

Key takeaways

- MMT hypothesizes that governments that control their own currency do not “finance” spending – rather, they add or remove money from different parts of the economy.
- The impact of spending beyond resource capacity – namely, that it can lead to inflation – has become more obvious in recent years. Resource constraints previously were not at the forefront of discussion because they were immaterial for more than a decade.
- MMT appears to have run up against the constraints of tight labor markets and high capacity utilization in recent years, resulting in elevated inflation and higher debt service costs.

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Introduction

Modern monetary theory (“MMT”) challenges conventional beliefs about government interaction with the economy, the nature of money, the role of taxes, and the significance of budget deficits. This paper examines the current rise in debt levels, higher interest rates, and inflationary pressures in some sectors of the economy in the context of MMT. It considers whether advanced economies have reached a tipping point where high levels of debt push inflation higher and suppress economic growth, or whether higher deficits may not spell economic disaster after all. It also contemplates what impact higher deficits and higher borrowing costs could have on investor portfolios.

What is modern monetary theory?

Despite its name, modern monetary theory is not all that modern, with conceptual roots dating back to early 20th century German, Georg Friedrich Knapp. Knapp’s view (“Chartalism”) proposed that the purpose of money was to direct and facilitate economic activity, and that its value was attributable to its status as official legal tender, not its connection to commodities.

MMT hypothesizes that governments that control their own currency do not “finance” spending – rather, they add or remove money from different parts of the

economy. This can be used to encourage or discourage various economic activities. Fiscal and monetary policies become defined by how they increase money supply (e.g., buying bonds, decreasing taxes, direct subsidies) or decrease it (e.g., selling bonds, raising taxes, punishing activities). Governments can fund spending with newly printed money from central banks or tax revenue – there is no practical distinction.

For MMT adherents, the fundamental constraint on economies is based on resources utilized, not financing. If spending causes productivity and resources to stretch past capacity, it may result in inflation, which could require countercyclical policy to counteract.

MMT shares much in common with more orthodox New Keynesian approaches. These call for accommodative spending and monetary policies to smooth economic cycles and employ unused resources. The differences tend to be in the role the various parts of the state play as economic actors.

In orthodox approaches, governments fund increases in productive capacity, and monetary authorities (e.g., the Fed) implement stabilizing policies. MMT blurs these lines, particularly bolstering the role of fiscal policy for increasing long-term productive capacity, stabilizing economic conditions, and addressing social goals.

MMT is a theory of political economy that takes a unique view of how monetary theory could be recast to leverage a government's control of its fiat currency to consolidate monetary and fiscal policy in such a way to de-emphasize consideration of levels of national debt. A country's ability to issue debt in its own currency allows that country to always pay its debt by issuing currency. "One of the main contributions of Modern Money Theory has been to explain why monetarily sovereign governments have a very flexible policy space that is unencumbered by hard financial constraints."¹

¹ Source: L. Randall Wray et al., "Modern Monetary Theory 101," Levy Economic Institute of Bard College, working paper 778 November 2013.

Currently, there is considerable skepticism regarding the feasibility of MMT in part due to a lack of validating mathematical models and a concrete road map on implementation.² But there may be merit in some measure of counter-cyclical power of fiscal spending, especially when inflation and borrowing costs are low. It remains unclear how governments could deconstruct established legal separation between a central bank, a treasury, and a legislative body entrusted with government spending.

² While MMT shares some similarities with Neo-Keynsian economics (NK), MMT's proposed public spending sets the upper limit where inflation rises rapidly, Neo-Keynsian economics proposes public spending as substitute for withdrawal of private spending and investment. Critics of MMT argue that MMT lacks mathematical modeling.

Why did MMT gain traction?

Prior to the global COVID-19 pandemic, many advanced economies experienced an unusual period of sub-optimal growth, disinflation, and governmental impetus to lower debt levels and cut spending. During the same period, proponents of MMT urged more social spending and higher levels of debt. As they believed government spending policies had failed to address many challenges, including wealth inequality,

universal healthcare, job creation, climate change, and asset price bubbles. Further, inflation appeared to have been relegated to the dustbin of history, as a seven-fold increase in US government spending from 1980 through 2019 had been accompanied by record low inflation levels.³ MMT proponents argued that governments could easily increase spending to address social and economic inequalities, since the link between government spending and inflation appeared to have been broken.

³ Annual Federal government expenditures grew from \$657 billion in 1980 to \$4.8 trillion in 2019. Had spending grown at the same rate as inflation over this period (3.3% YoY), spending would have grown to ~\$2.1 trillion. Source: FRED as of October 2023.

Following the Global Financial Crisis (“GFC”), advanced economies struggled to restore economic growth, reduce unemployment, and combat deflation. In Europe, members of the eurozone struggled to meet the fiscal rules of the Maastricht Treaty, which prevented governments from issuing debt and using the proceeds to stimulate the economy. In the US, political sentiment shifted with a reaction to the crisis with renewed focus on deficit reduction and limiting government spending. Even with record deficits, debt levels, and central bank bond buying in response to the GFC, there was no meaningful uptick in inflation. This dynamic appeared to support the MMT thesis that governments that control their currency are not bound to balance their spending with their revenue.

During this extraordinary period of very low inflation, low interest rates meant that the cost of government borrowing was *de minimis*. Zero-interest rate policies (“ZIRP”) made the cost of borrowing all but free for short-term debt and historically low for longer dated debt. Moreover, the US dollar’s status as the world’s reserve currency grants the US a “special privilege” of being able to borrow more easily at lower cost than many other countries. Taken together, the prospect of using MMT to spend more without any perceived downside had understandable appeal to many politicians, public policy advocates, and voters.

Against such a backdrop, MMT gained increasing acceptance because its proponents advocated that it could be used to support proactive government spending. In order to practically ensure maximum employment and finance proposals such as Medicare for all and a guaranteed basic income. MMT proponents pointed to Japan’s high level of debt and low inflation as an example on how levels of debt are irrelevant for governments that can print cash to service their debt.⁴

⁴ For example, Senator Bernie Sanders and progressives in the Democratic Party like Senator Elizabeth Warren and Representative Alexandria Ocasio-Cortez popularized MMT in US political discourse. However, it is worth noting that the political debate on MMT may not have always aligned with the economic policy proposals in academia.

Capacity constraints

In broad strokes, MMT suggests that the government ought to focus on maximizing capacity utilization when considering the presence of economic slack rather than GDP or unemployment.

In broad strokes, MMT suggests that the government ought to focus on maximizing capacity utilization when considering the presence of economic slack rather than GDP or unemployment. In economics, capacity utilization refers to the extent to which the economy is using its installed productive capacity. It measures the relationship between actual output produced with existing equipment and the potential output that could be achieved if capacity were fully utilized. A rate below 100% indicates that the economy is producing at less than its full potential.⁵ According to MMT, when capacity utilization is optimal (e.g., 85% or higher), then there is little need for additional fiscal stimulus (see Figure 1).

⁵ Source: Saint Louis Federal Reserve, "What to Know About Rise of Services," March 2024. US consumers spend 78% of their disposable income on services. Note that the service sector is not typically included in measures of capacity utilization. This is potentially problematic as the service sector accounts for more than 75% of the US economy as of 2023 according to Statista.

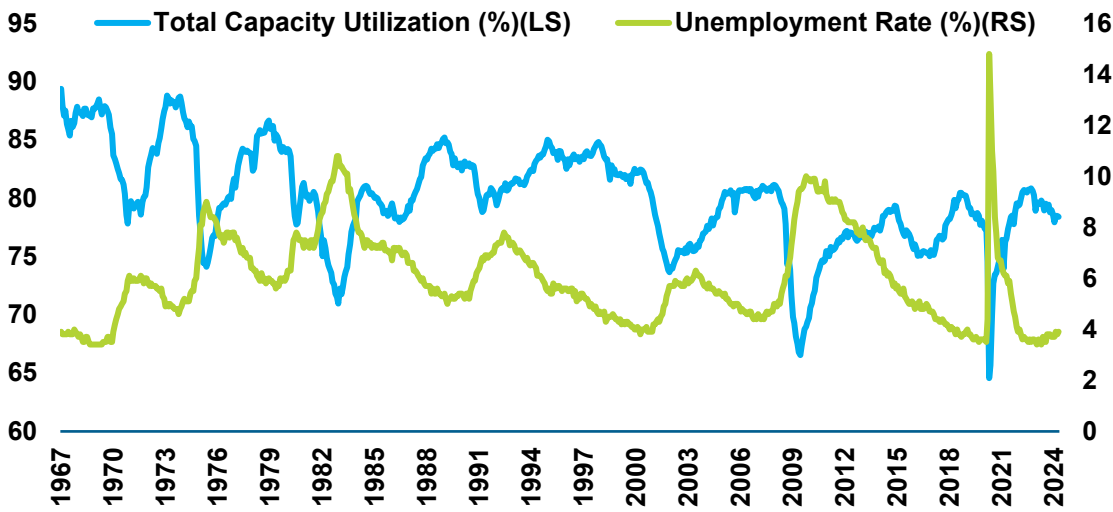


FIGURE 1
US Unemployment and Capacity Utilization (%)

Source: FRED as of April 2024. Total capacity utilization index captures the greatest level of production a plant can achieve. Does not include the service sector.

Likewise, MMT posits that any upper limit on government spending is not measured against a level of GDP or debt per se, but rather the optimization of economic capacity.⁶ MMT suggests that government spending can create inflation only when the economy is already running at full potential as defined by capacity utilization. Hence, even the strongest MMT proponents believe that there are real world constraints on government spending. As one of the leading proponents of MMT put it:

⁶ Economists would generally include the services sectors in their definition of economic capacity. This is much more inclusive than the technical measure of capacity utilization, but unfortunately there is no single metric that includes it.

At any point in time, every economy faces a sort of speed limit, regulated by the availability of its real productive resources – the state of technology and the quantity and quality of its land, workers, factories, machines and other materials. If any government tries to spend too much into an economy that's already running at full speed, inflation will accelerate. So there are limits. However, the limits are not in our government's ability to spend money or to sustain large deficits. What MMT does is distinguish the real limits from wrongheaded, self-imposed constraints.⁷

⁷ Source: Kelton, Stephanie. "Learn To Love Trillion-Dollar Deficits". The New York Times. June 9, 2020.

MMT's potential impact

The potential impact of MMT is uncertain, given it has not been tried at scale in a developed economy.

The potential impact of MMT is uncertain, given it has not been tried at scale in a developed economy. The US government's response to (and after) the COVID-19 pandemic may hold clues. The \$6 trillion in US government spending clearly buoyed GDP growth. The \$2.2 trillion in spending from the CARES Act undoubtedly supported the economy during the pandemic. The spending and incentives of the CHIPS, IRA, and Infrastructure Acts have boosted private sector activity, and this is likely to be spread out over the next 5-10 years. Between 2020 and 2023, the Fed's QE program bought \$3.4 trillion dollars of Treasuries; today the Fed holds ~\$5.8 trillion in Treasuries or nearly one-fifth of total US debt.⁸

However, a combination of commodity price shocks, supply chain disruptions, and government spending stoked inflation. Headline inflation, which includes energy prices, has fallen in response to improvements in supply chains. Core inflation proved more stubborn, with prices climbing for transportation, services and shelter for a more prolonged period. Higher inflation led to higher interest rates, as it typically does. Spending in excess of revenues meant that the Treasury borrowed money to cover the deficit. Higher interest rates and debt issuance is driving up the cost of borrowing.

Was the recent inflation spike from MMT?

The global pandemic frayed supply chains, which created substantial bottlenecks and shortages (see Figure 2). Unemployment surged in 2020 when strict lockdowns shuttered businesses. In April 2020, US unemployment rose above fourteen percent, but it fell rapidly to pre-pandemic lows by the spring of 2022.⁹ In 2022 and 2023, there were significantly more jobs available than workers to fill them. For example, the JOLTS index in May 2024 indicated that there were 8.1 million job openings with 5.6 million available workers.¹⁰

⁸ Source: The Federal Reserve purchases US debt from broker dealers to provide sufficient liquidity and maintain the Fed Funds target rate on short-term debt securities close to target. Source: Chair Powell, "COVID-19 and the Economy" April 9, 2020. The Fed's expansion of the balance sheet is based on emergency lending powers where funds are exchanged for securities and loans to financial institutions; not spending powers. At the start of the global pandemic the Fed still held approximately \$2.4 trillion in US treasuries so that an additional \$3.4 trillion in treasuries were added. The US total debt stands around \$31 trillion dollars. The Fed's balance sheet also includes other securities such as CMBS and MBS.

⁹ Source: FRED as of October 2023. In March 2022, the US unemployment rate was just 3.6%.

¹⁰ Source: FRED as of June 2024.

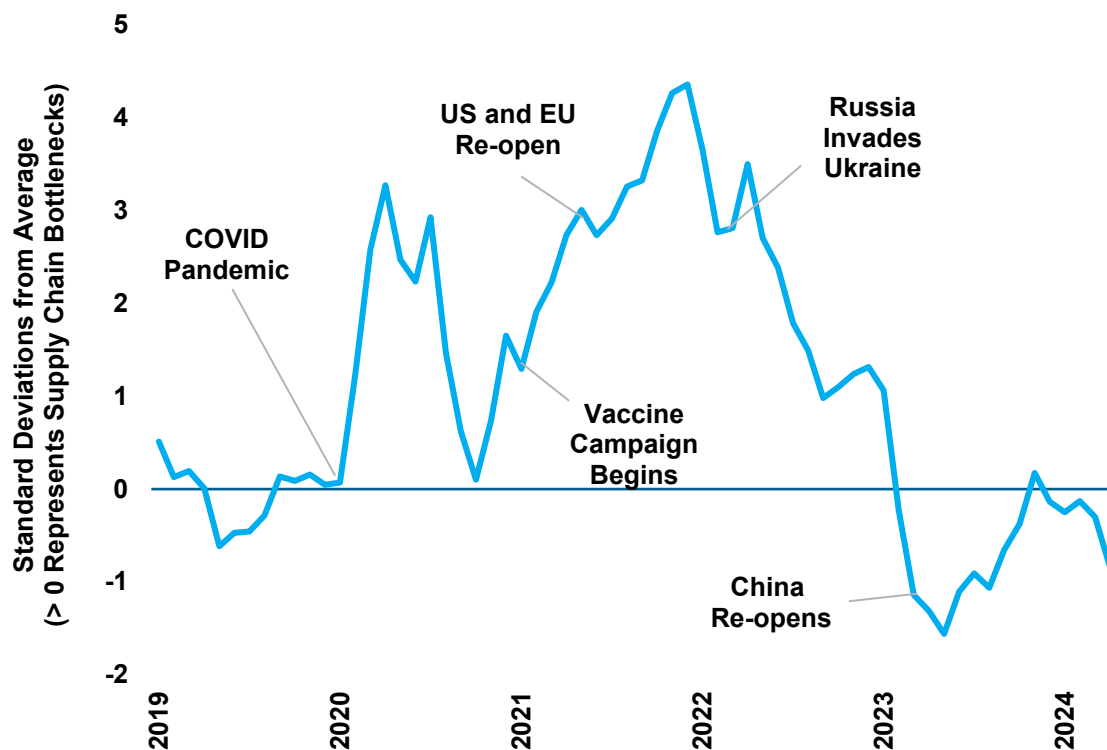


FIGURE 2
Supply Chain Bottlenecks

Source: Federal Reserve Bank of New York, Global Supply Chain Pressure Index as of April 2024. Zero represents balanced supply chain pressures; positive readings indicate delays and rising shipping costs and prices for goods and services; negative readings indicate falling shipping costs and rising inventories. The GSCPI integrates a number of commonly used metrics with the aim of providing a comprehensive summary of potential supply chain disruptions. Global transportation costs are measured by employing data from the [Baltic Dry Index \(BDI\)](#) and the [Harper index](#), as well as airfreight cost indices from the [US Bureau of Labor Statistics](#). The GSCPI also uses several supply chain-related components from [Purchasing Managers' Index \(PMI\) surveys](#), focusing on manufacturing firms across seven interconnected economies: China, the euro area, Japan, South Korea, Taiwan, the United Kingdom, and the United States.

But even as the bottlenecks eased and supply chains recovered, Russia’s invasion of Ukraine reignited inflation pressures through food and energy prices (see Figure 3). The price of oil fell to record lows in 2020 but by March 2022 surged above \$100 a barrel.¹¹ While the ripples from this series of supply shocks can still be felt, it was their combination with greater spending that appears to have pushed inflation to a level that the Fed has had trouble bringing it down. Global inflation is not expected to return to target until 2025 or later.¹²

¹¹ Source: FRED March 2022.

¹² Source: IMF World Economic Outlook, October 2023.

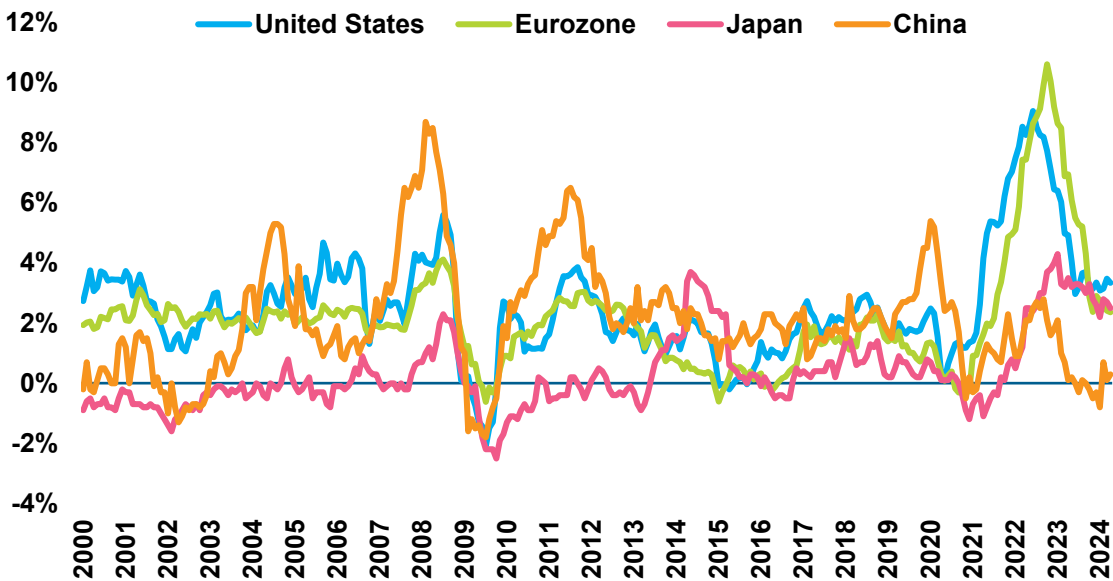


FIGURE 3
Global Inflation (% YoY)

Source: Bloomberg as of May 2024. Inflation reported with at least a one-month lag. Chart reflects April 2024 inflation reported in May 2024.

Higher debt levels

After more than a decade of spending pull-back, the US government has passed several stimulus plans including COVID response (\$6 trillion) CARES Act,¹³ the Infrastructure Bill (\$1 trillion),¹⁴ the CHIPS Act (\$52 billion),¹⁵ and the Inflation Reduction Act (\$1 trillion) in less than three years.¹⁶ Embedded in the stimulus packages were funds ear-marked for social programs, a key focus of the MMT spending ambitions.¹⁷ Accordingly, the US debt-to-GDP ratio surged. At the start of 2008, the Federal deficit was six trillion dollars, and that rose to nineteen trillion dollars at the start of 2020.¹⁸ The federal deficit grew by nearly fifty percent in dollar terms to 28 trillion dollars between 2020 and 2024.¹⁹ While some have accused the US fiscal response to the GFC as inadequate, there are few who would make the same argument about the US government’s fiscal response to the global pandemic.²⁰ In fact, the deficit (as a percent of GDP) reached the largest level since World War II.

¹³ Source: Committee for a Responsible Federal Deficit “COVID Money Tracker”. Executive orders spent an additional \$900 billion dollars while the Federal Reserve response reached \$47 trillion.

¹⁴ Source: New York Times E. Cochrane “Senate Passes 1 trillion Dollar Infrastructure Bill,” August 2021.

¹⁵ Source: Congressional Research Service, CHIPS Act Frequently Asked Questions. Tax incentives in the CHIPS act are estimated around \$280 billion.

¹⁶ Source: Brookings, “Economic implications of the climate provisions of the Inflation Reduction Act,” March 2023. Estimates on tax incentives vary depending on modeling.

¹⁷ Source: Whitehouse communique regarding CARES and IRA acts in 2021 and 2022.

¹⁸ Source: FRED as of October 2023.

¹⁹ Source: FRED as of October 2023.

²⁰ Source: Bloomberg, A. Davis, “Summers Sees Fiscal Response as ‘Least Responsible’ Fiscal Policy in 40 Years,” March 20, 2021.

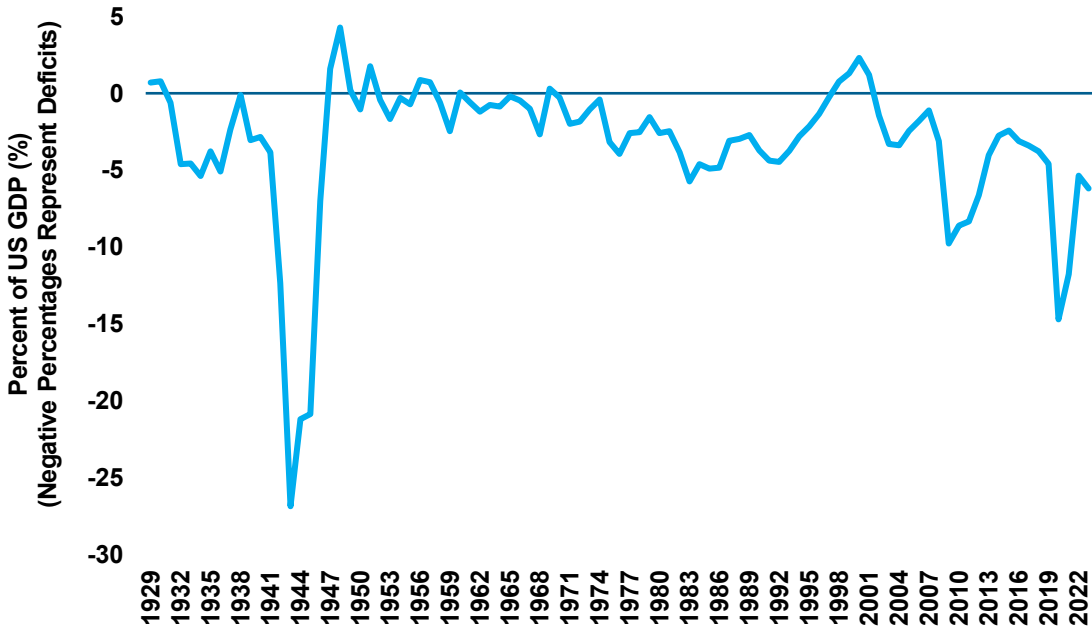


FIGURE 4
US Fiscal Surplus/Deficit
 (% of GDP)

Source: FRED as of January 2023.

To fund these ever-growing deficits, the government has relied on issuing new debt. Better than expected GDP may help hold the federal deficit at around 6% of GDP through 2025. Still, debt as a percent of GDP has surpassed even the level experienced during World War II (see Figure 5).

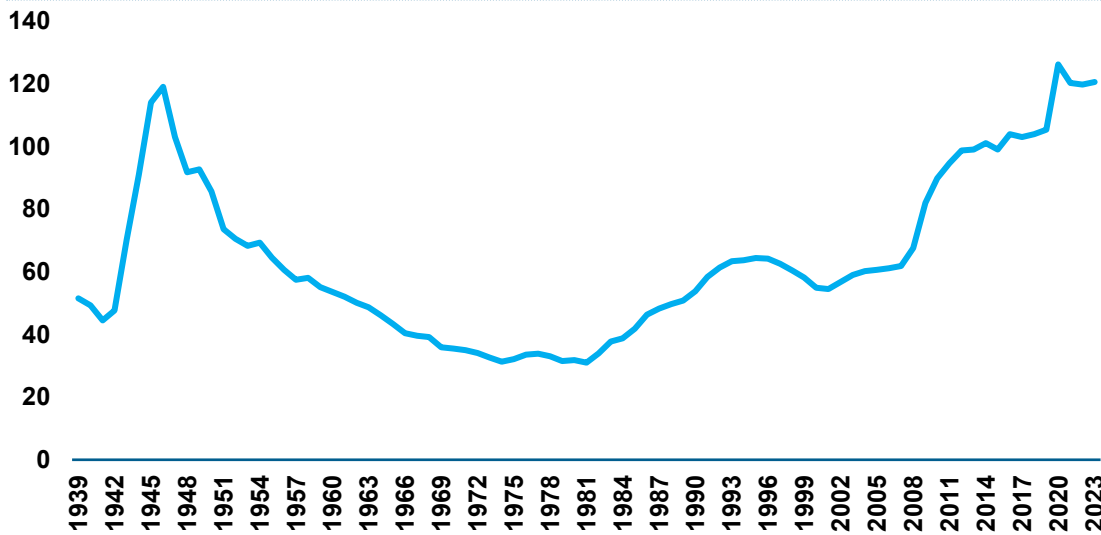


FIGURE 5
US Government Debt (%
 of GDP)

Source: FRED as of January 2023.

As the US economy defied recession predictions for 2023 and into 2024, longer-dated Treasury yields have risen to levels not seen since 2007 (see Figure 6). Typically, rising bond yields are associated with investor optimism where the coupon payment may be insufficient to attract investors who seek investment returns elsewhere.²¹ However, considering significant debt issuance in the US over the past couple of years, there are concerns that rising Treasury yields could signal investor concerns regarding the sustainability of US debt levels.

²¹ Source: St Louis Federal Reserve, P. Grittayaphong, "What Do Rising Bond Yields Signal About the Economy?" October 2022.

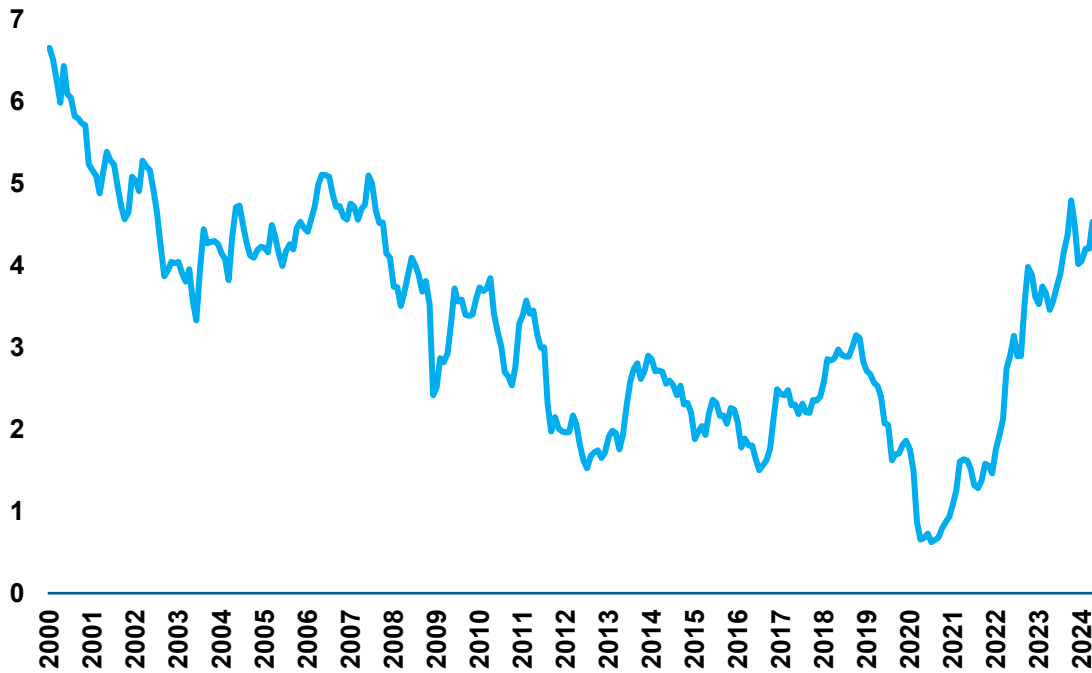


FIGURE 6
Ten-Year Nominal Interest Rate 2000-2024 (%)

Source: FRED as of May 2024. Ten Year Treasury yield shown as monthly percentage.

Higher interest costs

The higher levels of debt combined with higher interest rates are driving up the cost of servicing the national debt (i.e., paying interest). Debt servicing costs rose from \$200 billion in 2022 to \$659 billion in 2023.²² The rapidly rising cost of servicing US debt is demanding a larger share of government resources. The interest expense is expected to rise from 2.4% of GDP in 2023 to 3.2% over the same period.²³ At this time, the interest expense on US debt is more than the entire defense budget for the fiscal year 2023.

²² Source: New York Times J. Taukersley, "The Federal Deficit is Growing. This is Why," October 20, 2023. See also the Congressional Budget Office and the Center on Budget and Policy Priorities.

²³ Source: Congressional Budget Office, "The Budget Outlook," February 2024. The CBO estimates that interest payments could reach nearly a trillion dollars (\$951 B) in 2025.

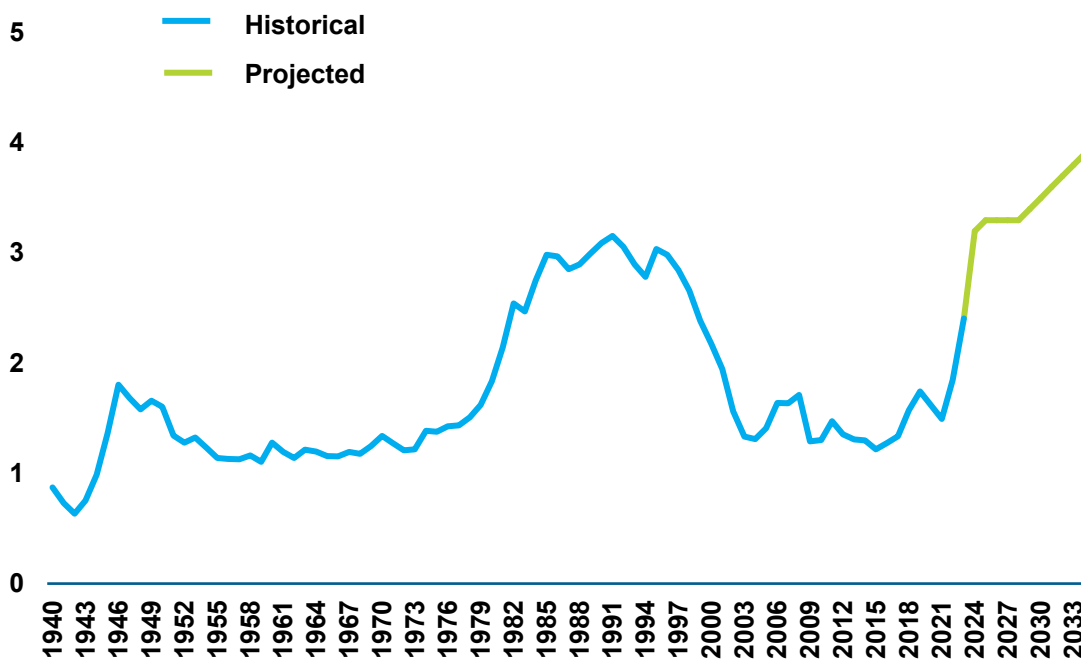


FIGURE 7
Federal Interest Payments as a % of GDP

Source: FRED, Annual Federal Outlays: Interest as a Percent of Gross Domestic Product, as of January 2023. CBO, "The Budget and Economic Outlook: 2024 to 2034, Net interest Outlays as a Percentage of GDP," February 2024.

Summary

The shorthand version of MMT (often seen in the popular press) tends to focus just on spending. Unmitigated spending, without giving due consideration to resource constraints, can lead to serious challenges such as higher inflation and higher debt servicing costs. This could crowd out other budget items, and thus defeat the purpose of taking on additional spending in the first place.

In extremis, there are long-term concerns about an MMT-fueled debt burden turning into a vicious debt cycle or the US dollar losing its reserve currency status. While the first two of these have started to manifest, we are currently a long way from the last two, which are far more serious.

The impact of spending beyond resource capacity – namely, that it can lead to inflation – has become more obvious in recent years. Resource constraints previously were not at the forefront of discussion because they were immaterial for more than a decade. As the labor force declined and supply chains faced constraints, their relevance has reemerged. The concept that productive capacity and resource availability should set an upper limit on spending may temper MMTs popularity.

For MMT, the idea is that government spending would increase aggregate demand and thereby deliver more productive capacity (including jobs) and investment, which would be disinflationary, but this theory remains untested. However, with capacity utilization already close to optimal and a shortage of skilled workers available, there may not be scope for additional fiscal stimulus. MMT appears to have run up against the constraints of tight labor markets and high capacity utilization in recent years, resulting in elevated inflation and higher debt service costs. Hopefully, proponents of MMT, particularly those in a position of political power, will be mindful of these real-world constraints in the future.

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