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Foreign Holdings of Federal Debt

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Summary

This report presents current data on 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. The gross debt is composed of debt held by the public and intragovernmental debt held by federal trust funds. To finance the publicly held debt, 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; the Federal Reserve; financial institutions in the United States or overseas; and foreign, state, or local governments.

As of December 2021, there was $23.1 trillion of publicly held debt outstanding, up from $14.8 trillion in December 2017, an $8.3 trillion increase. During the same period, foreign holdings of debt increased by $1.5 trillion to a total of approximately $7.7 trillion. After increasing for several years, overall foreign holdings were relatively flat from 2013 to 2018 in dollar terms before increasing in 2019, 2020, and 2021. Because the total debt has increased faster than the debt held by foreigners has, the share of federal debt held by foreigners has declined in recent years. In December 2021, foreigners held 33% of the publicly held debt. Interest on the debt paid to foreigners in 2021 was $132.6 billion.

Foreign holdings can be divided into official (governmental investment) and private sources: 53.7% ($4.2 trillion) of foreign holdings in U.S. federal debt are held by governmental sources, and private investors hold the other 46.3% ($3.6 trillion).

Including private investors and governments, the top three estimated foreign holders of federal debt by country, as of December 2021, are Japan ($1.3 trillion), China ($1.1 trillion), and the United Kingdom ($0.6 trillion). Based on these estimates, Japan holds approximately 16.8% of all foreign investment in U.S. publicly held federal debt, China holds approximately 13.8%, and the United Kingdom holds approximately 8.4%.

From an economic perspective, foreign holdings of federal debt can be viewed in the broader context of U.S. savings, 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, when the 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. To be a net borrower from abroad, the United States must run a trade deficit (i.e., it must buy more imports from foreigners than it sells in exports to foreigners). 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 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.

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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 gross debt is composed of debt held by the public and intragovernmental debt held by federal trust funds. Although gross federal debt is the broadest measure of the debt, 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. Intragovernmental debt, by contrast, is both an asset and a liability to the federal government.

The portion of gross federal debt held by the public consists primarily of investment in marketable U.S. Treasury securities (i.e., bills, bonds, and notes traded in private markets).[1] Investors in the United States and abroad include official institutions, such as the U.S. Federal Reserve and foreign central banks; financial institutions, such as commercial banks; and private individual investors.

Table 1 provides December 2021 data, available as of May 2022, on estimated ownership of U.S. Treasury securities by type of investment and the percentage of that investment attributable to foreign investors.[2]

The table shows that from December 2017 to December 2021, foreign holdings of debt increased by $1.5 trillion to approximately $7.7 trillion. After increasing for several years, overall foreign holdings were relatively flat from 2013 to 2018 in dollar terms before increasing in 2019, 2020, and 2021. During the same period, total publicly held debt increased by approximately $8.3 trillion from $14.8 trillion to $23.1 trillion. Because the total debt has increased faster than the debt held by foreigners, the share of federal debt held by foreigners has declined in recent years. In December 2021, foreigners held 33% of the publicly held debt.[3] Interest on the debt paid to foreigners in 2021 was $132.6 billion.[4]

[1] Figures on federal debt held by the public are available on the Department of the Treasury's Fiscal Data website, "The Debt to the Penny," https://fiscaldata.treasury.gov/datasets/debt-to-the-penny. See CRS Report R44383, *Deficits, Debt, and the Economy: An Introduction*, by Grant A. Driessen.

[2] 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 "Portfolio Holdings of U.S. and Foreign Securities," https://home.treasury.gov/data/treasury-international-capital-tic-system-home-page/tic-forms-instructions/securities-b-portfolio-holdings-of-us-and-foreign-securities, produced by the Treasury Department International Capital System.

[3] Data are excerpted from the Federal Reserve Board of Governors Flow of Funds data, Table L.210. 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.

[4] Bureau of Economic Analysis, International Transactions, Table 4.3, line 39, https://apps.bea.gov/iTable/iTable.cfm?ReqID=62&step=1. There are no data available on interest on the debt paid to individual countries.

Table 1. Estimated Ownership of U.S. Treasury Securities

(in trillions of dollars)

End of Month	Total Publicly Held Debt	Foreign Holdings of Publicly Held Debt	Foreign Holdings as a Share of Total Publicly Held Debt
Dec. 2021	$23.1	$7.7	33%
Dec. 2020	$21.6	$7.1	33%
Dec. 2019	$17.1	$6.8	40%
Dec. 2018	$16.1	$6.3	39%
Dec. 2017	$14.8	$6.2	42%

Source: Federal Reserve Board of Governors Flow of Funds, Table L.210 Treasury Securities, March 10, 2022, http://www.federalreserve.gov/releases/z1/. December 2018 and December 2017 data come from the Fed's Data Download Program, available at https://www.federalreserve.gov/datadownload.

Note: To make data from Table L.210 consistent with other government sources, CRS subtracted debt held by federal government employee defined benefit retirement funds (lines 5 and 10) from Table L.210.

Table 2 provides data on major foreign holders of federal debt by country. The top three estimated foreign holders of federal debt by country, ranked in descending order as of December 2021, are Japan ($1.3 trillion), China ($1.1 trillion), and the United Kingdom ($0.6 trillion). Based on these estimates, Japan holds approximately 16.8% of all foreign investment in U.S. privately held federal debt, China holds approximately 13.8%, and the United Kingdom holds approximately 8.4%.[5] While Japan and China remain, by far, the largest holders of federal debt, their holdings have fallen since 2017 as a share of total foreign holdings.

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

(data current as of May 6, 2022)

	As of December 2021			As of December 2017	
Country	Amount held ($ billions)	Percentage of all foreign holdings in federal debt	Country	Amount held ($ billions)	Percentage of all foreign holdings in federal debt
Japan	$1,304.0	16.83%	Mainland China	$1,184.9	19.08%
Mainland China	$1,068.7	13.79%	Japan	$1,061.6	17.09%
United Kingdom	$647.4	8.36%	Ireland	$326.6	5.26%
Ireland	$334.3	4.31%	Brazil	$256.8	4.13%
Luxembourg	$325.6	4.20%	United Kingdom	$249.9	4.02%
Switzerland	$288.0	3.72%	Switzerland	$249.6	4.02%
Belgium	$271.7	3.51%	Luxembourg	$217.6	3.50%
Cayman Islands	$261.9	3.38%	Hong Kong	$194.7	3.13%
Taiwan	$251.0	3.24%	Taiwan	$180.9	2.91%
Brazil	$244.5	3.16%	Cayman Islands	$170.6	2.75%

[5] Foreign holdings are estimated by the Treasury Department based on the location of the holdings, not the nationality of the holder.

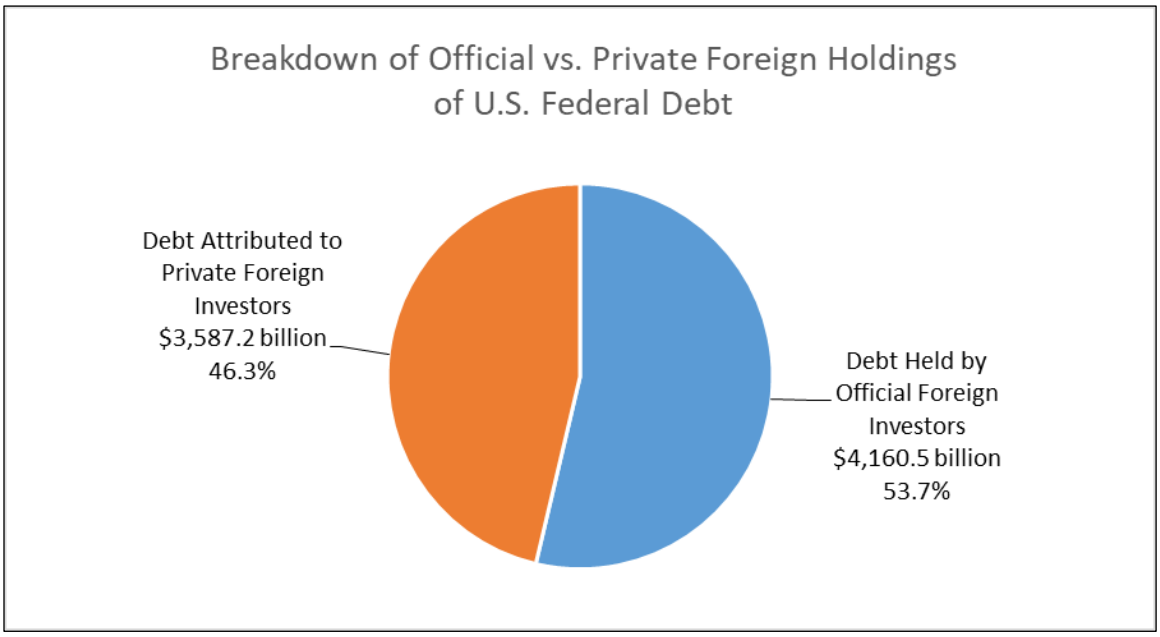
	As of December 2021			As of December 2017	
Country	**Amount held ($ billions)**	**Percentage of all foreign holdings in federal debt**	**Country**	**Amount held ($ billions)**	**Percentage of all foreign holdings in federal debt**
Total top 10 countries of foreign investors in federal debt	$4,997.1	64.5%	Total top 10 countries of foreign investors in federal debt	$4,093.2	65.9%
Total all foreign investment in federal debt	$7,747.7	100%	Total all foreign investment in federal debt	$6,211.3	100%

Source: Treasury Department International Capital System (TIC), 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 https://ticdata.treasury.gov/resource-center/data-chart-center/tic/Documents/mfh.txt. Aggregate data totals in **Table 1** vary slightly from aggregate data totals in **Table 2** because of minor technical differences between the two sources. Percentage approximations calculated by CRS. Percentages may not sum to 100% due to rounding.

Foreign holdings can be divided into official (government/central bank) and private sources. **Figure 1** provides data on the current breakdown of estimated foreign holdings in U.S. federal debt. As the chart shows, governmental sources hold 53.7% ($4.2 trillion) of foreign holdings in U.S. federal debt. Private investors hold the other 46.3% ($3.6 trillion).

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 2021 figures and are current as of May 2022. 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 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,[6] when the 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 (i.e., it must buy more imports from foreigners than it sells in exports to foreigners).[7] Since 2000, U.S. borrowing from abroad and the trade deficit have each exceeded $300 billion each year. Borrowing from abroad peaked at about $800 billion in 2006 and was almost $700 billion in 2021.[8] 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[9] 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.

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 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.

[6] The accounting identity is (household saving + business saving + government saving) + (borrowing from abroad - lending to abroad) = (public investment + private investment).

[7] By accounting identity, borrowing from abroad is equal to the current account deficit. The trade deficit is the largest component of the current account deficit.

[8] BEA, *U.S. International Transactions*, Table 1, line 117.

[9] For a discussion of how government deficits can stimulate the economy, see CRS Report R45723, *Fiscal Policy: Economic Effects*, by Lida R. Weinstock.

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.[10] To the extent that the deficit crowds out private investment rather than being 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 has not grown significantly 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.[11]

Thus far, this report has considered the impact of the government's budget deficit and the low U.S. saving rate on U.S. Treasury yields but not investor demand. Since interest rates fell to historic lows at a time when the supply of Treasury securities rose 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 and again during the COVID pandemic, 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 have subsided as economic conditions have normalized, reducing the incentive for foreigners to buy Treasuries and raising their yields, all else equal. But Treasury securities are also sought out by international investors because of the dollar's unique role as the world's *reserve currency*. As a result, Treasury securities are in permanent demand as underlying collateral in financial transactions and as a temporary store of value while trade or financial transactions are being executed.

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. This relative movement in rates could attract additional foreign capital inflows.

Finally, any discussion of foreign holdings of Treasuries would be incomplete without a discussion of the large holdings of foreign governments (referred to as *foreign official holdings* in **Figure 1**).[12] Foreign official 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

[10] 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).

[11] The average maturity length of the outstanding debt is about five years.

[12] Department of the Treasury, *Major Foreign Holders of Treasury Securities*, http://www.treasury.gov/resource-center/data-chart-center/tic/Documents/mfh.txt.

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, although large, foreign official holdings have not been significantly increasing since 2013 after more than a decade of rapid growth before then.

Since 1986, the United States has had a net foreign debt, and that debt grew to $18 trillion in 2021.[13] The recent growth in net foreign debt would be unsustainable in the long run, meaning that it cannot continue to grow faster than GDP, as it has generally done in recent decades. 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 net debt payments to foreigners at some point if the net foreign debt were to continue to grow, it has not occurred yet. To date, the primary drawback is the risk that its unsustainable growth poses, although that risk is slight in the short run. Unsustainable growth in the net foreign debt could lead to foreigners at some point reevaluating and reducing their U.S. asset holdings. If this happened suddenly, it could lead to financial instability and a sharp decline in the dollar's value. Alternatively, were the growth in the debt to decline gradually, it is unlikely to be destabilizing.[14]

A related concern is whether 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, debts might suggest that avoiding foreign ownership of government debt is not a panacea. Although countries such as 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 is undesirable? Absent strict capital controls, 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 on 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

[13] BEA, *U.S. International Investment Position*, Table A.

[14] The "safe haven" role of Treasuries and "reserve currency" role of the dollar have 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 and perhaps make a destabilizing reversal of capital flows less likely compared with other countries.

reliance on foreign borrowing is by raising the U.S. saving rate, which could be done most directly by reducing budget deficits. Reducing deficits too quickly could be counterproductive, however, if it undermined the economic recovery.

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