, it may be difficult to calculate accurately, it excludes nonfinancial assets like land and buildings, and it does not show the extent to which the government is leveraged.

Another measure of debt is debt subject to the limit. This measure, which matters for determining when the federal government reaches the statutory debt ceiling, is broadly similar to gross federal debt. However, debt subject to the limit excludes debt issued by agencies other than Treasury (such as the Federal Financing Bank or the Tennessee Valley Authority) and is adjusted for the unamortized discount on certain Treasury securities, making it about $36 billion lower than gross debt.

Broader measures of the federal government's financial condition take liabilities other than debt into account. According to the 2016 Financial Report of the United States Government, the U.S. has $22.8 trillion in liabilities, with publicly-held debt comprising 62 percent of those liabilities and accrued benefits for veterans and federal employees making up most of the remainder. The government also has some softer liabilities (often referred to as "obligations") to pay future Social Security and Medicare benefits in excess of revenue under current law. The present value of these unfunded social insurance obligations over the next 75 years is about $46.7 trillion, bringing the government's total liabilities to $69.5 trillion. Net of government assets, the government's net position under this measure is -$66 trillion.

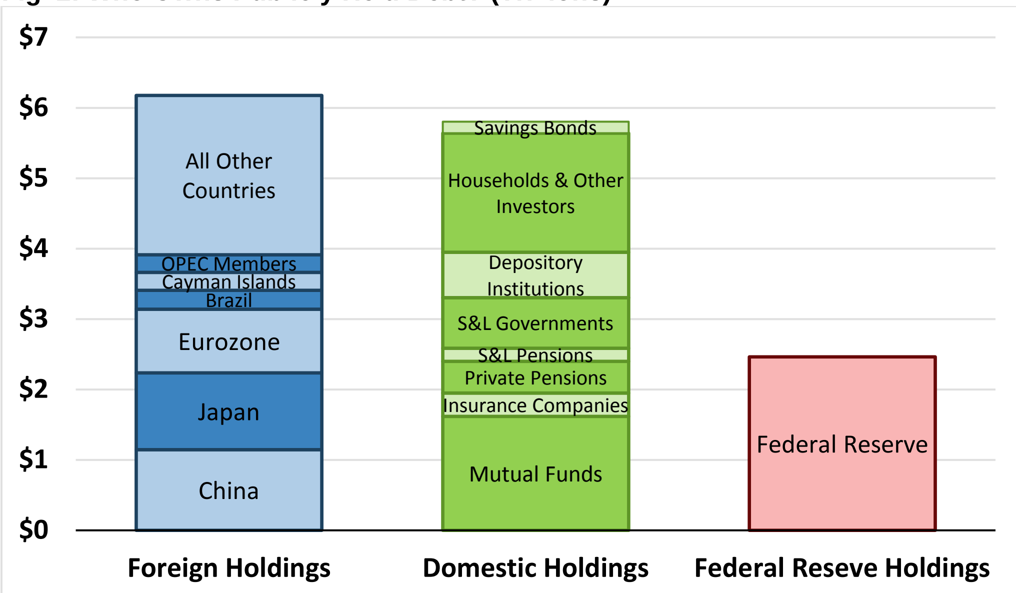
Who owns the national debt held by the public?

Of the $14.6 trillion of debt held by the public, about 43 percent is owned by foreign entities, 40 percent by private and public domestic entities, and 17 percent by the Federal Reserve Bank. The Federal Reserve has significantly expanded its Treasury holdings since the financial crisis in 2008; in 2007, the ratio was more like 45 percent, 40 percent, and 15 percent.

Foreign holdings come from a mixture of foreign individuals, businesses, banks, and governments. Of the roughly $6.2 trillion in foreign-held debt, roughly one-sixth each is held by China and Japan, who each own about $1.1 trillion. The next largest holders are Ireland, the Cayman Islands, and Brazil, who each hold between $250 and $300 billion of U.S. debt. On a combined basis, the Eurozone holds about $900 billion, and OPEC member nations together hold just over $250 billion.

In terms of the roughly $5.9 trillion domestic holdings not held by the Federal Reserve, a large share is held by the financial sector. Mutual funds hold about 28 percent of domestic debt holdings not held by the Federal Reserve, depository institutions hold 11 percent, private pension funds hold 8 percent, and insurance companies own about 6 percent. About 12 percent is held by state and local governments, who invest in "State and Local Government Series" securities as a way to comply with federal tax laws and anti-arbitrage regulations when they have funds from issuing tax-exempt bonds, and another 3 percent is held by pension funds for their employees. About 3 percent is held by the owners of savings bonds, which are sold directly by the Treasury and are not traded on the private market. The remaining 29 percent is held by other investors, including households, nonfinancial businesses, and government-sponsored enterprises.

Fig. 2: Who Owns Publicly Held Debt? (Trillions)



Note: CRFB estimates based on June 2017 distribution of holdings
Source: Federal Reserve and Treasury Department Data

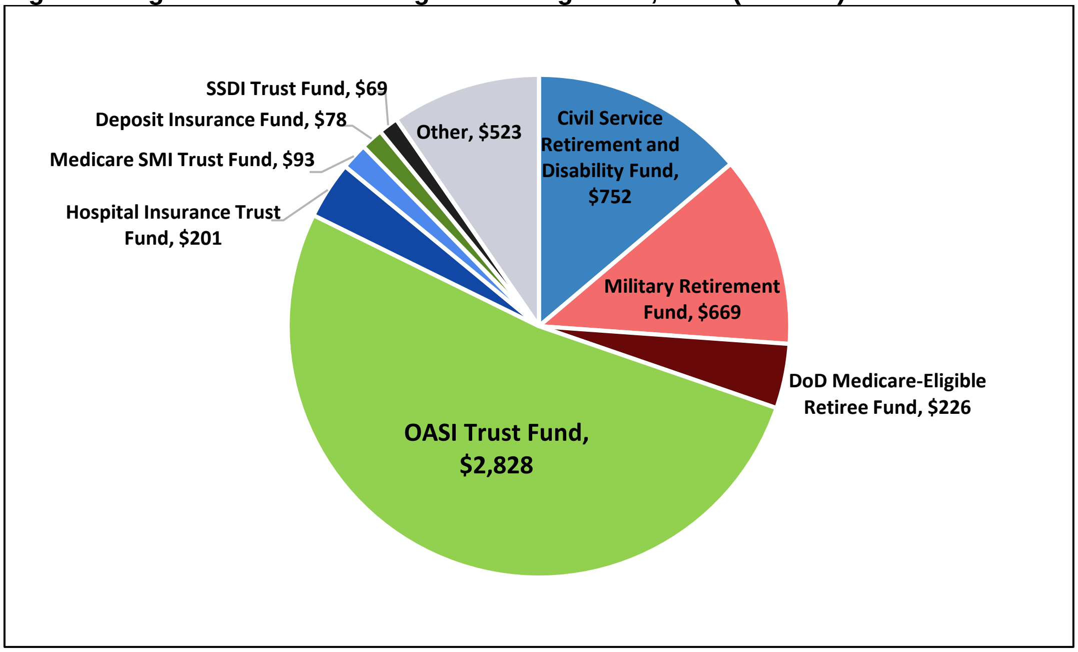
Finally, the U.S. Federal Reserve holds $2.5 trillion of government debt (not including debt held under repurchase agreements). Prior to the financial crisis, the Fed held only about $770 billion in federal debt. When the recession first hurt, Fed Treasury holdings fell further to a low of $221 billion in late 2008, but between 2009 and 2014, however, the Fed embarked on three rounds of quantitative easing, buying trillions of dollars in Treasury and other securities using newly created money in the hope of stimulating the economy. The last round of quantitative easing concluded in fall of 2014, and though the Fed's debt holdings remain far larger than their pre-crisis levels, it has recently signaled that it plans on gradually winding down its balance sheet over time.

What is the composition of intragovernmental debt?

Most of the $5.5 trillion of intragovernmental debt is held in government trust funds. About $2.8 trillion is held in the Social Security Old Age and Survivors Insurance (OASI) trust fund in the form of special issue securities that are expected to be redeemed over the next 15 years or so. A majority of the remaining amount comes from federal civilian and military retirement trust funds, which are projected to continue accumulating assets in order to notionally fund future retirement costs. Smaller amounts come from Medicare's Hospital Insurance and Supplemental Medical

Insurance trust funds, the Disability Insurance Trust Fund, the Deposit Insurance Fund, and the Unemployment Trust Fund, among other sources.

Fig. 3: Intergovernmental Holdings as of August 31, 2017 (Billions)



Note: Holdings as of August 31, 2017
Source: Treasury Department

When will gross debt reach the statutory limit?

Since 1917, the federal government has had a legal limit on the amount of debt it can accrue. The debt limit was most recently reinstated on March 16, 2017 at $19.81 trillion, the level of outstanding debt that day. Since then, the Treasury Department was able to use "extraordinary measures" to avoid default. Last week, lawmakers suspended the limit until December 9, 2017, meaning that the debt limit will be reinstated at the level of debt at that time.

When will debt held by the public reach its limit?

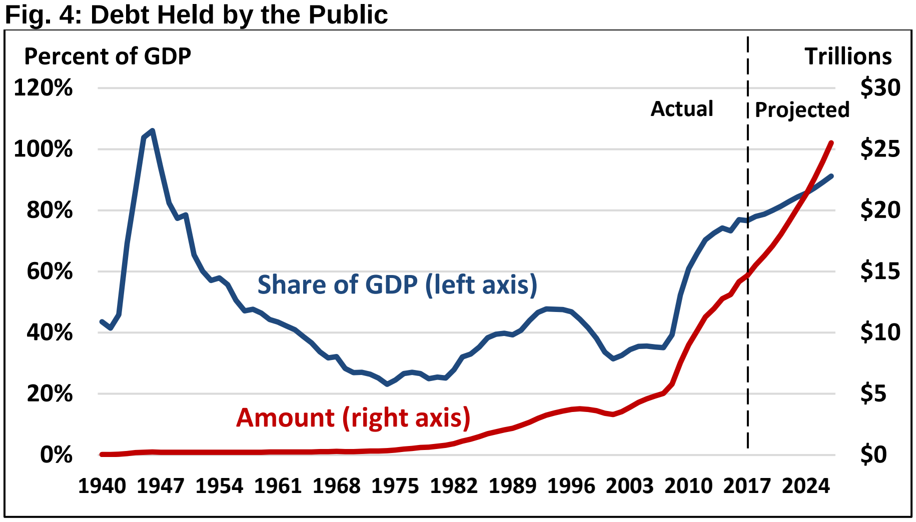
There is no legal limit to debt held by the public, nor is there a precise point where it starts to represent an economic threat. However, the larger the debt held by the public is as a share of the economy, the more economic damage it can create, the less "fiscal space" policymakers have, and the higher the risk there is of a fiscal crisis. With a growing national debt, a greater share of private savings would be used to purchase government debt instead of going towards private investments that increase productivity and long-run economic growth. Higher debt also means policymakers will have less ability to borrow easily in response to unforeseen emergencies or economic downturns. Finally, a larger and growing public debt increases the risk that investors could at some point become unwilling to finance government borrowing without charging substantially high interest rates, which could lead to a debt sell-off and cause a fiscal crisis.

How do current debt levels compare historically?

Both gross and public debt are at all-time highs in nominal dollars, which is perhaps not surprising since the federal government has been running deficits for each of the past 15 fiscal years. As a percent of GDP, both are high by historical standards. Debt held by the public is 76 percent of GDP, which is higher than any time in history other than between 1944 and 1950, when unprecedented borrowing occurred to finance the World War II effort. Even during that period, the record for debt was 106 percent of GDP, which the government is on course to exceed in under two decades.

Gross debt currently amounts to 105 percent of GDP, which is the fourth-highest total in history after 1945-1947 and short of the all-time record of 119 percent in 1946. By 2027, both public and gross debt will be at their fourth-highest levels in history.

Fig. 4: Debt Held by the Public



Source: Congressional Budget Office, Office of Management and Budget

Why measure debt as a share of GDP?

The ratio of publicly held debt to GDP is a better measure of a country's fiscal situation than just the nominal debt figure because it shows the burden of debt relative to the country's total economic output and therefore its ability to finance or repay it. This measure also allows for an apples-to-apples comparison of one country's fiscal situation over time or multiple countries' debt burden in a meaningful way. A large nominal dollar debt is less of a problem if a country has a large economy and can easily repay it. For example, debt held by the public in 1946 was about $242 billion, or less than two percent of what it is today. But with a GDP of just $228 billion, debt held by the public was 106 percent of the economy, or nearly 30 percentage points higher than its current level.

How do budgetary changes affect debt?

Since public and gross debt are different measures of debt, changes to the federal budget can affect each measure differently. Any change to the unified federal budget that affects deficits will affect debt held by the public as well; for example, a law that reduces ten-year deficits by $50 billion will generally reduce public debt by $50 billion. The same is not necessarily true of gross debt since any change that affects a program with a trust fund would have offsetting effects on gross debt. For example, a policy change that increases Social Security's trust fund by $50 billion would reduce debt held by the public by a similar amount, but increase intragovernmental debt by $50 billion and therefore have little or no impact on gross federal debt.