During the past 25 years, low interest rates and highly expansionary monetary policy with little apparent inflation have created the illusion that a government can simply print money to fund exorbitant deficit spending with no repercussions. This core tenet of so-called "modern monetary theory" ignores the fact that deficit spending is constrained in the long run by a government's ability to satisfy creditors.

Promoters of modern monetary theory (MMT) — including a growing number of pundits and policymakers — are toying with the idea that "deficits don't matter." They are tempted to believe that a government can merge fiscal and monetary policy and simply print currency to pay for its expenditures indefinitely without economic costs or constraints. This core tenet of MMT, which has permeated the public debate, worries economists of all stripes — not just "mainstream" economists, but also traditional Keynesians and heterodox economists.¹

A key aspect of MMT is that it seems to present a cost-free solution to many economic and social problems. While a critique of current monetary and fiscal policy approaches may certainly be warranted, proponents of MMT go one step further. As we argue in this brief, implementing MMT would reverse the role of policy institutions and would fundamentally change the nature of U.S. currency both domestically and internationally. Arguably, implementing MMT policy prescriptions would therefore require a fundamental overhaul of the relationship between the individual and the state, and MMT's outcomes are potentially catastrophic. Nonetheless, some aspects of MMT are perfectly consistent with the dominant monetary paradigm in economics and are, in fact, the subject of much ongoing macroeconomic research and debate. But MMT differs greatly in its policy prescriptions.
The idea that a government, as the monopoly issuer of currency, can always print money to cover budget deficits and fund government spending may appear reasonable. But it flies in the face of mainstream economics and historical experience. We argue that its recent prominence is a product of the economic context of the past 25 years, where both interest rates and inflation were low. But in the end, MMT provides only an untested set of statements about the consequences of monetary policy.

Setting the Stage

The sudden popularity of MMT ideas is arguably predicated on three key factors that have shaped the economic environment of the past quarter century: first, the secular and worldwide decline in real interest rates; second, the apparent disappearance of inflation to the point of deflation in many countries; and third, the widespread use of nontraditional monetary policy tools, such as quantitative easing (QE), by major central banks. Low interest rates and low inflation ultimately may be driven by demographic forces, globalization and the slowdown in productivity growth.

Real interest rates have declined around the world to nearly zero, a long-term trend that we have experienced at least since the 1980s. At this extremely low level, loans are effectively free in real terms. As real rates were declining in the early 2000s, then-Federal Reserve Governor Ben Bernanke warned of a global savings glut. China's entry into the world trading system and the opening of its current account, together with the emergence of surplus resource exporters (the oil-producing countries in the Middle East, for example) and deficit-averse countries in the industrialized world (such as Germany) rendered the world awash in savings at a time when public and private investment was leveling off globally or falling in some countries.\(^2\)

In combination, these events put downward pressure on interest rates, which gave governments more elbow room to finance larger annual budget deficits and service greater overall levels of debt. At first, this trend did not capture the imagination of the public and policymakers since tax receipts before the global financial crisis of 2007–08 were quite robust and because many countries, especially in Europe, were pursuing "austerity" policies. However, with bailouts and government-support payments burgeoning in the aftermath of the financial crisis, deficits and debt levels reached historically high levels with no apparent repercussions on inflation or interest rates in the government bond market.

On the monetary side, lower interest rates were stimulating in their own right, and as policy rates approached zero, central banks resorted to nontraditional policy tools to stimulate the economy even more. The main new tool turned out to be QE, which is the purchase of financial assets (mostly government bonds) with newly created central bank money (reserves). QE led to a massive expansion of central bank balance sheets and the money supply (monetary base). While the efficacy of QE is still being debated, it may have left the
impression with the public, and perhaps even some policymakers, that central banks can "print money" to support the economy without any of the adverse effects (such as inflation) that both monetarist and New Keynesian theories would predict.\(^3\)

The second factor shaping the economic environment has been the apparent disappearance of inflation during the past decade despite unprecedented monetary expansion. At face value, this observation would appear to support MMT because it shows that one of the main arguments against it, namely money-driven increases in inflation, did not happen. While this observation seems to provide evidence in favor of MMT, it does not pass the *ceteris paribus* test — that is, all other factors did not remain the same. Economic scarcity, one of the key drivers of inflation, was not a given for long stretches of the past 20 years because of the global financial crisis and the downward pressure on costs due to globalization. Moreover, shortly before the most recent crisis, labor markets appeared to be very tight, and the Federal Reserve had begun to increase its policy rates in response.

In addition, demographic changes occurred in the United States and in other advanced economies as average ages increased. Older societies tend to experience lower rates of inflation because older people tend to purchase items that are less prone to price increases. Also, the large cohort of baby boomers approaching retirement typically have had high savings rates, which exerted downward pressure on interest rates. Finally, the effects of QE were blunted by the fact that most of the additional liquidity remained in the form of excess reserves in banks’ accounts with the Federal Reserve — as opposed to cash or bank deposits in the hands of consumers.

In short, the economic environment over the past 25 years has provided fertile ground for MMT ideas to take root. Monetary and fiscal expansions did not lead to runaway inflation or debt crises, especially not in the United States, which has benefited from the dollar’s status as the world’s reserve currency and unwavering global demand for safe Treasury securities. Therefore, at a superficial level, it may appear that monetary expansion can take place without inflationary consequences. This may create the impression that governments can simply print money to finance expenditures without repercussions.

**From Here to MMT**

The core tenet of MMT is that a government can print money indefinitely and without constraints since it is the monopoly issuer of currency. More pertinently, the government can compel households and businesses to hold currency to make tax payments. This has two implications for the efficacy of MMT.

First, economic history is awash with disastrous attempts to finance government spending and debt simply by printing money. These examples range from currency debasement in the Middle Ages to the hyperinflations of the 1900s (for instance, Germany in 1923, Hungary in 1946 and Zimbabwe in the 2000s). All of these examples demonstrate that
MMT-flavored policies are, at the very least, poor solutions to fiscal problems. While it is true that a government can compel citizens to use its currency, people have always found substitutes — such as foreign currencies in South America or underground barter economies in the old Soviet bloc. Fiat currency works only as long as the fiat is accepted. In the United States, for example, the credibility of Federal Reserve notes was not granted by fiat: It has been earned by the central bank over many consecutive years of responsible behavior.⁴

Arguably, proponents of MMT are aware of this history. What they derive from these insights is that the roles of fiscal and monetary authorities (Treasury/Congress and the Fed) could be effectively reversed. Under MMT, the Fed finances the deficit by printing money, while the Treasury and Congress use their tools (taxation, expenditures and fees) to stabilize the economy and fight inflation. For example, Congress could raise taxes to dampen aggregate demand when the economy heats up. In fact, many MMT theorists are quite concerned about the dangers of inflation — perhaps to a greater extent than adherents to post-Keynesian or even New Keynesian views — because it erodes the purchasing power of wages. While in the latter frameworks, inflation greases the wheels of the economy, this is not necessary under MMT since the government's printing presses provide lubrication. The hallmark of MMT is thus a fiscal view of the world, where the fiscal authority becomes responsible for the traditional monetary policy domain. In fact, MMT might be more aptly called "modern fiscal theory."⁵

**Deficits Don't Matter — Until They Do**

The mainstream view of the government budget and the sustainability of public debt is based on the concept of the intertemporal government budget constraint (IGBC). Sustainability in this context means that government bond holders and purchasers believe that a current level of indebtedness can be repaid or at least serviced with net government revenues at some point in the future. The budget constraint is derived from the difference between current spending (government expenditures and net interest payments on outstanding debt) and current revenue (taxes, fees and the proceeds from money creation). If the difference is positive, the government issues new debt. If the difference is negative, the government retires old debt. The IGBC is the "present-value" version of this constraint.

The main implication is that people would buy and hold government bonds only if they expected the IGBC to hold. In other words, outstanding debt has value today because it will be repaid by future net revenues. If this is no longer the case, as in the presence of ever-rising deficits, then a debt crisis occurs, and the government either has to default on some of its debt, raise taxes or lower spending. MMT does not escape from this IGBC logic since government debt has to be marketed and sold to willing investors.
MMT advocates argue that by printing money, the central bank can become the holder of public debt. In support of this argument, it is true that with interest rates at zero, short-term debt and money are effectively substitutes. However, this relationship does not necessarily extend to longer-term debt, which might still carry a term premium. In principle, the government could then replace all debt with very short-term debt called "reserves." But this does not obviate the requirement that ultimately someone must be willing to hold such debt instruments, even if those instruments are simply money — and this is far from a given, as discussed above. Moreover, U.S. government debt is considered the world's "safe asset," and it underpins the U.S. dollar's status as the world's reserve currency. Under MMT-influenced policy, there appears to be no mechanism that would compel foreigners to hold U.S. debt. Therefore, MMT would jeopardize the dollar's exorbitant privilege in exchange for highly uncertain benefits.

There is a substantial literature on debt sustainability from the 1980s and 1990s that relied on statistical methods to tease out underlying trends in debts, deficits, tax revenues and expenditures to assess whether debt tended to stabilize or explode over time. The main shortcoming of this early work is that it implicitly took future deficit paths as given, rather than considering how these paths are determined by policy choices. Given the difficulty of precisely predicting the future actions of a government, the findings from this earlier literature have not offered a clear consensus on debt sustainability. Again, the fact that standard neoclassical theory does not offer precise predictions of when a debt crisis might occur offers room for less empirical approaches, such as MMT, to take root.

More recently, better theoretical and empirical modeling techniques have facilitated a more coherent description of actual debt dynamics. For example, University of Virginia economist Eric M. Leeper has introduced the concept of a fiscal limit, which is based on the idea that policymakers often allow debt to grow rapidly during crises but then pump the fiscal brakes when things return to "normal." The fiscal-limits literature considers such (historic) corrective behavior by monetary and fiscal authorities in terms of a "point of no return." While the older debt-sustainability literature came up with problematic debt-to-GDP ratios of between 100 percent and 120 percent, the fiscal-limits literature finds ratios of 180 percent to 200 percent sustainable. Japan, with its stable economy and a debt-to-GDP ratio of more than 200 percent, provides suggestive evidence of this higher limit (although that higher limit has costs). No one knows for certain where the U.S. limit lies, but there is certainly a limit.

**Conclusion**

When interest rates decline while all other things remain equal, governments have more space for expansionary fiscal policy. But this luxury may create the impression that a growing debt load is cost-free, which is counter to the historical record because interest rates are unlikely to stay low, especially when the debt load is growing. When inflation is
low and inflation expectations are well-anchored by central bank credibility, then the central bank may have more elbow room for expansionary monetary policy. Arguably, none of this analysis is controversial or inconsistent with mainstream macroeconomic thinking or MMT. What distinguishes the latter from the former is an apparent disregard, at least in the public debate, for obvious constraints on government spending.

Given this gap, we believe that current policy challenges are best addressed in the context of mainstream macroeconomic theory. The caveat that needs to be attached to MMT is that it would require a fundamental realignment of the relationship between the state and the individual in addition to a reversal of policy responsibilities between fiscal and monetary authorities — in exchange for highly uncertain benefits.

Michael U. Krause is a professor of economics at the University of Cologne. Thomas A. Lubik is a senior advisor in the Research Department at the Federal Reserve Bank of Richmond, and Karl Rhodes is a senior managing editor there.


2 This reasoning is discussed in more detail in Thomas A. Lubik and Tim Sablik, "Should We Worry About Trade Imbalances?" Federal Reserve Bank of Richmond Economic Brief No. 17-10, October 2017.

3 QE was never a pure monetarist experiment, let alone a helicopter drop of cash. From a theoretical point of view, QE works by raising asset prices and lowering yields via preferred habitat or segmented asset market settings and not simply by handing out money to the masses. In fact, banks returned newly created money to the central bank in the form of excess reserve holdings that earned safe interest on excess reserves (IOER), which in turn became a policy tool for the central bank. Incidentally, IOER turned reserves into substitutes for short-term debt, which leaves the impression that a quintessentially fiscal tool (government debt) is essentially a monetary tool — namely central bank money. This is a core implication of MMT.

4 This is notwithstanding the fact that the U.S. dollar is legal tender, the only means of payment that can be enforced by U.S. courts. Nonetheless, in times of high inflation, alternative currencies develop to facilitate payments between individuals.

5 Ironically, this reasoning is not that far removed from the fiscalist position within a neoclassical framework. Under this subcategory of the fiscal theory of the price level (FTPL), a role reversal of the policy authorities guarantees equilibrium. FTPL, however, comes from an entirely different framework that is at odds with the key analytic elements of MMT. Crucially, proponents of FTPL distrust the MMT view because the historical record shows that the fiscal authority (Treasury and
Congress working in concert) would not be nimble enough to corral catastrophic inflation. In fact, a leading fiscal theorist has proposed a much-enlarged role for a fiscal authority, albeit independent of Congress, to better ensure government budget balance free from political influence. For an overview of this and other fiscal policy issues, see Eric M. Leeper, "Monetary Science, Fiscal Alchemy," in Macroeconomic Challenges: The Decade Ahead, Federal Reserve Bank of Kansas City 2010 Jackson Hole Symposium Proceedings, pp. 361–434.


7 Japan has been forced to make extremely difficult policy choices in recent years. See Thomas A. Lubik and Karl Rhodes, "A Closer Look at Japan's Rising Consumption Tax," Federal Reserve Bank of Richmond Economic Brief No. 19-10, October 2019.

This article may be photocopied or reprinted in its entirety. Please credit the authors, source, and the Federal Reserve Bank of Richmond and include the italicized statement below.

Views expressed in this article are those of the authors and not necessarily those of the Federal Reserve Bank of Richmond or the Federal Reserve System.