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Seismic Shifts in Economic Theory and Policy: from the Bernanke Doctrine to Modern Money Theory

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by

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ABSTRACT

This paper evaluates the relationship between monetary and fiscal policy and the relative effectiveness of macroeconomic stabilization through the lens of Modern Money Theory (MMT). We articulate previously-neglected aspects of monetary sovereignty to offer a new interpretation of the Bernanke Doctrine that emerged in the wake of the 2008 Global Financial crisis. This Doctrine validated key MMT precepts and paved the way for fiscal policy activism in response to COVID19. The paper argues that fiscal and monetary policy coordination is not new or rare. It is an intrinsic feature of sovereign monetary regimes, allowing for more effective policy responses to financial crises or pandemics. To the extent that monetary policy is able to stabilize an unstable economy, it is largely due to its fiscal components. This recognition also calls for a rethinking of fiscal policy.

Keywords: Modern Money Theory, MMT, Bernanke, Great Financial Crisis, history of money, monetary systems, monetary sovereignty, tax-driven money, consolidated government, government debt and deficit, quantitative easing, fiscal components of monetary policy, non-standard Open Market Operations, COVID fiscal relief

JEL Codes: E12, E58, E61, H62, H63

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Introduction

For over a decade now, faith in the effectiveness of monetary policy has gradually waned. Central bankers themselves have called for more active fiscal policies to address economic crises. Stabilization efforts after the Global Financial crisis of 2008 around the world, despite their (at the time) unprecedented size, produced disappointing recoveries. As the world faced the economic fallout from the COVID-19 pandemic, the need for new ideas and policy proposals became ever more acute. This environment opened up space for alternative analytical perspectives, such as those offered by Modern Money Theory (MMT).

The monetary policies employed in the wake of the 2008 crisis (and in particular under the leadership of Chairman Bernanke) unwittingly made the case for fiscal policy activism. Yet, because of a flawed understanding of money and the monetary system, the Bernanke Doctrine had struggled to articulate a way forward both in theory and in practice. In this paper, we trace some of these developments to illustrate how MMT has filled this void.

MMT starts by recognizing that the currency is a simple public monopoly, which points to the fundamental importance of monetary sovereignty. Monetary sovereignty is defined as a situation when:

- a) the national government chooses a money of account in which the currency is denominated;
- b) the national government imposes obligations (taxes, fees, fines, tribute, tithes) denominated in the chosen money of account;
- c) the national government issues a non-convertible currency denominated in the money of account, and accepts that currency in payment of the imposed obligations; and
- d) if the national government issues other obligations against itself, these are also denominated in the chosen money of account, and payable in the national government's own currency. (Wray 2019, p. 5)

Modern monetary systems emerged five thousand years ago out of the needs of governments to plan their economies. Overtime, through legal and forcible means, governments have imposed their vision of a monetary system over areas of their influence and, today, monetarily sovereign governments are in control of their domestic monetary systems. As a consequence, through a routine coordination of monetary and fiscal authorities, typical government finances operate smoothly without usually disrupting the rest of the economy.

Understanding the significance of monetary sovereignty goes well beyond the simple recognition that a government can 'print its own money.' Monetary sovereignty changes our understanding of public finances by articulating the previously-unexamined relation between monetary creation, taxation, and Treasuries issuance. It also changes our understanding of interest rate dynamics, the sustainability of the public debt, the dangers of fiscal deficits, the purpose of taxes, and the way policymakers should budget. Priority should be given to fulfilling

the public purpose without worry over fiscal accounting outcomes that are mostly outside the control of policymakers. MMT emphasizes that monetary sovereignty is a spectrum and some governments relinquish their sovereignty altogether. For monetarily sovereign governments, however, fiscal deficits are not only financially sustainable, they are also the norm. In these cases, careful budgeting should concern itself with the potential resource constraints on the government's ability to spend in the economy, as well as with its distributional effects.

The first part of the paper presents an overview of some of the main points of MMT regarding the inner working of modern monetary systems and addresses common misconceptions about MMT. The second part of the paper shows that monetary policy after 2008 deployed new tools that were largely *fiscal* in nature, paving the way for fiscal policy activism during COVID. The relatively disappointing stabilization results in 2008 were due to an economic policy incoherence that can be remedied with an appreciation of the MMT analytical framework.

Modern Monetary Systems and Monetary Sovereignty

Implementing Monetary Sovereignty throughout Time

The monetary system is an instrument of public and private governance. While the way public governance is implemented has changed through time, the main point remains, a government uses the monetary system to impose dues to compel people to sell resources to the government, to spend by issuing the currency that can be used to pay these dues, to tax to enforce the dues and destroy the currency, and to issue securities to promote financial stability. The way this process is implemented depends on how monetary and fiscal powers are arranged within the governing authority. In the past, it was common for monetary and fiscal powers to be under the single authority of the king (Davies (2002) 147). From the 13th century, a progressive separation of monetary and fiscal powers emerged in Europe as the concentration of financial powers in the hands of the king were contested by other elites (Desan 2014). Over time, monetary powers were delegated to Central Banks but this did not mean that the fiscal authority lost all monetary powers. Not only have Treasuries continued to issue monetary instruments but Central Banks themselves are a creation of the legislature and have had to accommodate, willingly or not, the needs of the fiscal authorities to ensure the stability of the monetary system (Goodhart et al. 1994). As such, throughout history, Central Banks have had a close routine working relationship with their respective Treasuries, although the form of this relationship has changed with economic and political circumstances. Today the Central Bank is involved in fiscal policy and the Treasury is involved in monetary policy. Ultimately, the financial operations of the Treasury and the Central Bank are so intertwined that both of them are constantly in contact to make fiscal and monetary policy run smoothly. They must work together because they are two sides of the same coin, the national government (MacLaury 1977; Felipe et al. 2020; Tymoigne 2014; Sundararajan, Dattels, Bloomestein 1997; Silva and Richard 2010; Allen 2019).

In terms of central-bank involvement in fiscal policy, most early Central Banks were created to provide direct financial support to the Crown, but the growth of democracy was accompanied by a growing reluctance to allow such direct financing (Goodhart et al., 1994), with exceptions made for times of crises. However, in normal circumstances, the Central Bank is still deeply involved in the finances of its national Treasury. First, it may provide a reliable refinancing channel to the Treasury. Second, the Central Bank makes sure that primary dealers, who must submit reasonable bids during an auction of Treasuries, have the funds they need to

ensure that the auction is successful. Third, some Central Banks, such as in Canada, are still allowed to finance their Treasury directly (Lavoie 2019).

In terms of the Treasury's involvement in monetary policy, the Treasury manages the public debt and its various bank accounts in a way that helps to promote financial stability. For example, the Treasury may change the level and structure (proportion of short-term vs. long-term securities) of the public debt at the request of the Central Bank in order to accommodate the needs of monetary policy. Beyond helping the Central Bank achieve its interest-rate target, the Treasury may issue securities in order to help financial institutions meet their capital requirements and have default-free liquid interest-earning financial assets. Treasury departments have done so even when they were running fiscal surpluses.

Implications of Monetary Sovereignty

There are several major implications from taking seriously monetary sovereignty, not only in terms of understanding public finances, but also in terms of their impact on the economy. MMT reconsiders the role of taxes, Treasuries issuance, and monetary creation. It also offers new perspectives of the fiscal balance and fiscal dynamics, and new criteria for evaluating budgetary proposals.

Critics dismiss MMT as either self-evident or dangerous. Everybody knows that a government can use monetary financing, the argument goes, but the problem is that it is inflationary. Critics claim that a government must choose between bond issuance and tax finance, and the latter option is a sounder financing alternative because it avoids the crowding out effect. This view of public finances is tied to a political narrative that prioritizes PAYGO rules, which instructs that every new proposed spending is to be offset by tax increases or other spending cuts to ensure that the proposed policy is 'budget neutral'. Budgetary agencies such as the Congressional Budget Office then judge the validity of these proposals based on their impact on the public debt. A bad score is a sure death sentence for a proposal (Kelton 2020).

MMT rejects the narrative and the theoretical framework on which these considerations are based. When thinking of the government as a whole—with the Central Bank and Treasury combined—it is not that the government *can* use monetary financing, but rather that it *must*. This is probably one of the most misunderstood aspects of MMT, despite the fact that the use of a consolidated view of government is quite common throughout different frameworks of economic analysis (e.g., Sargent and Wallace 1981; Sims 1994; Bassetto and Sargent 2019) and among policy makers (e.g., Bernanke 2019). Monetary creation, bond issuance, and taxes are not substitutes; they are complementary financial operations. Figure 1 presents the balance-sheet implications of thinking in terms of a consolidated government. The Treasury and Central Bank have an independent balance sheet each, but thinking in terms of 'the United States', 'we' or the 'federal/national government' implies merging the two government entities into one balance sheet. The immediate implication of such a consolidation is that the claims, which these government entities have against each other, disappear. The Treasury General Account (TGA)—the bank account of the Treasury at the Central Bank—disappears. Treasuries held by the Central Bank cancel out and the public debt only includes government securities held by the non-federal sectors (households and non-profit organizations, state and local governments, businesses, rest of the world).

Figure 1. Consolidated Government

Treasury	
Assets	Liabilities and Net Worth
Physical assets	Treasuries held by the central bank
Financial claims on the non-federal sectors	Other Treasuries
Treasury's general account (TGA)	Net worth

Central Bank	
Assets	Liabilities and Net Worth
Physical assets	Monetary base
Financial claims on the non-federal sectors	Treasury's general account (TGA)
Treasuries	Other liabilities
	Net worth

Federal Government	
Assets	Liabilities and Net Worth
Physical assets	Monetary base
Financial claims on the non-federal sectors	Other liabilities
	Net worth

A feature of such a balance sheet is that the federal/national government does not have any money. Its asset side does not include any government monetary instruments denominated in the domestic unit of account. The monetary base is a liability of the federal government, not its asset. The government spends by crediting the reserve account of the seller's bank (monetary base goes up) and the bank credits the account of the seller. When the government enforces tax payments, it orders banks to debit the bank accounts of taxpayers and the impact on the balance sheet of the government is to lower the monetary base (bank reserves – the government's liabilities – fall), as well as to raise the government's net worth (or lower the tax dues on the asset side of the government, if such dues are on the balance sheet).

The national government does not earn any money from tax payments; tax revenues do not increase the financial ability of the government to spend. Even so, taxes do play a crucial role to maintain the stability of the monetary system by maintaining a demand for the national currency, as explained above. In addition, tax payments logically cannot occur before government injects the national currency through purchases, credit provision, grants or other channels because the latter injects the monetary base that is later destroyed through taxation. Similar conclusions can be reached for bond issuances: the issuance of government securities does not finance the government but rather changes the liability structure of the government by reducing non-interest earning liabilities (monetary base) and increasing interest-earning liabilities (government securities). While no fund is gained on the asset side, government securities still do play the important role of promoting financial stability as explained above.

Finally, MMT rejects the terminology of “deficit financing”, “deficit spending”, or “monetizing deficits” when applied to a consolidated government that is monetarily sovereign. All government expenses are financed by monetary creation and the enforcement of tax payments merely returns the domestic currency to the government. The fact that government spending is greater than taxes does not represent a shortage of funds that the government must find somewhere else. It merely represents a net injection of funds in the non-federal sector that such sector can use to buy government securities or to hoard.

Thus, where MMT departs from other schools of thought is not in the use of a consolidated government, but rather in fully understanding its implications in terms of the role of monetary creation, taxation, and bond issuance. MMT changes our understanding of public

finance. Spending and credit provision come first for a currency issuer, while tax collections and bond sales come later. Taxes and bond sales do not finance the government but help to meet important economic goals such as interest rates stability, price stability, and financial stability. This understanding of public finances complements the tax-driven view of monetary systems.

To clear up a big misconception about MMT, none of the above means that monetary sovereignty requires direct monetary financing of the Treasury to work. All that is sufficient is a strong coordination between the Central Bank and the Treasury as explained above. Similarly, MMT does not depend on using consolidation to reach its conclusions, as similar results can be reached when the analysis is complicated to account for the separation of the Treasury and the Central Bank (Tymoigne 2014).

Beyond the understanding of public finances, MMT concludes that the fear of fiscal deficits is overstated and misplaced. Fiscal deficits are normal and sustainable, and the effect of spending and taxing should be judged by their impact on inflation, full employment, financial stability, and other aspects of the public purpose. It is improper to judge the fiscal position in relation to its financial sustainability or fear of ‘running out of money,’ aka insolvency. A monetarily sovereign government issues and controls the currency, and thus cannot involuntarily default on a public debt denominated in its own currency. This does not mean that a government can, or should, spend whatever it wants or however it wants. The Congressional Budget Office ought to judge the merits of a spending proposal on the basis of its feasibility (are real resources available to implement the proposal?) and its ability to fulfill the public purpose (are there alternative superior spending proposals?).

One of the stylized facts of macroeconomics emphasized by MMT is that when the federal government is in deficit, the private sector is typically in surplus (grey area in Figure 2). Figure 2 shows the relative position of different countries during different periods since 2000, with respect to their sector balances. While Figure 2 only shows the most recent twenty years, chronic fiscal deficits have been a stylized fact for decades. In the United States, the federal government has recorded fiscal deficits almost continuously since the 1930s, prior to which its fiscal position was approximately balanced but slightly in deficit on average (Tymoigne 2019). During the 20th century, fiscal policy came to play a much bigger role in smoothing the business cycle, which has made the fiscal position dependent on forces outside the control of policymakers. To some degree, the legislative branch can control the size of the fiscal position by determining the tax structure and setting discretionary government spending. However, most of government spending and tax receipts are *not* discretionary but rather dependent on the state of the economy and legal requirements. Tax revenues are highly procyclical while government spending is countercyclical in countries where social security benefits and welfare payments are strong. As such, if an expansion lasts long enough, a fiscal deficit may turn into a surplus, while in a recession the fiscal position will turn rapidly into a deficit (2010-2015 average in Figure 2). Thus, while Reinhart and Rogoff (2009) argue that a high public debt slows economic growth, the causality is actually the reverse; slower economic growth causes higher deficits that rapidly raise the public debt (Taylor et al. 2012; Nersisyan and Wray 2011).

spending level. As national income changes, automatic stabilizers will move the fiscal balance to a level consistent with the net saving desires by the non-federal sectors.

None of the above means that MMT proponents actively encourage governments to run fiscal deficits. MMT is agnostic about the fiscal position as long as monetary sovereignty prevails; instead, MMT proponents focus on the implications of the fiscal position for the economy as a whole. The proper conclusion is that the monetary sovereign gains one degree of freedom in the tight rules of national accounting. It allows the fiscal balance to match whatever non-federal sectors desire to net save, and since they usually desire to be in a surplus position, the federal government must incur a corresponding deficit. Such deficit is sustainable as long as monetary sovereignty prevails. Government policies should not set a direct or indirect goal of achieving any specific fiscal balance because such policy goal is unachievable and counterproductive. The government should let its fiscal balance move automatically to whatever it needs to be in order to accommodate the desires of the other sectors, while at the same time watching for sources of financial instability should the domestic non-federal sectors deficit spend (Tymoigne and Wray 2014).

Since fiscal deficits are customary and sustainable when monetary sovereignty prevails, the next question to consider is about their impacts on the economy. The ‘sound finance’ view is that growing public deficits and debts are undesirable because they increase interest rates, slow economic growth, and raise inflation along with the prospect of higher future tax rates. Even a casual look at the evidence shows that these concerns are not warranted and that these a priori beliefs should be reversed.

First, fiscal deficits sustain private incomes by injecting more funds in the economy through spending than are removed through taxes. Countercyclical fiscal deficits sustain private investment by stabilizing aggregate profits and expected sales, which are the main drivers of business investment and growth. Second, the fiscal balance has little to do with interest rates when monetary sovereignty prevails. When the government deficit spends, it injects monetary base in the system and pushes interest rates down. To neutralize this effect of the fiscal deficit, the government (either through the Treasury or the Central Bank) issues securities so that policy rates stay on target. As a consequence, there is no relation between the fiscal position and interest rates. Instead, the key driver of all interest rates (private or government) is monetary policy (Sharpe 2013; Borio et al. 2017; Akram and Li 2020). This implies that interest rates on the public debt are a policy variable instead of variables determined by market forces (Fullwiler 2020).

Third, one must recognize that the public debt will never be repaid. There is no reason to do so, and doing so would be harmful to the finances of non-federal sectors for the reasons provided above. We have not been burdened with higher tax rates to repay the public debt created at the time of our grandparents, and our children and grandchildren will not be burdened by higher tax rates to repay the public debt created today. We may raise tax rates in the future but not with the goal of repaying the public debt. Policymakers should set tax law and propose spending plans in order to fulfill the public purpose rather than to close the budget. Determining the public purpose is a political decision but MMT sees value in having a government that promotes at least full employment and price stability (Forstater and Tcherneva, 2004), although there are other major issues which the government can, and should, help address. The public debt will keep rising to accommodate the needs of a growing economy and the government will keep paying it on time as long as it is monetarily sovereign.

The Mainstream Conundrum

In addition to providing an alternative view of public finance, the MMT analytical framework offers a new perspective on monetary policy and its effects. Contrary to the conventional “crowding out” view, government spending creates net new financial assets for the private sector, and therefore produces a “crowding in” effect. Deficits increase reserve balances in the banking system, thereby exerting downward pressure on the overnight interest rate (not upward pressure, as in the mainstream view). Barring any response from the Central Bank, the overnight rate would tend to its natural level, which is zero (Forstater and Mosler 2005). The downward effect of government spending on interest rates was more easily detectable prior to 2008, when excess reserves in the banking system were relatively small (Bell & Wray 2003). Once Quantitative Easing flooded the banking system with reserves and the overnight rate declined, it masked the interest rate effect of fiscal policy. Nevertheless, the interest rate continues to remain a policy variable. The Federal Reserve continues to set short rates and could act as a market maker for long-term securities as well (even though it chooses not to), taking a firmer control over the long end of the yield curve.

The key point is that coordination happens at all times in monetarily sovereign nations without compromising Central Bank independence, understood as the ability of the Central Bank to set interest rate policy independently from any political body. In terms of operations, however, there is no meaningful independence one could speak of and coordination always takes place in order to maintain the full faith and credit of the government, help set monetary-policy rate(s), maintain interest-rate stability, and ensure that all government payments clear and any security the government wishes to sell has found a buyer.

Understanding these differences between MMT and the conventional view helps clarify some of the seismic shifts in economic policy that have occurred since the 2008 financial crisis. The remainder of the paper discusses how the actions of the Federal Reserve during the 2008 crisis under the leadership of then-chairman Ben Bernanke, broke with traditional economic theory and policy. MMT sheds a unique light on the effectiveness of Central Bank actions during the Great Financial Crisis and illustrates that, to the extent that monetary policy was effective in stabilizing a global economy that was in a freefall, it did so by assuming largely fiscal functions (Tcherneva 2011). Bernanke calls these ‘fiscal components’ of monetary policy, but for MMT, operationally, those components are not substantively different from other traditional fiscal policies. The meaningful difference is in their respective economic effects. Understanding this operational reality raises an important question: is there a better way for a government to deploy its sovereign monetary powers for the purposes of macroeconomic stabilization.

The Bernanke Doctrine

The Bernanke Doctrine (also known as alternative monetary policy) is the concert of measures that Fed chair Ben Bernanke implemented in the aftermath of the 2008 financial crisis. He pursued these measures based on his analysis (and critique) of stabilization efforts by the Bank of Japan in the 1990s (Bernanke 1999). Perhaps the most important and underappreciated outcome of the Bernanke Doctrine that it unwittingly made the case for fiscal policy activism.

Today, macroeconomic management via fiscal policy is hardly a radical proposition but it was certainly not a foregone conclusion in 2008. Orthodox theory had for decades claimed that, due to Ricardian Equivalence, fiscal measures are entirely moot. By contrast MMT insisted that despite its extraordinary size, monetary policy would not deliver the swift and robust growth everyone expected, nor would the rapid expansion of the Central Bank balance sheet cause

inflation or hyperinflation (the most frequently raised alarm from private investors). And indeed, neither rapid growth, no hyperinflation followed. As MMT argued, Quantitative Easing was a simple asset swap of government liabilities (reserves and government securities), the explosion of reserves was not ‘chasing any goods’ to cause inflation, and bank lending was neither reserve constrained, nor reserve enabled (Fullwiler 2020). MMT also insisted that fiscal policy should do the heavy lifting to produce robust employment growth, but that traditional Keynesian pump priming measures were inadequate (Tcherneva 2012; Tymoigne 2010).

The Bernanke Doctrine provided a particular assignment to fiscal measures, which we will evaluate next from an MMT perspective. We will consider why the aggressive monetary policy response ended up producing the longest jobless recovery in post war history, in contrast to the swift recovery that followed COVID-related fiscal measures. We will then return to new ways of conceptualizing fiscal policy space that point to policy alternatives along MMT lines.

The importance of Bernanke’s analysis of the Japanese case before he took the helm of the Fed, cannot be overstated. It offers the clearest statement in the shifting mainstream view on the question of if and how Central Banks could boost aggregate demand and inflation in a severe deflationary episode. Bernanke starts with clearly articulating the problem that Central Banks have “no unilateral authority to rain money on the population” (1999, p. 22). This recognition, along with the gradual and reluctant acceptance by central bankers after the Volker experiment, that the only tool under their control are interest rates and not monetary aggregates (Tymoigne 2009), amount to an effective reversal of the long-standing Monetarist doctrine.

For Bernanke, the central question was how could a Central Bank boost aggregate demand in a near-zero interest-rate environment and without Friedman’s helicopter. His solution comprised of four distinct policy measures rooted in an explicit acknowledgement of existing monetary-fiscal coordination.

Under a fiat (that is, paper) money system, a government (in practice, the Central Bank in cooperation with other agencies) should always be able to generate increased nominal spending and inflation, even when the short-term nominal interest rate is at zero... (Bernanke 2002)

For MMT, the four anti-deflationary/pro-growth tools that constitute Bernanke’s doctrine, are only available to nations with monetary sovereignty. The salience of this observation extends beyond Bernanke’s familiar quote that “The U.S. government has a technology, called a printing press (or, today, its electronic equivalent) that allows it to produce as many U.S. dollars as it wishes at essentially no cost.” (ibid.) It suggests macroeconomic stabilization via four distinct transmission mechanisms.

The Tools

Three of the four monetary policy tools that Bernanke proposes contain fiscal components. The first, which does not, is forward guidance – a commitment to a low interest rate environment to anchor expectations. Forward guidance is a communications strategy. It aims to convince market participants that low interest rates would prevail long enough to induce new investments. The second tool for boosting aggregate demand are open market purchases of foreign currency that would prompt domestic currency depreciation to increase external demand

for domestic product. The third tool involves two aspects: 1) affecting the term structure of interest rates through standard and non-standard open market operations (OMOs) and 2) setting a floor on falling financial asset prices – thus stabilizing the balance sheets of distressed financial institutions – through lending against or purchasing a wide range of assets (also non-traditional OMOs). The fourth and final tool is to directly increase the cash balances in the hands of the public, with the expectation of boosting aggregate spending and investment.

In these four core pillars of the Bernanke Doctrine, all measures except forward guidance involve a fiscal component of monetary policy, whereas forward guidance itself can only be effectively accomplished if the Fed acts as the market-maker for U.S. Treasuries allowing it to hit a specific short or long interest rate target. We now consider the manner in which the Central Bank operationalizes each of these four tools.

1) Forward Guidance: Zero Rates with an Inflation Target

Much in the assumed effectiveness of monetary policy hinges on the bully pulpit of the Central Bank. According to Bernanke, Fed announcements can affect the term structure of interest rates through the expectations channel. It is noteworthy that, while Bernanke strongly favored inflation targeting in his academic work, as a policy-maker he did not embrace the tool. Perhaps he appreciated that as a practical matter, the Fed should not promise an inflation rate it cannot deliver.

This is the essence of forward guidance: a policy of informing market participants of the policy intentions of the Central Bank. While Bernanke himself calls it “cheap talk,” he places considerable faith in the tool for affecting outcomes. For MMT, talk is not only cheap, but also impotent, unless accompanied by concrete steps to lower both the short and long end of the yield curve (see below). Setting short rates is standard monetary policy, but lowering long term rates requires additional measures, which proved more elusive for the Fed as we discuss below. More importantly, for MMT, neither better communication nor better control of the yields curve, are sufficient conditions for boosting aggregate demand.

2) Currency Depreciation

Bernanke had suggested that Central Banks could fight deflation via currency depreciation, but warned that it should be avoided (1999), as it could be pursued simultaneously by several countries. In his discussion about currency depreciation, however, he made a key and overlooked point: the *legal* authority for open market sales or purchases of currency rests with the *fiscal* authority (the Ministry of Finance in Japan or the Treasury in the US), not with the Central Bank. Should the Central Bank engage (for whatever reason) in buying or selling foreign currency, it must always clear those plans with the Treasury and obtain the necessary authorization first. There is no obstacle to this type of coordination, which as MMT points out is ongoing. Because it largely happens behind closed doors, it is perceived it as an aspect of monetary policy ops, even though it is done on behalf of the fiscal authority. Bernanke calls this a ‘fiscal component’ of monetary policy, but from an MMT perspective when the Central Bank buys any financial asset (in this case, foreign currency) on behalf of the Treasury, it is no different than buying any real assets (infrastructure, military equipment), which would typically be considered conventional fiscal policy.

3) Non-standard Open Market Operations (OMOs)

Non-standard open market operations are the third stabilization lever. They are undertaken with two goals in mind: first, to lower the long end of the yield curve and second, to put a floor on falling asset prices more broadly. We discuss them in turn.

3.1) Yield curve management

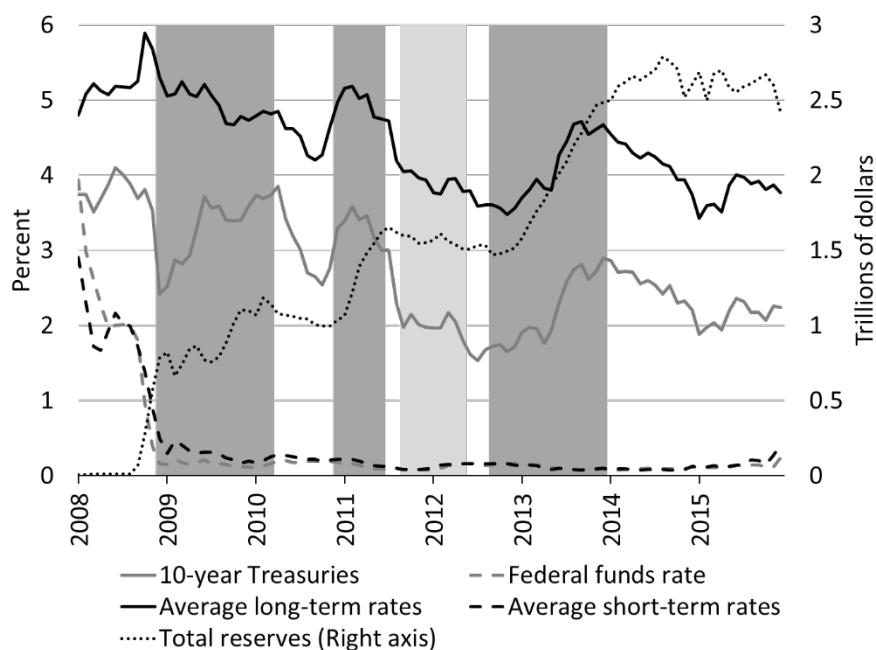
Bernanke argued that government can affect yields quite directly by buying financial assets at will and without restraint:

To claim that nonstandard purchases would have no effect is to claim that the Central Bank could acquire all of the real and financial assets in an economy with no effect on prices or yields. (Bernanke 1999, p. 24)

Yet Operation Twist (the policy of selling short-term securities and purchasing long term dated Treasuries) was largely unsuccessful as it brought the long-term yield a mere 15 basis points with almost negligible effect on corporate debt and mortgage rates (Swanson 2011). From an MMT perspective, the reason for these disappointing results was largely that the Fed operated on a fixed quantity rule, rather than a fixed price rule. It fixed the quantity of the budget it allocated to these purchases (\$600 billion), allowing the market to determine how much it would sell to the Fed and at what price. Had the Fed operated on a fixed price rule, i.e., declaring that it would buy as many long-term Treasuries as were necessary to bring yields down to desired levels, it could have set the long-term interest rate in much the same way it used to set short term rates, i.e., by buying (or selling) those securities on demand.² Operation Twist left the 10-year Treasury yield essentially unaffected. But as the Figure 3 shows, that yield was also rising during some of the QE rounds, which was the opposite of the desired effect of forward guidance. The Fed had not used all tools at its disposal to set long term rates.

² In 2008, the Fed switched to paying interest on reserves directly.

Figure 3. Quantitative Easing (Dark-grey bars), Operation Twist (Light-grey bars), Federal funds rate and interest rates



Source: Board of Governors of the Federal Reserve System (Series H. 15) and Wikipedia (History of Federal Open Market Committee actions)

3.2) Stabilizing asset prices

A Central Bank can stabilize asset prices by either lending against or purchasing a wider range of financial assets than were previously permitted under conventional OMOs (for example, long-term government or corporate bonds, asset-backed securities, or commercial paper). Accepting them as collateral would help stabilize their prices, but purchasing them represents an implicit subsidy (in Bernanke's words, a 'gift') to the private sector and thus contains a 'fiscal component'. This subsidy should (in his view) increase aggregate demand via the wealth effect channel.

From an MMT perspective, one way to distinguish between monetary policies with or without fiscal components is to ask whether or not they increase the *net* financial assets held by the private sector. When the Fed purchases Treasuries through QE or Operation Twist, it only changes the liability structure of the Fed and the composition of private net wealth by swapping one default-risk-free government liability for another (government securities and monetary base). When the Fed lends against distressed assets, there is no increase in net financial wealth (for all newly injected reserves there is a corresponding loan from the Fed). When the Fed purchases non-performing assets (e.g., MBS), it increases the net financial wealth of the private sector by exchanging what is essentially a zero-fair-market-value asset for a positively-priced, default-risk-free asset (reserves). Bernanke recognized that this would be the "equivalent to a fiscal bailout of the banks, financed by the Central Bank" (ibid. p. 23).

Permanent outright purchases of private sector liabilities (non-standard OMOs) are monetary policies with a fiscal component also because the Fed does not have the authority to buy these assets without a congressional approval. Indeed, Congress had to authorize a specific budget before TARP I and TARP II could proceed. While the Fed may hold the ‘electronic printing press’, it cannot spend at will without the go-ahead from the fiscal arm. As is the case with foreign exchange operation (FXOs) above, the acquisition of private assets by the Fed is under the legal jurisdiction of Treasury.

The Fed faces no technical limit in financing standard and non-standard OMOs, FXOs, or any other government policy for that matter. This is a key MMT point, which Bernanke corroborated when arguing that the Federal Reserve “does not use tax money” for these programs but it simply “uses the computer to mark up the size of the account” (Bernanke 2009). The purchases of MBS, CDOs, or AIG assets, may not have been the best mix of assets that the Fed ended up supporting. Instead, to stem the decline in housing prices, it could have purchased the actual mortgages or the homes themselves (much like the Home Owner’s Loan Corporation (HOLC) did during the Great Depression). Arguably, this would have been more effective in stemming mortgage defaults and foreclosures. It is interesting that Bernanke relied largely on non-standard OMOs, considering his view that:

Nonstandard open-market operations with a fiscal component, *even if legal, would be correctly viewed as an end run around the authority of the legislature*, and so are better left in the realm of theoretical curiosities (Bernanke 1999, 24, emphasis added).

In other words, for this central banker, non-standard operations were decidedly inferior to other policy alternatives. It was also unnecessary, as a government had a fourth tool for boosting aggregate demand, what Bernanke called “money-financed transfers” (Ibid., 162).

For Bernanke, the superior policy option would be for the Fed to provide money-financed fiscal transfers to households. Think of the U.S. Treasury sending pandemic checks to every eligible household, as it was done under the CARES Act in the U.S. in 2020 in response to COVID. Most US households received a \$1200 check, while the unemployed received \$600/week supplements to their standard unemployment insurance benefit. Every deposited pandemic check in a bank account is automatically cleared by the Fed. This process creates net new financial wealth in the private sector (an increase in deposits), which the recipients can use to boost spending and investment. The impact on aggregate demand is through stabilizing household and firm cash flows, rather than bank balance sheets. As we explained above, the resulting and unprecedented government deficit was accounted for dollar-for-dollar by the large surpluses in the private domestic and foreign sectors.

The difference between Bernanke’s position and the MMT view is that what he calls “money-financed transfers” are net fiscal transfers or fiscal policy proper (not ‘monetary policy with a fiscal component’) as the Fed cannot engage in such operations discretionarily. And even though the “money-financed tax cuts” earned Bernanke the moniker “Helicopter Ben,” MMT has clarified that this policy tool (including COVID-related pandemic checks) do not constitute some unusual “money printing” measure and there is no process of “monetization” to speak of (see

Felipe, J. et al, 2020). Financing these policies is operationally identical to financing any other act of Congress, whatever the size of the expenditure. Each policy has to come from Congress. The Fed can neither initiate, nor decline to make the payments. The budget represents the political limit Congress imposes on the Fed but since the Fed makes these payments by issuing its own funding (reserves), there are no operational limits to financing *any* government program (asset purchases, pandemic checks, infrastructure investment) that Congress has chosen to pursue.

In response to the pandemic, the Fed again used its lending programs to prevent a liquidity crisis but did not resort to outright purchases of distressed assets, which would have required a separate act of Congress. Instead, despite partisan wrangling, the 2020 Congress focused on large fiscal transfers that dwarfed anything that was attempted during the 2008 recovery. A new round of stimulus checks and unemployment insurance supplements followed in 2021. Congress passed a stimulus package equal to 26.9% of GDP, unprecedented in size during postwar US history, and the Fed cleared all checks. No threat of default or insolvency, no endangering of future generations, no change in monetary and fiscal policy operations, just a larger budget and a lot more government spending. The experience illustrated the inherent and ongoing coordination between the fiscal and monetary arms of government and the financial capabilities of monetarily sovereign countries.

Lessons from the Bernanke Doctrine and COVID fiscal relief

In the midst of a chaotic 2008 crisis, the Fed's policy response seemed to be *ad hoc*, but it was nothing of the sort. It was a partial application of a recipe to tackle deflation articulated earlier by Bernanke. The recipe is now part of the permanent policy toolkit of Central Banks. Policy makers did not wait to experience another potential Lehman Brother's event triggered by COVID or an economic depression as a consequence of mass business closings (St. Louis Fed President James Bullard had forecasted unemployment reaching 30% without government support). Both monetary and fiscal policy responded aggressively. But it was the aggressive fiscal response that was largely responsible for the quick recovery in growth and labor markets, in contrast to 2008 where the Bernanke Doctrine led the recovery efforts.

Underappreciated is the fact that the COVID response was a result of Bernanke's own Doctrine, which was not-so-subtle aggressive application of fiscal policy. One interpretation of the Bernanke Doctrine (often found in mainstream theory) is that the Fed temporarily abdicated its independence to coordinate with fiscal policy, in order to reach its objectives. MMT argues that there is no such abdication. Coordination and operational interdependence are a perennial stylized fact of a sovereign monetary system. From here we can conclude, that the "alternative monetary policy measures" are in fact *enabled* by fiscal policy. Fiscal policy supports monetary policy, not the other way around. Furthermore, effective anti-deflationary or macroeconomic stabilization policy must contain a clearly articulated fiscal response by Congress, which is then financed by the monetary authority. This is one reason why MMT assigns greater policy effectiveness to traditional fiscal measures.

Bernanke preferred "money-financed tax cuts" to the Fed's purchase of foreign currency or toxic financial assets, and indeed that is precisely the route the US took during the pandemic. For MMT, these 'fiscal components' (money financed transfers, pandemic checks, and increases to unemployment insurance) represent a rather narrow universe of fiscal measures that could be

employed to tackle the economic challenges before us—unstable incomes and employment, economic insecurity and the climate crisis to name a few. Indeed, there is no operational difference between the Fed financing the purchases of toxic financial assets, the clearing of Treasury pandemic checks, or any other policy that is passed by Congress for any purpose. In each case, government spending provides cash flows and income to the non-government sector. The manner of spending will then determine the relative employment effect from each policy. If spending is more carefully targeted to the unemployed or households at the bottom of the income distribution, the income effect of government spending will produce a stronger employment effect (Tcherneva 2014).

Bernanke's Doctrine made one thing clear—the Fed has no helicopter—it can only rain money on the population via its fiscal components, or as Fullwiler (2010) had put it “helicopter drops are fiscal operations”. Emboldened fiscal policy and large COVID-relief packages, along with Bernanke's own doctrine, unwittingly provided incontrovertible evidence for some of the fundamental MMT precepts (Tcherneva 2022): finance is not ‘scarce’ and targeted fiscal policies deliver stronger employment effects. There are no financial limits to funding government programs, be they fiscal components of monetary policy or a large CARES Act. None of the past large-scale expenditures (financing endless wars or tackling the 2008 crisis) diminished the US government's financial capacity to pay for the COVID response. There are institutional, political and real resource limits, but funding is not one of them. The Fed and the Treasury coordinate to meet all government payments at all times. It is worth pointing out however that, while the actual policy responses following the COVID pandemic largely validated MMT's claims about monetary and fiscal operations, fiscal deficit and public debt, they did not conform to the policy prescriptions for macroeconomic stabilization typically found in the MMT literature, such as the federal job guarantee. (Tcherneva 2020, Nersisyan and Wray. 2022)³

It is hard to draw any other conclusion from the rationale behind the Bernanke doctrine: it helped pave the way toward renewed fiscal activism. And indeed, in a recent reformulation of the doctrine, Bernanke more explicitly recognizes the need for “greater reliance on fiscal policy for economic stabilization” (Bernanke 2020).

MMT's contribution has been to shed light on the policies that the world was observing and the operational interdependence between monetary and fiscal policy when financing them. More significantly, by focusing on the nature monetary sovereignty and the tax-imperative behind fiat currency, MMT has shed a new light on why and how fiscal policy was still in the driver seat, and on insisting that there is a broader range of fiscal options policymakers should consider. Today in the midst of COVID, fiscal policy moves full steam ahead. It is not enough to recognize that the U.S. government can finance itself with its own resource. Understanding the

³ Similarly, while Bernanke's extraordinary measures may constitute a new doctrine in monetary policy today, they are hardly novel. Long before Bernanke, John Maynard Keynes (1930) proposed in the *Treatise on Money* (1930) that open market operations could be carried out “à outrance ... in the event of the obstinate persistence of a slump” (Vol II, 370-371, quoted in Kregel 2011). This however, was a position he eventually rejected in the *General Theory* (1936), having become convinced of the ineffectiveness of such measures, including large-scale asset purchases, for reviving effective demand. Keynes, not only assigned greater policy effectiveness to fiscal, but specifically elevated direct public action, including the creation of public sector jobs and public fixed investment for the purposes of macroeconomic stabilization. (Kregel 2011)

origin and nature of money as a creature of the state, the fundamentally different assignment of taxes and borrowing behind the sovereign currency, the institutional and legal aspects of sovereign currency systems, and the ongoing policy coordination, all lead us to ask fundamentally different questions about public spending, macroeconomic stabilization, and the public purpose. To produce better answers, we first require a better understanding of the monetary system and monetary and fiscal operations.

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Figure 1. Consolidated Government

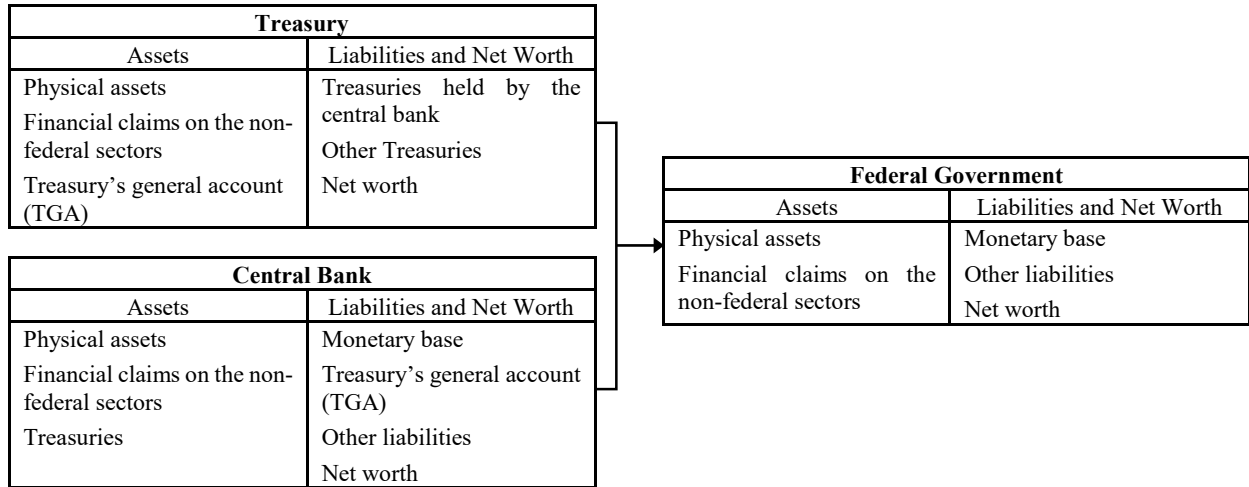
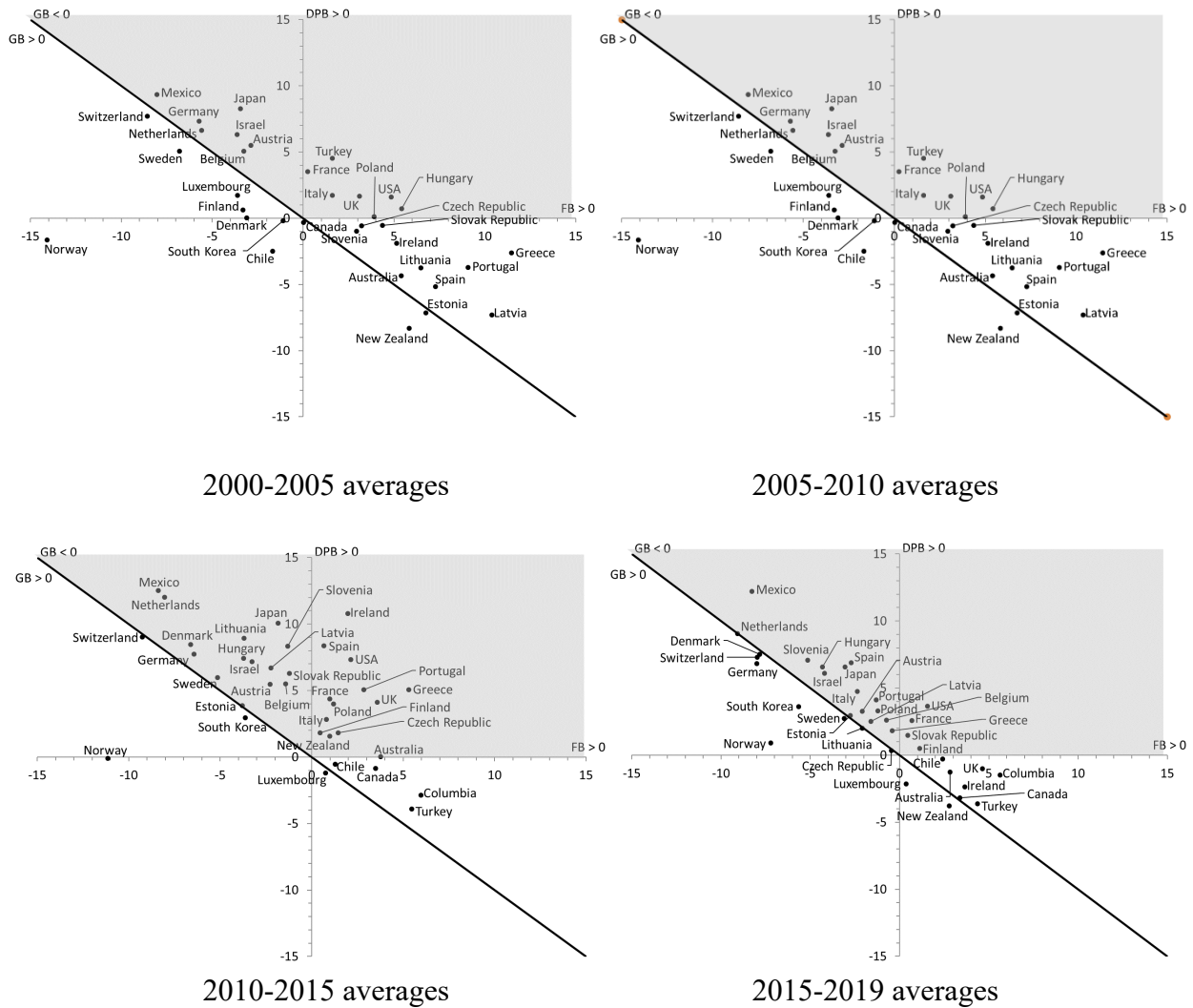


Figure 2. The Macroeconomic Identity among OCED countries, Percent of GDP



Source: OECD (“National Accounts at Glance”)

NOTE: GB means government balance ($T - G$), DPB means domestic private balance ($S - I$) and FB means foreign balance (CAB_F). $GB = -(DPB + FB)$.