National Debt

Generally speaking, it is a good idea to live within your means. In other words, don't spend more than you can afford. However, many people, businesses, and countries spend more than they can afford. How do they do this? While they can sell assets and use the proceeds to fund their purchases, most spend beyond their means by borrowing. People borrow from banks. Businesses borrow from banks through loans and from investors through stock and bond sales. Countries borrow from banks through loans and investors through bond sales. The amount any entity borrows is called **debt,** and the national debt is the amount a nation owes to those who bought its bonds.

In this article, we will explain what the national debt is, what causes a nation to go into debt and the impact on the economy of persistent deficits and rising debt levels. If you are eager to learn more about the national debt, let's begin!

National Debt Definition Economics

What is the definition of National Debt? Well, in a crisis, nations can borrow by obtaining loans from the World Bank, the International Monetary Fund, or other international lenders. However, in normal times, most nations borrow by selling bonds. The United States sells Treasury bills, notes, and bonds to cover the difference between government revenue and government spending. Table 1 below defines these securities based on their different maturities.

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Security	Maturity
Treasury Bill	4 weeks to 1 year
Treasury Note	2 years to 10 years
Treasury Bond	20 years to 30 years

Table 1. Treasury security definitions - StudySmarter

The national debt for the United States, then, is the sum of all outstanding Treasury bills, notes, and bonds.

> Definition
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> The **national debt** is the total debt outstanding for a nation. That is, the total amount borrowed minus the total amount repaid, over time.

In the United States, the debt is split into two categories:

- **Debt to the Public (Public Debt)** is the debt held by individuals and institutions outside the federal government.
- **Intragovernmental Holdings** is the debt held by trust funds for Social Security, the Military Retirement Fund, the Civilian Retirement Fund, Medicare, and hundreds of other funds and programs.

Total Debt is the total debt outstanding to all holders. In other words, it is the sum of Public Debt and Intragovernmental Holdings.

Deep dive

Talking About the National Debt

Usually, when you hear about the national debt in the news, they are talking about the Total Debt. It is a very high number, so those mentioning it want to make it sound as scary as possible. However, when you hear about the Debt-to-GDP Ratio, they are usually talking about Public Debt. That is because those who are in power usually want to minimize the severity of the situation, so they use the smaller Public Debt amount in the numerator of the ratio. Figure 1 below shows a comparison of these two ratios.

The truth is that the federal government (i.e. taxpayers), owes ALL of the debt outstanding. But because the government can always fund intragovernmental holdings with more debt, many people think that the debt owed to the government by the government isn't a big concern, even though it's over $6 trillion! However, because all of the money owed to those Intragovernmental Holdings is owed to Americans, to say that it isn't a big concern is deflecting from reality. Although the probability of the United States defaulting on its debt is very small, if it ever happened many Americans would suffer if the federal government could not make good on its promises to its own citizens.

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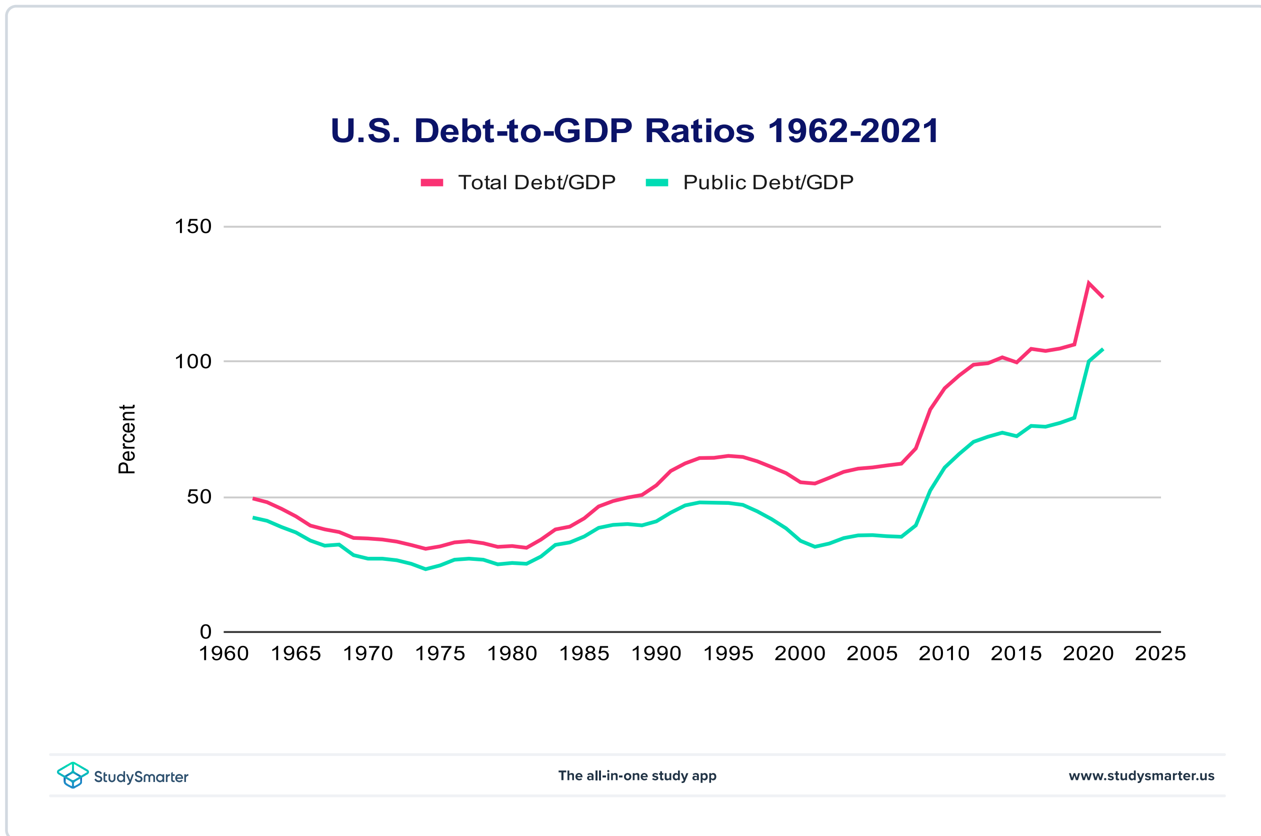

Figure 1. U.S. Debt-to-GDP Ratios - StudySmarter. Source: Congressional Budget Office, Bureau of Economic Analysis, Fiscal Data[1]

Now, how does the United States Total Debt-to-GDP ratio compare to other countries? Is it really that bad? The table below shows that, yes, indeed, it is that bad, as the United States has the fourth-highest Total Debt-to-GDP ratio in the entire world!

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Country	Total Debt-to-GDP Ratio
Japan	240%
Greece	157%
Lebanon	131%
United States	124%
Italy	122%

Table 2. Top Global Total Debt-to-GDP Ratios - StudySmarter. Source: World Economics[2]

Causes of National Debt

When a nation spends more than the revenue it generates, the result is a budget deficit (Figure 2). Governments don't raise funds to cover deficits by selling assets like a family or a company would; instead, they borrow from the financial markets. The national debt is caused by the accumulation of past budget deficits, which required the government to borrow to finance its full budget.

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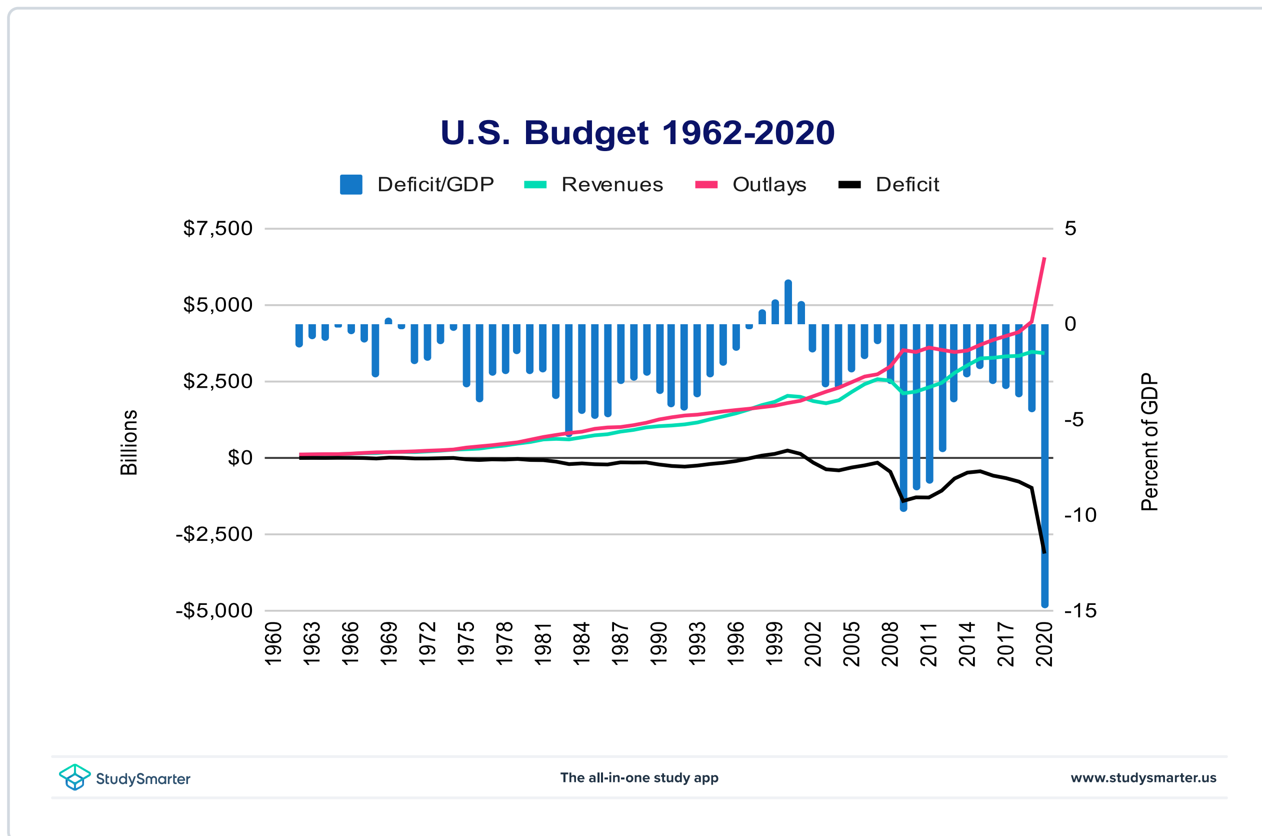

Fig. 2 - U.S. Budget. Source: Congressional Budget Office[3]

Circling back, what causes a nation to spend more than its revenue in the first place? Because revenue for the next year or biennium (next two years) is not known, policymakers must form a budget based on *estimated* revenue. Of course, these estimates are rarely correct, so there will be some years when revenue is less than expected. However, the bigger issue is that policymakers tend to gravitate toward larger budgets than smaller budgets because their main goal is to get re-elected, and it is hard to get re-elected when you cut funding for your voters and constituents. It is also difficult to get re-elected when you raise taxes on your voters and constituents. Therefore, revenue tends to be on the low end while spending tends to be on the high end, thus causing persistent federal deficits and ever-increasing national debt.

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National Debt Example

A good example of the national debt would be the United States. As of March 2022, we have the following statistics:[8]

Public Debt: $23.9 trillion
Intragovernmental Holdings: $6.5 trillion
Total Debt: $30.4 trillion

This $30.4 trillion is the total amount of money the United States has borrowed to finance its deficits going all the way back to 1835. Why 1835? That was the first, and only, time since records began in 1790 that the United States had ZERO debt outstanding! Well, at least, zero *interest-bearing* debt. It appears that there was actually $33,700 in *non-interest-bearing* debt still outstanding.[4] Since then, the national debt has increased almost a billion-fold! (Figure 3)

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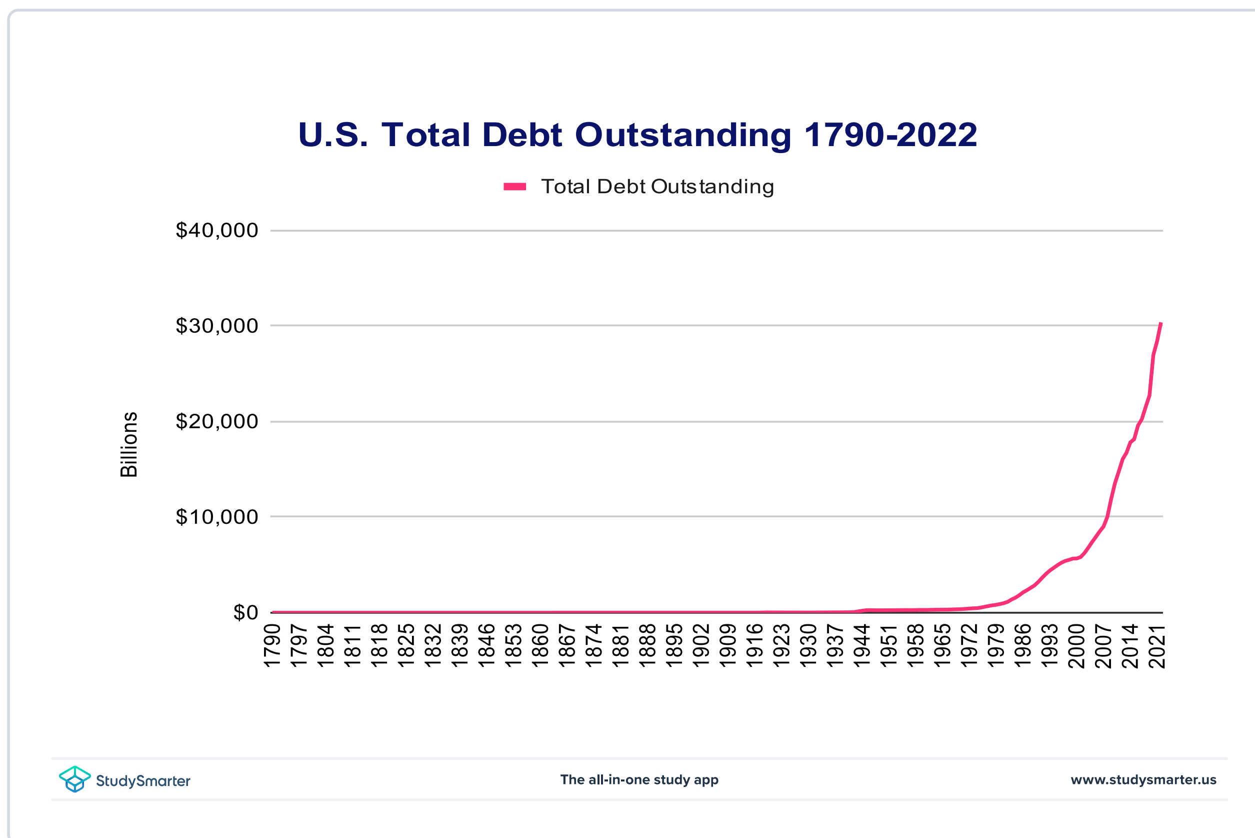

Figure 3. U.S. Total Debt Outstanding - StudySmarter. Source: Fiscal Data[4]

Of the $30.4 trillion currently outstanding, 26% is owed to foreigners. That is down from 34% a decade ago thanks to the Federal Reserve Bank scooping up trillions of dollars in Treasuries in order to lower interest rates and support the economy.[6] As you can see in Table 3 below, the top five holders of United States debt are Japan, China, the United Kingdom, Ireland, and Luxembourg. For all the talk of China "owning" the United States because it holds so much of its debt, the truth is that Japan holds more, and China only holds 3.5% of United States debt.

Country	Amount (Billions)
Japan	$1,232
China	$1,040
United Kingdom	$635
Ireland	$316
Luxembourg	$301

Table 3. Top Holders of U.S. Debt - StudySmarter. Source: Treasury Direct [5]

As far as the type of debt holders, you can see in the chart below that, as of July 2021, the latest data available, foreigners held the most debt ($7.5 trillion), followed by intragovernmental holdings ($6.2 trillion), and the Federal Reserve Bank ($5.2 trillion).[6]

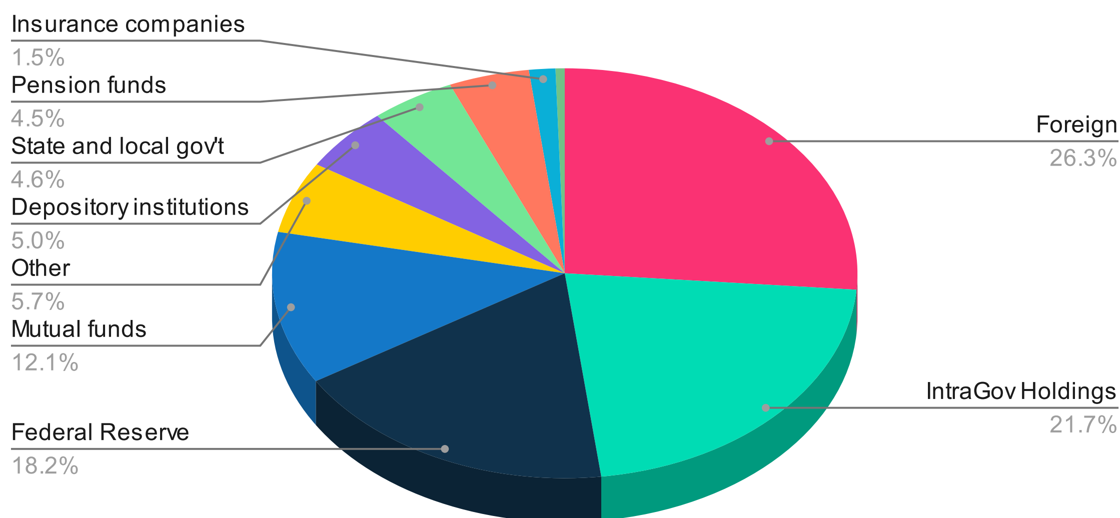

Figure 4. U.S. Debt Holders by Type - StudySmarter. Source: Treasury Department, Federal Reserve Bank[6]

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Impact of National Debt on Economic Growth

What is the impact of the national debt on economic growth? The United States has a national debt of $30.4 trillion and a Total Debt-to-GDP ratio of 124%, the fourth-highest in the world.[2] So, should all of this be a cause for concern?

If the government budget is in deficit, in order to bring things into better balance the government must either raise taxes or cut spending, at least in theory. In practice, because there is no law requiring the United States government to balance the budget, this rarely happens. Instead, most tax and spending changes are political rather than economic in nature. That said, the longer deficits persist without appropriate action, the bigger and more painful the needed actions will be down the road, again, at least in theory. In practice, policymakers are much more concerned about getting re-elected than they are about the impact of rising debt levels on either present or future economic growth, so little has been done to resolve the problem of the soaring national debt.

However, there is a caveat here. This can seemingly go on for a very long time in the United States without much impact on the economy. If there was a big impact on the economy, policymakers would have long ago made adjustments to get the budget closer into balance, reduce deficits and slow the growth of the national debt, or even start to reduce it. The main reason they have little concern about the ballooning national debt is that the U.S. dollar (USD) is the world's reserve currency. What does that mean? It means that the vast majority of countries either trade in USD, have their currency pegged to the USD, or have their debt denominated in USD. What happens to the USD has little impact on the national debt of the United States, but it can have an enormous impact on the national debt of foreign countries whose debt is denominated in USD.

> **Example**
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> Let's say that foreign Country A has debt denominated in USD. If the USD appreciates, that means Country A's currency depreciates relative to the USD, which means that it

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> takes more of Country A's currency to make its interest and principal payments in USD. This can be a drain on the government's budget, leaving less money to spend on other things. If this, in turn, causes an economic slowdown in Country A, that could cause its currency to depreciate even further as investors cash out their investments in the country. This could lead to inflation, which, if it gets high enough, can lead to very large losses in the savings of its citizens and the standards of living in the country.

To repair the damage, the government needs to raise taxes or cut spending, sometimes painfully, to bring their budget back into balance and reduce the debt. If the government is having problems making its debt payments, the government has several options.

Deep dive

Options to manage the problem of debt repayments

One option is to restructure their debt, which usually means issuing new bonds to replace the old bonds, and usually at a lower value, thus incurring losses for investors, reducing their confidence in the government, and increasing the cost of borrowing for the debtor country, which slows economic growth. This has happened many times throughout history, recently most notably in Argentina in 2001 and Greece in 2012 in the aftermath of the Global Financial Crisis.

The government can also depreciate its currency to make its exports cheaper, thereby bringing money into the country to help bring down the deficit and debt, but again, that could make it harder to pay down debt denominated in USD.

Another option is to take out loans from the International Monetary Fund, which usually requires the debtor country to raise taxes or cut spending as part of the deal, often more than they were planning to or would like to on their own.

Still another option is for the country to print money so they can pay their debt, but this leads to inflation, sometimes hyperinflation, as in the case of Zimbabwe, which can erode or even destroy the lives of its citizens.

If no other solution is possible, the government can default on its debt, as Argentina did in 2001, in which case investors will lose even more confidence in the government compared to if they just restructured their debt. All of these measures can weigh heavily on economic growth, sometimes for years, and sometimes for decades.

All that said, there is still another problem caused by outsized national debt, and that is the issue of **crowding out**.

There are two ways crowding out occurs. First, when the government borrows, it crowds out private issuers who are looking to raise funds for investment projects to grow their businesses. The more government debt that is issued, the less demand there is for private debt or the higher interest rates private debt must offer in order to attract investors. Less demand for, or higher interest rates on, private debt leads to lower investment spending and a weaker economy.

Second, high debt levels and interest payments crowd out investing in other things the nation needs like infrastructure, education, healthcare, and defense. The standards of living for a nation can be severely curtailed with such heavy borrowing. If the nation prefers instead to keep its spending at current levels, it must then borrow even more to make up for what it had to pay in interest payments, and the vicious cycle continues. This is why it is so important for policymakers to keep the future in mind when making decisions in the present.

If you are eager to explore more, check our article - Crowding Out

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In order to prevent the above scenarios from happening, governments need to make an effort to offset deficits in bad years with surpluses in good years. This will help to reduce the cumulative deficits and slow the growth of its debt, or even reduce its debt. In practice, though, this rarely happens.

United States Debt Projection

How are things looking for the United States? As you can see in the chart below, the Public Debt-to-GDP ratio for the United States is projected to reach an eye-watering 202% by 2051! And that's just the *Public* Debt, not including Intragovernmental Holdings! During this time period, net interest on the debt is forecast to explode from 1.4% of GDP to 8.6% of GDP, which would, astonishingly, be even higher than the 6.3% for both Social Security and Medicare![7] The growing population is going to be a serious issue for policymakers to deal with, but it appears that net interest on the debt is going to be even worse.

So, for those who like to use the Debt-to-GDP *ratio* rather than the debt *level* when talking about the national debt to make things seem not so bad, by 2051 that will no longer be possible. It is clear that the United States must get more serious about its chronic debt problem. If it doesn't, the future looks bleak for its citizens.

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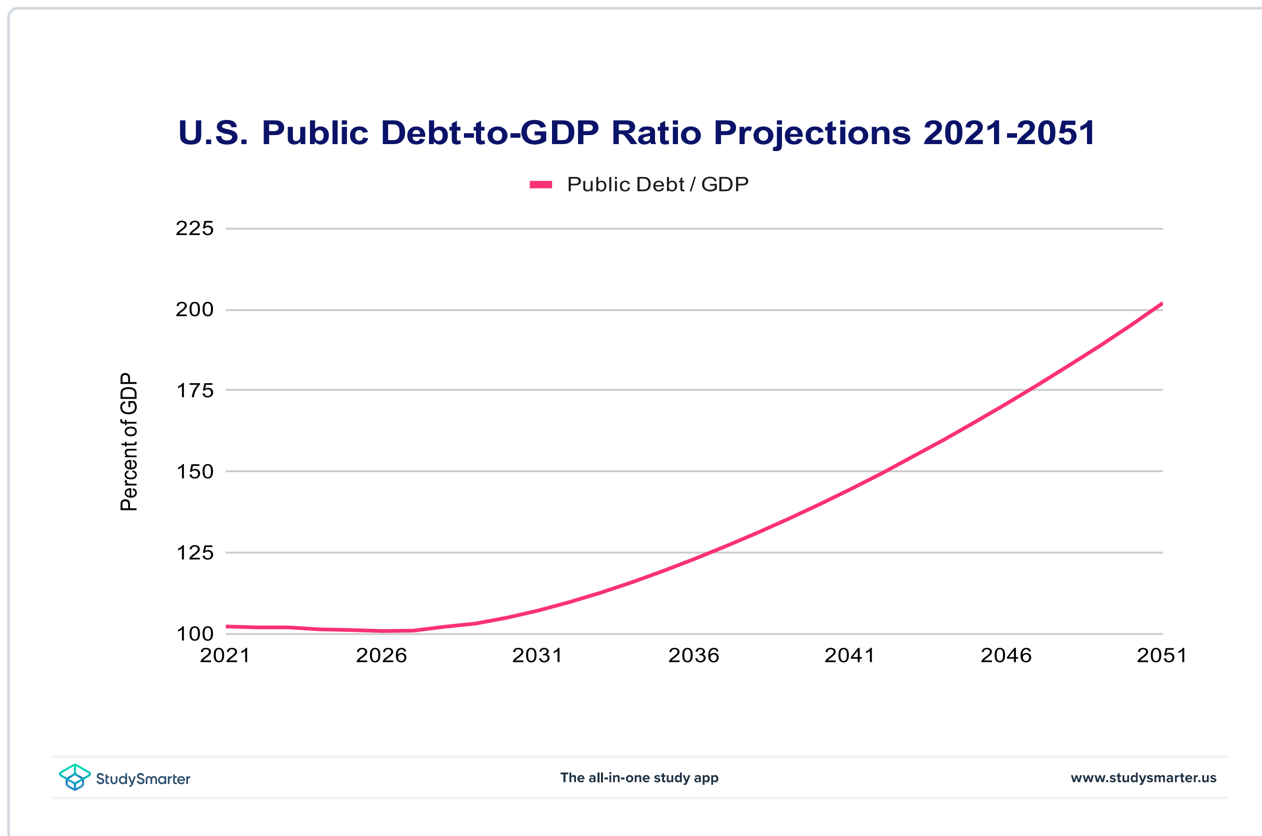

Figure 5. U.S. Public Debt-to-GDP Ratio Projections - StudySmarter. Source: Congressional Budget Office[7]

National Debt - Key takeaways

- The national debt is the total debt outstanding for a nation. That is, the total amount borrowed minus the total amount repaid, over time.
- The national debt is caused by an accumulation of past budget deficits, which required the government to borrow to finance its full budget.
- Budget deficits are caused by uncertainty about future government revenue and policymakers' reluctance to raise taxes or cut spending in order to improve their chances of getting re-elected.
- The impacts of high national debt on economic growth include higher taxes, lower spending, currency depreciation, inflation, debt restructuring, debt default, a higher

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cost of borrowing, crowding out, and reduced standards of living.

- A debt default can weigh heavily on economic growth for years, and sometimes for decades.

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