



# Foreign Holdings of Federal Debt

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## **Summary**

This report presents current data on estimated ownership of U.S. Treasury securities and major holders of federal debt by country. Federal debt represents the accumulated balance of borrowing by the federal government. To finance federal borrowing, U.S. Treasury securities are sold to investors. Treasury securities may be purchased directly from the Treasury or on the secondary market by individual private investors, financial institutions in the United States or overseas, and foreign, state, or local governments. Foreign investment in federal debt has grown in recent years, prompting questions on the location of the foreign holders and how much debt they hold.

This report will be updated annually or as events warrant.

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## Selected Statistics on Foreign Holdings of Federal Debt

Federal debt represents, in large measure, the accumulated balance of federal borrowing of the U.S. government. The portion of gross federal debt held by the public consists primarily of investment in U.S. Treasury securities.<sup>1</sup> Investors in the United States and abroad include official institutions, such as the U.S. Federal Reserve; financial institutions, such as private banks; and private individual investors.

**Table 1** provides December 2012 data, available as of June 2013, on estimated ownership of U.S. Treasury securities by type of investment and the percentage of that investment attributable to foreign investors.<sup>2</sup>

As the table shows, during the five years from December 2008 to December 2012, foreign holdings of debt increased by \$2.5 trillion to approximately \$5.6 trillion. During the same period, total privately held debt increased by approximately \$4 trillion to \$9.9 trillion.<sup>3</sup>

In December 2008, total foreign investment in U.S. federal debt was approximately \$3.1 trillion (52.2%) of the total of approximately \$5.9 trillion in privately held debt. By December 2012, total foreign investment in U.S. federal debt had grown by 4 percentage points to approximately \$5.6 trillion (56.2%) of the total of approximately \$9.9 trillion in debt held by private investors.<sup>4</sup> The 56.2 percentage share in December 2012 represents the largest share of privately held public debt attributed to foreign holdings since these estimates have been compiled.

**Table I. Estimated Ownership of U.S. Treasury Securities**

(in billions of dollars)

End of Month	Total Public Debt Held by All Private Investors	Total Debt Held by Foreign Investors	Foreign Holdings as a Share of Total Privately Held Public Debt
Dec. 2012	\$9,909.1	\$5,573.8	56.2%
Dec. 2011	\$8,783.3	\$5,006.9	57.0%
Dec. 2010	\$8,368.9	\$4,435.6	53.0%

<sup>1</sup> Figures on federal debt held by the public are available on the Department of Treasury Bureau of Public Debt website, "The Debt to the Penny and Who Holds It," at <http://www.treasurydirect.gov/NP/BPDLogin?application=np>.

<sup>2</sup> This report discusses foreign holdings of U.S. federal debt. Foreign investors also hold U.S. private securities. For data on foreign holdings of U.S. private securities, see "Foreign Portfolio Holdings of U.S. Securities," at <http://www.treasury.gov/resource-center/data-chart-center/tic/Pages/fpis.aspx>, produced by the Treasury Department International Capital System.

<sup>3</sup> The publicly held federal debt includes Federal Reserve holdings. The privately held federal debt excludes them.

<sup>4</sup> Data are excerpted from Table OFS-2 in the June 2013 *Treasury Bulletin*. Table OFS-2 presents the estimated ownership of U.S. Treasury securities. Information is primarily obtained from the Federal Reserve Board of Governors Flow of Funds data, Table L209. State, local, and foreign holdings include special issues of nonmarketable securities to municipal entities and foreign official accounts. They also include municipal, foreign official, and private holdings of marketable Treasury securities.

End of Month	Total Public Debt Held by All Private Investors	Total Debt Held by Foreign Investors	Foreign Holdings as a Share of Total Privately Held Public Debt
Dec. 2009	\$7,034.4	\$3,685.1	52.4%
Dec. 2008	\$5,893.4	\$3,077.2	52.2%

**Source:** Table OFS-2: Estimated Ownership of U.S. Treasury Securities from the June 2012 *Treasury Bulletin*. See link for "Ownership of Federal Securities" tables at <http://www.fms.treas.gov/bulletin/index.html>.

**Notes:** Table data represent estimated figures current as of June 13, 2013. For the most current data, connect to the link listed above. Percentage shares calculated by CRS.

Although gross federal debt is the broadest measure of the debt, it may not be the most important one. The debt measure that is relevant in an economic sense is debt held by the public. This is the measure of debt that has actually been sold in credit markets and has influenced interest rates and private investment decisions. This table reflects that portion of public debt held by all private investors in federal securities and the portion of that debt held by foreign investors. See CRS Report RL31590, *The Federal Government Debt: Its Size and Economic Significance*, by Brian W. Cashell.

Data on major foreign holders of federal debt by country are provided in **Table 2**. According to the data, the top three estimated foreign holders of federal debt by country, ranked in descending order as of December 2012, are China (\$1,220.4 billion), Japan (\$1,111.2 billion), and Caribbean Banking Centers (\$266.2 billion). Based on these estimates, China holds approximately 21.9% of all foreign investment in U.S. privately held federal debt; Japan holds approximately 19.9%; and Caribbean Banking Centers hold approximately 4.7%.<sup>5</sup>

**Table 2. The Top 10 Foreign Holders of Federal Debt, by Country**

(data current as of June 13, 2013)

Country	As of December 2012		Country	As of December 2008	
	Amount Held (\$ billions)	Percentage of all foreign holdings in federal debt		Amount Held (\$ billions)	Percentage of all foreign holdings in federal debt
Mainland China	\$1,220.4	21.9%	Mainland China	\$727.4	23.6%
Japan	\$1,111.2	19.9%	Japan	\$626.0	20.3%
Caribbean Banking Centers	\$266.2	4.7%	Caribbean Banking Centers	\$197.9	6.4%
Oil Exporters	\$262.0	4.7%	Oil Exporters	\$186.2	6.0%
Brazil	\$253.3	4.5%	United Kingdom	\$131.1	4.2%
Taiwan	\$195.4	3.5%	Brazil	\$127.0	4.1%
Switzerland	\$195.4	3.5%	Russia	\$116.4	3.8%
Russia	\$161.5	2.9%	Luxembourg	\$97.3	3.1%
Luxembourg	\$155.0	2.8%	Hong Kong	\$77.2	2.5%
Hong Kong	\$141.9	2.5%	Taiwan	\$71.8	2.3%

<sup>5</sup> Foreign holdings are estimated by the Treasury Department based on the location of the holdings, not the nationality of the holder. For certain countries, such as the Caribbean Banking Centers, many of the holdings are likely owned by third country citizens.

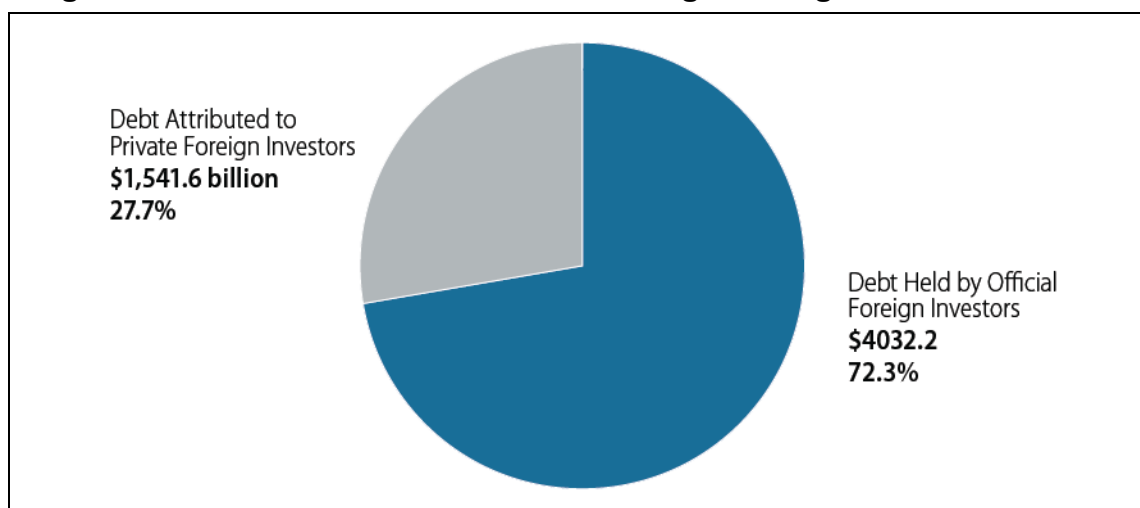
Country	As of December 2012		Country	As of December 2008	
	Amount Held (\$ billions)	Percentage of all foreign holdings in federal debt		Amount Held (\$ billions)	Percentage of all foreign holdings in federal debt
Total Top 10 Countries of Foreign Investors in Federal Debt	\$3962.3	70.9%	Total Top 10 Countries of Foreign Investors in Federal Debt	\$2,358.3	76.6%
Total All Foreign Investment in Federal Debt	\$5,573.8	100%	Total All Foreign Investment in Federal Debt	\$3,077.2	100%

**Source:** Treasury Department International Capital System (TIC), at <http://www.treasury.gov/resource-center/data-chart-center/tic/Documents/mfhhis01.txt>.

**Notes:** Data, including estimated foreign holders of federal debt historically by month, in these Treasury Department tables are periodically adjusted. Current monthly estimates are available at <http://www.treas.gov/tic/mfh.txt>. Aggregate data totals in **Table 1** vary slightly from aggregate data totals in **Table 2** because of minor valuation differences of a few securities in the data used by the TIC. Percentage approximations calculated by CRS. Percentages may not sum to 100% due to rounding.

Foreign holdings as estimated by the Treasury Department can be divided into official (governmental investment) and private sources. **Figure 1** provides data on the current breakdown of estimated foreign holdings in U.S. federal debt. As the figure shows, 72.3% (\$4,032.2 billion) of foreign holdings in U.S. federal debt are held by governmental sources. Private investors hold the other 27.7% (\$1,541.6 billion).

**Figure 1. Breakdown of Official vs. Private Foreign Holdings of U.S. Federal Debt**



**Source:** Treasury Department International Capital System, <http://www.treasury.gov/resource-center/data-chart-center/tic/Documents/mfhhis01.txt>.

**Notes:** Data in the chart represent estimated December 2012 figures and are current as of June 1, 2013. Figures are in billions of dollars. Data in the Treasury Department tables are periodically adjusted. For the most current estimates, click on the URL address listed above.

The estimated combined total of all foreign holdings for December 2011 was \$4,996.4 billion. Data consist of reported December 2011 figures from the TIC <http://www.treas.gov/tic/mfh.txt>. The breakdown between estimated official and private holdings is not publicly available on a country-by-country basis. Approximate percentages calculated by CRS.

## Foreign Investment in U.S. Federal Debt: Why Is It an Issue of Concern?

From an economic perspective, foreign holdings of federal debt can be viewed in the broader context of U.S. saving, investment, and borrowing from abroad. For decades, the United States has saved less than it invests. Domestic saving is composed of saving by U.S. households, businesses, and governments; by accounting identity,<sup>6</sup> when government runs budget deficits, it reduces domestic saving. By the same accounting identity, the shortfall between U.S. saving and physical investment is met by borrowing from abroad. When the deficit rises (i.e., public saving falls), U.S. investment must fall (referred to as the deficit “crowding out” investment) or borrowing from abroad must rise. If capital were fully mobile and unlimited, a larger deficit would be fully matched by greater borrowing from abroad, and there would be no crowding out of domestic investment. To be a net borrower from abroad, the United States must run a trade deficit (it must buy more imports from foreigners than it sells in exports to foreigners). Since 2000, U.S. borrowing from abroad and the trade deficit each have exceeded \$300 billion each year. Borrowing from abroad peaked at \$800 billion in 2006 and was \$440 billion in 2012. Borrowing from abroad has occurred through foreign purchases of both U.S. government and U.S. private securities and other assets.

As a result of foreign purchases of Treasury securities, the federal government must send U.S. income abroad to foreigners. If the overall economy is larger as a result of federal borrowing (because the borrowing stimulated economic recovery<sup>7</sup> or was used to productively add to the U.S. capital stock, for example), then this outcome may leave the United States better off overall on net despite the transfer of income abroad. In other words, without foreign borrowing, U.S. income would be lower than it currently is net of foreign interest payments in this scenario. Since 2008, the output gap (the difference between actual gross domestic product [GDP] and potential GDP) has been large, making the potential for government budget deficits to stimulate the economy, putting idle capital and labor resources back to work, and increase total income greater than usual. Because the federal government has run deficits almost every year since the 1960s, the mainstream economic view is that these budget deficits have not led to a larger economy on net over the long run for two reasons. First, the government has run deficits in many years when the economy was near or at full employment, precluding the role of deficit stimulus. Second, federal spending on capital is small<sup>8</sup> relative to the overall budget.

It can be argued that the underlying long-term economic problem is the budget deficit itself, and not that the deficit is financed in part by foreigners. This can be illustrated by the counterfactual—assume the same budget deficits and U.S. saving rates without the possibility of foreign borrowing. In this case, budget deficits would have had a much greater “crowding out” effect on U.S. private investment, because only domestic saving would have been available to finance both. The pressures the deficit has placed on domestic saving would have pushed up

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<sup>6</sup> The accounting identity is (household saving + business saving + government saving) + (borrowing from abroad – lending to abroad) = (public investment + private investment).

<sup>7</sup> For a discussion of how government deficits can stimulate the economy, see CRS Report R41578, *Unemployment: Issues in the 113<sup>th</sup> Congress*, by Jane G. Gravelle, Thomas L. Hungerford, and Linda Levine.

<sup>8</sup> In 2012, non-defense capital investment was an estimated \$52 billion and grants for capital investment were an estimated \$96 billion. Source: Office of Management and Budget, *FY 2013 Budget of the United States Government, Historical Tables*, February 2012, Table 9.2.

interest rates throughout the economy and caused fewer private investment projects to be profitably undertaken. With fewer private investment projects, overall GDP would have been lower over time relative to what it would have been. The ability to borrow from foreigners avoids the deleterious effects on U.S. interest rates, private investment, and GDP, to an extent, even if it means that the returns on some of this investment now flow to foreigners instead of Americans. In other words, all else equal, foreign purchases of Treasury securities reduce the federal government's borrowing costs and reduce the costs the deficit imposes on the broader economy.

The burden of a foreign-financed deficit is borne by exporters and import-competing businesses, because borrowing from abroad necessitates a trade deficit. It is also borne by future generations, because future interest payments will require income transfers to foreigners.<sup>9</sup> To the extent that the deficit crowds out private investment rather than is financed through foreign borrowing, its burden is also borne by future generations through an otherwise smaller GDP. Because interest rates are at historically low levels, this burden is currently not large given the increase in borrowing. Were rates to rise, however, the burden would rise with some lag as new borrowing was made at the new higher rates and old borrowing matured and "rolled over" into new debt instruments with higher rates.<sup>10</sup>

Thus far, this report has considered the U.S. determinants of the market for U.S. Treasury securities, namely the government's budget deficit and the low U.S. saving rate, but not investor demand. Since interest rates are falling to historic lows at a time when the supply of Treasury securities has risen to historic heights, it follows that Treasury rates have been driven mainly by increased investor demand in recent years. In the wake of the 2008 financial crisis, investor demand for Treasury securities increased as investors undertook a "flight to safety." Treasury securities are perceived as a "safe haven" compared with other assets because of low perceived default risk and greater liquidity (i.e., the ability to sell quickly and at low cost) than virtually any alternative asset. For foreign investors, their behavior also implies that they view the risk from exchange rate changes of holding dollar-denominated assets to be lower than alternative assets denominated in other currencies. The reasons for this flight to safety are varied. For example, investors who had previously held more risky assets may now be more averse to risk and are seeking to minimize their loss exposure; investors may not currently see profitable private investment opportunities and are holding their wealth in Treasury securities as a "store of value" until those opportunities arise; or investors may now need Treasury securities to post as collateral for certain types of transactions (such as repurchase agreements) where previously other types of collateral could be used (or used at low cost). Flight-to-safety considerations are likely to subside if economic conditions continue to normalize, reducing the incentive for foreigners to buy Treasuries and raising their yields, all else equal. More normal economic conditions would also be expected to increase domestic investment demand, which would either push up domestic interest rates or lead to more foreign borrowing.

Finally, any discussion of foreign holdings of Treasuries would be incomplete without a discussion of foreign governments (referred to as "foreign official holdings").<sup>11</sup> Foreign official

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<sup>9</sup> See CRS Report RL30520, *The National Debt: Who Bears Its Burden?*, by Marc Labonte. Income transfers to domestic debt holders have no net cost on the United States because they transfer income from one group of Americans (taxpayers) to another (bond holders).

<sup>10</sup> The average maturity length of the outstanding debt is about five years.

<sup>11</sup> U.S. Treasury, *Major Foreign Holders of Treasury Securities*, <http://www.treasury.gov/resource-center/data-chart-center/tic/Documents/mfh.txt>.



holdings are motivated primarily by a desire for a liquid and stable store of value for foreign reserves; relatively few assets besides U.S. Treasury securities fill this role well. Depending on the country, foreign reserves may be accumulated as a result of a country's exchange rate policy, the desire to reinvest export proceeds, or the desire to build a "war chest" to fend off speculation against the country's exchange rate and securities. If motivated by any of these factors, rate of return may be a lesser consideration for foreign governments than it is for a private investor.

While the burden of financing the federal debt has been modest thus far, it does expose the United States to the potential risk of future financial instability, although most economists would rate that risk as low in the near term. The federal debt is currently on an economically unsustainable path, meaning that it is projected to grow faster than GDP indefinitely. Were the debt to continue to grow faster than GDP, the government would eventually no longer be able to meet interest payments on the debt. At whatever point investors decided that this was the case, they would become unwilling to continue holding Treasury securities, driving down their price and likely prompting a financial crisis, given the size and importance of the Treasury market. This scenario has played out repeatedly in foreign countries, such as recently in Greece.<sup>12</sup> Because of the large share of foreign investors, any future debt crisis would also presumably spark a currency crisis, as foreigners would drive down the value of the dollar as they sold Treasury securities. The fact that investors are willing to hold Treasury securities with low yields despite the current unsustainable debt path implies that investors believe that policymakers will eventually restore fiscal sustainability through spending cuts, tax increases, or a combination of both. Nevertheless, investors' belief about future policy could change at any time, therefore, as long as the federal debt is on an unsustainable path, some risk of financial instability remains present. This risk is considered small in the short run, but greater in the long run as long as fiscal policy remains on the current path, because unsustainable policies cannot be sustained forever and there is no guarantee that they will be changed in time.<sup>13</sup> The "safe haven" role of Treasuries has led to counterintuitive outcomes—lower Treasury yields in response to U.S. events with systemic risk potential, such as the subprime mortgage crisis and the federal debt downgrade. These counterintuitive outcomes make it even harder to accurately predict when the debt might become unsustainable.

The unsustainability of the federal debt is linked to the unsustainability of the whole of U.S. (private and public) borrowing from abroad.<sup>14</sup> Similar to the debt, the growth in net foreign debt cannot continuously grow faster than GDP, as it has generally done in recent decades. Since 1986, the United States has had a net foreign debt, and that debt grew to 27% of GDP in 2011. Unsustainable growth in the net foreign debt could also lead to foreigners at some point reevaluating and reducing their U.S. asset holdings. If this happened suddenly, it could lead to financial instability. This net foreign debt has not imposed any burden on Americans thus far, however, because the United States has consistently earned more income on its foreign assets than it has paid on its foreign debt, even though foreigners owned more U.S. assets than Americans owned foreign assets. Although it is likely that the United States would begin to make

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<sup>12</sup> See Carmen Reinhart and Kenneth Rogoff, *This Time is Different: A Panoramic View of Eight Centuries of Financial Crises*, April 2008, available at [http://www.economics.harvard.edu/files/faculty/51\\_This\\_Time\\_Is\\_Different.pdf](http://www.economics.harvard.edu/files/faculty/51_This_Time_Is_Different.pdf).

<sup>13</sup> For more information, see CRS Report R40770, *The Sustainability of the Federal Budget Deficit: Market Confidence and Economic Effects*, by Marc Labonte.

<sup>14</sup> This borrowing from abroad is not dominated by government borrowing. According to the Bureau of Economic Analysis, U.S. Treasury securities comprised \$3.7 trillion out of \$25.2 trillion of total foreign holdings of U.S. assets.

net debt payments to foreigners at some point if the net foreign debt were to continue to grow, it has not been a cause for concern yet.

This analysis suggests that unsustainable federal borrowing and unsustainable foreign borrowing both pose separate—albeit, small in the short run—risks to financial stability. A related concern is whether combining those risks via the major role of foreigners in Treasury markets adds more risk to financial stability. In other words, would financial stability be less at risk if the United States borrowed the same amount from foreigners, but foreigners invested exclusively in private securities instead of U.S. Treasury securities? Empirical evidence does not shed much light on this question, although the fact that some foreign crisis countries, such as Ireland, had accumulated mainly private, not government, debt might suggest that avoiding foreign ownership of government debt is not a panacea. Although countries like Greece with large foreign holdings of government debt have experienced financing problems, a large share of Italy’s large government debt was held domestically, and it has nevertheless faced financing problems. The major role of foreign governments as holders of U.S. Treasuries could reduce financial instability if foreign governments are less motivated by rate of return concerns because that implies they would be less likely to sell their holdings if prices started to fall. Finally, foreign official holdings of U.S. debt may have foreign policy (as opposed to economic) implications that are beyond the scope of this report.

What policy options exist if policymakers decided foreign ownership of federal debt was undesirable? Economically, it is unlikely that foreigners could effectively be prevented from buying Treasury securities. After Treasury securities are initially auctioned by Treasury, they are traded on diffused and international secondary markets, and turnover is much higher on secondary markets than initial auctions. A foreign ban on secondary markets would be hard to enforce because secondary market activity could shift overseas, and even if it could be enforced, the U.S. saving-investment imbalance would likely shift foreign investment into other U.S. securities—perhaps even newly created financial products that allowed foreigners to indirectly invest in Treasury securities. Thus, a ban would not address the underlying economic factors driving foreign purchases. Economically, the only way government could reduce its reliance on foreign borrowing is by raising the U.S. saving rate, which could be done most directly by reducing budget deficits.

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