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ON THE

2025 ECONOMIC REPORT OF
THE PRESIDENT

CHAPTER 3 OF THE
CHAIRMAN'S VIEWS

**The Threat of Rising
Interest Rate Sensitivity**



MARCH 3, 2025
CHAIRMAN DAVID SCHWEIKERT

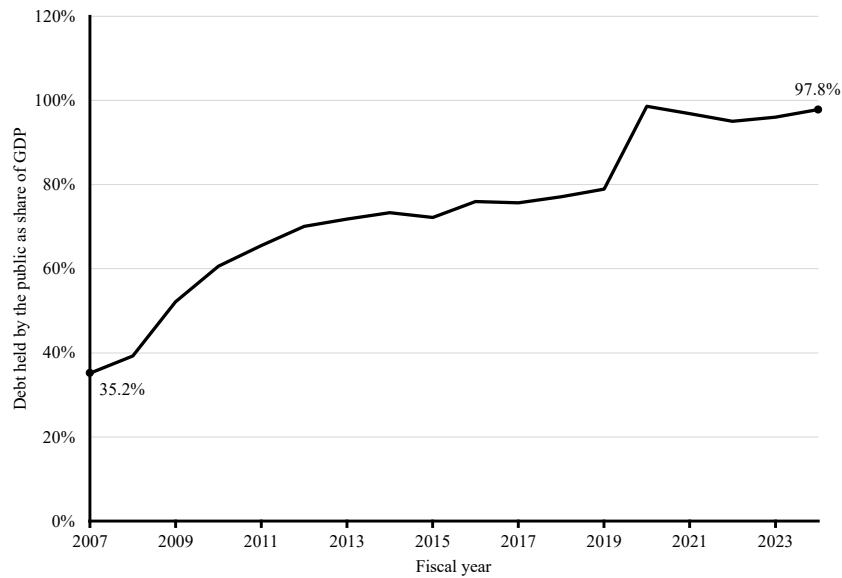
CHAPTER 3: THE THREAT OF RISING INTEREST RATE SENSITIVITY

The U.S. is approaching an urgent sovereign debt crisis. As explained in Chapter 1, as well as throughout the Republican Responses in the *2023* and *2024 Joint Economic Reports (Response)*, the U.S. is in a dire fiscal situation. The main driver of its debt growth is unsustainable spending, primarily in outlays related to entitlement programs. In FY2024, outlays on Social Security, Medicare, and Medicaid amounted to \$2.91 trillion, or 43.2 percent of total federal outlays. By 2035, the last year of the ten-year window in the most recent Congressional Budget Office (CBO) baseline budget projection, this is projected to rise to \$5.25 trillion, or 49.7 percent of total federal outlays.¹

Bipartisan stimulus programs during the COVID-19 pandemic and the 2007–2009 Great Financial Crisis (GFC), as well as partisan spending packages such as the *American Rescue Plan Act (ARPA)* and the *Inflation Reduction Act (IRA)*, have significantly impacted recent debt growth. Since 2007, debt held by the public has increased from \$5 trillion to over \$28 trillion as of FY2024, rising from just 35.2 percent of GDP to 97.8 percent.²

¹ Congressional Budget Office, “10-Year Budget Projections,” Budget and Economic Data, January 2025, <https://www.cbo.gov/system/files/2025-01/51118-2025-01-Budget-Projections.xlsx>.

² Congressional Budget Office, “Historical Data and Economic Projections,” Budget and Economic Data, January 2025, <https://www.cbo.gov/system/files/2025-01/51134-2025-01-Historical-Budget-Data.xlsx>.

Figure 3-1: Ratio of Debt Held by the Public to GDP

Source: Congressional Budget Office³

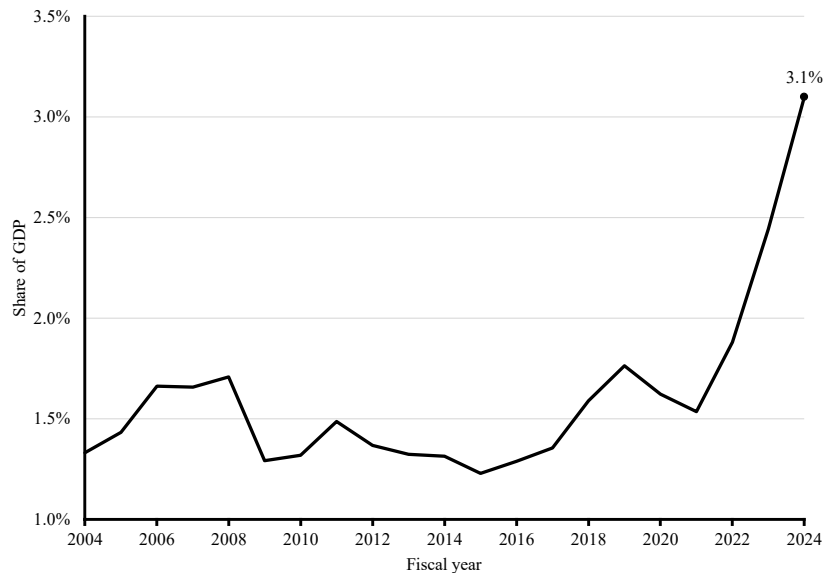
While rising primary deficits from entitlement programs and large spending packages have been the leading driver of increasing federal debt, interest costs have increasingly contributed to widening deficits and higher federal debt. Net interest costs pose a significant threat to the country's fiscal health. This Chapter reviews theories of interest rates and current fiscal policy dynamics surrounding the state of interest rates. It then examines trends in interest rates and costs, concluding with a discussion of their implications for the U.S.' fiscal health and trajectory.

³ Congressional Budget Office, "Historical Data and Economic Projections," January 2025.

Rising interest costs are consuming an ever-growing share of the federal budget

In FY2024, net interest costs surpassed total outlays on national defense, reaching nearly \$900 billion.⁴ This is the first time that this has occurred since at least 1940, the earliest year for which the White House Office of Management and Budget (OMB) has data available.⁵ Furthermore, net interest costs have reached just over 13 percent of total outlays and 3.1 percent of gross domestic product (GDP), the highest since 1999 and 1995, respectively.⁶

Figure 3-2: Net Interest Costs as Share of GDP



⁴ Net interest costs are the sum of interest payments on borrowed debt minus intragovernmental transfers. Congressional Budget Office, “10-Year Budget Projections,” January 2025.

⁵ Office of Management and Budget, “Table 3.1 – Outlays by Superfunction and Function: 1940 - 2029,” Historical Tables, https://bidenwhitehouse.archives.gov/wp-content/uploads/2024/03/hist03z1_fy2025.xlsx.

⁶ Congressional Budget Office, “Historical Data and Economic Projections,” January 2025.

Source: Congressional Budget Office⁷

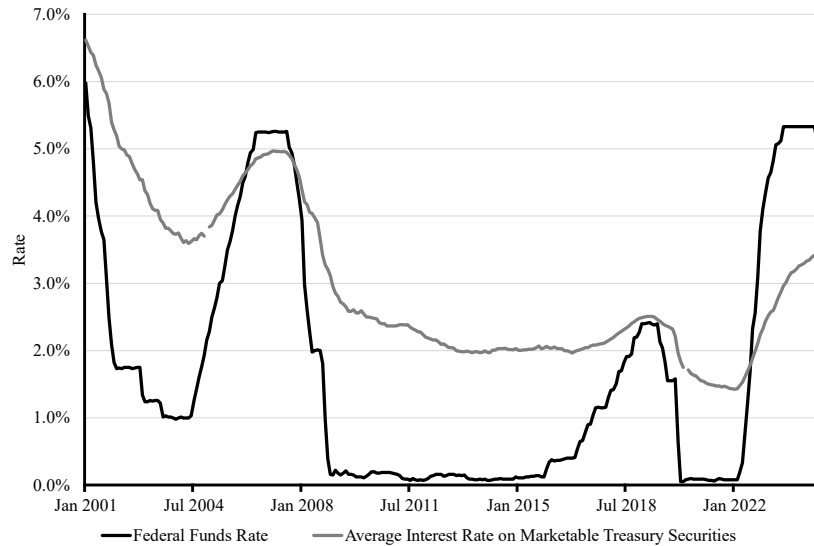
There are several reasons why the recent rapid growth of net interest costs is concerning. First, interest costs provide no value as a good or service provided by the government—they are simply payments to finance past deficits. Interest costs use revenue that could be used for other government outlays, such as national defense. Furthermore, interest costs are sensitive to changes in interest rates, and refinancing maturing debt at higher rates increases net interest costs and can contribute to additional debt growth. This makes reducing deficits and the national debt more difficult.

Nominal net interest costs are a function of the size of the debt and the level of interest rates. A simplified calculation of interest costs for explanative purposes can be made with the formula below.

$$\text{Net Interest}_m = D_m * \frac{\overline{IR}_m}{12}$$

⁷ Congressional Budget Office, “Historical Data and Economic Projections,” January 2025.

Figure 3-3: Effective Federal Funds Rate and Average Interest Rate of Marketable Treasury Securities



Source: Board of Governors of the Federal Reserve System⁸

If interest rates remain elevated above their level since the GFC, interest costs will produce a significant and extended drag on the federal budget. Rising debt, accelerated by deficit-financed partisan spending programs such as ARPA, which cost nearly \$2 trillion, exacerbates the effect of elevated interest rates on net interest costs as more debt is being financed at a higher rate.⁹

How are interest rates on federal debt set?

Just as there are markets for equities and commodities, there is a market for government debt. Governments sell debt—Treasury securities, in the case of the U.S.—to finance current government

⁸ Board of Governors of the Federal Reserve System, “Federal Funds Effective Rate.”

⁹ Congressional Budget Office, “Estimated Budgetary Effects of H.R. 1319, American Rescue Plan Act of 2021,” March 10, 2021, https://www.cbo.gov/system/files/2021-03/Estimated_Budgetary_Effects_of_HR_1319_as_passed_0.pdf.

expenditures when outlay obligations exceed revenues, a situation that results in a budget deficit.¹⁰ Investors, in turn, purchase government debt with the expectation they will receive a return.¹¹ Common investors in Treasuries include depository institutions, pension funds, private investors, foreign governments, state and local governments, intragovernmental accounts, and central banks.¹² Table 3-1 shows the ownership of publicly held debt by type of lender. Figure 3-4 shows how it has changed since 2015.

Table 3-1: Ownership of U.S. Publicly Held Debt, December 2023

Investor	Amount (billions)
Federal Reserve and Government Accounts	\$11,848.1
Foreign and International	\$7,933.2
Other Investors	\$5,887.1
Mutual Funds	\$3,647.8
Depository Institutions	\$1,646.8
State and Local Governments	\$1,566.7
Private Pension Funds	\$452.9
Insurance Companies	\$444.1
State and Local Government Pensions Funds	\$402.8
U.S. Savings Bonds	\$171.9

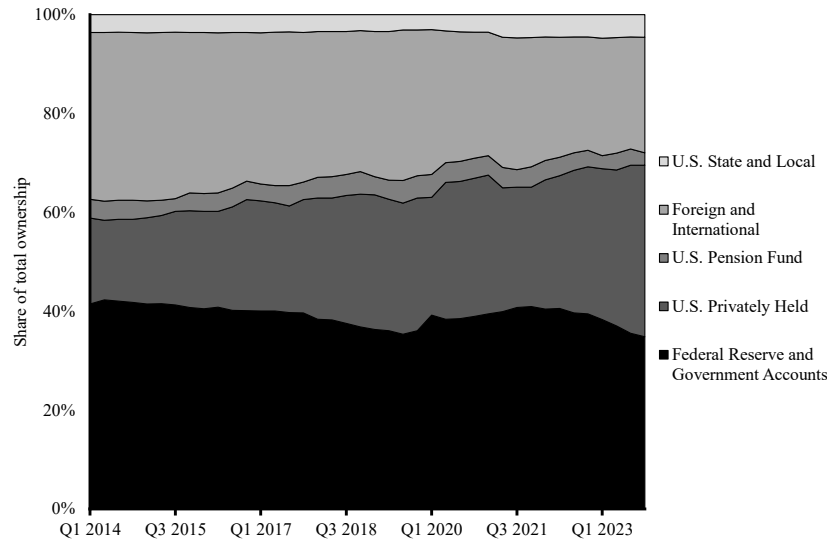
Source: U.S. Department of the Treasury¹³

¹⁰ Fiscal Data, “What is the national debt?” U.S. Department of the Treasury, <https://fiscaldata.treasury.gov/americas-finance-guide/national-debt/>.

¹¹ Peter G. Peterson Foundation, “What Types of Securities Does the Treasury Issue?” August 19, 2024, <https://www.pgpf.org/article/how-does-the-treasury-issue-debt/>.

¹² Bureau of the Fiscal Service, *Treasury Bulletin* (U.S. Department of the Treasury, December 2024), p. 63, <https://fiscal.treasury.gov/files/reports-statements/treasury-bulletin/b2024-4.pdf>.

¹³ Bureau of the Fiscal Service, *Treasury Bulletin*.

Figure 3-4: Ownership Shares of U.S. Publicly Held Debt

Source: U.S. Department of the Treasury¹⁴

As in any other market, the price of Treasuries is predominantly determined by supply and demand.¹⁵ The price of a Treasury security is inversely related to its yield, and the yield reflects the interest rate paid over a given period.¹⁶ As demand for a particular Treasury security increases, the yield falls, and vice versa.¹⁷ As supply increases, the yield rises, and vice versa.

As a U.S. federal government default is unprecedented—the yield on its securities is generally used as the “risk-free” interest rate—

¹⁴ Bureau of the Fiscal Service, *Treasury Bulletin*.

¹⁵ Egemen Eren, Andreas Schrimpf, and Fan Dora Xia, “The demand for government debt,” Bank for International Settlements Working Paper no. 1105, <https://www.bis.org/publ/work1105.pdf>.

¹⁶ TreasuryDirect, “Understanding Pricing and Interest Rates,” <https://treasurydirect.gov/marketable-securities/understanding-pricing/>.

¹⁷ Reserve Bank of Australia, “Bonds and the Yield Curve,” <https://www.rba.gov.au/education/resources/explainers/bonds-and-the-yield-curve.html>.

Treasury yields reflect the floor for interest rates in the economy.¹⁸ Demand for Treasuries is significant due to the size and robustness of the U.S. economy, its relative political stability and geopolitical influence, as well as the use of the dollar in about three quarters of global foreign transactions.¹⁹

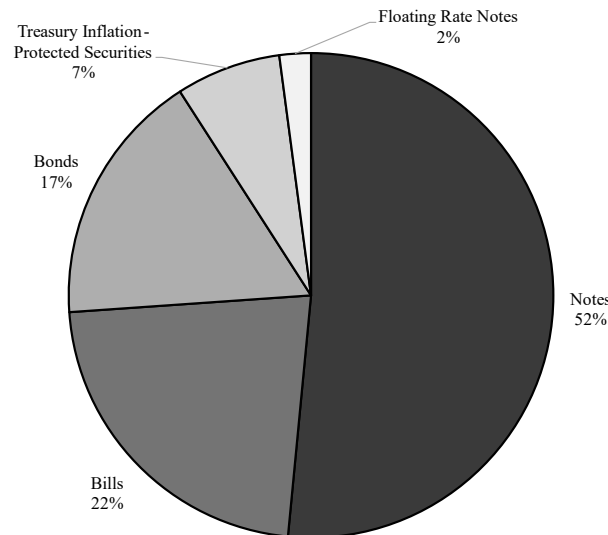
The supply and demand for Treasuries can vary by type and maturity. Marketable Treasury securities make up 98 percent of all publicly held U.S. debt, and there are three main types of these securities: bills, notes, and bonds. Bills have a maturity of less than one year, notes have a maturity ranging from two to ten years, and bonds have maturities of over ten years. Notes represent slightly more than 50 percent of total marketable debt, and bills and bonds comprise around 20 percent each. Other securities, such as Treasury Inflation Protected Securities (TIPS), and Floating Rate Notes (FRNs) make up the remaining share.²⁰ Proposed securities such as “trills”—a security that pays out one trillionth of GDP each quarter—or gold convertible securities are novel financing mechanisms for the federal government that would increase investors’ options.²¹ These instruments should be considered.

¹⁸ Reserve Bank of Australia, “Bonds and the Yield Curve.”

¹⁹ Olivier Fines and Urav Soni, “The Dollar’s Exorbitant Privilege,” CFA Institute Research & Policy Center (October 2024), <https://rpc.cfainstitute.org/sites/default/files/-/media/documents/survey/dollars-exorbitant-privilege-survey-report.pdf>.

²⁰ Peter G. Peterson Foundation, “What Types of Securities Does the Treasury Issue?”

²¹ Robert J. Shiller “A Way to Share in a Nation’s Growth,” *The New York Times*, December 26, 2009, <https://www.nytimes.com/2009/12/27/business/economy/27view.html>; Mark Kamstra and Robert J. Shiller, “The Case for Trills: Giving Canadians and their Pension Funds a Stake in the Wealth of the Nation,” C.D. Howe Institute commentary no. 271 (August 2008), https://cdhowe.org/wp-content/uploads/2024/04/commentary_271.pdf; USA Gold, “Reviving the Gold Standard: Judy Shelton’s Proposal for a Gold-Convertible Treasury Bond,” November 25, 2024, <https://www.usagold.com/reviving-the-gold-standard-judy-sheltons-proposal-for-a-gold-convertible-treasury-bond/>.

Figure 3-5: Composition of U.S. Marketable Debt, January 2025

Source: U.S. Department of the Treasury²²

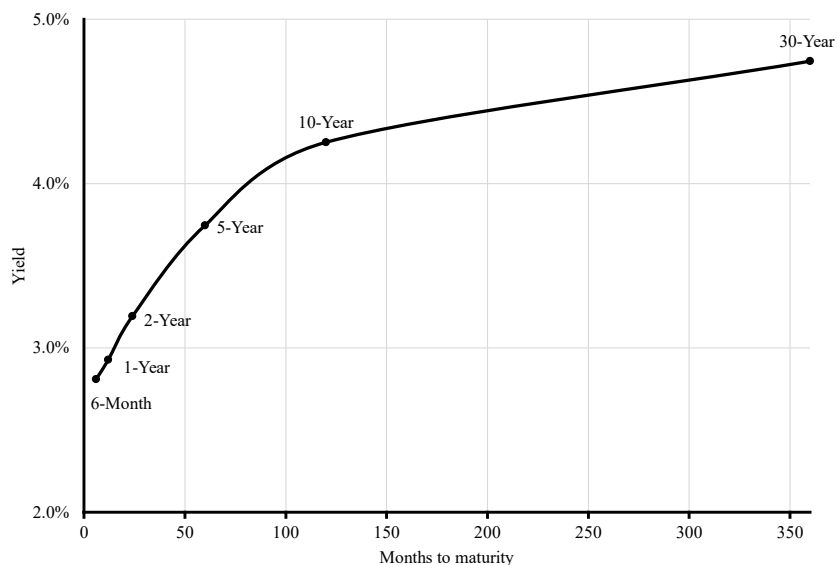
The relationship between the maturity of a security and its yield can be represented with a yield curve. Generally, the yield curve is upward sloping; the yield on a security with a longer maturity is typically higher than on those with a shorter maturity. This reflects the increased risks of locking in capital for a longer term. These risks include inflation running higher than expected, which affects the real value of the security, and interest rates rising before the security matures.²³ Based on data from 1990 to 2023, the average term spread between the 3-month and 10-year Treasury was just

²² Fiscal Data, “U.S. Treasury Monthly Statement of the Public Debt (MSPD),” U.S. Department of the Treasury, <https://fiscaldata.treasury.gov/datasets/monthly-statement-public-debt/summary-of-treasury-securities-outstanding>.

²³ Federal Reserve Bank of New York, “Treasury Term Premia,” https://www.newyorkfed.org/research/data_indicators/term-premia-tabs.

under 1.6 percentage points.²⁴ Figure 3-6 shows a yield curve depicting data of average yields from 2007 through 2023, the full period of data available for most of the major maturities.²⁵

Figure 3-6: Yield Curve, Average Interest Rates by Maturity



Source: U.S. Department of the Treasury²⁶

While supply and demand determine the yield of all Treasuries regardless of maturity, the yield of Treasuries at the shorter end are particularly influenced by the actions of the central bank. In the U.S., the Federal Open Market Committee (FOMC) of the Federal Reserve (Fed) has near full control over short-term interest

²⁴ U.S. Department of the Treasury, “Interest Rates Data CSV Archive,” <https://home.treasury.gov/interest-rates-data-csv-archive>.

²⁵ Other common maturities than those denoted in the chart include the 1-month, 3-month, 3-year, 7-year, and 20-year. TreasuryDirect, “About Treasury Marketable Securities,” <https://treasurydirect.gov/marketable-securities/>.

²⁶ U.S. Department of the Treasury, “Interest Rates Data CSV Archive.”

rates.²⁷ The FOMC exercises this control by setting the Federal Funds Rate (FFR), the Fed’s main policy tool. Raising the FFR increases borrowing costs, which puts downward pressure on current consumption and incentivizes savings. This tends to dampen demand in the economy, which, in turn, tends to reduce inflationary pressures.²⁸ The opposite occurs when the Fed lowers the FFR.²⁹

In contrast, the Fed has historically exercised less direct control over long-term interest rates, such as the 10-year Treasury, compared to short-term interest rates.³⁰ While there is some dispute in the literature, the yield on long-term debt is largely a function of the expected path of short-term rates.³¹ The path of rates is also influenced by expectations of inflation and economic growth, as well as the uncertainty of those projections, which

²⁷ David Wessel and Manuel Alcalá Kovalski, “The Hutchins Center Explains: The yield curve – what it is, and why it matters,” Brookings Institution commentary, December 5, 2018, <https://www.brookings.edu/articles/the-hutchins-center-explains-the-yield-curve-what-it-is-and-why-it-matters/>.

²⁸ Board of Governors of the Federal Reserve System, “How does the Federal Reserve affect inflation and employment?” https://www.federalreserve.gov/faqs/money_12856.htm.

²⁹ Board of Governors of the Federal Reserve System, “How does the Federal Reserve affect inflation and employment?”

³⁰ Nathaniel Drake, “What Determines the Rate on a 30-Year Mortgage?” Fannie Mae, December 11, 2024, <https://www.fanniemae.com/research-and-insights/publications/housing-insights/rate-30-year-mortgage>.

³¹ N. Gregory Mankiw and Lawrence H. Summers, “Do Long-Term Interest Rates Overreact to Short-Term Interest Rates?” *Brookings Papers on Economic Activity* 15, no. 1 (1984), https://www.brookings.edu/wp-content/uploads/1984/01/1984a_bpea_mankiw_summers_weiss.pdf; David O. Lucca, Samuel Hanson, and Jonathan H. Wright, “The Sensitivity of Long-Term Interest Rates: A Tale of Two Frequencies,” Federal Reserve Bank of New York, March 4, 2019, <https://libertystreeteconomics.newyorkfed.org/2019/03/the-sensitivity-of-long-term-interest-rates-a-tale-of-two-frequencies/>.

increases as the time horizon is extended into the future.³² This means that longer-term rates are influenced by the central bank's policies but are also influenced by other exogenous factors. Relatively recently, the Fed has exercised more direct control over long-term interest rates as it provided liquidity to markets and stimulated economic activity in times of downturn and financial crisis.

The Fed's efforts to control interest rates

To fulfill the Fed's dual mandate of maximum employment and price stability following the GFC, the FOMC eased monetary policy to reduce borrowing costs and increase economic activity.³³ Beginning in September 2007, the Fed began a cycle of cutting the FFR, pushing yields at the short end of the yield curve near the same level.³⁴ The FFR reached zero by the end of 2009.³⁵ When short-term rates hit their lower bound, the Fed started a program of large-scale asset purchases to help stimulate economic activity by lowering long-term rates for Treasuries and other debt securities, including mortgage-backed securities (MBS). More

³² Tobias Adrian, "The Role of Inflation Expectations in Monetary Policy," International Monetary Fund, May 15, 2023, <https://www.imf.org/en/News/Articles/2023/05/15/sp-role-inflation-expectations-monetary-policy-tobias-adrian>.

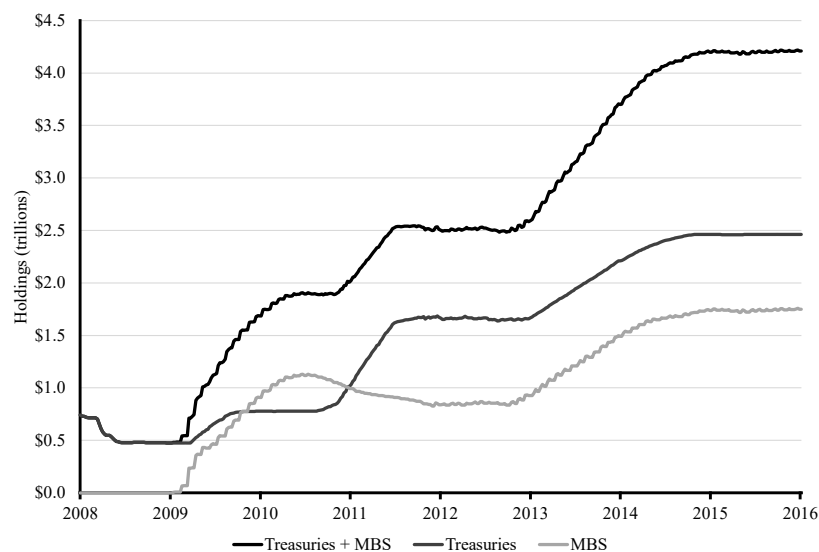
³³ Federal Reserve Bank of Chicago, "The Federal Reserve's Dual Mandate," October 20, 2020, <https://www.chicagofed.org/research/dual-mandate/dual-mandate>; Tax Policy Center, "What did the 2008–10 tax stimulus acts do?" The Tax Policy Briefing Book, <https://taxpolicycenter.org/briefing-book/what-did-2008-10-tax-stimulus-acts-do>.

³⁴ Board of Governors of the Federal Reserve System, "Federal Funds Effective Rate;" Marc Seidner and Pramol Dhawan, "Cuts and Consequences," PIMCO Perspectives, September 12, 2024, <https://www.pimco.com/us/en/insights/cuts-and-consequences>.

³⁵ Board of Governors of the Federal Reserve System, "Federal Funds Effective Rate;" Diamond Hill, "Historical Perspective: The Fed's Latest Rate Cut in Context," September 26, 2024, <https://www.diamond-hill.com/insights/a-714/articles/historical-perspective-the-feds-latest-rate-cut-in-context/>.

commonly referred to as quantitative easing (QE), the first iteration of this program occurred in three rounds between late 2008 and early 2015.³⁶ During this period, the Fed purchased nearly \$2 trillion in Treasury securities and over \$1.7 trillion in MBS, bringing the total balance of these two types of securities on the balance sheet from around \$500 billion to over \$4 trillion.³⁷

Figure 3-7: Federal Reserve Balance Sheet Holdings of Treasury Securities and MBS



Source: Board of Governors of the Federal Reserve System³⁸

³⁶ Stephan Luck and Thomas Zimmermann, “Ten Years Later—Did QE Work?” Federal Reserve Bank of New York, May 8, 2019, <https://libertystreeteconomics.newyorkfed.org/2019/05/ten-years-laterdid-qe-work/>.

³⁷ Board of Governors of the Federal Reserve System, “Assets: Total Assets: Total Assets (Less Eliminations from Consolidation): Wednesday Level,” <https://fred.stlouisfed.org/series/WALCL>.

³⁸ Board of Governors of the Federal Reserve System, “Assets: Total Assets: Total Assets (Less Eliminations from Consolidation): Wednesday Level.”

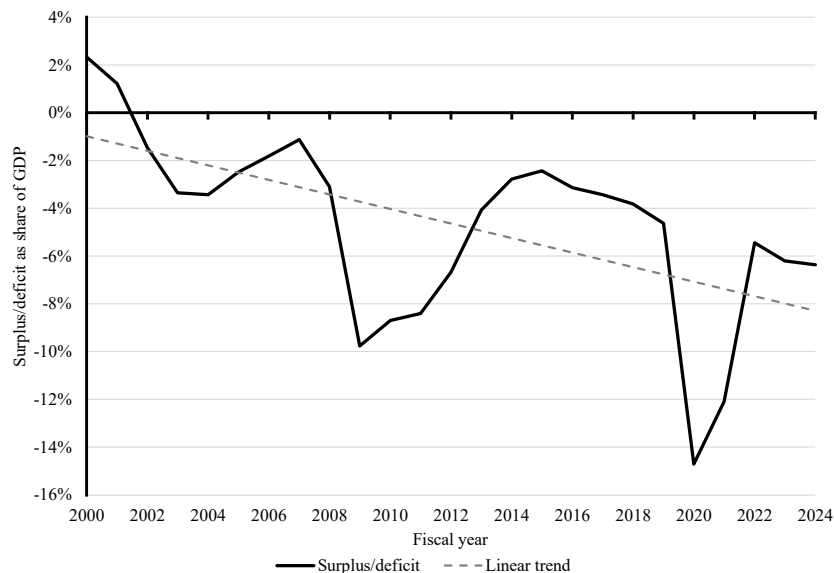
Research suggests that the cumulative effect of these three rounds of QE resulted in a decline in the yield of 10-year Treasury securities of up to 1.2 percentage points.³⁹ As the Fed's actions depressed Treasury yields, the average interest rate on the debt, and subsequently net interest costs, were also depressed.⁴⁰

Net interest costs remained below 2 percent of GDP through 2022, extending the streak that began in 2002, notably lower than the rate in the 1980s and 1990s when the total nominal amount of debt was far lower.⁴¹ Lower net interest costs enabled the U.S. federal government to continue deficit spending, mitigating the interest cost drag of the growth in debt. This supported deficits that averaged over 6 percent of GDP between 2009 and 2015, the period of QE.

³⁹ Channels through which QE works include 1) signaling, 2) duration risk, 3) liquidity, 4) safety premium, 5) pre-payment risk, 6) default risk, and 7) inflation risk. Joseph E. Gagnon, "Quantitative Easing: An Underappreciated Success," Peterson Institute for International Economics Policy Brief no. PB16-4 (April 2016), p. 4, <https://www.piie.com/sites/default/files/documents/pb16-4.pdf>; Arvind Krishnamurthy and Annette Vissing-Jorgensen, "The Effects of Quantitative Easing on Interest Rates: Channels and Implications for Policy," NBER Working Paper no. 17555 (October 2011), <https://doi.org/10.3386/w17555>.

⁴⁰ Congressional Budget Office, *How the Federal Reserve's Quantitative Easing Affects the Federal Budget*, CBO report (September 8, 2022), <https://www.cbo.gov/publication/58457>.

⁴¹ Congressional Budget Office, "Historical Data and Economic Projections," January 2025, Table 3a.

Figure 3-8: Surplus/deficit as Share of GDP

Source: Congressional Budget Office⁴²

The outbreak of the COVID-19 pandemic and resulting economic uncertainty was followed by an immense fiscal and monetary response. As a result of the fiscal response, the federal deficit surpassed 14 percent of GDP in 2020 and remained above 10 percent of GDP in 2021. At the same time, the Fed initiated another round of rate cuts in March 2020 to bring the FFR to effectively zero and engaged in another round of QE to lower interest rates and provide liquidity to financial markets.⁴³ As a result, the Fed’s balance sheet ballooned from just over \$4 trillion

⁴² Congressional Budget Office, “Historical Data and Economic Projections,” January 2025.

⁴³ Congressional Budget Office, “Historical Data and Economic Projections,” February 2024; Eric Milstein and David Wessel, “What did the Fed do in response to the COVID-19 crisis?” Brookings Institution research, January 2, 2024, <https://www.brookings.edu/articles/fed-response-to-covid19/>; Christina D. Romer, “The fiscal policy response to the pandemic,” *Brookings Papers on Economic Activity* (March 24, 2021), <https://www.brookings.edu/articles/the-fiscal-policy-response-to-the-pandemic/>.

in early 2020 to just under \$9 trillion in early 2022, with the amount of Treasuries on the balance sheet rising from about \$2.5 trillion to \$5.7 trillion.⁴⁴

When inflation spiked following the substantial fiscal stimulus, the Fed began raising interest rates to slow price pressures.⁴⁵ Between the spring of 2022 and the summer of 2023, the FOMC raised the FFR 11 times, amounting to a total increase of 5.25 percentage points. In 2022, the Fed also initiated quantitative tightening (QT), the process of reducing the amount of assets on its balance sheet.⁴⁶ QT involves allowing a certain number of securities that mature each month not to be re-invested and instead roll off the Fed's balance sheet.⁴⁷ Since QT began, the value of Treasuries on the balance sheet has declined by over \$1.4 trillion.⁴⁸ Research suggests that given enough magnitude, the tightening effects on financial conditions and interest rates, such as the 10-year Treasury, are equivalent to entire rate hikes in the

⁴⁴ Board of Governors of the Federal Reserve System, "Assets: Securities Held Outright: U.S. Treasury Securities: All: Wednesday Level," <https://fred.stlouisfed.org/series/TREAST>; Board of Governors of the Federal Reserve System, "Assets: Total Assets: Total Assets (Less Eliminations from Consolidation): Wednesday Level."

⁴⁵ Jane Ihrig and Chris Waller, "The Federal Reserve's responses to the post-Covid period of high inflation," FEDS Notes (Board of Governors of the Federal Reserve System, February 14, 2024), <https://doi.org/10.17016/2380-7172.3455>.

⁴⁶ David Wessel, "How will the Federal Reserve decide when to end 'quantitative tightening'?" Brookings Institution commentary, October 17, 2024, <https://www.brookings.edu/articles/how-will-the-federal-reserve-decide-when-to-end-quantitative-tightening/>.

⁴⁷ Tim Sablik, "The Fed Is Shrinking Its Balance Sheet. What Does That Mean?" Federal Reserve Bank of Richmond *Econ Focus* 27, no. 3 (Third Quarter 2022), https://www.richmondfed.org/-/media/RichmondFedOrg/publications/research/econ_focus/2022/q3/federal_reserve.pdf.

⁴⁸ Board of Governors of the Federal Reserve System, "Assets: Securities Held Outright: U.S. Treasury Securities: All: Wednesday Level."

FFR. Specifically, a roll-off of a little more than \$2 trillion dollars amounts to a little more than one 25-basis-point hike in the FFR.⁴⁹

By suppressing Treasury yields, and thus interest costs, the Federal Reserve effectively supported the federal government's deficit spending and rapid accumulation of debt. With much higher debt levels and rising interest rates, the U.S. is projected to face increasing interest costs, higher deficits, and even higher debt levels.⁵⁰ Higher debt levels, in turn, could push up interest rates through a rising risk premium.⁵¹ If a country's fiscal trajectory worsens, markets may assess the government's probability of default—the loss of its ability to continue to finance its debts—to be elevated. A study of a wide selection of countries finds that government debt and other economic, governance, and fiscal performance variables have a statistically significant impact on sovereign debt ratings.⁵² This can lead to the markets demanding higher yields from the government to compensate for the increased perceived risk of default. While the U.S. has attributes that act as a counterweight to its rising debt levels, such as control of the world's reserve currency, large and liquid capital markets, and the largest economy in the world in nominal terms, a deteriorating

⁴⁹ Bin Wei, "Quantifying 'Quantitative Tightening' (QT): How Many Rate Hikes Is QT Equivalent To?" Federal Reserve Bank of Atlanta (May 8, 2022), <https://dx.doi.org/10.2139/ssrn.4103824>.

⁵⁰ Congressional Budget Office, "10-Year Budget Projections," January 2025.

⁵¹ For an explanation of risk-premia in the context of corporate bonds, see: John C. Hull, Mirela Predescu, and Alan White, "Bond Prices, Default Probabilities and Risk Premiums" (March 9, 2005), <https://dx.doi.org/10.2139/ssrn.2173148>; Cinzia Alcidi and Daniel Gros, "Public debt and the risk premium: A dangerous doom loop," Centre for European Policy Studies Policy Insights no. 2019-06 (May 2019), <https://www.sipotra.it/wp-content/uploads/2019/05/Public-debt-and-the-risk-premium-A-dangerous-doom-loop.pdf>.

⁵² António Afonso, Pedro Gomes, and Philipp Rother, "What 'Hides' Behind Sovereign Debt Ratings?" European Central Bank Working Paper no. 711 (January 2007), <https://doi.org/10.2139/ssrn.954705>.

fiscal trajectory presents risks to its perceived ability to finance its debts.

Interest costs: where we are and where we used to be

While interest rates in the current period may appear high, by historical standards they are not. Between 1965 and 1990, the FFR was usually well over 5 percent, largely the result of the Fed’s fight against “The Great Inflation,” which lasted from the mid-1960s through the early 1980s.⁵³ Rising from about 2 percent year-over-year in 1965, inflation peaked at over 14 percent year-over-year in 1980.⁵⁴ In 1981, the response from the Fed, led by newly appointed Chairman Paul Volcker, brought an already elevated FFR to nearly 20 percent. In response to previous inflation, the FFR had already risen from around 4 percent in 1965 to 10 percent in 1979.⁵⁵ This spike in interest rates contributed to the recession of 1981–1982, but inflation was quelled to more normal levels, around 3 percent year-over-year, by 1983.⁵⁶ After this period, interest rates remained above modern levels due largely to

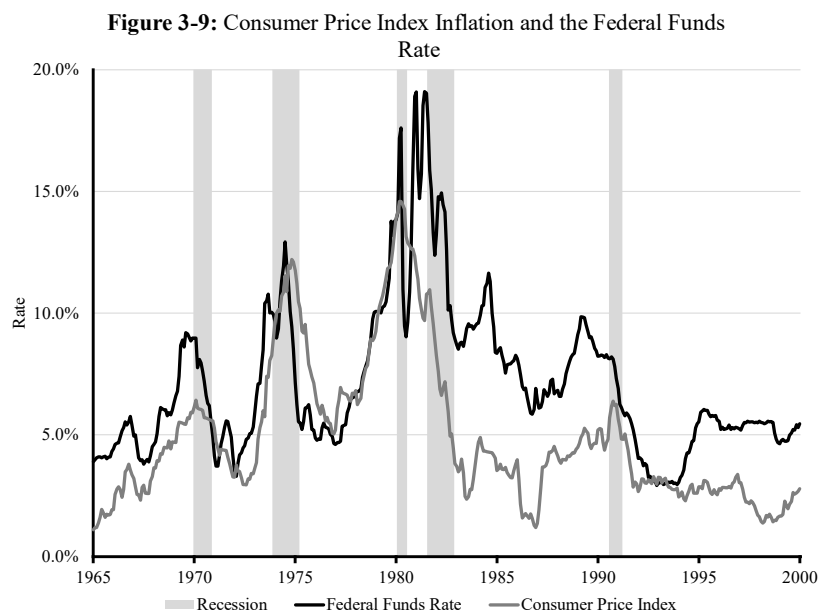
⁵³ Board of Governors of the Federal Reserve System, “Federal Funds Effective Rate;” Michael Bryan, “The Great Inflation,” Federal Reserve History, as of November 22, 2013, <https://www.federalreservehistory.org/essays/great-inflation>.

⁵⁴ U.S. Bureau of Labor Statistics, “Consumer Price Index for All Urban Consumers: All Items in U.S. City Average,” <https://fred.stlouisfed.org/series/CPIAUCSL>.

⁵⁵ Board of Governors of the Federal Reserve System, “Federal Funds Effective Rate;” Bryan, “The Great Inflation.”

⁵⁶ Tim Sablik, “Recession of 1981–82,” Federal Reserve History, as of November 22, 2013, <https://www.federalreservehistory.org/essays/recession-of-1981-82>; Congressional Budget Office, *The Prospects for Economic Recovery*, CBO report (February 1982), p. XI, <https://www.cbo.gov/publication/15329>; J. A. Cacy, “Monetary Policy in 1981 and 1982,” *Economic Review* 66 (December 1981), <https://www.kansascityfed.org/documents/885/1981-Monetary%20Policy%20in%201981%20and%201982.pdf>; John H. Cochrane, “Fiscal Histories,” *The Journal of Economic Perspectives* 36, no. 4 (2022): 125–46, <https://doi.org/10.1257/jep.36.4.125>; U.S. Bureau of Labor Statistics, “Consumer Price Index for All Urban Consumers.”

relatively strong economic growth, which averaged 3.7 percent between 1983 and 2000.⁵⁷ The trend in the FFR and Consumer Price Index (CPI) inflation over the period is shown in Figure 3-9.



Sources: Bureau of Labor Statistics;⁵⁸ Board of Governors of the Federal Reserve System;⁵⁹ National Bureau of Economic Research⁶⁰

As a result of the elevated interest rates of this period, between FY1980 and FY2000, net interest outlays as a share of GDP averaged 2.8 percent, still higher than the level in FY2023, and only slightly lower than the 3.1 percent of GDP reached in

⁵⁷ U.S. Bureau of Economic Analysis, “Real Gross Domestic Product,”
<https://fred.stlouisfed.org/series/GDPC1>.

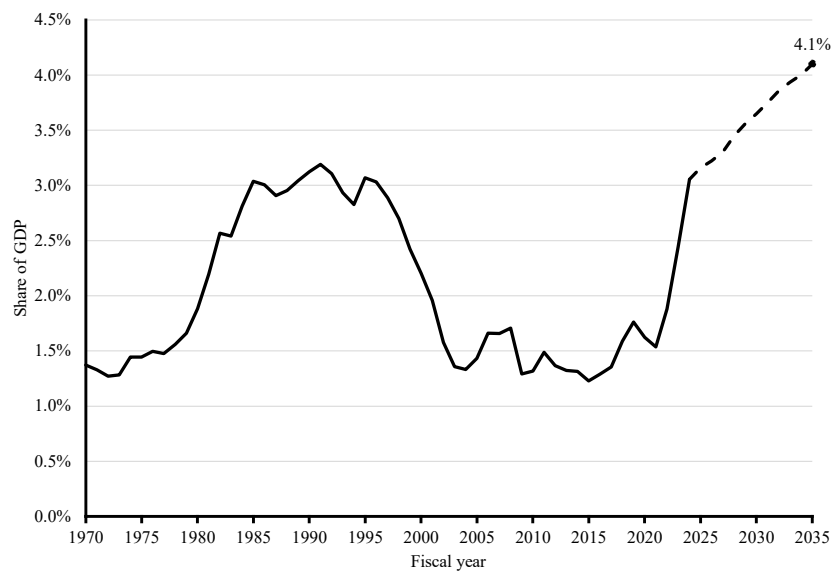
⁵⁸ U.S. Bureau of Labor Statistics, “Consumer Price Index for All Urban Consumers.”

⁵⁹ Board of Governors of the Federal Reserve System, “Federal Funds Effective Rate.”

⁶⁰ National Bureau of Economic Research, “Business Cycle Dating,”
<https://www.nber.org/research/business-cycle-dating>.

FY2024.⁶¹ As a share of outlays, net interest costs averaged 13.5 percent over the same span. Net interest costs as a share of GDP from 1970 to 2035, which includes the CBO forecast, are shown in Figure 3-10. While current net interest outlays as a share of GDP are not yet high relative to historical levels, CBO projects interest costs as a share of GDP will surpass 4.1 percent in 2035.⁶²

Figure 3-10: Net Interest Costs as Share of GDP



Source: Congressional Budget Office⁶³

Net interest costs are not out of the range of normalcy, like levels seen between 1980 and 2000.⁶⁴ However, their recent increase is

⁶¹ Congressional Budget Office, “Long-Term Budget Projections,” Budget and Economic Data, January 2025, <https://www.cbo.gov/system/files/2025-01/51119-2025-01-LTBO-budget.xlsx>; Congressional Budget Office, “10-Year Budget Projections,” January 2025.

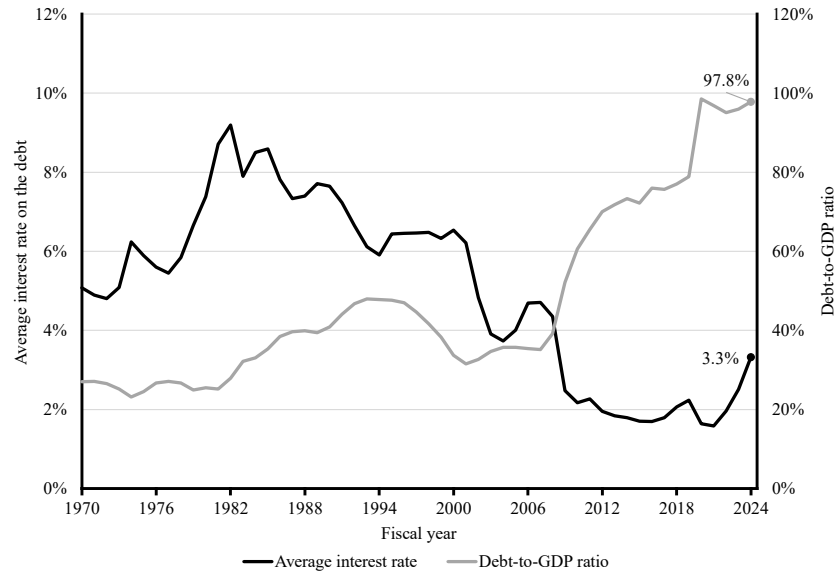
⁶² Congressional Budget Office, “10-Year Budget Projections,” January 2025.

⁶³ Congressional Budget Office, “Historical Data and Economic Projections,” January 2025.

⁶⁴ Congressional Budget Office, “10-Year Budget Projections,” January 2025.

concerning because the cause in this case is not historically high interest rates, rather a dramatically higher debt profile as a share of GDP.⁶⁵

Figure 3-11: Average Interest Rate and Debt as Share of GDP



Source: Congressional Budget Office⁶⁶

Given the rapid rise in debt, relatively small changes in interest rates by historical standards can dramatically impact net interest

⁶⁵ Congressional Budget Office, “10-Year Budget Projections,” Budget and Economic Data, January 2025, Table B-1; U.S. Bureau of Economic Analysis, “Real Gross Domestic Product;” U.S. Bureau of Labor Statistics, “Consumer Price Index for All Urban Consumers;” Congressional Budget Office, “The Historical Decline in Real Interest Rates and Its Implications for CBO’s Projections,” CBO Working Paper no. 2020-09 (December 21, 2020), <https://www.cbo.gov/publication/56891>; Maurice Obstfeld and Linda Tesar, “The Decline in Long-Term Interest Rates,” The Obama White House blog, July 14, 2015, <https://obamawhitehouse.archives.gov/blog/2015/07/14/decline-long-term-interest-rates>.

⁶⁶ Congressional Budget Office, “Historical Data and Economic Projections,” January 2025.

costs by hundreds of billions of dollars. For example, if the average interest rate on the debt was the same as when it peaked in 1982, under the current debt profile, net interest costs would surpass \$2.4 trillion per year. This would amount to over 50 percent of total FY2023 revenues.⁶⁷ If the ratio of debt held by the public to GDP continues rising near the pace projected by CBO, surpassing 154 percent by 2055, a mere 1 percentage point increase in the average interest rate on the debt would lead to an increase in net interest costs of over 5 percent of outlays.⁶⁸ The sensitivity of net interest costs to interest rate changes is best summarized in a matrix to see how even small changes over a few years can lead to much larger outlays over the budget window.

⁶⁷ Congressional Budget Office, “Historical Data and Economic Projections,” January 2025.

⁶⁸ Congressional Budget Office, “Long-Term Budget Projections,” January 2025.

Table 3-2: Net Interest Cost Representation Matrix

Additional interest outlays from 2025 to 2034 (billions)
Increase in the 10-Year Treasury interest rate, relative to baseline (%)

	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
1	\$39	\$78	\$117	\$155	\$194	\$233	\$272	\$311	\$350	\$389
2	\$76	\$152	\$229	\$305	\$381	\$457	\$534	\$610	\$686	\$762
3	\$113	\$225	\$338	\$450	\$563	\$676	\$788	\$901	\$1,013	\$1,126
4	\$149	\$297	\$446	\$594	\$743	\$891	\$1,040	\$1,188	\$1,337	\$1,485
5	\$181	\$363	\$544	\$725	\$907	\$1,088	\$1,270	\$1,451	\$1,632	\$1,814
6	\$212	\$424	\$636	\$848	\$1,060	\$1,272	\$1,484	\$1,696	\$1,908	\$2,120
7	\$240	\$481	\$721	\$961	\$1,202	\$1,442	\$1,683	\$1,923	\$2,163	\$2,404
8	\$265	\$529	\$794	\$1,058	\$1,323	\$1,587	\$1,852	\$2,116	\$2,381	\$2,645
9	\$283	\$567	\$850	\$1,134	\$1,417	\$1,701	\$1,984	\$2,268	\$2,551	\$2,834
10	\$291	\$583	\$874	\$1,166	\$1,457	\$1,749	\$2,040	\$2,332	\$2,623	\$2,915

Source: Congressional Budget Office;⁶⁹ JEC Republicans calculations

Implications for U.S. fiscal health

The growth of the debt and increase in net interest costs present significant adverse implications for the U.S.' fiscal health. If rising debt begets higher interest rates, and higher interest rates raise interest costs and exacerbate debt growth, a vicious cycle can form. The fiscal trajectory must be addressed.

As explained in Chapter 2 of the *2023* and Chapter 1 of the *2024 Response*, so long as real interest rates remain below the growth rate of the economy and deficits are sufficiently small, the U.S. can stabilize the growth of the debt-to-GDP ratio. This framework draws on Olivier Blanchard's 2019 presidential address to the

⁶⁹ Congressional Budget Office, "Workbook for How Changes in Economic Conditions Might Affect the Federal Budget: 2024 to 2034," CBO interactive, April 9, 2024, <https://www.cbo.gov/publication/60074>.

American Economic Association and considers the relationship between three macroeconomic variables presented below.⁷⁰

1. the inflation-adjusted growth rate of the U.S. economy (“g”);
2. the inflation-adjusted interest rate on U.S. Federal debt (“r”);
and
3. the primary deficit of the U.S. Federal government (“p”).

As a simplifying assumption, assume that r and g are constants, equal to their long-run averages. Where t denotes time, the growth of the debt-to-GDP ratio is given as follows.

$$\frac{\partial}{\partial t} \left(\frac{Debt_t}{GDP_t} \right) = (r - g) * \frac{Debt_t}{GDP_t} + \frac{p_t}{GDP_t}$$

While this framework highlights two levers for stabilizing debt-to-GDP, growing the economy and lowering deficits, a deteriorating fiscal trajectory raises the risk that higher interest rates will impair both levers. The first lever, growing the economy, mitigates politically infeasible spending cuts and tax hikes, but there is a ceiling to reasonable expectations of economic growth. Even a return to 1990s-era economic expansion would do little to change the trajectory of real deficit growth.⁷¹ Faster economic growth could also raise interest rates by increasing the demand for loanable funds, slightly reducing the potential benefits of

⁷⁰ Olivier Blanchard, “Public Debt and Low Interest Rates,” *American Economic Review* 109, no. 4 (2019): 1197–1229, <https://doi.org/10.1257/aer.109.4.1197>.

⁷¹ Stephen D. Oliner and Daniel E. Sichel, “The Resurgence of Growth in the Late 1990s: Is Information Technology the Story?” Finance and Economics Discussion Series (Board of Governors of the Federal Reserve System, April 2000), <https://www.federalreserve.gov/pubs/feds/2000/200020/200020pap.pdf>.

accelerated expansion to deficit reduction.⁷² Further, rising interest rates crowd out private investment, slowing economic growth and the growth of tax revenue, worsening deficits. Servicing debt requires capital that would otherwise be used and invested in private markets. As debt increases relative to GDP, private investment is crowded out, raising marginal returns to capital. This causes rising competition for loanable funds, pushing up interest rates.⁷³

To meaningfully use the second lever, decreasing primary deficits, there must be a reduction in mandatory outlays, which make up over 60 percent of total outlays and just under 70 percent of total non-interest outlays, as of FY2024.⁷⁴ As Chapter 3 of the *2023 Response* and Chapter 4 of the *2024 Response* explain, addressing Americans' physical health, for example through innovation, could alter the path of mandatory outlays. Unfortunately, the federal government has not developed a plan to materially address deficits. There may come a time when this has critical implications for monetary policy.

⁷² Alexander W. Salter, "Faster Growth and Interest Rates: Even Harder than You Think," *The Daily Economy*, March 7, 2024, <https://thedailyeconomy.org/article/faster-growth-and-interest-rates-even-harder-than-you-think/>.

⁷³ Research suggests that an increase in the federal debt-to-GDP ratio of 1 percentage point leads to an increase in interest rates of 2 to 3 basis points through this pathway. Under the long-term budget projections from CBO, the debt-to-GDP ratio is set to rise from 98 percent in FY2024 to 154 percent in FY2055. This would result in interest rates between 1.3 and 2 percentage points higher than they are currently, ceteris paribus. Kei-Mu Yi and Jing Zhang, "Real Interest Rates Over the Long Run," FOMC memo (Federal Reserve, October 13, 2015), <https://www.federalreserve.gov/monetarypolicy/files/FOMC20151013memo03.pdf>; Congressional Budget Office, "Long-Term Budget Projections," January 2025.

⁷⁴ Congressional Budget Office, "10-Year Budget Projections," January 2025.

Fiscal dominance is when the monetary authority is forced to cede its power of inflation management to the fiscal authority to stabilize deficits. This contrasts with a monetary dominance regime where the central bank adjusts policy to control inflation without regard to fiscal conditions or deficits, the job of the fiscal authority.⁷⁵

Table 3-3: Monetary vs. Fiscal Dominance Regime Attributes

Behavior	Policy Regime	
	Monetary Policy	Fiscal Policy
Monetary Dominance	Active Role	Passive Role
	Determines Inflation	Stabilizes Debt
Fiscal Dominance	Passive Role	Active Role
	Stabilizes Debt	Determines Inflation

Source: Mercatus Center⁷⁶

If debt grows to the point where the Fed changes its behavior to minimize debt growth under its financial stability mandate by keeping interest rates—and thus interest costs—low, the U.S. could fall into a fiscal dominance regime.⁷⁷ The consequence of this could be secularly higher inflation, which could destabilize

⁷⁵ Eric Leeper, “Fiscal Dominance: How Worried Should We Be?” Mercatus Center policy brief (April 3, 2023), <https://www.mercatus.org/research/policy-briefs/fiscal-dominance-how-worried-should-we-be>.

⁷⁶ Leeper, “Fiscal Dominance: How Worried Should We Be?”

⁷⁷ Renee Haltom and John A. Weinberg, “Does the Fed Have a Financial Stability Mandate?” Federal Reserve Bank of Richmond Economic Brief no. EB17-06, https://www.richmondfed.org/-/media/richmondfedorg/publications/research/economic_brief/2017/pdf/eb_17-06.pdf.

and deter business investment and reduce economic activity and growth.⁷⁸

This condition has plagued several countries that allowed debt growth to surpass sustainable levels, for example Argentina. Elevated deficits and debt profiles caused many of Argentina's economic and fiscal problems, and this forced the government to change monetary policy to accommodate fiscal policy. Since the late 1800s, this has resulted in several cycles of hyperinflation and defaults, with only brief intermittent periods of macroeconomic stability and growth.⁷⁹ While factors aside from fiscal policy can affect a country's economic growth, the difference in real GDP per capita growth between the U.S. and Argentina is significant and at

⁷⁸ Javier Andres and Ignacio Hernando, "Does Inflation Harm Economic Growth? Evidence for the OECD," NBER Working Paper no. 6062 (June 1997), <https://doi.org/10.3386/w6062>; John Hooley, Lam Nguyen, Mika Saito, and Shirin Nikaein Towfighian, "Fiscal Dominance and Inflation: Evidence from Sub-Saharan Africa," *Public Sector Economics* 48, no. 48 (2024): 363–91, <https://doi.org/10.3326/pse.48.3.5>; Jean-Claude Nachega, "Fiscal Dominance and Inflation in the Democratic Republic of the Congo," IMF Working Paper no. 05/221 (November 2005), <https://ssrn.com/abstract=888090>.

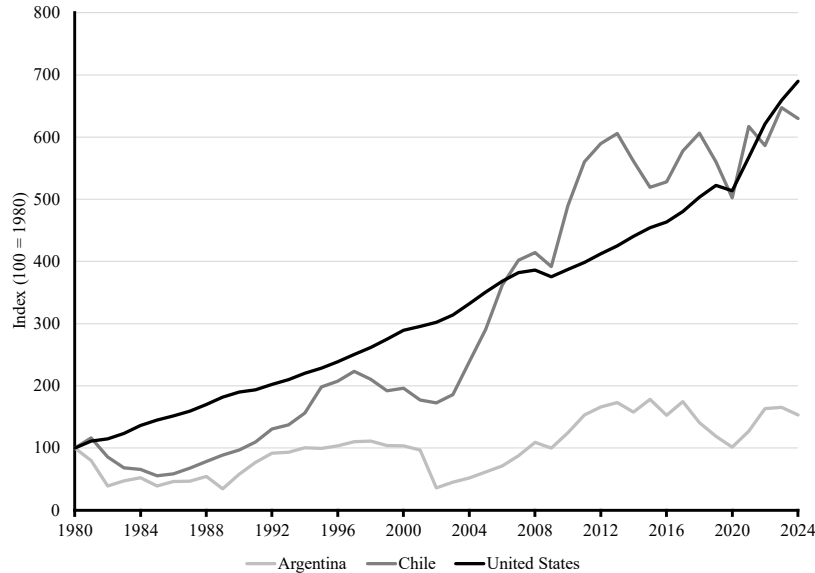
⁷⁹ Similarly, fiscal dominance has relatively recently plagued Turkey when in the early 2000s a high debt profile constrained the flexibility of the reaction to inflation monetary policy could have. This led to a year in 2001 when the currency was devalued by more than 50 percent and required a significant intervention and fiscal infusion from the International Monetary Fund (IMF) to stabilize the country's fiscal affairs. Hasan Ersel and Fatih Özatay, "Fiscal Dominance and Inflation Targeting: Lessons from Turkey," *Emerging Markets Finance and Trade* 44, no. 6 (2008): 38–51, <https://doi.org/10.2753/REE1540-496X440603>; A. Erinc Yeldan, "Turkey and the Long Decade with The IMF: 1998–2008" (June 2008), https://www.networkideas.org/news/jun2008/Turkey_IMF.pdf; María Gadea, Marcela Sabaté, and Isabel Sanz, "Long-run fiscal dominance in Argentina, 1875–1990," *Financial History Review* 19, no. 3 (2012): 311–35, <https://doi.org/10.1017/S0968565012000157>; Francisco J. Buera and Juan Pablo Nicolini, "The Case of Argentina," Becker Friedman Institute for Economics at the University of Chicago, <https://manifold.bfi.uchicago.edu/read/case-of-argentina/section/9905ef24-8c94-42ad-adf7-068efb4d9afb>.

least partially attributable to Argentina's poor fiscal management and episodes of fiscal dominance. This led to less prosperity for the citizens of Argentina.

More easily comparable are Chile and Argentina. The neighboring South American countries each liberalized their economies in the late 1970s.⁸⁰ Chile has managed its fiscal affairs better than Argentina over the period since, resulting in a significant divergence in GDP growth per capita since liberalization.⁸¹

⁸⁰ D. Hachette and R. Luders, "Privatization in Argentina and Chile: Lessons from a Comparison," The World Bank Internal Discussion Paper no. IDP18 (April 1988), <http://documents.worldbank.org/curated/en/619571468914752347>; Michael Boskin, "Why does Chile prosper while neighbouring Argentina flounders?" *The Guardian*, November 22, 2013, <https://www.theguardian.com/business/economics-blog/2013/nov/22/chile-prosper-argentina-flounders>.

⁸¹ Sean Silverthorne, "Solving an Economic Mystery Surrounding Argentina and Chile," Harvard Business School Working Knowledge, March 8, 2016, <https://www.library.hbs.edu/working-knowledge/solving-an-economic-mystery-around-argentina-and-chile>; Luciana Vázquez, "Surprisingly, Chile Is Still a Role Model for Argentina," *Americas Quarterly*, May 23, 2023, <https://www.americasquarterly.org/article/surprisingly-chile-is-still-a-role-model-for-argentina/>.

Figure 3-12: Change in Real GDP per Capita

Source: International Monetary Fund⁸²

While the potential exists for the U.S. to succumb to fiscal dominance, fortunately, there is not yet a consensus among economists that the country has reached that point.⁸³ To avert that situation, primary deficits must shrink to achieve long-run fiscal balance. Simply relying on the Fed to lower interest rates is not a sufficient strategy. The U.S. should enact policies that would increase the rate of real economic growth, such as those outlined in Chapters 3 and 5 of the *2024 Response*. Furthermore, policies should address mandatory spending through appropriate reforms and innovative solutions, such as those discussed in Chapter 4 of the same report. Immediate action is required before it is too late

⁸² International Monetary Fund, “GDP per capita, current prices,” <https://www.imf.org/external/datamapper/NGDPDPC@WEO/ARG/CHL/USA>.

⁸³ Charles W. Calomiris, “Fiscal Dominance and the Return of Zero-Interest Bank Reserve Requirements,” *Federal Reserve Bank of St. Louis Review* 105, no. 4 (Fourth Quarter 2023): 223–33, <https://doi.org/10.20955/r.105.223-33>.

to prevent serious damage to not only the nation's fiscal health but also its economic health and geopolitical power.