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Modern Monetary Theory – Flipping the Current Monetary Policy on its Head

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Has traditional fiscal and monetary policy failed?

What are the risks and benefits of MMT policy?

What are the investment considerations under MMT?

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In recent years, Modern Monetary Theory ("MMT") has been rising in prominence as several influential US policymakers and their economic advisors have advocated the adoption of this nontraditional economic doctrine in response to perceived failures of current monetary and fiscal policy. It is important to note that while the name is stated as a "theory," it may be more accurate to refer to MMT as a policy, or doctrine, as it prescribes a manner in which a government can or should conduct monetary and fiscal policy. Proponents of MMT cite growing levels of wealth inequality, evidence of asset pricing bubbles, and a lack of sustainable inflation produced by existing practices, among other issues, as reasons to consider a new approach to economic policy.

In this paper, we will provide a brief background of fiscal and monetary policies employed by the United States, describe the theory and mechanics that underpin MMT, discuss the merits and risks of MMT, and detail the investment implications if MMT were to be deployed. MMT often elicits strong positive or negative responses in the academic and financial communities; this newsletter is neither an indictment nor an endorsement of MMT. However, we do believe MMT would increase the possibility of monetary destabilization and/or hyperinflation if implemented. A change to this doctrine would require that investors reconsider the core tenets of conventional asset allocation.

The origins and current structure of economic policy in the United States

Throughout the history of the US, various economic doctrines of how to best achieve macroeconomic stability have waxed and waned. In fact, macroeconomic stability was given little attention by the US government prior to the 20th century. Policymakers subscribed to a laissez faire approach, with significant government spending relegated mostly to the financing of armed conflicts. Only after a series of destabilizing events in the US financial system in the late 19th and early 20th centuries was legislation passed creating the Federal Reserve System (the Federal Reserve Act of 1912)[1] that would preside over monetary policy, implemented separately from fiscal policy. Even the creation of the Federal Reserve ("the Fed") did not seem to improve the stability of financial markets and the economy early on. The Fed's actions in the 1930s, which reduced the money supply in the interest of maintaining the stability of the US dollar in accordance with the existing gold standard, actually magnified the depth of the Great Depression.[2] It was fiscal policy measures (which, at first, were also contractionary and misguided[3]), such as the New Deal, that provided a countercyclical macroeconomic response to the Depression. However, even fiscal policies remained constrained by a consensus focus on the importance of the government running a balanced budget (at least until World War II).

After the failure of economic policies during the Depression Era, the Fed made significant changes to its approach, recognizing that reducing the money supply and raising interest rates during the depths of the crisis had a negative effect on growth and employment. More broadly, macroeconomic policy slowly began to shift towards a framework consistent with the current post-Depression economic doctrine of coordinated, counter-cyclical fiscal and monetary intervention, as espoused by John Maynard Keynes in his book "The General Theory of Employment, Interest, and Money" after World War II. During this period, an important piece of legislation, the Employment Act of 1946, established maximum employment and production, with stable purchasing power, as key goals for the federal government. Gradually, policymakers (both fiscal and monetary) began to place more importance on growth and full employment versus price stability or a balanced budget. Figure 1 on the following page shows the resulting increase of the US National debt compared to GDP as policymakers' focus shifted. The introduction of increasingly pro-cyclical policy measures, an ever-widening government deficit, and a consensus belief that low unemployment would not lead to excessive inflation in the 1960s and early 1970s, ultimately contributed to a rapid increase in inflation and stagnation of growth in the 1970s, requiring an aggressive policy response.[4]

MMT OVERVIEW

- Monetary and fiscal policy work together.
- Governments that have fiat currencies, and issue debt in it, have no insolvency risk because more money can always be printed.
- Debt and deficits are not a concern for monetarily sovereign governments, as long as they are used within the real productive capacity of the economy.
- Debt should be used to drive economic growth since more money can be printed to pay it off.
- Governments should be more directly involved in targeting full employment by borrowing money to fund programs to create jobs.
- Instead of being used for government spending, taxation is used to redistribute wealth and control economic demand.

[1] Richardson, G., Romero, J. (2015, December 15). The Meeting at Jekyll Island. federalreservehistory.org.

[2] Fishback, Price. "US Monetary and Fiscal Policy in the 1930s." Oxford Review of Economic Policy. Volume 26. Issue 3, (2010): Pages 386-413. www.academic.oup.com. Web. 16 October 2019.

[3] Lastrapes, William D., Selgin, George. "The Check Tax: Fiscal Folly and the Great Monetary Contraction." The Journal of Economic History. (1997).

[4] Christine Romer. "Macroeconomic Policy in the 1960s: The Causes and Consequences of a Mistaken Revolution". Economic History Association Annual Meeting. September 2007.

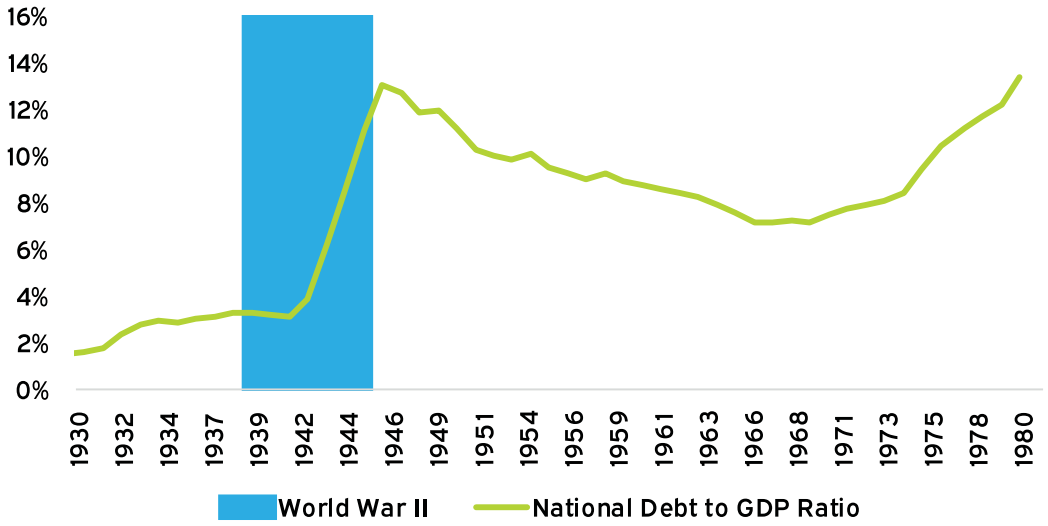

FIGURE 1

National Debt to GDP Ratio: 1930-1980

Source: Federal Reserve Economic Database (FRED).

A key anchor of current macroeconomic doctrine, monetarism, came into prominence in the late 1970s when its tenets proved successful in taming the stagflation of the time. The key belief of monetarism is that the money supply drives economic activity. As the money supply grows and shrinks so shall the economy. This relationship is explained by the equation MV = PQ where M is the aggregate money supply, V is the velocity of money (the amount of times per year the average dollar is spent), P is the general price level, and Q is the quantity of real goods and services produced. The equation leads to an increase in M resulting in a corresponding increase of Q or P if it is assumed that V does not change. Monetarism claims that growth of the money supply above the desired level of economic growth can lead to inflation. Lowering the money supply can lead to the opposite result. As an example, after Paul Volcker was appointed to chair the Federal Reserve Board of Governors, he deliberately slowed the growth of money and allowed interest rates to rise, which eventually brought inflation down. Figure 2 below shows the relationship between inflation and the federal funds rate.

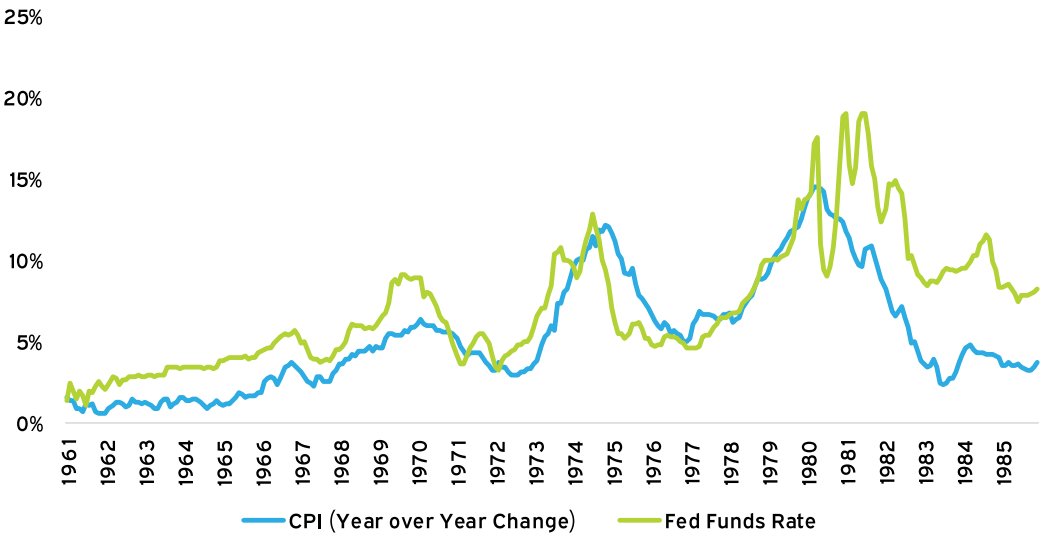

FIGURE 2

US Inflation and the Federal Funds Target Rate

Source: Federal Reserve Economic Database (FRED).

While the tools and methods employed by the Fed have evolved over the years (for example, Quantitative Easing was first implemented in the United States to ease the stress placed on the US economy after the Global Financial Crisis in 2008), monetarism remains influential with economists and policymakers.

Today, the United States economy is guided and influenced by both monetary and fiscal policies. According to the Federal Reserve's Tenth edition of its The Federal Reserve System Purposes & Functions publication, monetary policy is, "the Federal Reserve's actions, as a central bank, to achieve the three goals specified by Congress: maximum employment, stable prices, and moderate long-term interest rates." Typically, people associate monetary actions with the Fed raising or lowering the fed funds rate (the interest rate banks charge each other to lend Federal Reserve funds overnight). Since the Fed cannot force banks to use its targeted rate, it utilizes open market operations (i.e., the Fed's purchase and sale of US Treasury securities) to push the rate to its target. Monetary policy, as currently deployed, seeks to guide a nation's money supply and interest rate levels to influence inflation, unemployment, and the overall health of the economy.

Fiscal policy, on the other hand, is the means by which the government adjusts its spending and tax rates to influence the aggregate levels of supply and demand in the economy. In an effort to encourage economic growth, the government might decrease taxes, like the 2017 Tax Cuts and Jobs Act initiated by the Trump administration, or increase spending. A combination of fiscal and monetary policy tools can help the government achieve its goals for the economy. It should be noted that this approach to economic policy is implemented relatively consistently across most developed global economies.

While it is beyond the scope of this paper to detail the many intricacies of today's economic policies, it is important to note several key features which will help illustrate the different approach advocated by MMT. First, the Federal Reserve is structured to be an independent agency of the government and designed to be insulated from the politics of the day. However, whether the Fed is truly independent is a subject of constant debate among financial market participants. Second, the Fed cannot "print" money; only the Treasury can issue new currency. The Fed can only incentivize or disincentivize lending through modifying interest rates. Additionally, Fed liabilities cannot be used to pay for US government expenditures; in other words, Fed liabilities are not legal tender. Third, monetary policy is generally used to "fine tune" the economy unless more aggressive intervention is deemed to be necessary.

So, why do we need to discuss Modern Monetary Theory at all?

Global monetary policy is a source of constant debate among financial market participants. While we are over a decade removed from the Global Financial Crisis, policy rates in most developed economies are near multi-decade lows and, in some instances, are negative. Attempts to bring interest rates to levels consistent with historical norms in order to increase central banks' flexibility in potential future recessions have proven challenging. A deterioration of liquidity conditions in late 2018 stemming from the Federal Reserve's tightening of monetary policy via an increase in the Federal Funds Target Rate forced a capitulation (often termed the "Dovish Pivot") by Fed Chair Jerome Powell in early 2019. More broadly, it is becoming increasingly clear that global developed market central banks have a diminished ability to cut interest rates aggressively to stimulate domestic economies. While unconventional monetary policy tools, such as Quantitative Easing, remain available, their pass through to the real economy is, at best, indirect. Low interest rates and QE have succeeded in creating asset price inflation, but they have failed to create traditional consumer or wage inflation in developed market economies.

If developed market economic growth and inflation remain weak, it is possible that fiscal policy tools will be used more aggressively to support economic growth in some countries. The deployment of more aggressive fiscal policy is gaining wider acceptance among policymakers globally. For example, the former and current Presidents of the European Central Bank, Mario Draghi and Christine Lagarde, have expressed the need for more robust fiscal spending to accompany monetary intervention in recent months. The financing of fiscal spending remains a source of debate; any increase in fiscal spending generally must be financed by taxation or borrowing. As we will explain, MMT provides a potential prescription for this challenge.

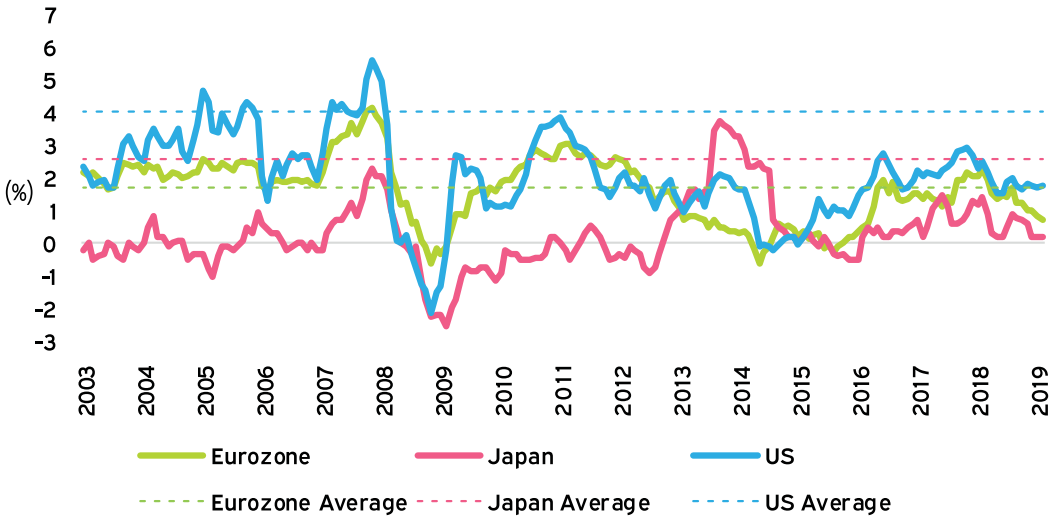

FIGURE 3
12 Month Inflation in Global Developed Markets
Source: Federal Reserve Economic Database (FRED). Eurozone Average represents since 1997; Japan and US average since 1970.

As we approach the 2020 presidential election in the US, domestic politics must also be taken into consideration. Politicians have cited the need for an increase in fiscal spending, and have occasionally referenced MMT directly in their comments on how fiscal spending might be financed. The political appeal of policies that directly target aggressive deficit-financed fiscal spending, and that implicitly bring the promise of job creation, has led to increased attention that is likely to persist as we near Election Day 2020. Given the increased attention to and, potentially, the implementation of MMT or some form of fiscal support, we believe an understanding of its origins and foundations is critical to investors and could have a material impact on financial markets and asset allocations.

The key attributes of Modern Monetary Theory

MMT espouses a construct in which monetary and fiscal policies are interwoven and potentially directed by the same authority. MMT represents an amalgamation of the observations of economists both familiar and less known; Georg Knapp (founder of the Chartalist School), John Maynard Keynes, Abba Lerner (founder of the "Functional Finance" theory), and others influence the doctrine being debated today. At its base, MMT rests on the "Chartalist" idea that the value of money is set by laws and institutions. Perhaps the most important aspect of MMT is the idea that, as long as a government issues its own fiat currency, and it issues debt in its own currency, it can never become insolvent, because it can always print more money. MMT economists refer to this principle as "monetary sovereignty," and claim that it eliminates the need for currencies to be backed by physical assets (e.g., a gold standard). Admittedly, this view does not differ from current doctrine, since the US abandoned the gold standard in 1971.

The critical departure of MMT from conventional thought is that monetarily sovereign governments need not be concerned about debt and deficits, as long as they are constrained by the real productive capacity of the economy, because borrowing beyond this limit will likely result in inflation. MMT proponents assert that governments should issue and use debt to drive economic growth and pay for spending since it can print money to pay off that debt. In other words, the growth of the money supply should not be a driving factor in policy decisions. This is a disconnect with current economic theory, which holds that a large increase in debt and the required printing of money to pay the debt will be inflationary. Proponents of MMT believe this concern to be misguided and no longer relevant in today's modern economies. Furthermore, they assert that MMT incorporates multiple tools to prevent adversely high inflation. Figure 4 on the following page, shows that the large increase in the monetary base since 2008 has not been accompanied by a noticeable pick-up in inflation.

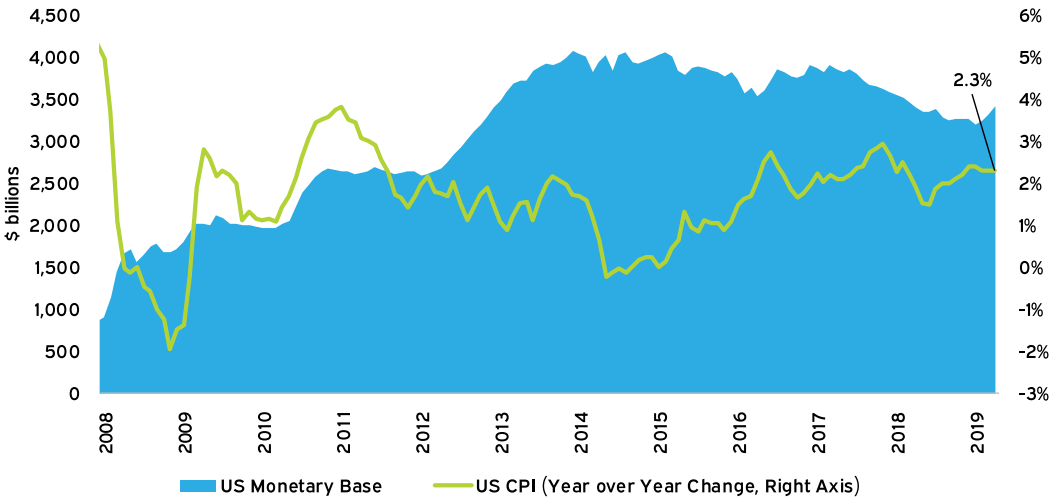

FIGURE 4

US Monetary Base and Inflation

Source: Federal Reserve Economic Database (FRED).

Another key aspect of MMT is full employment: specifically, how it is achieved and used to guide an economy. As mentioned before, part of the Federal Reserve's mandate is to target maximum employment. It seeks to meet this objective indirectly through the application of established policy tools. MMT, on the other hand, holds that a government should be more directly involved. A government should borrow as much as necessary until the economy is at full employment (e.g., if the private sector is not creating sufficient jobs, the government can fund infrastructure, research, healthcare, education programs, etc., to drive employment). Furthermore, many MMT proponents envision a "Jobs Guarantee" ("JG") program where the government provides a job for every citizen that wants a job (theoretically at a government-mandated wage that would probably be above the current federal minimum wage). Employees could rotate between the private and public sectors as private sector demand for workers increases and decreases.

Taxation within the MMT framework also takes on a different purpose relative to its use in orthodox economics, where it is traditionally used to pay for government spending. Under MMT, tax policy would be used to stimulate or dampen economic demand as needed and redistribute wealth. Proponents of MMT believe that the government is well situated to understand the needs of the economy relative to the private sector and can deploy resources to have a more direct impact. In their paper, "MMT 101: A Response to Critics Part 6", authors Eric Tymoigne and L. Randall Wray note, "The government should be directly involved – continuously – over the cycle, by putting in place structural macroeconomic programs that directly manage the labor force, pricing mechanisms, and investment projects, and constantly monitoring financial developments." In short, MMT calls for greater integration of fiscal and monetary policy to the point of not having any real separation between the two.

How might MMT work – a theoretical construct

Given the radical departure from current practices, the implementation of MMT would likely require a rewriting of the Federal Reserve Act.[5] While this is a tall order considering the current lack of cooperation in Washington D.C., it would be a necessary step for MMT to be implemented.

[5] This view is generally not prescribed by MMT advocates, but may be legally necessary to implement in the United States.

Under MMT, the government would no longer be required to propose a balanced budget or provide a source of revenue to fund anticipated spending. Rather, the government would decide what to spend and then print money or issue debt to finance that spending. As noted previously, MMT envisions greater coordination between the various government agencies and entities. In this scenario, the Treasury could issue zero interest rate liabilities to the Fed, thereby increasing the Treasury's balances at the Federal Reserve Banks. The Treasury could then spend these deposits directly to pay for government programs (e.g., pay wages to employees in the JG program, pay Social Security benefits, invest in infrastructure projects, fund the Green New Deal, etc.). Tax receipts are more likely than not to be insufficient to cover the spending, and the government deficit will likely increase. However, since the US controls its currency, it can always print dollars (or issue more debt) to fund additional expenditures.

Under MMT, we believe the US government's ownership of its debt would increase over time, which is important as approximately 43% of US government debt is held by other countries (Figure 5). While the increase in debt may not be concerning to the sovereign, it might trigger unease in non-US holders if this policy proves, or is perceived to be, inflationary. The implications of this will be discussed under the potential drawbacks of MMT later in the paper.

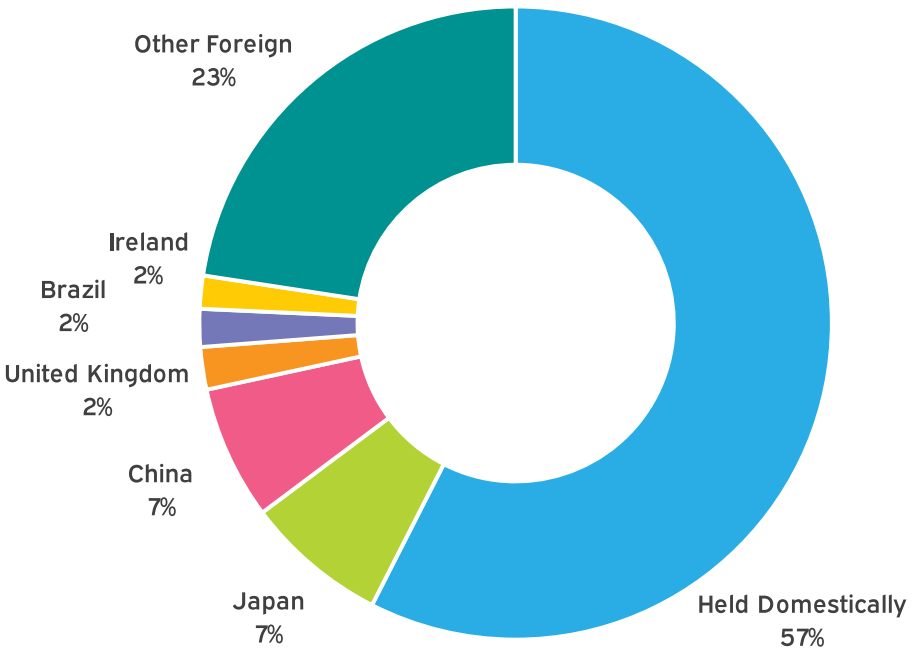

FIGURE 5
Major Holders of US Treasuries
Source: Securities Industry and Financial Markets Association.

This description often raises concerns about hyper-inflation. MMT proponents point to multiple tools to address this issue such as financial and credit regulation, tax policy, and the JG program. Tighter financial and credit regulation would reduce bank lending (commercial loans, mortgages, etc.) and theoretically lead to lower aggregate demand. Tax policy would be much more proactive in the MMT construct. If inflation were to increase beyond an established target, policymakers would increase tax rates to slow the economy and decrease inflation. Additionally, the JG program, for which the wage level would be set by the government, could be used to control inflationary forces. Traditional economic theories such as the Philips curve hold that as unemployment levels decrease, wages increase (while there is debate concerning the validity of this theory, it has some historical efficacy). Under MMT and the JG, general wage levels would be tethered to the minimum wage in the JG program, since an employer could always hire from this pool.

To re-emphasize a crucial point above, while current doctrine favors monetary policy and a "light touch", MMT policy favors fiscal policy and seeks to more directly influence the workings of the economy. Government spending is no longer constrained by revenue or a budget, taxation takes on a new purpose, and full employment through a JG program is a critical objective and tool of MMT. While the risk of inflation increases under MMT, its proponents cite the tools at the government's disposal to address these concerns.

The merits of MMT

MMT brings a new perspective to the workings of an economy at a time when the efficacy of orthodox policies seem to be waning. Examples include deficits that continue to build with no corresponding pick-up in interest rates (the "crowding out" effect does not appear to be an issue), rates that are at zero or below yet the pace of economic activity remains muted with inflation below central banks targets, and that employment in the US is at the highest levels it has seen in decades yet wage pressures remain in check. Additionally, changes to economies such as the adoption of digital currencies, globalization of the workforce and supply chains, and greater financial integration, among others, may be changing the way these complex systems operate, making past practices less applicable to today's realities. In addition to a fresh perspective, those who support MMT point to other benefits of the approach:

- Since deficits are not a major concern (within limits), the ability of a government to fund its programs would no longer be an issue. Passing a balanced budget would not be required, with running a deficit having advantages under MMT.
- If inflation and rates do rise, tax policy would help dampen these, with the added benefit of potentially redistributing wealth and addressing the rising inequality of wealth found in many countries. Financial assets, which are disproportionately held by a nation's wealthier citizens, would generally decline in value and the wealthy would pay more in taxes.
- The greater regulatory powers under a MMT construct would better curb predatory corporate behavior and help the average citizen.

- Government dollars could be spent on projects that benefit society in the long run (i.e., increase the productive capacity of the economy) and on social programs where the dollars would actually be spent (versus today's method of keeping rates low to encourage lending).
- Full employment via the JG program: All members of society could have a job with benefits if they wanted one. This would help workers displaced from the private sector to still be productive members of the economy and continue to spend through downturns, helping to mitigate the business cycle.
- MMT could act as a political tool that progressive politicians can leverage when negotiating for their spending initiatives. For many years, spending on projects was constrained by increasing taxes or cutting other areas of the budget. By endorsing MMT, politicians may be looking to increase their leverage at the bargaining table.

The downside of MMT

Despite the benefits just discussed of everyone having a job, governments having increased flexibility to fund programs, and less income inequality MMT does come with risks. The key risk of MMT is that spending and printing money leads to inflation. Other issues with the approach include:

- Identifying the theoretical productive capacity of an economy, as proxied by full employment, is extremely difficult, as economics is an inherently inexact science. MMT assumes that productive capacity is knowable, and governments should be able to manage around it. An over-shoot of employment and production relative to capacity could lead to an economy over-heating, a potential catalyst for inflation. Additionally, inflation is a complex issue and often appears rapidly and unexpectedly; given that a key tenet of MMT is money printing, the tail risk of hyperinflation should be expected to increase. While MMT provides multiple ways to address the issue, if inflation does take hold, it is unclear if the proposed tools would be able to bring inflation in check (or even used). For example, raising taxes to dampen inflation would be necessary in an MMT economy; however, a skeptical observer might question whether the political will exists to make this potentially unpopular decision in a timely manner.
- Debt does matter. Reinhart and Rogoff demonstrated in their paper, "Growth in a Time of Debt", that when a country's debt-to-GDP ratio exceeded 90%, economic growth tended to weaken (Table 1). As Figure 6 on the following page shows, the US already exceeds this level and it would likely only increase under MMT.

	Below 30%	30-60%	60-90%	90% and Above
Average	3.7	3.0	3.4	1.7
Median	3.9	3.1	2.8	1.9
# of Observations = 2,317	866	654	445	352

TABLE 1
Real GDP Growth as the Level of Government Debt Varies: Selected Advanced Economies, 1790-2009
Source: Reinhart, Rogoff. "Growth in a Time of Debt." NBER Working Paper No. 15639, (2010): Page 12. www.nber.org/papers/w15639 Web. Janury 2010.

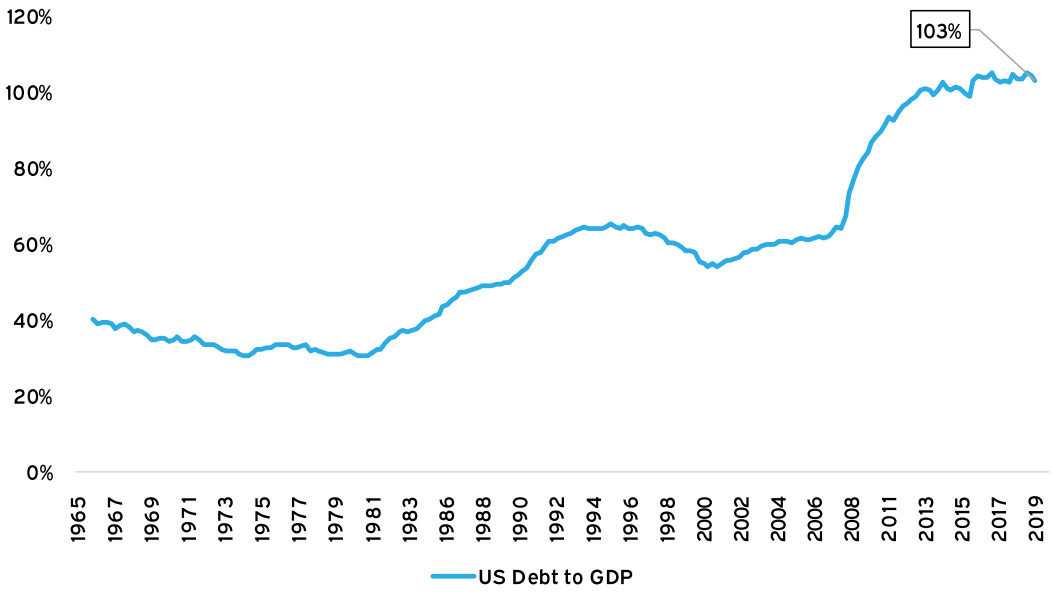

FIGURE 6
US Public Debt as a Percentage of GDP
Source: Federal Reserve Economic Database (FRED).

→ An even more worrying relationship exists between government deficit financing and hyperinflation. In Peter Bernholz' book, "Monetary Regimes and Inflation", which examines the 29 episodes of hyperinflation in the 20th century, he found that hyperinflation was caused by the financing of large government deficits. Bernholz concluded that when the ratio of budget deficits to expenditures exceeded 40%, and the central bank monetized a high proportion of that debt, the result was always hyperinflation. Table 2 below shows a few examples of this dynamic. Though budget deficits in most developed countries are not close to breaching this threshold, the implementation of MMT could quickly increase hyperinflation risk given that deficits and debt monetization are two of its core principles.

Country	Peek Inflation Year	Inflation Rate	Gov't Deficit to Expenditure Ratio
Chile	1974	505%	49%
Bolivia	1985	11,750%	69%
Nicaragua	1987	13,110%	59%
Zimbabwe	2008	157%	54%
Sudan	2018	63%	90%

TABLE 2
Hyperflation and Deficits
Source: IMF World Economic Outlook, October 2019 and World Bank.

- Even if the bold MMT assumption that debts and deficits do not matter as long as the sovereign can issue currency holds, if a country's debt is owned by other nations or the country wished to issue future debt, it does matter. If foreign holders become skeptical of the creditworthiness of the US or the value of the dollar, they may begin to sell the debt, forcing the value of the dollar to decrease and rates to increase. MMT generally advocates a natural interest rate of 0% (or near to it), and this outside selling would likely force rates higher. The expectation alone of MMT could induce Treasury selling in anticipation of this dynamic, leading to a rapid increase in yields and thus US debt servicing costs.
- MMT seems to dismiss the neoclassical exchange theory of value – money obtains utility because it is an efficient shared unit of exchange and account. In other words, the value of money is mutually constructed between a sovereign and the users. If users of money begin to lose confidence in the state or the value of the money, the currency may devalue, leading to inflation. This makes isolated implementation of MMT by a single country with a floating currency risky.
- The Jobs Guarantee program would aim to provide a job for every citizen who wants a job, at a government-designated wage. This does not mean that people will take these jobs, especially if other subsidies (e.g., unemployment benefits) do not fall away. In today's economy, with unemployment at cyclical lows, there are plenty of minimum wage paying jobs available, but these positions remain unfilled. While MMT indicates that there will be a free flow of employees between the public and private sectors, whether this will work in reality has yet to be proven. If the JG component does not work, there are broad implications to the efficacy of MMT.
- The US dollar is considered a reserve currency in which a vast number of goods and services are transacted. The implementation and use of MMT policy with its corresponding debt levels and inflation risk casts doubt on the stability of the USD and could lead to other countries becoming reluctant to accept them or other reserve currencies emerging, both very disruptive to the US economy.
- If taxes are increased to a high level to stem inflation and/or redistribute wealth, this will encourage capital (i.e., wealthy individuals and corporate entities) to flow to countries with a lower or more predictable structure. It increases the likelihood that the successful entrepreneurs and businesses that help create jobs and drive growth might find more reasonable locations to create their next business.
- We are currently in a low interest rate environment and MMT tenets further support low rates. This rate structure has already forced investors from their "preferred habitats" and into other investments with higher risks. For example, retirees who might normally hold a high percentage of fixed income securities have been forced to invest in equities since the income from their bond investments are too low. The adoption of MMT could extend this trend of increased risk taking given the lower interest rate bias.

Investment implications under MMT

The most notable implication to financial markets is the increased risk of inflation. This heightened risk would place a premium on real assets versus financial assets. Higher and more volatile inflation levels have historically led to negative real returns for bonds and cash. As inflation becomes a concern and the probability rises that rates will increase as a result, we would anticipate a lower expected return from equities. In other words, the return on invested capital garnered by a business will be less attractive relative to real assets or to bonds with floating rates. The nearest available historical precedent for a more inflationary market regime is the 1970s period of supply shocks and easy, pro-cyclical economic policy.

Additionally, correlations that have formed over the last 35+ years will shift. In past environments when fiscal policy has dominated, correlations between stocks and bonds have been positive (versus the negative correlation we have experienced since the late 1970's). This will clearly have an impact on asset allocation and diversification assumptions. Investors might also choose to direct their investment dollars towards countries with "traditional" economic policies and away from MMT countries, exacerbating potential currency weakness and stoking cost-push (i.e., supply-driven) inflation.

To MMT or not to MMT

In our view, MMT in its pure form, is fraught with peril. Policymakers globally are exploring alternatives to interest rate cuts and quantitative easing given the diminished firepower with rates near zero and the fact that most of the benefits of QE did not flow through to the real economy. Fiscal intervention is increasingly being touted as a potential source of incremental stimulus. MMT applies simplifying assumptions about financing fiscal stimulus that are inherently risky.

Money printing is certainly not a panacea; Germany's Weimar Republic in the 1920's, Zimbabwe a decade ago, and present day Venezuela provide a few of numerous cautionary tales. In the case of the Weimar Republic, in fact, the Chartalist School of economics that is drawn upon to inform MMT was a key economic school of thought in Germany at the time. All of these countries experienced hyperinflation as their monetary bases exploded in size. That said, proponents of MMT point to modern day Japan as an example that these policies do not necessarily lead to run-away inflation.

Alternatives to MMT: extreme monetary policy

Today, many economists and market participants fear that traditional monetary policy alone will likely be insufficient in the next downturn, with interest rates in the US just below 2% and rates in Europe and Japan already negative. However, before MMT is adopted, it is more likely we will see central banks introduce other policies beyond zero interest rates and quantitative easing. The most realistic next step for central banks is to follow the lead of Japan in expanding quantitative easing to include the purchasing of equities and corporate debt. Japan has been purchasing equities since 2009 via their Quantitative and Qualitative Easing (QQE) program and have already accumulated 4.7% of the entire market for Japanese equities. The general idea is that the years of negative interest rates demonstrated the inability of bond purchases alone to stimulate growth. In Japan, this policy has effected mixed results. In principle, it has acted to encourage investing and lift public sentiment via driving the stock market higher. The latter has been shown to be empirically true, with studies concluding that their QQE program has driven up Japan's Topix index by between 2 and 4 percent.[6] Critics would argue that it has distorted incentives for companies in Japan, as they are being rewarded for simply being in a major market index, rather than for innovation or increasing dividends.

[6] https://voxeu.org/article/quantifying-effect-bank-japan-s-equity-purchases

Alternatives to MMT: increased coordination of monetary and fiscal policy

Among the other myriad alternatives to MMT, another likely scenario is a regime in which there is increased coordination between monetary and fiscal policy. In this structure, the government prints money, but provides those funds directly to spenders along with an incentive to spend it. This money transfer, often referred to as "helicopter money", is the fiscal policy aspect of the plan and would be the most direct way to provide stimulus while also targeting the private sector. Ideally, the funds supplied would not be just cash, but zero-coupon notes with an expiration date (within a year or so) that would provide the impetus to spend. Monetary policy would then provide direction on how to spend these new funds or provide incentives to nudge people towards socially desirable spending. Monetary policy would also determine who receives these funds and how much they would receive in relation to one another.

Compared to extreme monetary policies, this coordination of monetary and fiscal policy allows for more directed targeting of the stimulus. Instead of the Fed purchasing financial assets from those who already have financial assets, and are thus more likely to be well-off and not in need of support, they could specifically target those who need financial assistance the most. At best, a direct inflow of money to these groups would help diminish wealth inequality and support growth. At the least, it would not accentuate the divide amplified

by quantitative easing. Additionally, such a policy would serve as an effective measure to prevent a potential liquidity trap caused by years of zero interest rates by swiftly expanding the monetary base.

Compared to pure MMT, this policy would limit the potential for runaway inflation, as governments would only enact this policy once, or potentially a few times. One criticism of fiscal policies generally is the long lead time and political drag associated with creating the programs, as well as concerns over deficits, which are all fair and valid. Many of the other criticisms of such a plan are similar to the criticisms of MMT. To be sure, it is a slippery slope when governments inject large amounts of money into the monetary base and when they start handing out funds to their citizens. What is to prevent an opposing politician from promising to continue handing out funds or one-up the current amount in order to win an election? History has demonstrated that when governments gain more power over spending and distributing funds, it is almost impossible to walk back.

Summary

The emergence of MMT onto the political scene has sparked a vigorous debate into the merits and dangers of this heterodox economic doctrine. It has also forced economists and free market advocates to think about and justify whether and why current practices remain valid today and into the future. While we believe it is unlikely that a "pure" form of MMT will ever be implemented, some parts of the policy could be necessary to deal with future economic realities. Globally, debt-to-GDP ratios in developed economies are high and interest rates remain well below historical averages. It is questionable whether or not lowering rates to zero or below in the next recession will be enough to spur growth. Furthermore, wealth inequality continues to expand to the point that many are questioning if the opportunities afforded by capitalism are truly fair.

The continued buildup of such forces may require "out of the box" thinking, and some of the tools advocated by MMT may find their way into the orthodox economist's toolkit. However, history provides clear warnings regarding what transpires when policymakers and economists ignore simple precepts. Policy drift in the US that began in the 1950s, when policymakers prioritized employment over stable inflation, ultimately contributed to excessive inflation in the 1970s. Episodes such as the hyperinflation of the Weimar Republic should also not be ignored. While unconventional policy could gain increasing uptake in the current macro environment, a comprehensive adoption of the MMT approach might not be the best prescription for the economic ailment.

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