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Working Paper No. 996

Seven Replies to the Critiques of Modern Money Theory

by

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Levy Institute
and
Lewis & Clark College

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ABSTRACT

Modern Money Theory (MMT) has generated considerable scrutiny and discussions over the past decade. While it has gained some acceptance in the financial sector and among some politicians, it has come under strong criticisms from all sides of the academic spectrum and from conservative political circles. MMT has been argued to be both fascist and communist, orthodox and heterodox, dangerous and benign, unworkable and obvious, and unrealistic and clearly nothing new. The contradictory aspects of the range of criticisms suggest that there is at best a superficial understanding of the MMT framework. MMT relies on a well-established theoretical framework and is not inherently about changing the economic system; it is about changing the policymaking praxis to implement a given public purpose. That public purpose can be small or large and can be conservative or progressive; it ought not to be narrowly determined but rather should be set as democratically as possible. While MMT proponents tend to favor a public purpose that deals with what they see as major drawbacks of capitalist economies (persistent nonfrictional unemployment, unfair inequalities, and financial instability), their policy proposals do not lead to a major shift of domestic resources to the public purpose. If a major increase in government spending is implemented, MMT provides some guidance on how to do that in the least disruptive manner by drawing on past economic experiences. The point is to implement the public purpose at a pace that recognizes the potential constraint that comes from domestic resource availability and potential inflationary pressures from bottlenecks, rising import prices, and exchange rate depreciation, among others. In most cases, economies have more flexibility than what is admitted. In all cases, when monetary sovereignty prevails, the fiscal position and the public debt are poor metrics for judging the viability of a public purpose and its pace of implementation.

As such, applying MMT to policymaking does not mean that a government ought to be encouraged to record fiscal deficits or that the relation between the central bank and the treasury ought to be radically changed to allow direct financing. The fiscal balance is not a proper policy goal because it leads to irrelevant or incorrect policymaking and because it is largely outside the control of policymakers. The financial praxis of monetarily sovereign governments already conforms to MMT. Central banks and treasuries routinely coordinate their financial operations. Some governments have allowed direct financing of the treasury by the central bank; others have

not but have developed equivalent ways to coordinate their fiscal and monetary operations that work around existing political constraints. Such routine coordination ensures an elastic financing of government operations that at least deals with domestic resources and is not intrinsically inflationary.

KEYWORDS: Modern Money Theory (MMT); Post-Keynesian Economics; Inflation; Economic Growth; Public Finance; Policymaking; Public Debt; Fiscal Deficit; Fiscal Policy; Monetary Policy

JEL CLASSIFICATIONS: B52; E12; E31; E32; E42; E51; E52; E61; O1; O4

AN INTRODUCTION TO THE CRITIQUES

Since the mid-1990s, Modern Money Theory (MMT) has gone through the different parts of the adage “First they ignore you, then they laugh at you, then they fight you, then you win.” The fruit of a collaboration between some Post-Keynesian economists and a bond trader named Warren Mosler—which started following discussions on the now defunct “Post-Keynesian Thought” listserv—the framework first developed quietly and largely ignored as a subset of the economics field (Wray 1998, 2003a, 2003b, 2003c; Mosler and Forstater 1999; Mosler 1997; Mitchell 1998; Forstater and Mosler 2005; Mitchell 2001; Mitchell and Mosler 2002; Mitchell and Muysken 2008; Mosler 2010; Bell 2000; Bell and Wray 2002; Bell 2001). People in the financial world were the first to be receptive because MMT connected with their daily observations; some aspects of MMT are now at the core of the analytical framework of major financial institutions (Klein 2019; Cohen 2019). In the US political sphere, MMT has gained the ears of some Democrats and Representative Yarmuth has explicitly used MMT when chairing the House Budget Committee (Dmitrieva 2019; Fitzpatrick 2019; Yarmuth 2021). On the other side of the aisle, Republican senators and representatives have found MMT to be so dangerous that they have passed resolutions to condemn it, probably a first for an economic theory (US House 2021; US Senate 2021). In the academic sphere, as one may expect, recognition has been more subdued and slow, but there have been some gains in terms of understanding the relevance of monetary sovereignty as an analytical tool, and some mainstream economists have reached similar conclusions without citing past MMT work.

In all three spheres, critiques of MMT have gone far and wide and have come from all sides of the political and academic spectrums. MMT has been argued to be both fascist and communist, orthodox and heterodox, dangerous and benign, unworkable and obvious, and unrealistic and clearly nothing new. The contradictory aspects of the range of criticisms suggest that there is at best a superficial understanding of the MMT framework. The following chapters review some of the most common academic criticisms—as expressed, for example, in Palley (2015), Fiebiger (2012a, 2012b), Vernengo and Caldentey (2020), Lavoie (2013), Rochon and Vernengo (2003), Gnos and Rochon (2002), Fullbrook and Morgan (2020), Bossone (2021), Edwards (2019), Mankiw (2019), Sawyer (2003), Epstein (2019), and Henwood (2019), among many others

reviewed in Mitchell and Watts (2013), Tymoigne and Wray (2015), Fullwiler, Kelton, and Wray (2012), and Juniper, Sharpe, and Watts (2014)—by classifying them in seven categories that can be read independently.

- [Criticism #1: There is no theory in MMT and, if there is, nothing is new](#)
- [Criticism #2: The job guarantee program is not workable](#)
- [Criticism #3: MMT has a narrow view of the monetary system](#)
- [Criticism #4: Applying MMT policies will lead to economic instability and political instability](#)
- [Criticism #5: MMT policies lead to financial instability and slow economic growth](#)
- [Criticism #6: MMT is unrealistic, disruptive, and leads to incorrect framing of economic problems](#)
- [Criticism #7: MMT mostly applies to the United States and cannot be applied to open and/or developing economies](#)

To summarize, the following sections show that MMT is based on a well-established theoretical framework that recognizes the potential of monetary sovereignty (that is a government that has a monopoly over the issuance of a nonconvertible currency, imposes and enforces taxes in that currency, and issues debts denominated in that currency), as well as the stabilizing and boosting effects of government intervention in the economy. While most MMT proponents argue that monetary sovereignty should be used to manage the main drawbacks of capitalism—namely chronic unemployment, arbitrary inequalities, and financial instability—the policymaking praxis of MMT can be applied to any size of government for any purpose deemed relevant by a society. The core of that policymaking praxis, when monetary sovereignty prevails, is that the fiscal balance is not an appropriate policy goal and that government intervention should be judged by its ability to accomplish whatever the public purpose is. This means that a core element of policymaking is to define the public purpose and to find the means to pursue it, which puts the focus on the political and resource constraints of government operations. These difficult questions to answer ought to involve broad participation by the population and a careful use of resources. As long as the government deals with payments in the domestic currency, the financing of government operations is easy and can be done quickly. Monetarily sovereign

governments throughout the world already have a financial praxis that reflects MMT conclusions. However, their policymaking praxis is not the one put forward by MMT. Using the MMT policymaking praxis can improve economic stability, promote shared prosperity, and widen the democratic process.

CRITICISM #1: THERE IS NO THEORY IN MMT AND, IF THERE IS, NOTHING IS NEW

Critics have argued that MMT is not a theory because there is no mathematical model. Others have argued that there is a theory but that there is nothing new and, even if there is, it is not valid, it is misleading, and it pushes the logic too far. For example, Palley (2014, 2) notes that MMT fails “to produce a model and [...] that is why they fail to advance debate. If MMT-ers did produce a model, I am convinced [...] readers would also see there is ‘no there there.’” Others, like Palley, have argued that “MMT often boils down to nothing more than an especially naïve sort of Keynesianism” (Selgin 2019) with “nothing new under the sun” (Cachanosky 2021) or that, as Rogoff (2019) put it, MMT “is just nuts” and a bunch of “nonsense” that will lead to disasters if applied to policymaking (Summers 2019).

Like all economic frameworks, MMT builds on past theoretical developments to improve our understanding of how the economy operates. Through this framework, MMT proponents arrived at some well-known conclusions, but to argue that there is nothing new is a mistake. Among the most striking conclusions of MMT is that taxes and issuances of securities are not a source of funds for government spending, “deficit financing” is not an appropriate terminology, and government spending proposals should not be scored and voted on based on their impact on the public debt. MMT completely changes the way of thinking about government budgeting procedures and changes the approach to taxes and government spending. This alone ought to be considered innovative, although it builds on the macroeconomic work of Abba Lerner and Beardsly Rumml in the 1940s, the credit theory of money developed by A. Mitchell Innes in the 1910s and Thomas Smith in the 1830s, as well as the monetary experiments and observations of economists and politicians all the way back to Adam Smith and Jean Baptiste Say, and the US

colonies in the 17th and 18th centuries (Forstater 2006; Ruml 1946; Lerner 1943; Smith 1832; Innes 1913, 1914; Grubb 2008). One can retrace the origins of MMT's conceptualization of government finances all the way back to Roman times when jurist Julius Paulus, noted "the importance of public authority backing money and the fact that the value of money does not depend on its substance" (Rüfner 2016, 99). Similar experiences can be found in ancient and early imperial China (Thierry 1993), ancient Greece (Peacock 2006), and Africa (Forstater 2006).

Capitalism Is a Monetary Production Economy: Money, Power, and Classes

MMT combines several theoretical aspects developed by Post-Keynesian economics. In terms of economic activity, MMT fully embraces the theory of effective demand developed by John Maynard Keynes (1936) and Michał Kalecki (1933) (see Mitchell, Wray, and Watts 2019: ch. 11–14). It also embraces the contributions made by Joan Robinson, Nicholas Kaldor, and many Post-Keynesian economists on the causes of economic growth. The importance of income distribution for growth (wage-led versus profit-led growth) and the dependence of supply conditions and technological progress on the dynamics of aggregate demand (demand-led growth, Verdoorn's law, hysteresis effects) have also been accepted (Tavani and Zamparelli 2017; Lavoie 2014; Oraran and Galanis 2013). Similarly, MMT emphasizes the importance of expected sales and capacity utilization as key drivers of investment, while the cost of credit plays a marginal role. MMT rejects Say's law, the neutrality of money, methodological individualism, relative-price clearing mechanisms, and the existence of "natural" variables to explain how a capitalist economic system behaves. MMT embraces as analytical tools the power relations as expressed through classes, income effects, the role of monetary outcomes for employment, investment and production decisions, and the dependence of productive capacities on current spending decisions (Lavoie 2014). As such, MMT rejects the two following premises that are widely shared in economics:

Let us begin with an axiom that I think most economists would accept, and that I have already used in the previous lecture: the objectives of agents that determine their actions and plans do not depend on any nominal value. Agents care only about 'real' things, such as goods [...] leisure and effort. We know this as the axiom of the absence of money illusion, what it seems impossible to abandon in any sensible analysis. Hahn (1982, 34)

Despite the important role of enterprises and of money in our actual economy, and despite the numerous and complex problems they raise, the central characteristic of the market technique of achieving co-ordination is fully displayed in the simple exchange economy that contains neither enterprises nor money. Friedman (1962, 13)

Capitalism is a monetary production economy not a real exchange economy. The production process is a central point of study because it is at the core of the socioeconomic dynamics of a society. Production involves classes with competing economic interests and capitalists are not interested in the additional amount of output obtained from investment (the marginal productivity of capital) but rather in the additional expected monetary profit that comes from the additional expected sales. As such, in a capitalist economy, “money isn’t everything, it is the only thing” (Minsky 1990, 363). Nominal calculations not real calculations drive the allocation, production, and distribution processes. The economic process starts with money in expectation of ending with more money: “The firm is dealing throughout in terms of sums of money. It has no object in the world except to end up with more money that it started with. That is the essential characteristic of an entrepreneur economy (Keynes 1933 [1979], 89).

Pecuniary incentives and invidious comparisons, not physical incentives and isolated fulfillment of inherent preferences, are at the center of economic dynamics (Veblen 1899, 1904) and the primary goal of businesses is “vendibility,” not productivity (Veblen 1901). If monetary profitability means leaving productive capacities idle, destroying productive capacities or bypassing the production process entirely (such as through the financialization of the economy in the past decades), then it will be done (Hein 2012). As James Roderick, chairman of US Steel noted: “The duty of management is to make money. Our primary objective is not to make steel (Roderick in Wachtel 1990, 154).

Once he became chairman, he abandoned plans to modernize and expand the steel-making business and instead focused on real estate ventures and other financial deals. Similarly, Chairman of General Motors Alfred Sloan (1963, 64) noted in his memoirs: “The primary object of the corporation, therefore, we declared was to make money, not just to make motor cars.”

Endogenous Preferences and Power Relations

This framework also does not take individuals' preferences as given but rather considers them to be shaped by envy and emulation (Veblen 1898, 1899) and, more importantly, by producers themselves (Galbraith 1958, 1967). A central premise behind the real exchange economy is that individuals have given preferences that are intrinsic to them and that individuals are insatiable (more is always better so there is no diminishing marginal utility from reaching a higher indifference curve). Such insatiability is central to the argument for the constant search for economic growth in order to meet as many preferences as possible; it helps justify why markets, rather than government, respond best to individuals' preferences. If preferences are not intrinsic to individuals but rather are manufactured by producers through advertising and emulation, the urgency of economic growth and the incapacity of a government to shape and respond to individual preferences are no longer convincing narratives.

As it was learned during World War I, and later applied by corporations, modern propaganda techniques are powerful tools for shaping the behaviors and thoughts of the masses (Curtis 2002). A government can shape individuals' preferences, can define its own criteria of success, and may respond to the preferences of individuals more appropriately. Improving wellbeing and constantly increasing marketable production may not be similar goals. There is nothing "natural" about consumerism and the search for maximum efficiency and, while these have been promoted by government policies in order to promote capitalist economic interests (Robbins 2014), they do not have to be the primary criteria for making economic decisions. A government instead may promote activities that lower consumerism, preserve the environment, improve labor standards, and promote leisure or redirect efforts toward fulfilling crucial needs that may have a very high fixed cost and very low or no profitability. This does not necessarily involve compulsion but, like typical business advertising, may involve persuasion through similar advertising campaigns that cast smoking in bad light, that show the environmental destruction created by meat consumption, or that dramatically illustrate the importance of wearing seat belts and installing airbags in cars, among others, with the goal of shaping public opinion and changing behaviors.

The main implication is that there is a potential conflict between capitalists and other segments of the population over the shaping of preferences and aspirations of individuals. This conflict

expresses itself in national policymaking through the struggle over the shaping of the political agenda. The expression and result of these conflicts depends heavily on power relations and their influence on electoral outcomes and policymaking.

Money and Banking: Endogenous Money and Liquidity Preference

In terms of interest rates and the monetary creation process, MMT also embraces the liquidity preference theory of interest rates, the endogenous money theory, and the circuit approach developed by Keynes and Post-Keynesian economists. The endogenous money approach emerged as a criticism of, and alternative to, monetarism (the view that the central bank controls the supply of reserves and that banks create bank accounts through a reserve-multiplier mechanism) (Minsky 1967; Kaldor 1982; Moore 1988; Wray 1990; Lavoie 2006, 2014). Over the past several decades, Post-Keynesians have combined the endogenous money and the liquidity preference theories to provide an alternative to the money demand/money supply framework of the IS-LM model. Some MMT proponents have participated extensively in the development of the Post-Keynesian theory of endogenous money and its integration with Keynes's liquidity preference theory (Wray 1990, 1992; Fullwiler 2006b, 2017). Until 2008, the central banks of developed economies set at least one interest rate and added and removed reserves to accommodate the needs of private banks. Since 2008, major central banks have changed their operational procedures but the goal is still to set at least one interest rate for any level of reserves (Lavoie 2010, 2019; Fullwiler 2013).

Similar to the production side of the economy, the finance side adjusts to the needs of the economy. Finance is not a scarce resource that is constrained by a quantity of saving or a quantity of reserves. Bank credit creates bank accounts, which usually creates a need for reserves, and reserves are created on demand by the central bank. Private banks create accounts at the request of creditworthy clients and funds in the accounts are deleted when debts owed to banks are paid. The provision of credit finances investment, investment creates income, and income is used to fund investment either through consumption or through saving (Davidson 1978, 1986; Lavoie 1987, 2014; Graziani 1990, 2003). Saving is a residual variable of the economic process rather than a leading variable, and the supply of reserves is not fixed but rather perfectly elastic and a residual variable of the monetary creation process. MMT applies the same

logic to government finances: monetary creation finances government spending, and taxes are part of the funding process that destroys the currency (Tymoigne 2014c; Rezende 2009).

Intrinsic Market Instability: The Financial Instability Hypothesis

While finance is not scarce, the pool of creditworthy clients is finite given credit standards; however, creditworthiness as defined by bankers is an elastic procyclical concept because credit standards change according to competitive pressures, financial innovations, and the prevailing optimism of bankers, which leads to Hyman Minsky's financial instability hypothesis (FIH) (Minsky 1978; Tymoigne and Wray 2014). The FIH is an alternative to the efficient market hypothesis (EMH). The EMH argues that market mechanisms are a stabilizing force that allocates resources toward the most productive uses and risks toward the entities the most able to bear them. Financial crises can occur but they are the result of large unexpected shocks on the economic system—think once-in-a-century tsunami or a black-swan event. By contrast, the FIH argues that the normal functioning of “a capitalist economy endogenously generates a financial structure which is susceptible to financial crises” (Minsky 1977, 25). Over a period of economic stability, the economy becomes more financially fragile in such a way that not unusual shocks cause a financial crisis—think house of cards.

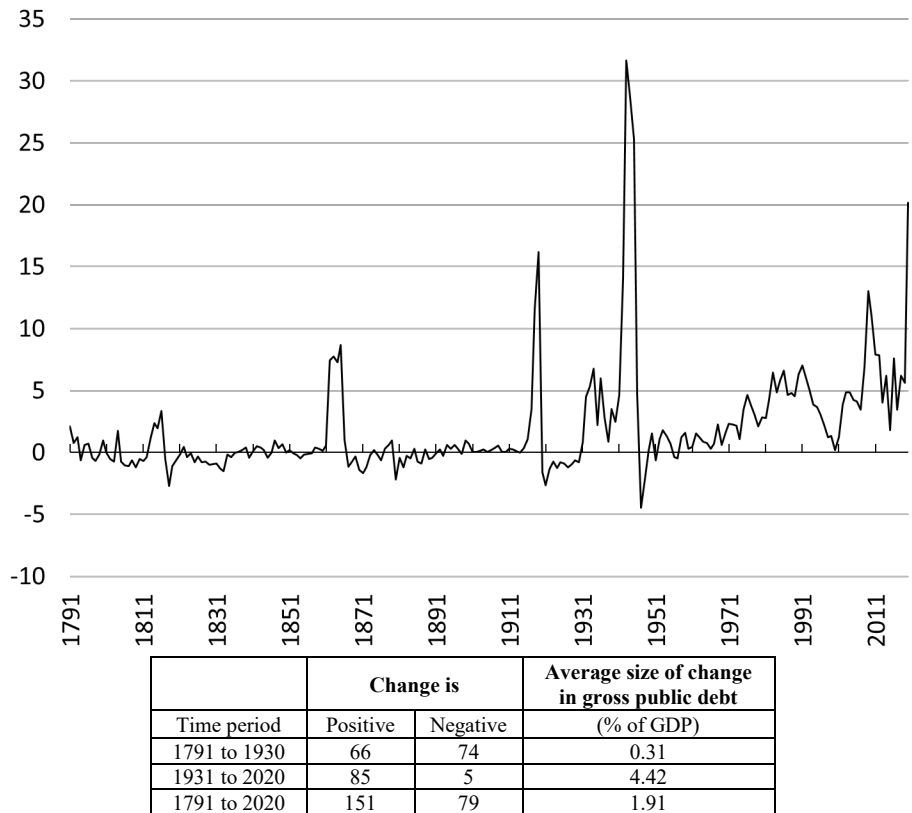
The essential conclusion of the hypothesis is that market mechanisms cannot sustain full employment with stable prices, which leads to two theorems: the anti-laissez-faire theorem and the performance theorem (Ferri and Minsky 1992). The first theorem implies that a “big” government (that is, a government large enough to sustain aggregate income and to put a floor on asset prices) is necessary, to have an economy “where freedom to innovate and to finance is the rule” (Minsky 1993, 81). Individual economic freedom and big government are complementary—not conflicting—elements as Keynes (1936) noted in chapter 24 of his *General Theory*. The second theorem means that not only does a free market economy not generate sustained full employment, but also that it has a tendency to generate deep and long economic depressions; free-market capitalism is self-destructive. Andrew Mellon's advice to Herbert Hoover to “liquidate labor, liquidate stocks, liquidate the farmers, and liquidate real estate [...] it will purge the rottenness out of the system [...] and enterprising people will pick up the wrecks from less competent people” (Hoover 1952, 30) is incorrect. Market mechanisms, especially

under the conditions of a debt deflation, are not a selective cleansing process but rather a process that indiscriminately destroys income and wealth (Veblen 1904; Fisher 1932, 1933). As such, the financial regulation of capitalist economies cannot be left to market participants, nor can it be based merely on putting in place buffers, such as capital regulation, to promote financial stability (Tymoigne 2011).

Government Finance and Stylized Facts: Fiscal Deficits Are Normal, Fiscal Austerity Is Recessionary

In terms of public finances, MMT emphasizes four points: one empirical, two theoretical, and one practical. On the empirical side, one stylized fact of macroeconomics is that the government sector records a fiscal deficit, while the domestic private sector is in surplus. If one focuses on the United States, until the 1930s, only major wars (War of 1812, Civil War, World War I) caused rapid increases in the public debt (figure 1). While gross public debt fell more often than it rose before 1930, overall it did grow slowly (by 0.31 percent of GDP per year) because increases were on average larger. Since the Great Depression, the gross public debt has increased almost every year by a dollar amount representing an average of 4.42 percent of GDP. Major wars (World War II, Vietnam War, War on Terror) have still contributed to rapid increases in the public debt, but sustained increases have become a permanent feature, with only five recorded declines in the public debt (1947–49, 1951, 1956–57). Even the celebrated “Clinton’s surplus” of the late 1990s did not lead to a decline in the gross public debt. Fiscal surpluses did lead to a fall in the public debt held by the public (the US Treasury bought back some of its securities from the public) but intragovernmental holdings grew and more than offset the decline (Government Accountability Office 2001).

Figure 1. Change to Gross Public Debt Relative to GDP, 1791–2020 (percent of GDP)



Sources: Treasury Direct, Bureau of Economic Analysis (BEA)

Note: Division by GDP does not influence the type of changes (positive or negative) in the absolute gross public debt.

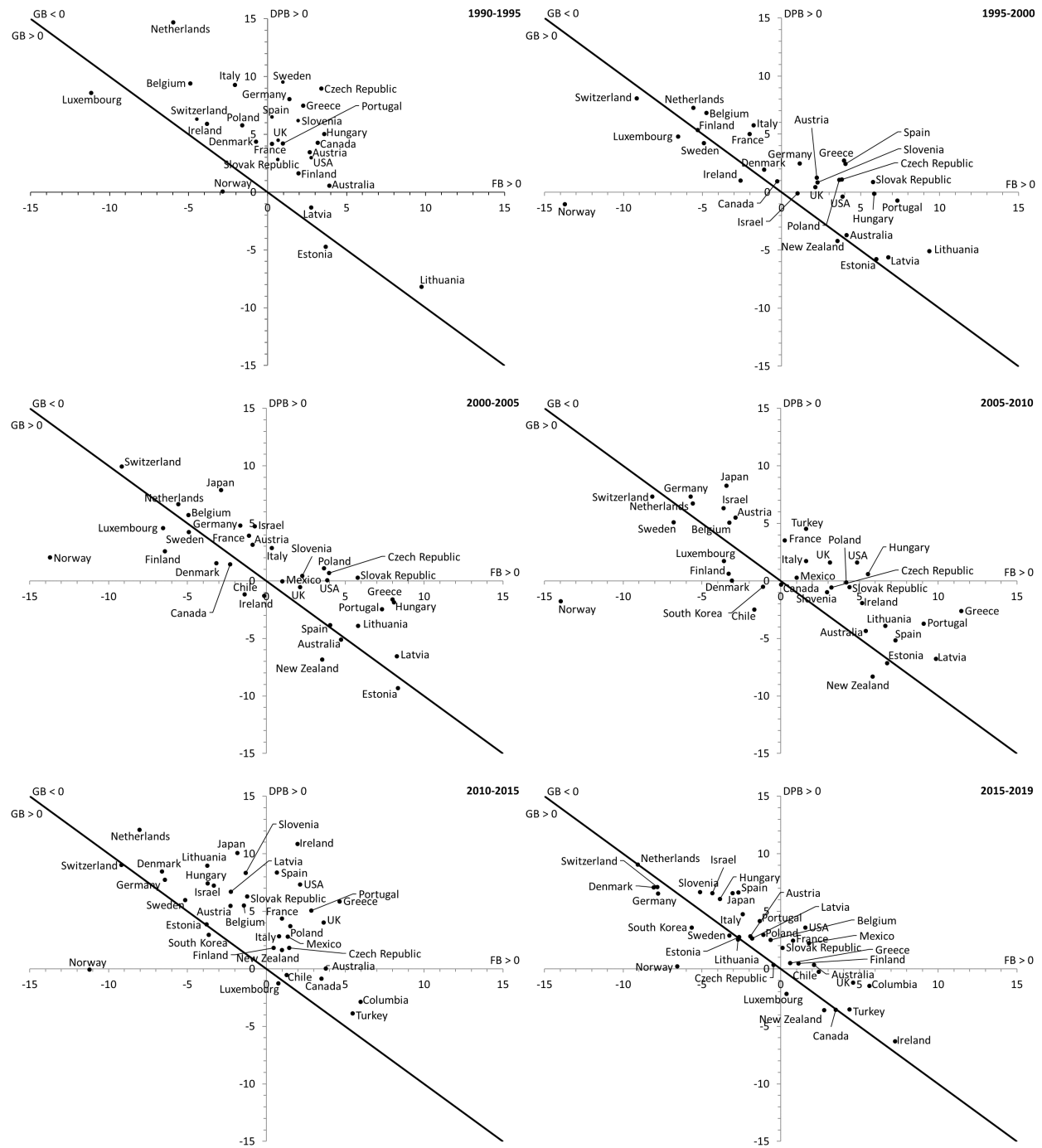
In other words, fiscal deficits are a normal state of affairs for the US government since the Great Depression. The same stylized fact exists abroad, which can be illustrated by representing the sectoral balance accounting identity in a two-dimensional graph (figure 2). By combining the National Income and Product Accounts (NIPA) and the US International Transactions Accounts, the following macroeconomic accounting identity applies (CAB_F is the current account balance of the foreign sector, T is taxes, G is government spending on goods and services, S is domestic private gross saving, and I is domestic private gross investment):

$$(T - G) + (S - I) + CAB_F \equiv 0$$

Thus, at least one of the sectoral balances—either the domestic private sector balance ($S - I$), the government sector balance ($T - G$), or the foreign sector balance (CAB_F)—must be in deficit if another balance is in surplus. Data for many countries shows that usually the government sector

runs a deficit and the domestic private sector is in surplus, while the foreign sector balance can vary depending on the country and the time.

Figure 2. Sectoral Balances in OECD Countries (percent of GDP)



Source: Organisation for Economic Co-operation and Development (OECD) (National Accounts at a Glance dataset), Net Lending/Borrowing.
Note: GB is the government balance ($T - G$), DPB is the domestic private sector balance ($S - I$), and FB is the foreign balance (CAB_F). So $GB = -(DPB + FB)$.

In order to explain this stylized fact, MMT uses theoretical claims that introduce desires and causalities into the accounting framework. A central conclusion is that the fiscal balance (surplus, balanced, or deficit) is not under the control of policymakers but rather adapts to the needs of the economic system. Most government spending is not discretionary and tax revenues are heavily influenced by the state of the economy. While policymakers do set some spending (discretionary spending represents about 30 percent of the budget in the United States), do determine tax rates, and can make some predictions about total spending and tax revenues at the end of the year, they have no control over budgetary dynamics during the year. Like private aggregate saving, the fiscal balance is a residual outcome of the economic process and any attempt by the government to proactively influence the balance will most likely fail. When left alone, automatic stabilizers make the fiscal position behave countercyclically and, if a private-sector led economic expansion lasts long enough, a fiscal deficit may turn into a surplus, as it did during the late 1990s in the United States (but then quickly turned to a deficit with the mild 2001 recession).

While all sectors may want to record a surplus, not all sectors can do so simultaneously. Usually the nonfederal sector (that includes state and local governments, the domestic private sector, and the foreign sector) desires to record a surplus so the federal sector must be in deficit.¹ If the federal government has a financial balance that is not consistent with the desired financial balance of the nonfederal sector, national income will adjust upward or downward as subsets of the nonfederal sector change their spending level. Automatic stabilizers will move the fiscal balance to the level desired by the nonfederal sector. For example, if the nonfederal sector desires to have a surplus equivalent to 5 percent of GDP but the fiscal deficit represents 7 percent of GDP, state and local governments, the domestic private sector, and/or the foreign sector will spend more—consumption, nonfederal government spending, investment, and/or exports will rise—and so national income will rise. The proportion of the rise in nominal income that comes from inflation and economic growth depends on how far the economy is from full employment. MMT notes that full employment is rare, that economic growth is demand led, and that inflation

¹ This assumption of a desired positive surplus reflects the stylized fact that the domestic private sector usually records a positive net financial accumulation. Within the domestic private sector, some sectors may record a surplus (usually households) while others may be in deficit (e.g., nonfinancial noncorporate businesses).

has other major sources than aggregate demand pressures (Fullwiler, Grey, and Tankus 2019; Wray 2001; Lavoie 2014; Davidson 1992, 165ff.). As nominal GDP rises, tax revenues rise and government expenditures fall until the fiscal deficit represents 5 percent of GDP. At this point, the economy reaches a state of rest; it is at an equilibrium point even though the financial balances of each sector may not be balanced. At this point, the fiscal balance is neither too high, nor too low, but rather accommodates the needs of the economy.

The previous dynamics are complicated by the fact that policymakers may also want to reach a fiscal surplus (or a fiscal deficit that is less than the desired surplus of the nonfederal sector) in order to show that the government is “fiscally responsible.” Often this goal reflects a confusion of private finances with public finances that exists in the public debt rhetoric. As President Obama put it:

The hard truth is that getting that deficit under control will require some broad sacrifices. That sacrifice must be shared by the employees of the federal government. After all, small businesses and families are tightening their belts. The government should too. And that’s why, on my first day as President, I froze all pay for my senior staff. This year I’ve proposed extending that freeze for senior political appointees throughout the government and eliminating bonuses for all political appointees. And today I’m proposing a two-year pay freeze for all civilian federal workers. This would save \$2 billion over the rest of this fiscal year and \$28 billion in cumulative savings over the next five years. Lee (2010)

The belief is that the US government needs to learn to save like the rest of us. At the top of the policy agenda of most presidents is usually the goal of reaching a fiscal surplus over a given number of years; President Clinton was widely acclaimed for achieving the feat:

For 29 years, the last day of the fiscal year was not a day of celebration, but a day we were handed a powerful reminder of our government’s inability to live within its means. In the 12 years before this administration took office, the debt quadrupled, partisan gridlock intensified, and a crushing debt was being imposed upon our children. These deficits hobbled economic growth, spiked interest rates, robbed too many people of their chance at the American dream. [...] Tonight at midnight, America puts an end to three decades of deficits and launches a new era of balanced budgets and surpluses. It is a landmark achievement, not just for those in this room who have played a role in it, but indeed for all the American people. And it will be a gift-giving achievement for generations to come. Clinton (1998)

This way of thinking is not only incorrect but also counterproductive. The main reason the US Treasury runs a deficit is not deliberately reckless policies or politicians who do not know how to

put the US government finances in order. Policymakers actually have little control over the size of federal expenditures and federal tax revenues. Proactive policies to reach a fiscal surplus at the federal level will impede the ability of the nonfederal sector to reach its desired surplus; more simply, a government-sector-surplus agenda (“the government must be fiscally responsible”) is implicitly a private deficit agenda and/or foreign deficit agenda (“the private sector or the foreign sector must deficit spend”). Thus, austerity policies are recessionary and amplify the business cycle, unless at least one subset of the nonfederal sector is willing to deficit spend enough to counter the economic drag generated by fiscal austerity. However, deficit spending by the nonfederal sector is prone to financial instability because its subsets lack monetary sovereignty and so are revenue constrained (Tymoigne and Wray 2014). As such, fiscal surpluses tend to be destabilizing. On the contrary, fiscal deficits are sustainable because a monetarily sovereign government has the financial flexibility to meet the demands of such deficits. Fiscal deficits also promote financial stability because they allow the other sectors to record a surplus.

Monetary sovereignty gives one degree of freedom in the tight rules of national accounting. It allows the fiscal balance to be whatever the nonfederal sector desires and usually it desires to be in surplus so the federal government must be in deficit. Deficit hawks and deficit doves both want to have some form of austerity commitment by the national government; they just disagree on the pace and timing of that commitment. MMT are deficit owls, there is no need for such austerity commitment and it is counterproductive; the fiscal balance self-corrects to a deficit that is neither too large nor too small. The self-defeating nature of fiscal austerity has gained some attention outside MMT following the 2008 Great Recession (De Long and Summers 2012; Fatás and Summers 2018; Agnello, Castro, and Sousa 2013).

If policymakers understand sectoral balances and their interaction, they could be tempted to try to measure the desired nonfederal surplus in order to set a target fiscal balance. This is not an appropriate way to proceed. Not only does that conflict with the policymaking praxis of MMT, but also the desired nonfederal surplus changes over the business cycle and is impossible to measure properly. As income and wealth grow during an expansion, the willingness of the private sector to spend increases, and so the fiscal balance falls. The only clue policymakers have is the state of the economy at a point in time. If the fiscal deficit is too large relative to the

desired surplus of the nonfederal sector, inflation may emerge; if the fiscal deficit is too small relative to the desired surplus of the nonfederal sector, a recession may occur and financial fragility grows. In both cases, the fiscal balance will tend to self-correct through automatic stabilizers and MMT wants to put in place structural programs that reinforce these automatic stabilizers by directly tackling unemployment and price stability (Wray et al. 2018).

Government Finances: An Alternative Understanding of Taxes, Bond Issuance, and Monetary Creation

The second theoretical point in terms of public finances is that government spending and/or the provision of credit by the government must come before taxes or bond offerings. A government imposes tax liabilities and is the monopoly supplier of what can be used to complete the payment of such liabilities and the purchase of government securities. Government spending is done through monetary creation *ex nihilo* in the same way a bank provides credit by crediting bank accounts; taxes and offerings of government securities lead to monetary destruction in the same way that the servicing of debts owed to banks destroys bank accounts. The issuance of government securities is not a fiscal tool but a monetary policy tool. As such, the identity $\Delta M + \Delta B + T \equiv G + iB$ is not interpreted as a budget constraint in which government spending on goods and services (G) and interest payments on government securities (iB) can be financed alternatively by monetary creation (ΔM), issuance of government securities (ΔB), or tax revenues (T). Instead, it is an *ex post* identity that shows how the gross injection of domestic currency via government spending ($G + iB$) was used by the private sector to make tax payments (T), to settle auctions of government securities (ΔB), and to hoard (resulting in a net change in the monetary base [ΔM]).

Monetary creation is not a substitute for the issuance of government securities or taxes, instead monetary creation is a complementary operation. While this is quite straightforward when merging the central bank and treasury into a government sector, similar conclusions can be reached by separating the fiscal and monetary branches of a government (Tymoigne 2014c, 2016, 2020a; Fullwiler, Kelton, and Wray 2012). Through the coordination of their fiscal and monetary branches, monetarily sovereign governments issue the domestic currency to spend and then collect taxes and issue securities. As such, MMT rejects the terminology of “deficit

financing,” “deficit spending,” or “monetizing deficits” when applied to monetarily sovereign governments. All federal government spending is financed by monetary creation. Tax liabilities critically create a demand for the national currency and so willing sellers of goods and services to the government. However, the enforcement of these liabilities via tax payments merely returns the domestic currency to the government (the noun “revenue” is based on the French verb “revenir,” meaning “to come back”) and so do not finance anything. The fact that government spending is greater than taxes does not represent a shortage of funds that the government must find somewhere else, but rather a fiscal deficit represents a surplus of funds for the nonfederal sector that can be used to buy government securities or to hoard. A fiscal deficit generates a net injection of reserves in the banking system and, if the policy rate set by the central bank is above zero, the government intervenes to remove that net injection by issuing interest-earning government securities (treasuries or central bank securities). The government may alternatively decide to let the extra reserves stay in the banking system and to pay interest on reserves. Both methods are functionally the same. Framing the issue as deficit financing leads back to the PAYGO/sound finance framework of policymaking and the view that government is constrained by bond vigilantes. None of that is correct.

Functional Finance and Interest Rate on the Public Debt

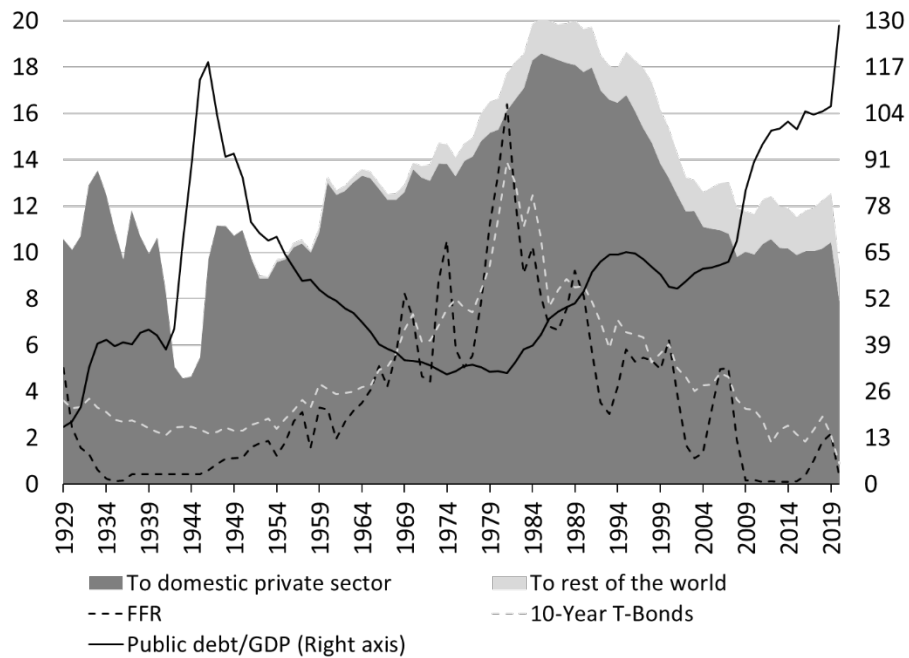
This leads to the practical point of MMT in terms of public finances. MMT follows the policymaking principles laid out by functional finance and rejects the sound finance approach to policymaking. In the sound finance approach, a central goal of policymaking is to ensure that the fiscal balance stays balanced. The deficit hawks want this to apply every year, pushing as far as amending the US Constitution to make sure it happens, while the deficit doves are fine if it occurs on average over a period of time (meaning that periods of fiscal deficits must be offset by periods of fiscal surpluses). Regardless, the main point is that the fiscal balance is at the center of the policymaking process and that the only sound means to finance government spending is taxes, because the issuance of treasuries crowds out private investment and monetary creation is inflationary.

MMTers are deficit owls. They reject the sound finance approach to policymaking when applied to monetarily sovereign governments. Instead, functional finance puts nonfinancial goals at the

center of policymaking, while the fiscal balance accommodates the needs of the economic system. However, MMT wants to implement functional finance differently from Lerner because MMT rejects pump priming and stop-go policies à la the neoclassical synthesis of the postwar period (Wray 2018; Tcherneva 2014; Tymoigne 2010). MMT also rejects the tax financing versus bond financing versus monetary financing framework of public finances and emphasizes a decoupling of spending policy and tax policy.

Given that fiscal deficits are a stylized fact and a sustainable feature of monetarily sovereign governments, the public debt usually rises over time; however, as long as the nominal cost of public debt (i) stays low relative to the nominal growth of the economy (g), the public debt will not explode relative to the size of the economy. Usually the interest rate on the public debt is below the growth rate of the economy. While the mainstream has finally *recognized* this stylized fact, after assuming that the opposite is usually the case in their economic models (Blanchard 2019), MMT goes further by *explaining* this stylized fact. A monetarily sovereign government has control over the nominal cost of the public debt because the interest rate on the public debt is a policy variable; that is, the interest rate on the public debt is overwhelmingly influenced by monetary policy (Fullwiler 2006a, 2020; Aspromourgos, Rees, and White 2009; Wray 2015). This is true regardless of the proportion of public debt held by the foreign sector. The control is complete for the interest rate on T-bills and very strong for the rates on T-notes and T-bonds. Thus, a rapidly growing public debt does not necessarily translate into an increase in the share of interest payments in government spending if the central bank simultaneously lowers its policy rate target (figure 3). This is all the more so true in time of national emergencies, when discretionary spending rises quickly and so interest payments represent a lower share of the overall budget. For example, during World War II, the share of interest expenses in government spending fell to a historical low of 5 percent while the public debt reached a historical high of almost 120 percent of GDP. After the war, the public debt fell relative to the size of the economy but the share of interest payments grew to reach 20 percent as interest rates on the public debt grew with the rise in the federal funds rate (FFR). The COVID-19 pandemic has generated dynamics similar to those during World War II.

Figure 3. Share of Interest Payments on the Public Debt Relative to Total Government Spending (shaded areas), Public Debt, and Interest Rates (percent)



MMT Framework and Mathematical Models

Finally, a criticism of MMT is that there is no mathematical model that corroborates the ideas advanced by MMT. This is simply incorrect. Tymoigne (2006) builds a stock-flow Minskyan model to analyze the impact of different types of monetary policies and concludes that leaving the policy rate stable at zero is the most stabilizing policy. Fullwiler (2007) and Wray et al. (2018) use a modified version of the Fair macroeconomic model to analyze the macroeconomic impact of a job guarantee program on the economy and conclude that such a program has an overall beneficial impact while moderately and temporarily raising inflation. Godley and Lavoie (2007) include some insights of MMT in their models and again show that using monetary sovereignty does not mean instability. Rochon and Setterfield (2011, 132) mathematically studied the impact of different monetary policy rules and showed that a permanent zero central bank rate “always yields the highest rate of growth and the lowest rate of inflation.” This result is reached by narrowly studying the impact of interest rates. One may argue that taking the full financial implications of interest rates on balance sheets and aggregate demand into account would reinforce this result.

Conclusion

Overall, there is a rich theoretical framework behind MMT that uses premises and methodological tools that are quite different from current standard economic thinking. It is not a simple matter of tool preferences for policymaking and slopes of the IS and LM curves, but rather a completely alternative framework with a specific policymaking praxis that emphasizes reaching full employment regardless of the state of economic growth (Mitchell 2018; Mitchell, Wray, and Watts 2019). While this framework has Keynesian roots, it rejects the pump priming and fine-tuning views of economic management and prefers a more direct and targeted management of economic activity. It may not be the one most economists like to use; nevertheless, it is there. Some of the conclusions of this framework have been replicated by the mainstream economic frameworks, while others are at odds with them. Naturally, the framework used by MMT proponents—broadly the Post-Keynesian framework—leads academics who use it to ask different questions and to use different methods to answer them.

CRITICISM #2: THE JOB GUARANTEE PROGRAM IS NOT WORKABLE

Criticisms of the job guarantee (JG) program have been very diverse. Some have argued that there are not enough relevant jobs for everyone willing to work and that the JG would employ people in unnecessary activities; others have argued that the JG would be a bloated program that would compete with the private and public sectors and would be inflationary. Yet other criticisms are that the JG would be too complex to manage, would be inflationary, would lead to pretend jobs from which it would be impossible to lay people off, and that it would become impossible for businesses to find the workers they need.

Using the Unemployed as a Policy Chip

MMT starts by noting that the alternative to providing an employment opportunity to everyone is keeping a portion of the population unemployed. This is the strategy pursued today under the framework of the Philips curve—policymakers must ensure that there are enough unemployed individuals to keep inflation stable.

The pool of available workers willing to take jobs has been drawn down further in recent months, a trend that must eventually be contained if inflationary imbalances are to remain in check and economic expansion continue. Federal Open Market Committee (1999a)

Some people must be sacrificed to ensure that the rest of us can continue to maintain our standard of living. MMT rejects this approach of dealing with unemployment on moral and economic grounds.

Unemployment (defined broadly to include all individuals willing to work but unable to find a job even if not currently seeking one) is socially and economically very costly. Unemployment also degrades the employability of individuals because their skills and work habits are adversely impacted and because it is perceived negatively by employers. Employers prefer to hire from the pool of employed individuals. The intellectual and skill development of the children of the unemployed is also negatively impacted by a stressful family environment, a lack of stable housing, a lack of educational opportunities, and an overall family environment that might not be appropriate for child development. The impact of unemployment on individuals and their families reverberates at the level of society, with unemployment associated with epidemics of crime, gun violence, drug use, homelessness, poverty, depression, suicide, malnutrition, and family violence. Together, the individual, familial, and societal effects of unemployment create a large burden on society, as financial and productive resources must be allocated to tackle these issues (Watts and Mitchell 2000; Tcherneva 2017, 2020).

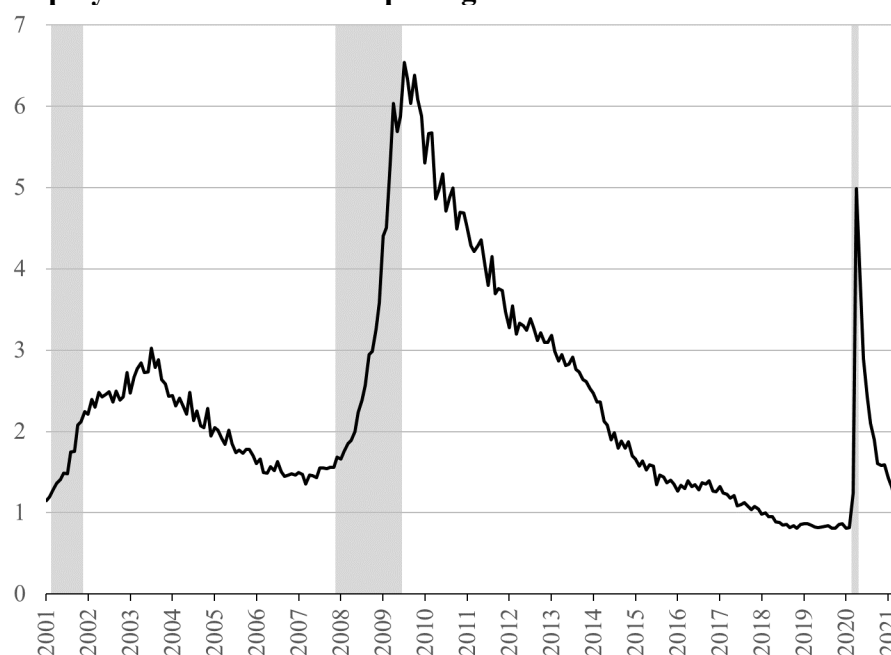
These costs of unemployment are all the higher when unemployment is a permanent feature of capitalist economies and its persistence has grown over the past decades (Mitchell 1993). There are chronically not enough jobs available for those willing to work regardless of how well-trained and motivated individuals are and how fair and easy it is to access the job market (figure 4) (Harvey 2000; Brady 2003). In addition, the costs of unemployment are compounded by the fact that jobless recoveries have become more prominent, the proportion of long-term unemployed has grown at the peak of an expansion, some segments of the population (both spatially and racially) are employed last and laid off first, and policymakers actively seek to keep some people unemployed (table 1). Prior to the 1980s, it took fewer than two years to recover the

jobs lost during a recession, but the past four expansions required more than two years to do so, with the job losses of the Great Recession erased only after six years. One has to go back to the Great Depression to see a longer period of recovery. Not only has it taken more time to recover from recessions, but also job precariousness has grown with job quality falling constantly since data is available. Jobs have become more insecure, more intermittent, and have not provided the same salary and benefits as they used to. From the viewpoint of central bankers, this is a positive point because it helps contain inflation as the economy gets closer to full employment:

But even if the perceived quicker pace of application of our newer technologies turns out to be mere wheel-spinning rather than true productivity advance, it has brought with it a heightened sense of job insecurity and, as a consequence, subdued wage gains. As I pointed out here last February, polls indicated that despite the significant fall in the unemployment rate, the proportion of workers in larger establishments fearful of being laid off rose from 25 percent in 1991 to 46 percent by 1996. It should not have been surprising then that strike activity in the 1990s has been lower than it has been in decades and that new labor union contracts have been longer and have given greater emphasis to job security. Nor should it have been unexpected that the number of workers voluntarily leaving their jobs to seek other employment has not risen in this period of tight labor markets. Greenspan (1997b)

Declining job security, hostile policies against strikes and a decline in union membership have helped, however, “suppressed wage cost growth as a consequence of job insecurity can be carried only so far. At some point, the tradeoff of subdued wage growth for job security has to come to an end” (Greenspan 1997a). Finally, while the benefits of economic expansion used to be more broadly shared, since the 1980s income gains have gone almost entirely to the top 10 percent. During the last economic expansion (2009–20), 76.9 percent of national income gains went to the top 10 percent of income earners.

Figure 4. Unemployed Relative to Job Openings



Source: Bureau of Labor Statistics

Table 1. Jobless Recoveries, Concentrated Prosperity, and Growing Job Precariousness

Beginning of expansion	1954	1958	1961	1970	1975	1982	1991	2001	2009
Average real GNP per capita growth rate (%)	1.6	1.8	3.5	3.1	3.0	4.0	1.3	2.0	1.6
Gini index	N/A	N/A	N/A	0.394	0.397	0.412	0.428	0.462	0.468
Percent of income gain going to top 10 percent	27.8	32.3	32.9	43.0	45.0	80.0	73.0	98.3	76.9*
Time to recover jobs lost (months)	23	18	20	18	19	28	32	47	76
Job quality index	N/A	N/A	N/A	N/A	N/A	N/A	89	87.8	81.4
Proportion of long-term unemployed at the peak (%)	8.4	11.9	4.6	8	8.3	9.8	10.7	17.4	19.3

Sources: Census Bureau, Bureau of Labor Statistics, Bureau of Economic Analysis, JQI IP Holdings LLC, and Tcherneva (2014).

Notes: *updated to 2018

To add insult to injury, the unemployed and the poor have been blamed for their state of affairs for centuries and society has dealt with the problem in the most unproductive way possible—by criminalizing poverty and unemployment. As de Tocqueville (in Losurdo 2011, 72) put it in 1851: “It is obvious that we must make assistance unpleasant, we must separate families, make the workhouse a prison and render our charity repugnant.”

Currently, putting people in prisons has been a favorite method of dealing with the adverse effects of unemployment:

In many cities, homeless persons are effectively criminalized for the situation in which they find themselves. Sleeping rough, sitting in public places, panhandling, public urination and myriad other offences have been devised to attack the “blight” of homelessness. The criminalization of homeless individuals in cities that provide almost zero public toilets seems particularly callous. [...] Ever more demanding and intrusive regulations lead to infraction notices for the homeless, which rapidly turn into misdemeanours, leading to warrants, incarceration, unpayable fines and the stigma of a criminal conviction that in turn virtually prevents subsequent employment and access to most housing. [...] Homelessness on this scale is far from inevitable and reflects political choices to see the solution as law enforcement rather than adequate and accessible low-cost housing, medical treatment, psychological counselling and job training. United Nations (2018, 11–12)

This has happened so frequently that the prison system has become a core economic sector that provides a source of cheap labor that can easily be exploited and that expands market opportunities for the financial sector through the privatization of prisons and the securitization of the penal system (Engelberg 2016). MMT proponents argue that penal Keynesianism and military Keynesianism have been inhumane and wasteful means to sustain economic activity and the employment of low-skilled individuals (Wray 2000; Cypher 2015; Pigeon and Wray 2000).

Job Guarantee: A Manageable Means for Eliminating the Job Shortage

MMT proposes to deal with the unemployment problem in a manner that is more humane and productive both individually and socially. The JG’s first effect is to eliminate the job shortage by guaranteeing access to a job for individuals willing and able to work. Loose full employment is achieved by ensuring that the number of jobs available is at least as high as the number of job seekers, and by supplying jobs where they are needed to whomever needs them regardless of qualifications, past delinquencies and crimes, ethnicity, race, and gender. Background checks will be used to allocate the unemployed rather than as a barrier to employment (Couloute and Kopf 2018). This does not mean that every unemployed individual will want to work in a JG job so the unemployment rate will not be zero after the JG is implemented. This also does not mean that the unemployed will be forced to accept such jobs, nor does it mean that JG workers unwilling to work cannot be laid off from a JG job. As such, the JG is not workfare or a Soviet-

style first-resort job program, but rather a noncompulsory, last-resort work program guided by local initiatives inclusive of diverse constituents and available for those willing and able to work (Tcherneva 2020).

Given that the productivity of the unemployed is at best zero, and that billions of hours of labor are left idle every year while needs are left unfulfilled, a JG reaches for very low hanging fruits. A JG would significantly lower waste in the economic system and would provide meaningful goods and services that are needed by communities but provided in insufficient quantities by other sectors of the economy. The idea of JG is not new (in the United States it can be traced back at least to Coxe's Army in 1894) and has been applied more or less broadly in a variety of ways in countries such as the United States (New Deal work programs, 1973 Comprehensive Employment and Training Act), France (Travaux d'Utilité Collective, Emplois Jeunes), India (National Rural Employment Guarantee), and Argentina (Jefes program) (Ghosh 2014; Tcherneva 2013). If one focuses on the New Deal work programs—one of the most long-lasting and broad implementations of a JG, although it only employed about a third of the unemployed—one can draw several lessons (Tymoigne 2013).

First, these programs can be put together very quickly with manageable administrative costs. This would be all the more the case today given that the administrative infrastructure is already in place, albeit to manage unemployment instead of employment. Second, it is important to think of the JG as a permanent, normal feature of capitalist economies. Throughout the New Deal, the work programs were considered emergency programs. This led to organizational and administrative problems, as thorough reports about the implementation of the programs took years to be published and limited funding that was contingent on political ambitions curtailed the ability of the programs to hire the unemployed. While the New Deal work programs did improve through trials, errors, and some feedback, and their reputation among the population grew overtime, more could have been done to deal with discriminatory practices and to learn from the successes and failures of the programs. Third, a JG can be used to produce relevant goods and services that are not provided in sufficient quantity by the private sector. These include environmental conservation and protection, educational opportunities, cultural and physical activities, goods and services for the poor and destitute, disaster relief, childcare and elderly care,

recreational activities, and national park maintenance and improvement, among others. What ought to be produced should be mostly left to local communities to determine. Fourth, a JG is a means for raising the employability of the unemployed by giving them an opportunity to learn or relearn work habits, gain some skills and training, and create a history of gainful employment. Overall, one can be confident that a JG can be used to combat structural and cyclical unemployment while helping to deal with the socioeconomic problems of the times.

While the size of the JG will fluctuate over the business cycle by becoming bigger in recessions and smaller in expansions, there is no reason to expect that such a program will be very large in normal times relative to the size of developed economies. In addition, the JG will grow the economy through its direct employment and through the employment and income multipliers that come from direct employment. Macroeconomic estimates of the gross cost of the JG in the United States are around 3 percent of GDP, while the net cost (that deducts the cost of dealing with the societal cost of unemployment) is around 1 percent of GDP (Wray et al. 2018; Kaboub 2013; Tymoigne 2014a).

While achieving full employment was seen a valuable and attainable objective following Keynes's *General Theory*, the only lesson that was retained is a pump-priming view of macroeconomic policy in which the role for government is to raise aggregate demand to boost economic activity back to full employment. Such a general boost in aggregate demand only works to a point because it bumps against the inflation barrier. As spending goes up, bottlenecks develop in the productive process and some regions reach full employment faster, a hot labor market may give more bargaining power to workers to raise wages quickly, and the cost of imports may rise. As a consequence, macroeconomists in the 1960s concluded that achieving full employment had to be weighed against price stability and the trade-off crystalized itself around the non-accelerating inflation rate of unemployment (NAIRU). Ultimately, macroeconomic full employment policy was abandoned in favor of microeconomic policies focused on removing market imperfections, training, and individual responsibility/workfare (Mitchell and Muysken 2008, 2010; Harvey 2000; Brady 2003). While microeconomic policies do have a role to play, they are complementary to macroeconomic policies. Only the latter can ensure that enough jobs

are available, otherwise most unemployment ultimately ends up being redistributed rather than reduced.

MMT proposes an alternative way to reach full employment that mitigates the inflation barrier while doing the one thing all the other strategies fail to do—ensuring that enough jobs are available to those willing and able to work. As Minsky (1986a: 291, 295) noted, pump priming is a gross simplification of Keynes’s insight:

Just as there never really was a Keynesian revolution in economic theory, there also never really was one in policy. [...] All that was assimilated from Keynes by the policy establishment and its clients was the analysis of an economy in deep depression and a policy tool of deficit financing. [...] Keynesian economics, even in the mind of the economics profession, but particularly in the view of politicians and the public, became a series of simple-minded guidelines to monetary and fiscal policy. [...] The institutional structure has not been adapted to reflect the knowledge that the collapse of aggregate demand and profits, such as occasionally occurred and often threatened to occur in pre-1933 small government capitalism, is never a clear and present danger in Big Government capitalism such as has ruled since World War II.

Keynes and his followers are for direct government participation through specific fiscal and monetary measures that include some forms of planning via a cooperation between the private and public sectors (Keynes 1937, 1940; Tymoigne 2010; Tcherneva 2012). Unemployment and underemployment are no longer the disciplining mechanisms used to promote price stability, and are no longer linked to the state of economic growth.

The Job Guarantee and Price Stability

The JG promotes price stability through at least four channels. First, the number of individuals employed in the program, the JG pool, will grow and shrink according to the needs of the economy, which helps to stabilize wage growth. During an expansion, as it becomes more difficult for employers to find workers, they will be able to draw from the JG pool when previously they were hesitant to hire the unemployed and preferred to compete for employed individuals. This limits upward pressures on wage growth compared to the NAIRU approach. Similarly, during a recession, the JG pool limits downward pressures on nominal wages as private employers have to pay at least the JG wage to be able to find employees. This policy is all the more effective when the JG pool is large enough to respond to the needs of the private

sector and as long as employers are interested in hiring such individuals. The JG pool becomes less effective when it reaches the non-accelerating inflation buffer employment rate (NAIBER), beyond which the pool is too small to respond to the employment needs of the economy (Mitchell and Muysken 2008).

The ability of the JG pool to attract potential employers points to a second channel through which it promotes price stability. It is well known that the probability of being reemployed declines as unemployment persists due to a combination of negative signaling, the loss of work habits, decrease in skills, and increase in sociopsychological problems. The JG keeps people employed, which at least partly maintains some of their productivity. The JG is also a means for willing individuals to learn new skills that are more adapted to the needs of the potential private employers, thereby dealing with some aspects of structural unemployment. It should be noted that previous JG experiments, like the New Deal work programs, did not put much importance on training because administrators always viewed these programs as temporary relief programs. A permanent JG should aim at tackling structural sources of unemployment that come from skill mismatches and discriminations, among others. Together with wage-growth management, the improvement in labor productivity helps contain the growth of unit labor costs.

A third way through which the JG makes full employment and price stability compatible is by not relying on stimulating aggregate spending to achieve full employment. There are two aspects to this method of achieving full employment. The first aspect is that the JG achieves full employment for any level of aggregate demand by de facto removing the chronic gap between the number of unemployed and the number of job openings (Mitchell and Wray 2005). Initially, economic activity would be stimulated by the implementation of the JG program because of the multiplier effect on employment and income in the private sector and because, for MMT proponents, the JG would pay a living wage that is higher than what the unemployed receive through unemployment insurance and welfare. The ultimate effect on inflation would depend on the JG's overall impact on spending and production. Wray et al. (2018) and Fullwiler (2007) show that the overall impact on inflation will mostly be marginal and transitory. The unemployed already impact aggregate demand, capitalist economies suffer from a chronic lack of demand, and productive capacities can usually adapt to permanent increases in demand. The

JG would also dampen inflationary and deflationary pressures throughout the cycle through countercyclical movements of the JG pool, thereby making the fiscal balance more countercyclical. A second aspect of this method of achieving full employment is how it deals with bottlenecks by redistributing government spending instead of applying a stop-go policy. As Keynes noted in 1937, the United Kingdom was no longer in need of an overall boost in aggregate demand but rather in need of a “rightly distributed” demand. The JG is a targeted spending policy, not an overall spending policy; it raises government spending in areas where full employment has not been reached and stops government spending automatically otherwise (as there is no additional person seeking a job). For areas where full employment has been reached and the private demand for workers is still strong, private businesses can draw from the JG pool and so government spending falls. The net impact on overall government spending is undetermined, but what matters is that it has been redistributed toward localities that need it and away from areas that do not. This flattens the area of the aggregate supply curve where “semi inflation” occurs.

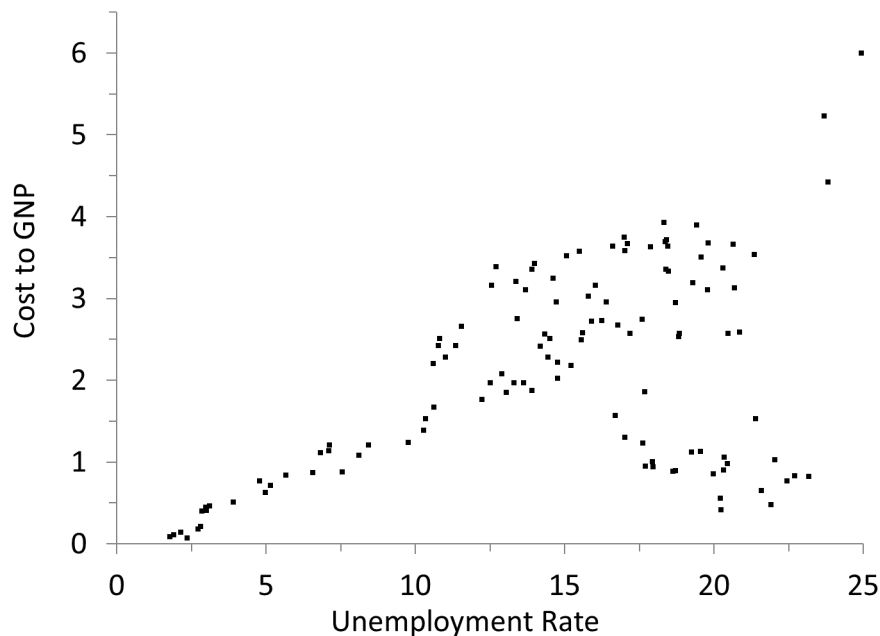
A fourth way through which full employment and price stability are promoted together is by emphasizing the use of idle domestic resources to fulfill unmet domestic needs. One goal of JG employees is to produce output that localities deem useful but that is not produced in a large enough quantity by the rest of the economy. Given that the JG goods and services would not have been produced otherwise, and given that they are produced through the employment of unused domestic resources, their production does not put direct pressures on other productive capacities, although such employment may create indirect mild and temporary pressures through an income multiplier effect.

Implementing a Job Guarantee Policy

Finally, contrary to a pure income guarantee program that applies to all members of society, the JG is a narrow income guarantee program tied to unemployment. It is usually a small program, especially in developed economies. For example, the direct cost of the New Deal work programs was quite low (although they employed about a third of the unemployed and pay was not adequate for many families). The total direct cost reached an average 2.2 percent of GNP for the period 1933–43, reaching a maximum of 6 percent during the time of the short-lived Civil Works

Administration and almost 4 percent during the time of the Work Progress Administration. By rearranging the data according to the unemployment rate, one observes an increasing cost except when the work programs were still in their infancy (figure 5). A rough calculation of what it would have cost to employ all the unemployed at a living wage yields a gross cost of 1 percent to 3 percent for unemployment rates lower than 10 percent (Tymoigne 2014a).

Figure 5. Unemployment Rate and Cost of Work Relief (percent)



Source: Tymoigne (2013)

The implementation of a JG can also be done more or less rapidly and more or less widely to give the rest of the economic, social, political, and cultural institutions of a nation some time to adapt to the demands of such program. The central point is that the unemployed and the poor are no longer the relief valve used to deal with the problems of the economy, instead their labor is used proactively to deal with such problems. If there is extra inflation that comes from the implementation of a JG, the evidence points to, at most, a temporary and moderate spike.

Another common criticism of the JG is that it will compete with the private and public sectors for jobs and benefits. While this is not necessary, the New Deal work programs do give some support to that concern. Municipalities laid off their employees to rehire them through the work programs at a lower wage. Farmers were unable to find enough workers during their seasonal

needs, as people preferred to stay in the more stable New Deal jobs. The New Deal programs were more or less successful at dealing with this problem by shutting down work programs temporarily to accommodate the needs of the rest of the economy. This issue brings up three aspects of the program. The first aspect is that the JG is supposed to be a gross job creator at the time of implementation (many unemployed become employed) and an employment stabilizer after that (people are able to stay employed through the cycle); there is ample evidence that it serves this purpose by hiring the unemployed, the employment multiplier effect, and its buffer stock properties (Wray et al. 2018; Fullwiler 2007). The second aspect is that the JG sets the minimum standard in terms of wages, benefits, labor safety, and employment security. This minimum can be set low or high, reflecting a political choice about what acceptable labor conditions should be in the nation. MMTers argue that the JG should set labor standards that reflect the aspirations of Roosevelt's Second Bill of Rights and the 1948 UN Declaration of Human Rights. For MMTers, JG employment should pay a living wage with generous benefits (healthcare, paid sick leave, paid vacations, etc.) and should put in place labor conditions that emphasize safety, inclusion, cooperation, and equity. If that means some public or private employments cannot be performed at these labor standards, either they should not exist or they should become more mechanized. As such, a universal JG would encourage as much automation as possible of dangerous, unhealthy, and grueling jobs—some of which are crucial to the functioning of an economy—or the improvement of their labor conditions to the standard set by JG. To be less disruptive, the implementation of a JG can be ramped up over several years. The third aspect is to ensure that the JG is set up in a way that does not threaten the gains that have been made by workers in other sectors of the economy. The purpose of a JG is to complement, not replace, the employment provided by other sectors. While the JG can work through the for-profit sector, as it did under the small-scale Public Works Administration in the 1930s, this will be a limited channel for JG jobs because of the profitability constraint. Nonprofit organizations would be major employers. Once again, experiences with the New Deal program show that it is possible to avoid threatening past labor gains by recognizing errors and improving design. By doing so, the Civilian Conservation Corps was able to record a 90 percent approval rating across the political spectrum and the reputation of the Work Progress Administration improved as management improved.

Finally, some critiques have argued that the JG will have a hard time creating stable jobs given the countercyclical and temporary nature of JG employment. People will come in the program and leave before their training is done, or will leave in the middle of a job, thereby making it difficult to accomplish anything significant through the JG. Once again, past experiences in several countries show that this issue is not relevant. Firstly, there will be a permanent pool of people in the JG because unemployment is the default state of affairs of capitalist economies. While people in this pool may rotate, over the business cycle the pool itself provides a significant workforce to complete JG activities. Secondly, jobs offered by the JG would be mostly flexible and require low qualifications. They would involve interpersonal activities and labor-intensive activities, such as working as a school aid, picking up trash on remote areas of the coastline, restoring natural habitats, providing company to lonely elders, providing access to clean water, constructing shelters for the homeless, preparing and distributing food for the destitute, or removing invasive species, among many other activities. A lot of these are off-the-shelf activities rather than permanent activities. Some of these are already performed irregularly on a voluntary basis and a JG would increase the number of workers involved in these activities. Many nonprofit organizations, such as Habitat for Humanity, Meals on Wheels, and The Nature Conservancy, are already heavily involved but they always look for more people to fulfill their missions. Schools always welcome extra help to take care of kids and to support teachers' ability to improve the learning environment. While white-collar workers may not find these activities attractive and may feel shame from being involved in the JG—as it happened in the 1930s (Schwartz 1984, 129)—at least jobs are there if white-collar workers want them and some of these jobs will use their skills and help train others. At the same time, white-collar workers tend to be the last laid off and first rehired, so the JG is less geared toward fulfilling the employment needs of such workers.

CRITICISM #3: MMT HAS A NARROW VIEW OF THE MONETARY SYSTEM

Critics have argued that the MMT theoretical and historical analyses of monetary systems overemphasize the role of the state and marginalize the role of private actors. MMT is said to argue that only the state can issue monetary instruments, which ignores the role of banks or

includes them only as an afterthought. MMT is said to ignore the importance of liquidity preference and the role that finance plays in destabilizing the economy. For example, Rochon and Vernengo (2003, 66) argue that “modern money is chartal” but claim that it “has been credit money for a longer period.” They go on to argue that the chartalist view of money is based on a monetary creation process consisting of multiplying the domestic currency. Other authors, like Davidson (2019), have joined these critics by arguing that chartal money is very recent (because, supposedly, “chartal” is related to the “state” political entity), that MMT has a narrow view of what monetary instruments are and that uncertainty and liquidity preference are central to the explanation of why a monetary instrument (coins, notes, bank accounts, or others) is demanded. Others, following Mises and Jevons, have rejected the story of money developed by MMT and have argued that the problem of double coincident of wants is what caused the emergence of monetary systems. They claim that monetary instruments were at first a multitude of varied commodities that, through a process of convergence guided by the will to make voluntary market exchanges more efficient, zeroed in on precious metals because of their special properties (durable, divisible, etc.).

Main Characteristics of Modern Monetary Systems

When monetary sovereignty prevails, the government is the monopoly supplier of the domestic currency (that can take the form of physical cash or be immaterial, such as accounts at the central bank). This means that the government issues a monetary instrument that no one else can issue legally. This does not mean that the government is the only issuer of monetary instruments. MMT starts from the simple premise put forward by Innes (1913, 1914) and echoed by Minsky (1986a, 228): “An economy has a number of different types of money: everyone can create money; the problem is to get it accepted.”

From Innes’s “law of debt,” MMT explains what determines the acceptance for anyone who issues monetary instruments and the process of monetization of economies. While doing so, MMT notes that governments have played a central role in modern monetary systems, that is, those established since ancient Mesopotamia in 3100 BC. By using the work of legal scholars (e.g., Mann 1992; Nussbaum 1950; Desan 2014), historians (e.g., Hudson and Wunsch 2000, 2004; Katsari 2011), anthropologists (e.g., Graeber 2011; Dalton 1965; Polanyi 1957 [1968]),

numismatists (e.g., Grierson 1977, 1979), sociologists (e.g., Ingham 2000, 2004) and economists (e.g., Hawtrey 1919; Smith 1832; MacLeod 1889; Knapp 1905 [1294]; Murad 1943, 1954; Grubb 2008), MMT concludes that several elements of modern monetary systems are similar through time.

First, modern monetary systems did not emerge out of trial and error guided by impersonal market forces in order to smooth exchange, but rather out of trial and error guided by the desire of an authority to draw resources from the rest of the economy. An alternative story of money is advanced that emphasizes slow socioeconomic changes away from tribal societies (some of them unforeseen and unintended) and the exercise of power through coercion, law, and deceit to maintain the flow of goods and services to a governing authority (Henry 2004). Over time, one observes that a government (or the historically contingent ruling authority) determines the laws about the inner functioning of the domestic monetary system. The government chooses the domestic unit of account, issues the domestic currency, establishes legal tender laws, regulates banking and finance, and writes the laws about payment mechanisms. Within this process, the governing authority sometimes has had to compete with powerful financial and merchant classes as well as other governments, but the centrality of the governing authority in shaping monetary systems is undeniable, albeit ignored, in the barter story of money.

There is actually very little historical evidence for the barter story of money, as barter was a marginal aspect of tribal societies because they put reciprocity and hospitality at the center of their socioeconomic relations (Graeber 2015; Dalton 1982; Humphrey 1985; Bell and Henry 2001) and “primitive moneys” were used for a variety of reasons that were mostly unrelated to the need to exchange (Dalton 1965, 1982).

The centralizing institution around which tribal society is organized is the rule of hospitality, a universal social relationship among early societies. [...] Hospitality followed from the collective control of the production process, based on collective control of the means of production. [...] Hospitality, then, is the extension of the underlying collectivist production/consumption arrangement. All had an equal right to the output produced by all on the means of production controlled by all. Hospitality, or the mutual right and obligation to receive and provide subsistence, was the final equaliser. [...] Hospitality cannot be cast into a modern insurance context (as does Posner) [...]. Hospitality was not limited to kin: strangers (nonkin) were offered the same rights, but were under no obligation to provide hospitality—as they were not kin. Hospitality was not,

therefore, based on self-interests, but represented a social relationship based on an ideological outlook quite different from (and alien to) that of modern, property-based, humans. [...] As all had a right to subsistence (and a responsibility to provide it), it is obvious that early humans could not engage in exchange of any sort. Exchange requires several conditions [...] goods must be privately owned [...]; they must be institutionally organized to allow sale and purchase; some form of gain must be expected in the transaction [...]. Exchange connotes that society has lost collective control over the production and distribution of output [...]. All exchange is a form of trade, but trade need not be exchange: trading can readily take place without satisfying any of the above conditions. [...] In tribal society, the above conditions cannot be satisfied. [...] Primitive society certainly did engage in various forms of trade, however. [...] But trade was conducted on a non-exchange basis. Villages would simply transfer goods of which they had a surfeit to villages producing goods of which the initial village was in need. [...] Villages, as they practiced the same egalitarian behavior, could be trusted to treat each other in an equitable fashion. [...] For tribal economies, however, trade extended the rule of hospitality across tribal lines. Bell and Henry (2001, 201–15)

While barter has been observed widely, it has been “a minor, infrequent, petty, or emergency transactions” (Dalton 1982, 185) that have never been a dominant, or even common, mode of moving production in any society—either because the socioeconomic conditions for such transactions did not exist or because barter has been highly inconvenient. As such, barter cannot be the driving force behind the convergence process. However, the convergence process itself is doubtful because there is no historical evidence backing it—it is purely speculative—and it is theoretically problematic (Ingham 2000). In addition, ledgers, not physical objects, played a crucial role in early modern monetary systems.

Second, instead of solving a double coincidence of wants problem, modern monetary systems emerged to solve a resource centralization problem. Modern monetary systems have been tax driven, where “tax” is defined broadly to include any dues owed to the government (taxes, tributes, fees, and fines, among others) (Forstater 2006; Tcherneva 2006). In order to incentivize the population to provide resources for the public purpose, the government first imposes dues (tax liabilities) and it simultaneously promises that the discharge of dues (tax payments) can be done with the domestic currency that the governing authority issues to pay for the resources it wants. Over time, the government enforces the payment of dues and those who cannot or will not make the required payments to settle their tax liabilities face adverse consequences ranging from fines to imprisonment to death. The emergence of tax-driven monetary systems can be traced back to the transformation of tribal societies into centralized, agrarian societies (Tymoigne and

Wray 2006). This centralization emerged as the rules of primitive tribal societies weakened, bringing profound social changes (Henry 2004). A highly organized and stratified society with a religious upper class formed (king, princes, and high-ranking priests). Reciprocity was weakened. Religion replaced magic and there was a transformation of prelegal obligations defined by customs (“wergild”) into legal and sacral, compulsory, standardized obligations imposed on the general population (“debt to society”) that took the form of taxes, tributes, fines, etc. (Polanyi 1957 [1968]; Innes 1913, 1932; Grierson 1977, 1979; Semenova 2011; Graeber 2011; Ingham 2004; Alary et al. 2016). Keeping track of the payments of such debts led to the invention of primitive accounting and the establishment of a unit of account by priests. For example, in Babylonia during the late Uruk period (3100 BC), there were at least three different kinds of obligations: gifts to gods that became “regularized, standardized, and obligatory for the general populace” (Schmandt-Besserat 1992, 172, 180), duties in terms of the provision of a portion of the production goal determined by a royal standard (Nissen, Damerow, and Englund 1993: ch. 11), and tributes from cities conquered by southern city states (Schmandt-Besserat 1992, 182–83). By using force (military conquests, physical harm, and imprisonment), deceit (subversion of tribal magic by a state religion), and the law (imposition of compulsory debts and determination of the means to pay them), a religious authority was able to obtain vast quantities of resources. As such, the exercise of power for the benefit of a minority, not mutually beneficial impersonal exchange among voluntary parties, was the source of modern monetary systems.

Third, through trial and error over millennia, governing authorities have perfected and adapted tax-driven monetary systems as they experimented with different ways to obtain resources. A tax-driven monetary system is subject to several specific risks related to the ability and willingness of the issuing authority to impose and enforce tax liabilities. Wars, political instabilities, technical problems, errors in setting up a monetary system, and ignorance have led to major monetary instability as the public trust in a government’s ability and willingness to impose and enforce tax liabilities was put in doubt. In such cases, a government may see its monetary sovereignty being challenged, which limits the circulation of the domestic currency and creates problems in moving resources for the public purpose. For example, in countries where tax evasion is common, the corruption of tax officials is widespread, and a large informal sector exists, the population may use the domestic currency only to transact with the government

while it uses a foreign currency for private transactions. In such case, the population also may not feel as compelled to sell goods and services to the government. The government may have to raise the prices it pays for the resources it buys as it competes with the private and foreign sectors. In addition, over the course of monetary history, one observes that depending on what is more effective for drawing resources, the governing authority at times emphasizes the nominal characteristics of monetary systems while at others it emphasizes their metallic characteristics. The choice depends heavily on the governing authority's political power and its ability to control or offset developments in metals market. A decline in political power is accompanied by a demonetization of economies and an emphasis by the governing authority on metalism. When the governing authority has emphasized nominalist characteristics, the ability and willingness of an issuer (governing authority or others) to redeem its monetary instruments at par on demand has been the core element of acceptance (Tymoigne 2014b, 2020b).

Fourth, none of the previous points implies that the government is the only player in a monetary system, or that most monetary instruments are tax driven. The acceptance of a monetary instrument depends in large part on power relations and an issuer has a higher chance of having its monetary instruments accepted if numerous economic units are indebted to that issuer. Debts owed to the issuer have been at the foundation of modern monetary systems even during the time of metal standards (Desan 2014; Tymoigne 2014b). As such, there is a pyramid/hierarchy of monetary instruments, with the most widely accepted monetary instruments at the top (Bell 2001; Innes 1913; Murad 1954). Government monetary instruments are usually at the top (unless they are convertible) because a government is able to impose dues on most people in its area of influence; such instruments are tax driven and the government has a monopoly over the issuance of such instruments (the domestic currency). Below them are monetary instruments issued by competing banks. Such instruments are bank-debt driven because banks have numerous entities indebted to them and banks promise to that the instruments they issue can be used to pay debts owed to them. The acceptance of bank monetary instruments is also driven by a promise by banks to convert them on demand and at par into tax-driven monetary instruments. Governments improved the liquidity of bank monetary instruments by ensuring par convertibility into the domestic currency and among monetary instruments issued by private banks. In the lower levels

of the pyramid, one might find other monetary instruments but their acceptance dwindles as the number of counterparties indebted to the issuer becomes smaller.

At all levels of the pyramid, the promise made by the issuer and redemption mechanisms that enforce that promise are crucial to generating acceptance among the public. While users of a monetary instrument usually do not think about the ability to pay the issuer (taxes, debt services, etc.) when they accept it, without this ability the monetary system would be deeply crippled. When governments refuse to redeem their monetary instruments—through tax payments or conversion—these instruments tend to disappear from circulation unless there is no other means to perform economic transactions. In that case, the pricing of such monetary instruments is deeply impaired because the valuation anchor provided by redemption channels disappeared.

Fifth, the term “chartal” is not equivalent to state or an indicator of the existence of state monetary instruments. Knapp (1905 [1924], 132) notes that a private “bank-note is a chartal document” that is the “chartal money of a pay-society or group which is not the State” but a “privately issued means of payment” (145). If one looks at the Oxford English Dictionary, the following definition of “charta” is given:

From the latin *charta*, or *carta* papyrus, a leaf of papyrus, paper, a paper, writing, document. Adaptation from the Greek *χάρτης* a leaf of papyrus or paper. The common medieval Latin for legal writing, charter. In Old English form, *carta*: Paper, letter. Later only as Latin). *Obsolete* (1000AD). A Charter. *Also used figuratively*.

Knapp (1905 [1924], 32) provides an equivalent definition when he states that charta “can bear the sense of ticket or token.” A governing authority, however, plays an important role in defining what is chartal. Indeed, chartal means of payment have to “be valid by law, but also must be made in a definite external form, which has previously been precisely laid down [by law]” (132). Tokens have to be easily recognizable by specific characteristics that are defined by law and “legal ordinance gives a use independent of [their] material” (32). Thus, “money is a creature of law” (1), and, because the governing authority is “guardian of the law” (39), monetary systems are a creature of the governing authority (modern states or otherwise).

The adjective “chartal” is used to point that, contrary to the metalist view, the acceptance of monetary instruments does not rest on the material used to make them but on the expected redemption. A good part of that is done by means used by the issuer to make others its debtors—voluntarily or forcefully—and by accepting its monetary instruments in payments of owed dues. Thus, “[A]ll coins [are] tokens and [...] the weight or composition [is] not regarded as a matter of importance. What [is] important is the name or distinguishing mark of the issuer” (Innes 1913, 382).

All monetary instruments are financial instruments and so all monetary instruments, be they issued by the government, a business, or an individual, follow a financial logic based on the creditworthiness of their issuer. Such creditworthiness is determined by the expected willingness and ability of an issuer to redeem its monetary instruments. Redemption occurs when monetary instruments are handed back to their issuer by entities who need to pay their debts to the issuer or, if possible, who want to convert the instruments into something else. The substance, if worthwhile, is a collateral available in case the issuer defaults. When no other means to prevent fraud in a monetary system are available, precious metals also play a role—albeit imperfect, as coins were commonly clipped, plugged, and sweated—of preserving the stability of the monetary system by making counterfeiting more difficult.

Endogenous Money, Liquidity Preference, and the State

Besides monetary history and the cause of acceptance of monetary instruments, MMT also focuses on the mechanics of monetary creation; once again, the state is integrated immediately in the explanation rather than as an afterthought. MMT integrates the fiscal side of the monetary system into the endogenous money framework and concludes that the money supply is not a disruptive force but rather moves according to the needs of the economic system (Wray 1998; Mitchell and Muysken 2008; Tymoigne 2016; Parguez 2002; Bougrine and Seccarecia 2002).

There is an exogenous/vertical component to the supply of reserves that considerably enriches our understanding of government financial operations and monetary systems. This vertical supply does not come from monetary policy operations—contrary to what Monetarists argued—but from fiscal operations. Two government entities—the central bank and the treasury—are

involved in the issuance and redemption of government monetary instruments, creating complex interactions between these entities. One can no longer assume that monetary policy is the strict domain of the central bank and fiscal policy is the strict domain of the treasury. The interrelations are extremely rich and help broaden our understanding of the monetary mechanics at play in a system in which a government is, or is not, monetarily sovereign (Bell and Nell 2003; Wray 2003b).

Finally, MMT also does not ignore the role of liquidity preference. Wray (1990) was among the first to integrate the liquidity preference and endogenous money theories. Post-Keynesians have long emphasized that the future is uncertain. As economies became monetized through the process presented above, that uncertainty expressed itself in monetary forms through liquidity and solvency risks. This generates a willingness to hoard liquid assets, which contributes to the persistence of fiscal deficits when government is a major source of such assets and the government allows its finances to accommodate the needs of the economy. Monetary instruments—i.e., financial instruments with a zero elasticity of production, a zero elasticity of substitution, and a high liquidity premium relative to carrying cost—are the most liquid financial assets, which makes them an ideal means for coping with uncertainty as long as the monetary system is stable (Keynes 1936).

MMT uses a financial approach to monetary analysis to show that the absolute liquidity, that is the perfectly stable nominal value, of monetary instruments must be created and managed. The governing authority plays a crucial role in ensuring that this liquidity is preserved through nominalist management of tax-driven systems. Once one understands how liquidity is created, managed, and lost in a monetary system, one can proceed to studying the impact of the demand for liquid assets on interest rates. MMT notes, in accordance with the horizontalist view, that nominal interest rates are overwhelmingly determined by current and expected monetary policy decisions (Lavoie 2006, 2010; Fullwiler 2006a, 2013). The liquidity premium influences long-term interest rates and so influences interest rate spreads (Lavoie 1996). MMT adds that the treasury plays a major role in monetary policy implementation.

Putting it All Together

Davidson (2001) likes to use the example of Korean War scripts issued by the US military to show that a currency is not tax driven. Korean citizens used the scripts instead of the yuan in their daily transactions and used the yuan only for tax purposes:

I have suggested the following (black swan) illustration to tax-based money chartalists several times. [...] During the Korean war, the South Korean civilian population legally had only access to South Korean yuan as the currency to pay taxes—and as legal tender. The US servicemen in Korea were paid in military script. [...] The Korean civilian population had little faith in their government and hence gladly sold anything the servicemen wanted for military script. Legally the Korean civilian population could NOT use military script to buy things at the US. Post Exchanges, could NOT use the military script to pay taxes, could NOT legally convert military script into yuan, and could not legally settle contracts between civilians. [...] What the authorities found out was that only a small portion of the script was refluxed through the Post Exchanges—much of the monthly payroll script ended up in the pockets of the civilian population who would use the US military script for settling liabilities between civilians. The civilian population would accept yuan in private sector transactions when they had to pay taxes—and only enough to pay these taxes. [...] Consequently, the US authorities were continually printing more script. Every once in a while, [...] the US authorities would have a currency (script)conversion [...] and the old script would—after 24 or 48 hours—no longer be acceptable to buy things at the Post Exchange. When the civilian population got wind that such a currency (script) conversion was about to take place—they would lose confidence in the old script.

This quote is excellent because, contrary to what Davidson thinks, it illustrates many points that MMT makes. First, the fiscal deficit is endogenous (only a portion of the scripts refluxed) and at equilibrium is equal to the desired net saving of the nonfederal sector (in this case the Korean private sector wanted to accumulate scripts to use them as means of payments, medium of exchange, and store of value). People did not want to hold the Korean government currency beyond the need to pay taxes, so the equilibrium Korean fiscal balance was zero (unless there was an external desire to net save the yuan, in which case a fiscal deficit is an equilibrium, or unless there was a lack of ability to enforce tax dues, in which a fiscal surplus is an equilibrium). Second, once the US military refused its scripts in payment, their fair value fell to zero. Third, nobody has a monopoly over the issuance of monetary instruments and they do not have to be legal tender. MMT does not argue that all monetary instruments are tax driven, nor does it argue that a specific monetary instrument will be used only by those who have to pay the issuer (government, banks, or others). It is quite common for monetary instruments to circulate outside the immediate sphere of influence of their issuer, sometimes losing or changing their monetary

properties in the process. For example, in medieval times, coins circulated at their bullion value in international trade, became official coins with a different value in another country, or were used as ornaments. One, however, must ask what would happen if the issuer refused to redeem its monetary instruments. Finally, acceptance can be achieved through channels of redemption other than making payments to the issuers, such as, in the case of the scripts, conversion into goods and services at the military post exchange.

CRITICISM #4: APPLYING MMT POLICIES WILL LEAD TO ECONOMIC INSTABILITY AND POLITICAL INSTABILITY

A group of critiques can be categorized as worrying about the instability generated by applying MMT to the management and governance of governments. Some have argued that MMT prefers monetary financing of the treasury and that this leads to high inflation or even hyperinflation. Others have argued that applying MMT will lead to out-of-control government spending and anarchy, so it is necessary to promote a noble lie about fiscal deficits. The noble lie is that fiscal deficits are the road to economic ruin and political instability. Martin Wolf (2020) argues that shattering the deficit myth “is wrong, because it will prove impossible to manage an economy sensibly once politicians believe there is no budget constraint.” Paul Samuelson (in Blaug 1988) noted decades earlier that, like “old fashion religion,” the purpose of the deficit myth is “to scare people [...] into behaving in a way that the long-run civilized life requires.” Latin American countries are supposed to show what happens when a country uses MMT as a guideline, with MMT being associated with monetary financing, fiscal deficits, and large increases in government spending (Edwards 2019). To top it off, a Chicago Booth poll (IMG Forum 2019) asked some economists to share their opinion about two statements that are supposed to represent the MMT position:

Question A: Countries that borrow in their own currency should not worry about government deficits because they can always create money to finance their debt.

Question B: Countries that borrow in their own currency can finance as much real government spending as they want by creating money.

All respondents disagreed, most strongly, with both statements, thereby supposedly showing that MMT is a lost cause.

Financial Praxis: Monetary Sovereign Governments Already “Do MMT”

The first thing to note is that MMT is a theory founded on a detailed institutional analysis of monetary and fiscal operations of national governments. A good part of MMT is about describing what goes on behind the curtain in terms of the financial operations of national governments. As such, throughout the world, monetarily sovereign governments already rely on a heavy coordination of their fiscal and monetary branches to ensure smooth government financial operations. The treasury routinely makes sure that the central bank can perform its monetary policy operations. The central bank routinely gets involved in the financing of the treasury in order to ensure that treasury’s financial operations do not destabilize the payment system and that the treasury has the financial means to implement the budget passed by Congress. There is nothing inflationary about that; all this does is ensure that treasury has enough funds in its bank accounts to implement the budget passed by Congress. The level and composition of spending set in the budget, together with the pace of implementation, are what could be inflationary, not the fact that the bank accounts of the treasury are well provisioned nor that the provisioning of such accounts is done quickly and easily through keystrokes.

The main theoretical point that MMT extracts from the institutional analysis of monetarily sovereign governments is that finance is not scarce as long as a government spends on goods and services priced in the domestic currency (which may be broader or narrower than the goods and services produced domestically). There is no such thing as a fixed supply of saving from which the government must draw and compete with the private sector. In addition, household, business, and state and local government finances are incorrect reference points for understanding national public finances when monetary sovereignty prevails. A monetarily sovereign government is not like a household because it is the issuer the domestic currency whereas a household is the user of such currency. The main practical point that MMT extracts from its institutional analysis is that current policymaking must be entirely reframed away from deficit fears, insolvency fears, and pay-for spending procedures. Instead, policymaking must be framed around the limits and opportunities that come with monetary sovereignty. Fiscal deficits are not intrinsically

worrisome, just as fiscal surpluses are not to be celebrated and do not give any “breathing room” to spend. Government spending and tax policy ought to be set independently and without regard for the impact on the fiscal position but rather with regard to the impact on the economy—including inflation.

Policymaking Praxis: Monetarily Sovereign Governments Do Not “Do MMT”

While financial praxis of monetarily sovereign governments is integrated in the MMT framework (and in that sense such governments already “do MMT”), the policymaking praxis of these governments does not mostly reflect MMT policymaking principles. The latter praxis is about two aspects of policymaking: one is the goals of monetary and fiscal policies and the other is the framing of socioeconomic issues and the decision-making process to create a budget. Starting with the issue of framing and decision making, MMT wants to rationalize the discussions about the national budget by dealing with two unproductive aspects of current budgetary procedures: first is the fearmongering about the “road to ruin” and the second is the absurdity of the “pay-for” logic. The following deals with both of them in turn.

When the details of monetary sovereignty are understood, it is pointless for policymakers to seek to put funds in a locked box for later use, modify existing programs, or conceive new programs to help save money in order to avoid insolvency. The funds needed are created quickly, as emergency spending to fight wars or dealing with pandemics shows, and insolvency is not financially possible. The fact that finance is not scarce when monetary sovereignty exists does not imply that the government can or should spend a lot more, nor does it mean that policymakers will ramp up spending quickly in a chaotic manner. The absence of financial constraints also does not mean that creating a budget is unnecessary. There are indeed two major constraints on government spending and taxation: one is political and another is economic.

On the political side, a society must decide for itself, hopefully as democratically as possible, what the public purpose is. What should the government do? It should be evident that, once the financial question is made irrelevant to political debates, setting the public purpose becomes a heightened point of contention. Does that lead the government to be overwhelmed with demands? No, it does not, as the diverse experiences of developed democratic societies show.

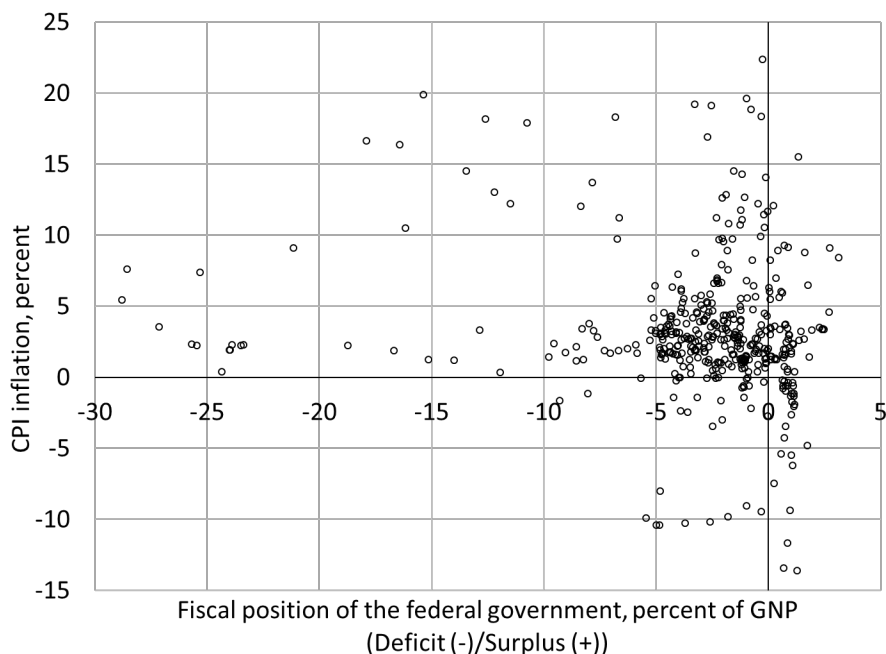
Many policymakers and citizens, for a range of reasons and beliefs, want less government involvement in the economy. Some societies may decide to have a national government that performs narrow functions in the economy while others may decide to have a much broader governmental involvement. Whatever the result of the debate, a sound debate cannot be based on the lack of money; the “we don’t have enough money” card and “the program is bankrupt and needs fixing” card are no longer relevant. Instead, the political debate must be oriented toward the intrinsic merits and drawbacks of a proposed policy and on the type of society one wants to build. MMT also wants this political debate to involve as wide a population as possible so that the political agenda is determined by wide political interests. While there has been some improvements on this front since the times of monarchies, the policy agenda and the framing of the debates surrounding it are still heavily influenced by wealthy interests, with the rest of the population left to vote yes or no (Gilen and Page 2014; Ferguson 1995). Once the political agenda is set, the descriptive aspects of MMT apply to any size of government and whatever budget is passed will be financed. Finding the money is not hard, but defining the “goods” and “bads,” determining what the government should do to deal with them, ensuring broad participation in such discussions, and finding the votes needed are the hard parts.

Beyond the political question, another major hurdle in the decision-making process is the availability of nonfinancial resources to implement the public purpose. A policy proposal needs to be judged not only on its political merits but also on its economic feasibility, not only in absolute terms but also relative to alternative proposals that tackle the same issue and proposals that tackle other pressing issues. That means that advisory governmental bodies such as the Congressional Budget Office (CBO) should score policy proposals based on their inflationary potential and the ability of a proposal to achieve the intended goal. That means deciding what is out of reach given the available human, natural, and physical resources and determining the pace at which a proposal can be implemented realistically given the current and expected state of resources. This method of judging a policy proposal is far superior to the current way the CBO judges a proposal, which merely consists in checking if it will add to the public debt or not. A new spending proposal that does not include a tax hike or spending cut somewhere else “to pay for it,” so that the new spending is budget neutral, has virtually no chance to be brought to a vote.

This leads to a cynical game of finding pretend tax revenues to pay for a spending proposal (Kelton 2020, 241ff).

There are several limits to this PAYGO method of judging a spending proposal. First, it lowers the trust of policymakers and constituents in the relevance of the budgetary process as pretend pay fors come to dominate the discussions. Second, it does not deal with the potential inflationary impacts of government spending that can occur regardless of the fiscal position; if resources are not available, it does not matter if the budget is in deficit, balanced, or in surplus. A casual look at the evidence shows that the automatic association of fiscal deficits with inflation is unwarranted (figure 6). Large fiscal deficits (such as those of World War II or the COVID-19 pandemic) are not associated with high inflation and regular fiscal deficits of less than 5 percent of GDP are associated with a wide range of price dynamics, from high inflation to deflation. A fiscal deficit might be inflationary but not merely because it is a deficit; it depends on how tight the resource constraint is and it depends on the effectiveness of the measures taken to control inflation when full employment is prevalent. A fiscal deficit may also be associated with inflation but may have nothing to do with it if inflation comes from other sources than a shrinking output gap (rising energy costs, rising interest rates, rising mark up, etc.) (Wray 2001; Minsky 1986a; Rowthorn 1977; Lavoie 2014). Similarly, a fiscal surplus might generate deflationary pressures and instability but not merely because it is a surplus. Third, fiscal outcomes are largely dependent on what happens in the rest of the economy throughout the business cycle. The fiscal position is the end result of the economic process, not a leading element of the economic process that can be tweaked at will by policymakers. As such, the fiscal balance accommodates the needs of the economy and tends to move by itself where it needs to be to ensure that it is neither too high nor too low. Fourth, the current CBO scoring method leads policymakers to frame debates about domestic and international issues in financial terms (insolvency, lack of money) and to focus on solving financial “problems” (no money in the trust funds, fiscal deficits, etc.) that are not actual problems. It also leads to proposed “solutions” (putting money in a locked box, putting treasuries in the trust funds, austerity policies, etc.) that in no way solve the actual problems but may actually make them worse (austerity usually generates recessions, cutting social security benefits to “save Social Security” worsens the problem of dealing with an aging society, etc.).

Figure 6. Fiscal Policy and Inflation in the United States, 1913Q1 to 2021Q1



Sources: *Treasury Bulletin*, National Bureau of Economic Research, *Monthly Receipts, Outlays, and Deficit or Surplus, Fiscal Years 1981–2021*, Bureau of Labor Statistics.

Against the Sound Finance Approach to Public Finance: The Fiscal Balance Is Not an Appropriate or Achievable Policy Goal

None of the above means that MMT proponents are for fiscal deficits, and large deficits do not signal that a government is making policies in a way that is consistent with MMT. MMT is agnostic about the fiscal position as long as monetary sovereignty prevails. The central role of automatic stabilizers for the dynamics of the fiscal balance, combined with the fact that finance is not scarce, implies that the fiscal balance is not an appropriate policy goal. National government policies should not set a direct or indirect goal of achieving any specific fiscal balance; instead policymakers should let it move automatically to accommodate the desire of the other sectors to accumulate or diminish their net financial wealth. At the same time, policymakers should watch for sources of financial instability in the subsets of the domestic nonfederal sector if some subsets record a deficit. Instead of the fiscal balance, the proper guiding principles of policymaking should be full employment and price stability as well as issues of fairness, equity, and incentives as defined by “goods” and “bads” (Musgrave and Musgrave 1988). If the fiscal position contributes to inflationary pressures or if it contributes to financial fragility, then the fiscal position is problematic. As such, putting in place mechanisms

that allow for a quick automatic reversal of the fiscal balance trend, and that do not rely on discretion by policymakers, is important.

Since at least World War II, when massive deficits were recorded, cracks have appeared in the idea that sound national policymaking praxis requires following the principles of sound finance. When monetary sovereignty prevails, Keynes (1940) noted that the role of taxes is not to finance government spending but rather to help control inflation by releasing domestic resources for the public purpose. Lerner (1943) similarly noted that tax policy should be crafted with the goal of controlling inflation. By the end of the war, Friedman (1948) argued that all treasury spending should be monetary financed and automatic stabilizers should be strong, and Ruml (1946) noted that economists and policymakers should forget about taxes as a financing tool and should focus on their anti-inflation, anti-inequality, incentive, and cost distribution aspects. All federal government spending on goods and services priced in the domestic currency is financed by crediting bank accounts—always—when monetary sovereignty prevails. Federal tax revenues destroy the domestic currency and can only come after a government injected the currency, usually long after and in a smaller quantity, as other sectors want to net save the domestic currency and government securities. All of this was pretty much well understood and somehow got lost. MMT revives these ideas and links them to other theoretical developments via the concept of monetary sovereignty (Wray 2002).

Setting Tax Policies and Spending Policies Independently

A monetarily sovereign government must tax but the tax policy should be set independently from the spending policy. What that means in practice is that the goal is not to set tax rates with the aim of balancing the budget. Tax rates should be structured with the goal of promoting what Ruml (1946) noted. In terms of inflation fighting, the best tax structure is one that can automatically remove purchasing power from the domestic private sector when inflationary pressures from the demand side of the economy emerge. A common criticism of MMT is that policymakers will not have the courage to raise tax rates when the time comes. MMT does not advise to proceed through discretion but rather to put in place a tax structure that automatically manages price instability that comes from excess demand. Most countries already have strong

enough automatic stabilizers on the tax side; they actually tend to be too strong because tax revenues rise very quickly when economic activity picks up.

In terms of reduction in inequalities, currently discussions about taxation on high incomes or wealth are framed with a view of the tax revenues that tax rates would bring to the treasury and the spending that these revenues could finance. From here, it is an easy step to become satisfied with raising tax rates just enough to expect sizable revenues. However, the tax rate increases may be so small as to be insignificant for the purpose of reducing inequalities. If, instead, discussions regarding taxation on high incomes and wealth are framed with the goal of reducing inequalities, then tax rates should be as high as necessary to achieve the goal. The tax structure ought to be approached with the purpose of having confiscatory taxation, not revenue-generating taxation. It is probable that if tax rates are high enough they will not generate much revenue, as wealthy individuals are skilled at evading taxation. However, as long as taxation on wealthy individuals destroys enough of their income and wealth, leads them to shelter their wealth in a way that is difficult to use, or incentivizes them to increase donations that help those at the bottom of the distribution, then taxation has done its job of fulfilling a public purpose that aims at reducing inequalities.

Policy Goals: Focusing on Resource Cost and Ignoring Financial Cost

MMT provides some guiding principles to frame issues and debates away from financial considerations and to guide the decision-making process toward defining the public purpose and determining resource availability. While these policymaking principles can be applied to advance any policy agenda, MMT proponents have advanced a specific policy agenda, which brings forward the goals of fiscal and monetary policies. Most MMT proponents want to use monetary sovereignty to advance a policy agenda that deals with what they perceive to be the main drawbacks of capitalist economies: unemployment, arbitrary inequalities, and financial instability. They also have proposed to leverage monetary sovereignty to help deal with the major issues of our times, such as an aging society and environmental catastrophes. MMT proponents take to heart one of the recommendations of the recent United Nations (2018, 7) report that promotes a policy agenda centered on “democratic decision-making, full employment

policies, social protection for the vulnerable, a fair and effective justice system, gender and racial equality, respect for human dignity, responsible fiscal policies and environmental justice.”

An evaluation of a policy proposal should be done in relation to the domestic resources used instead of how many dollars it would cost. As such, the proper metric is not the financial costs (billions of dollars, trillions of dollars, or otherwise), but rather the percentage of domestic resources that is expected to be allocated to a proposal. This would help set the size and the yearly pace at which the spending can be implemented over the time span of the proposal.

For example, a Green New Deal proposal may cost one trillion dollars but using that number to frame the debate around the proposal as “the Green New Deal is unaffordable,” or “the Green New Deal is the road to ruin” is disingenuous. What matters is the net amount of domestic resources required to implement the proposal; that turns out to be small, with a net cost of 1.3 percent of GDP per year (Nersisyan and Wray 2019). Another example is the framing of the Social Security problem. Policymakers frame it in terms of the needs to fix Social Security to avoid insolvency and they propose financial means to this end (lower benefits, private retirement accounts, putting funds in a locked box, etc.). This framing is incorrect. Former Federal Reserve Chairman Alan Greenspan (in US House 2005, 43) frames the issue correctly when discussing the solvency of social security with Senator Paul Ryan:

I wouldn't say that the pay-as-you-go benefits are insecure, in the sense that there is nothing to prevent the federal government from creating as much money as it wants and paying it to somebody. The question is, how do you set up a system which assures that the real assets are created which those benefits are employed to purchase.

This is the logic used by MMT when thinking about policy problems and solutions. The federal government cannot go broke, so Social Security checks cannot bounce, but the checks may not have much purchasing power. There is a problem with Social Security, but it is a demographic problem with implications in terms of nonfinancial resources (Eisner 1998; Wray 2006; Bell and Wray 2000). Putting money in a locked box and other austerity policies to “save Social Security” will not do anything to help solve the problem. Finding means to raise the productivity of the labor force, having a well-defined immigration policy, and repurposing and building

infrastructure to meet the needs of an aging society are means to solve the problem, and most of them require more, not less, direct and indirect government spending.

Dealing with Large and Rapid Increases in Government Spending

If a massive and rapid increase in government spending is implemented, such as in times of a costly war, once again MMT provides some guidance on how to do that in a way that limits inflationary pressures. MMT relies extensively on the work found in Keynes's *How to Pay for the War*, policymakers' experience with price controls during World War II (Galbraith 1981), and the postwar lessons (Ruml 1946). The first lesson is that a government can massively increase its spending on domestic goods and services and it can do so very quickly. During World War II, federal government spending went from 10 percent of GDP in 1940 to almost 45 percent of GDP in 1943 and 1944. The financing of that spending was done, as usual, with the cooperation of the Federal Reserve to control the entire yield curve so that interest rates did not bulge despite the massive increase in deficits from less than 3 percent of GDP on average in the 1930s to 22 percent of GDP on average during the war. Something similar occurred during the recent pandemic.

The second lesson is that to counter the anticipated inflationary impacts, if any, policymakers can put in place several types of policies that aim at cutting purchasing power in the domestic private sector to avoid competition with the government for resources and limit price gouging.

There are many successful examples of these types of policies throughout wartime and peacetime, and many examples of disaster and hyperinflation when these policies were not followed. The experiences of belligerent countries during the Napoleonic Wars provide examples of the core role of taxes in maintaining the monetary system's stability. England provides a successful example, even under demanding circumstances and even though convertibility into coins was suspended from 1802 to 1815, demonstrating that as long as the coordination with the treasury is well managed and proper controls and accountability are in place to reliably channel resources toward the public purpose (in the case the war effort): "a (largely) fiscally backed money was not only possible, but practicable" (Roberds and Velde 2016, 488).

Similarly, the Prussian treasury was able to issue notes to finance its war effort against Napoléon but this did not lead to high inflation because several measures were taken to contain it, including taxation (Siekmann 2016, 514). On the contrary, the case of France during the Napoleonic Wars shows how unstable a monetary system based on unconvertible paper currency can be if “most other sources of revenue [are] exhausted” (Roberds and Velde 2016, 479). In other words, the French government issued large quantities of banknotes without providing bearers a means to redeem them in any relevant ways (Bordo and White 1993; Antipa and Chamley 2017).

In the 20th century, war was a major source of hyperinflation. Hyperinflation did not occur among European countries that were subject to destructive wars, even when the central bank directly financed the treasury, if there was a tax structure and tax base that allowed the fiscal deficit to fall when needed (Velde 2016). Hellferich (1927 [1969], 599–601) notes that German hyperinflation came from the incompatibility of a war-devastated productive system with the demands of the external debt coming from reparations and prewar debt. This was compounded by a default on reparation debt that led to a depreciation of the exchange rate and higher import prices. More recently, the experience of Latin American countries (Kaboub and Aliriza 2019; Câmara and Vernengo 2004) and Zimbabwe (Mitchell 2009) show that the sources of hyperinflation have to be found once again in disruptions of productive capacities and external debt.

Overall, MMT rejects monetary sources of hyperinflation and focuses on the underlying productive, financial, and political instabilities (Mitchell, Wray, and Watts 2019, 344–46; Armstrong and Mosler 2020). The money supply, being endogenous, accommodates the rising cost of living instead of being the cause of such a rise. As such, MMT agrees mostly with Vernengo and Caldentey (2020, 344) when they note that:

Hyperinflations tend to occur because countries do need to make payments in foreign currency, be that for the needs of development, the requirements of war, or simply by the imposition of foreign powers (e.g., reparations), and are not connected to problems with the tax system, let alone the central bank printing press.

However, MMT emphasizes the importance of the inadequacy, or even collapse in the more severe cases, of the tax system in generating cases of hyperinflation. This does not come from the fact that the money supply is injected exogenously in the system, but rather from the lack of redemption/reflux channels for the government currency.

Against Out of Control Spending and Against Fiscal Deficit Hysteria

Overall, contrary to what the critiques argue, MMT fiscal policy recommendations do not favor out of control spending and limited or no taxation. Monetary sovereignty is not a free pass to unlimited government spending. Instead, MMT argues that the current focus of policymaking on balancing fiscal outcomes, unaffordability, and insolvency frames policy issues and debates incorrectly, which leads to irrational and instability-prone policy choices. Robert Lucas (in Snowdon, Vane, and Wynarcsky 1994, 224–25) stated that:

I was a deficit alarmist in the early 1980s, not because I disagreed with Barro that deficits are just postponed taxes—which is obviously correct—but because I feared the tax that would make present values add up would be inflation tax. Now I think it is more likely that it will be defaults on social security promises that will do it. Either way, I think Clinton is right to try to get us to face the issue. Lucas

MMT disagrees entirely with this statement. Fiscal deficits are not followed by higher tax rates, and fiscal deficits are not associated with higher inflation, higher interest rates, or insolvency due to inability to pay. Fiscal deficits are normal and sustainable and they accommodate the needs of the economy. As such the public debt does not need to be repaid and will never be repaid.

Defining the public purpose, determining resource availability, and finding the votes are the hard parts, whereas keystroking the funds to pay for the spending is the easy part. As such, MMT proponents also strongly answer “no” to the questions of the Chicago Booth poll.

CRITICISM #5: MMT POLICIES LEADS TO FINANCIAL INSTABILITY AND SLOW ECONOMIC GROWTH

Critics have argued that MMT policies promote financial instability through two channels. One is loose fiscal policy and the other is a zero-interest rate policy (ZIRP). On the fiscal side, it is

argued that a fiscal deficit raises interest rates and slows economic growth—the well-known crowding out effect—raising the financial fragility of the economy as debt service growth rises while income growth slows. This destabilizing effect is argued to be aggravated by the fact that shattering the deficit myth is supposed to lead to out of control government spending. On the monetary policy side, it is argued that a ZIRP promotes overindebtedness and speculative bubbles. As Thomas Palley (2015, 18) put it “this interest rate policy passivity is tantamount to believing that financial markets are stable and set interest rates and asset prices appropriately.”

Fiscal Deficits Stabilize Economic Activity and Promote Financial Stability

The first problem with this critique is that it mischaracterizes MMT. As explained in section 4, MMT is not for loose fiscal spending and fiscal deficit, nor does it want to apply pump priming and fine tuning à la neoclassical synthesis of the mid-20th century. MMT also reorients the policymaking praxis in order to increase economic stability. The current policymaking praxis misleads policymakers and the public, channels the public debate toward futile discussions about the ability or inability to find money, leads to a misspecification of societal problems in financial terms, and so generates the incorrect responses to the very real problems a society faces.

The second problem with the critique is that fiscal deficits are a boost to the saving level of the domestic private sector, state and local governments, and the rest of the world. Fiscal deficits sustain national income by injecting more income in the economy than they remove through taxes, which improves the liquidity and solvency of other sectors. Fiscal deficits sustain private investment by stabilizing expected sales—the main driver of business investment—while having a negligible impact on interest rates (that are not a key determinant of business investment). As Minsky noted (1963, 1993), a “big bank” (a central bank that provides an elastic currency by stabilizing interest rates and acting as lender of last resort) and a “big government” (a treasury that spends and taxes enough to smooth national income throughout the business cycle) are central to financial stability. Economic growth, therefore, will not generate a weakening of the financial positions of private units if it is based on federal/national government programs that continuously sustain the private sector’s surplus and inject safe assets into the balance sheets of private units, although that might be inflationary (Minsky 1963, 1993). Fiscal deficits tame financial crises, they do not lead to financial crises when monetary sovereignty prevails because

government is always solvent in its own currency and because private income is sustained. Put in Minskyan terms, a monetarily sovereign government is always in a hedge-finance position regardless of its fiscal balance or the size of its public debt. In addition to stabilizing national income, fiscal deficits also have beneficial portfolio effects for other sectors of the economy. Deficits translate into the public debt and treasuries are credit-risk-free (the nominal debt service can always be paid on time in full), highly liquid financial instruments that are a core staple of the financial system. Treasury securities provide the nonfederal sector with a way to allocate its financial net wealth in a safe way; they are also safe collateral and are a core means of meeting the requirements of financial regulations. In the United States, US Treasuries represented a high proportion the balance sheet of banks after World War II, which helps explain why the war was followed by decades of financial stability (Minsky 1983).

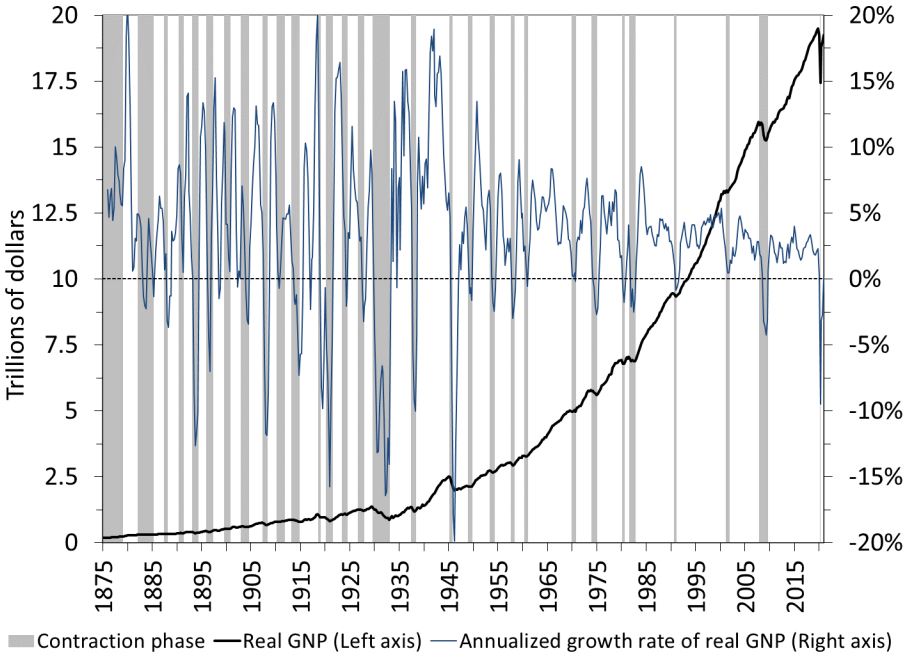
Recently, Reinhart and Rogoff (2009) studied the impact of the public debt on economic stability while they noted in passing the importance of private debt. The main issue with their book is not a technical error that invalidates their result but rather a theoretical one (Nersisyan and Wray 2010). They see a fiscal deficit as a source of instability independently of the nature of the monetary system in place. The hidden premise is that a fiscal deficit is a source of financial problems under any condition. However, a typical result found of the early warning system literature is that fiscal surpluses are a leading indicator of currency crises:

This counter-intuitive result is now well documented in the literature: many of the countries hit by a crisis actually ran a fiscal surplus, noticeably Mexico in 1994 and the Asian countries in 1997. This fact led many authors to reject first generation models of currency crises for more elaborate models in which moral hazard plays a role (a country with a government surplus is more likely to bail out risky investment projects). Bussiere and Fratzscher (2002, 27)

The fact that fiscal surpluses are associated with crises is easily understandable if one accounts for national accounting relationships and the monetary relations they imply. It is not an issue of moral hazard due to bail outs but rather that fiscal surpluses drain income out of the nonfederal sector, which leads to problems for the nonfederal sector in meeting its nominal debt commitments and generates a need to refinance. When this involves foreign-currency-denominated financial transactions, any refinancing problem is prone to generating a currency crisis and a banking crisis (Kregel 1998).

The stabilizing effect of fiscal deficits can be seen in figure 7 when combined with figure 1. By letting the fiscal balance accommodate the needs of the economic system through the establishment of automatic stabilizers and by raising its share of spending in the economy, the federal government has considerably improved the stability of the economy (Minsky 1986a; Taylor, Proaño Laura de Carvalho, and Barbosa 2012; Hein 2018; Cohen and Follette 2000). Since the end of 1930s, contractions in the United States have been much milder, much less lengthy, and much less frequent. Similar trends are observed throughout the developed world, although the return of “free-market” thinking over the past 40 years has increased in financial instability (Bordo et al. 2001).

Figure 7. The US Business Cycle: 1875Q1–2021Q3 (base: 2012)

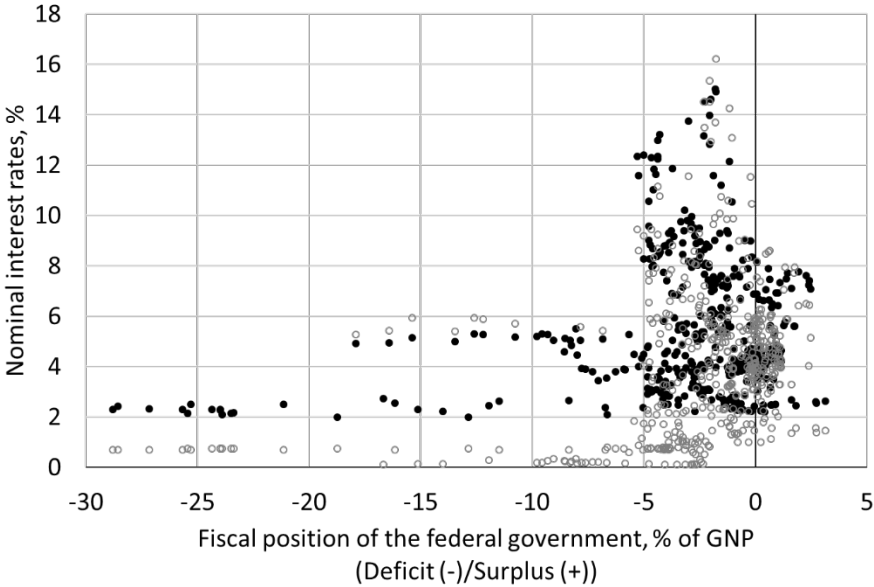


	Number of contractions	Average frequency (year)	Average length (month)	Average value of declines in real GNP	Average growth rate of real GNP	Average std. dev. of real GNP
1880-1939	16	3.8	21.8	-5.82%	3.15%	7.47%
1947-2021	12	6.3	11.1	-1.94%	3.07%	2.71%

Sources: National Bureau of Economic Research, Bureau of Economic Analysis, Gordon (1986)

The third problem with the idea that fiscal deficits are destabilizing is that there is a weak relationship between the fiscal balance and interest rates. One may as well assume that there is no relation between the two variables. Fiscal deficits do not raise interest rates; fiscal surpluses do not lower them. Figures 8 and 9 show that in the United States interest rates are not driven by the fiscal balance of the US Treasury; they are driven by the monetary policy of the Federal Reserve (Akram and Li 2017; Atesoglu 2003, 2005). When a national treasury runs large deficits, it usually does so during a recession when tax revenues plummet. During a recession, the central bank also lowers its policy rates to help the economy and all other interest rates tend to follow. During World War II, when the fiscal deficit ran past 20 percent of GDP as government spending increased very rapidly, the Federal Reserve set all interest rates on the US public debt very low for years; private interest rates followed and stayed low for years. During the 2020–21 COVID-19 pandemic, the same occurred and similar lessons can be drawn for other countries (Borio et al. 2017; Sharpe 2013; Akram and Al-Helal Uddin 2021; Akram 2021).

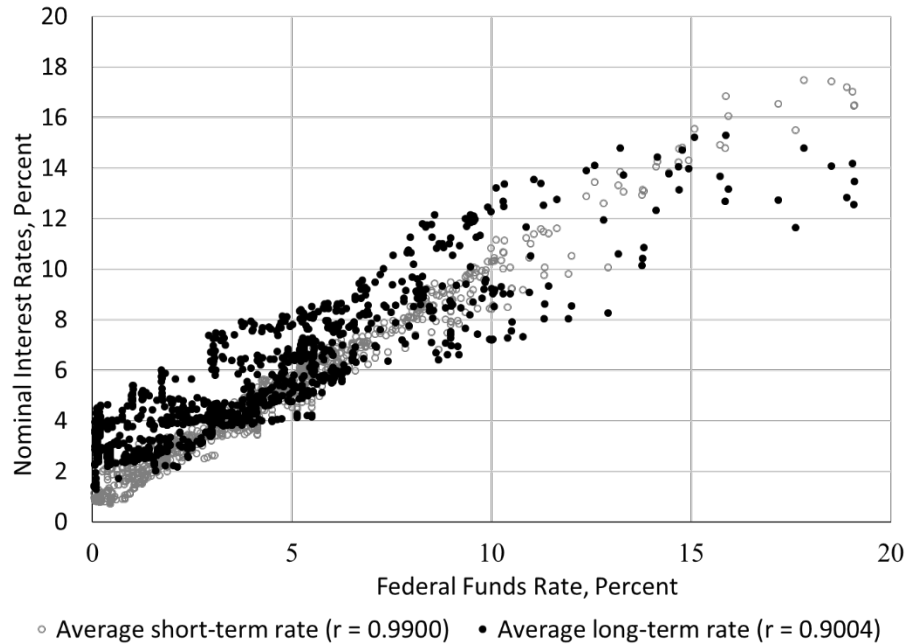
Figure 8. Fiscal Position and Interest Rates, 1900Q1–2021Q1



- High grade bonds (r = 0.30393)
- Prime commercial papers (r = 0.13322)

Sources: *Treasury Bulletin*, National Bureau of Economic Research, *Monthly Receipts, Outlays, and Deficit or Surplus, Fiscal Years 1981–2017*.

Figure 9. Monetary Policy and Nominal Interest Rates, January 1919 to June 2021



Sources: National Bureau of Economic Research (Macrobistory Database), FRED.

Investment-led Growth Policies Are Destabilizing, Economic Growth Is Demand Led

Fourth, MMT argues that investment-led growth—a favorite growth strategy of policymakers through tax breaks and subsidies to private businesses, among others—is not sustainable and destabilizing, and that government plays a major role in countering the stagnating and destabilizing impacts of such growth. Evsey Domar (1946) extends Keynes’s static approach to the problem of economic growth and shows that investment-led growth is unsustainable because the level of net investment grows productive capacities while aggregate demand only grows by a multiple of the change (not level) in investment. The issue is not solved by allowing substitution effects to take place through changes in relative input prices as the Cambridge Controversy concluded (Lavoie 2008). Minsky complements Domar by showing that reaching financially sustainable long-term full employment and price stability cannot be based on promoting the growth of private investment. Minsky (1973, 1981, 1986a) also notes that the emphasis on investment creates inflationary pressures and income inequality. Steindl (1952), Walker and Vatter (1989) and Vatter, Walker, and Alperovitz (1995) build on Domar’s, and Minsky’s analysis by showing that the main constraint on economic growth has been an insufficient growth in aggregate demand not an insufficient growth in aggregate supply (Wray 2008). They

conclude that the government has a crucial role to play not only in stabilizing the economy, but also in putting it onto a higher growth path.

The mistaken emphasis upon physical capital accumulation reveals [...] a defect in the ruling growth models to which we have called attention: they are essentially laissez faire constructs. Acknowledgement of the long-established presence of big government is considered ancillary to long-run growth analysis. Government is allowed to intrude mainly and merely into such matters as subsidization of sectors, regulation, research, and education of the labor force. Big government as the decisive, dynamic, autonomous source of demand growth, historically coming to replace private fixed investment is, like the demand side in general, omitted from the usual model. Walker and Vatter (1989, 344–45)

Contrary to the loanable funds approach (in which government competes for resources with private investors) and the efficient market framework (in which government intervention leads to misallocations and stifle innovations), government spending has been a necessary and complementary component to economic growth and a major source of innovations (Mazzucato 2015).

Overall, MMT proponents note that economic growth and economic development is demand led—a defining feature of Post-Keynesian economics (Lavoie 2014)—with fiscal policy playing a big role in sustaining and boosting economic growth while reducing its volatility. This does not mean that government spending can grow limitlessly relative to the size of the economy, but rather that productive capacities (especially labor) are usually flexible enough to respond quickly, and ultimately adapt, to the requirements of rapidly growing expenditures. While this has been well understood in the Keynesian literature, both heterodox and mainstream (hysteresis effect), it rarely enters policymaking discussions except when facts stubbornly show that the economy can operate far beyond what is at the time considered to be full employment. For example, Greenspan noted in 1999—after years when the unemployment rate fell below the supposed NAIRU and inflation did not accelerate (much to the dismay of other FOMC members and prompting estimates of NAIRU to be revised down)—that:

this is really a repetition of what I've been saying in the past—that we have all been brought up to a greater or lesser extent on the presumption that the supply side is a very stable force. [...] In my judgment our models fail to account appropriately for the interaction between the supply side and the demand side largely because historically it has not been necessary for them to do so. Federal Open Market Committee (1999b, 46–47)

The inability, or unwillingness, of central bankers to recognize the usual positive feedback between aggregate demand and productive capacities leads them to be too cautious—by raising interest rates prematurely and/or by conceptualizing government spending merely as a quick or temporary recession fighting tool—with the result of lowering the growth path of the economy and creating financial instability. Instead of tightening fiscal and monetary policy immediately as inflation rises (or even in anticipation of higher inflation), policymakers should give productive capacities time to adapt to the demand growth when inflation comes from demand pressures (Fontana and Palacio-Vera 2007). While inflation may rise, it would be temporary.

The Public Debt Will Not Be Repaid and Is Not a Burden on Future Generations

Fifth, one must come to recognize that the public debt will never be repaid and that a higher public debt will not translate in higher tax rates that will squeeze private income. There is no reason to pay it back, and doing so would be harmful to the finances of the nonfederal sector 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; our children and grandchildren will not be burdened with 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. The public debt will keep piling up to accommodate our growing economy's need for a safe asset and the government's ability to keep paying it on time will persist as long as it is monetarily sovereign.

For the Last Resort Use of Monetary Policy

The second channel through which financial instability is supposed to occur is through permanent ZIRP or, more loosely, the last-resort use of interest rates to manage economic activity and inflation. MMT supports a default ZIRP and argues that monetary policy is not a reliable tool for fighting inflation because of its weak and potentially perverse effects (Mitchell and Muysken 2008, 146ff; Papadimitriou and Wray 1994, 1996). While some areas, such as housing, are more sensitive to changes in interest rates, overall interest rates do not play a major

role in determining spending, especially business investment (Fazzari, Hubbard, and Petersen 1988; Fazzari 1993; Glyn 1997). This sensitivity declines as an economic expansion progresses and is even lower now that gradualism and transparency have made it much easier for economic units to anticipate adverse changes in interest rates and to hedge against them.

Another problem with the use of monetary policy to fine-tune the economy is that it presupposes an inverse relationship between demand for credit and interest rates. However, in a leveraged economy, economic units have to meet their financial commitments regardless the level of interest rates, and higher interest rates mean higher financial commitments, which creates a potential need to ask for more credit to meet these commitments (Wray 1993; Mason and Jayadev 2014). Thus, an aggressive monetary policy to fight inflation may promote financial instability when a large proportion of refinancing operations is needed to sustain economic activity (Kregel 1992).

Finally, interest rates may have a perverse effect on inflation through cost and demand channels. Higher interest rates raise operating costs and businesses may pass those costs onto their customers. Higher policy rates also boost the income of rentiers and raise their consumption (Lavoie 1995; Kelton and Wray 2006; Tauheed and Wray 2006; Tillmann 2008). Former Fed Chairman Greenspan, among others at the FOMC, recognized this possibility: “There is deterioration in the inflation rate stemming from interest costs and energy costs, and those are not trivial sources of deterioration. At the end of the day it doesn’t have to be labor costs that are causing the overall inflation deterioration.” (Federal Open Market Committee 2000, 85)

Overall, the emphasis on an inverse relationship between interest rates and spending is unwarranted and MMT does not view monetary policy as a relevant tool for fighting inflation. While a lot of credit is given to an improvement in monetary policy management for the price stability observed from the mid-1980s to the mid-2000s (Bernanke 2004), monetary policy played a minor role, as Nancy Teeters (Federal Open Market Committee 1981, 46) noted already in 1981:

May I remind you that we shouldn't take too much credit for the price easing? I never thought we were totally at fault for the price increases that we suffered from OPEC and food; and I don't think the fact that OPEC and food have calmed down has a great deal to do with monetary policy per se, except in the very long run.)

Most of the credit for price stability should be attributed to the taming of energy prices and the industrialization of China that flooded the world with cheap goods, together with a bit of luck (Stock and Watson 2002, 2005).

For all the previous reasons, a ZIRP is MMT's preferred monetary policy option. Instead the central bank should refocus its operations and goals on the purpose for which many central banks were created (Capie, Goodhart, and Schnadt 1994), namely ensuring an elastic currency for the economy (i.e., reliable financing and refinancing channels for banks and the national government) together with proactive regulation and supervision of the financial industry. MMT proponents advocate financial regulation and supervision along the lines of Minsky's theoretical framework, which recognizes the inherent instability of capitalist economies (Tymoigne 2011). Government has a role to play through the promotion of safe underwriting (promote hedge financing), the establishment of a banking structure that promotes long-term recurring relationships between bankers and their debtors, and the regulation of financial innovations toward safe financial products. Bank credit should be limited to creditworthy borrowers but banks should be encouraged to look for them wherever they are and to avoid redlining (Minsky et al. 1993). Creditworthiness is defined here differently from the way bankers use it. MMT advocates that banks should analyze the means used to service debts ("*How* will you repay on time?") in addition to willingness and ability to pay on time ("Will you repay on time?") (Tymoigne and Wray 2014). Credit controls can be useful for restricting the flow of credit to speculative endeavors and moving it toward financially sustainable economic activities that are defined as "good" by the public purpose.

CRITICISM #6: MMT IS UNREALISTIC, DISRUPTIVE, AND LEADS TO INCORRECT FRAMING OF ECONOMIC PROBLEMS

Some critics have argued that the use of a consolidated government that merges fiscal and monetary branches is unrealistic and leads to incorrect claims that taxes and government security issuance do not finance anything. They claim that in normal parlance “government” means the treasury (and Congress) only, not the treasury and central bank together, and that there is a clear separation between the fiscal and monetary branches. As such, the well-to-do, through tax payments and treasuries purchases, are the ones who finance public spending and the treasury does not have any money of its own. As a consequence, MMT provides ill-suited policy recommendations and its implementation would lead to confusion among policymakers, introducing beliefs such as that taxation is not needed or that there is no limit to government spending. These destabilizing aspects would be reinforced by the radical changes in central banking practices that MMT is supposed to propose. The central bank would lose its independence and the sound source of finance, i.e., taxes, would be replaced by an inflationary source of finance, i.e., monetary financing.

Educating the Public and Policymakers

Dealing with the confusion among policymakers, there is clear evidence that at least some policymakers understand the implications of monetary sovereignty but that the noble lie of the deficit myth prevents them from talking to voters that way for fear of losing votes (Kelton 2020, 231–32). Here the solution is simple: it is about educating policymakers and the population by presenting and repeating the public-money narrative instead of the taxpayer narrative. This requires patience and determination and there has been some success on that front (e.g., Yarmuth 2021).

Realism and Understanding Underlying Causalities

Regarding realism, it is important to make a difference between the logic followed in the consolidation technique (when MMT uses the “federal/national government” sector) and the logic followed in the unconsolidated analysis (when a split is made between the treasury and the central bank). Critiques are not always clear on that difference. A central conclusion of MMT is

that regardless of the logic, the end result is the same. This is so not only for theoretical reasons but also because, in a monetarily sovereign government, the central bank and the treasury always closely coordinate their financial operations to maintain the stability of the financial system. While the politics surrounding this cooperation have sometimes been heated, the economics is straightforward and well understood by insiders (US Senate 1952; MacLaury 1977; Meulendyke 1998; Newman 2013; Garbade 2004, 2008, 2021; Allen 2019; Silva and Richard 2010; Sundararajan, Dattels, and Bloomstein 1997). Even when the central bank can set its policy independently, it must account for the financial needs of the treasury to maintain financial stability. For example, in the United States, the Federal Reserve has always helped the US Treasury when needed, either by purchasing unwanted treasuries in the primary market, by providing advances directly to the US Treasury, by advancing funds to primary dealers who are required to purchase treasuries, by providing advances to banks to ensure that taxes can be settled, and/or by providing a refinancing source to the US Treasury. The theoretical implication that MMT draws from this is that one can simplify the economic analysis without loss of generality by merging the central bank and the treasury into one entity called “the federal/national government.” Fiebiger (2012b, 31) notes that: “it must be acknowledged that, in the modern era, the US Treasury sells bonds to acquire the funds it needs to finance deficit-spending and that without this financing operation would be short of ‘money.’”

MMT does not deny this when one accounts for the whole institutional framework. The point is that the central bank is routinely behind the scenes by providing banks the needed reserves to ensure that auctions of treasuries go smoothly and that tax payments are settled. Congress delegated some of the treasury’s monetary power to the central bank but, in exchange, the central bank must cooperate with the treasury. In addition, the treasury has other goals in mind than merely budgetary concerns when it issues treasuries and, at times, these goals are at odds with such concerns. Thus, if one wants to account for the institutional aspects of government finances in order to be more descriptive, one should account for all of them, namely those that constrain treasury–central bank operations, and those that allow the treasury and central bank to bypass these constraints (Tymoigne 2014c; Juniper, Sharpe, and Watts 2014). Lavoie (2013, 16–17) recognizes this but he prefers not to use the consolidated government:

In a nutshell, as long as the other characteristics of a “sovereign currency” are fulfilled, it makes little difference, as the cases of Canada and the USA illustrate, whether the central bank makes direct advances and direct purchases of government securities or whether it buys treasuries on secondary markets, as long as the central bank shows determination in controlling interest rates. [...] But then, if it makes no difference, why do neochartalists insist on presenting their counter-intuitive stories, based on an abstract consolidation and an abstract sequential logic, deprived of operational and legal realism.

MMT argues that the added complexity is counterproductive because it leads to poor understanding among economists, poor modeling, and incorrect policy choices. Were economists and policymakers to understand that the consolidated case explains the underlying nature of the unconsolidated government financial operations, MMT suggests that all three could be markedly improved. One may note that policymakers, such as Chairman Greenspan, do commonly use the consolidation technique in policy discussions. It is an effective rhetorical tool that is a good first approximation of operational realities and that brings forward the underlying causalities at play that otherwise are hidden by institutional complexities.

There Is No Need to Change Government Institutions

None of this means that there ought to be a radical change in the way the treasury and central bank interact today. In fact, no change is required because national treasuries and central banks all over the world already routinely work together. In addition, allowing direct financing of the treasury is not a radical step, as it is already in place in some countries and is commonly used in Canada (Juniper, Sharpe, and Watts 2014; Jácome et al. 2012). MMT just points out that the layers of institutional complexity that hide this routine coordination are unnecessary and confuse the policymaking praxis. This coordination may as well be simplified but that is not a necessity, and allowing direct financing does not mean practicing MMT policymaking. In addition, MMT can be implemented for all sizes of government, and the policy proposals put forward by MMT use a small amount of domestic resources and do not aim at a major shift of resources to the government. If a major shift in resources is necessary due to the political agenda, MMT provides some guidance on how to do it in the least disruptive manner. More broadly, MMT emphasizes that budgetary procedures are of a political nature, and the point is to promote procedures that encourage rational discussions, accountability, and transparency, and to eliminate procedures (such as the debt ceiling in the United States) that perpetuate noble lies and political games. If the government is not monetarily sovereign, a financial constraint exists that further limits what

the government can do. In that case, an eye should be kept on balancing the government budget and limiting automatic stabilizers, but that will come at the cost of more economic instability.

The Dangers of the Taxpayers' Money Narrative and the Benefit of the Public Money Narrative

In terms of policy, understanding monetary sovereignty means reframing the nature of economic debates and policymaking as explained above. The taxpayers' money narrative is not applicable. UK Prime Minister Margaret Thatcher's statement at the Conservative Party conference on October 14, 1983 that "There is no such thing as public money; there is only taxpayers' money" (Thatcher 1983 [1999]) is precisely backward; there is no such thing as taxpayers' money, there is only public money. Taxes are needed not to finance the federal government but rather to provide some policy space for the government and to fulfill other aspects of the policy agenda. Besides leading to an incorrect policymaking praxis as explained above, the PAYGO budgeting praxis is also dangerous for democracy (Carrillo and Myerson 2017; Kelton 2020; Parguez 2002). It frames the government as a Robin Hood who steals from the rich to give to the poor, and it leads to a narrative that wealthy individuals are more entitled to set the political agenda because they pay for it. This view was present from the early history of United States history, with John Jay arguing that "The people who own the country ought to govern it." (Hofstadter 1948 [1973], 16) More recently, Utah Senator Mitt Romney expressed the same viewpoint during a Republican fundraiser in May 2012 (Corn 2012): "There are 47 percent of the people who will vote for the president no matter what ... who are dependent upon government, who believe that they are victims. ... These are people who pay no income tax. ... and so my job is not to worry about those people. I'll never convince them that they should take personal responsibility and care for their lives."

"Taxpayers" are the responsible, hardworking, reliable members of the population; "others" are lazy, dependent, and not worthy of attention in political life. Also, too much participation of the population in the political process leads to a crisis of democracy:

the effective operation of a democratic political system usually requires some measure of apathy and noninvolvement on the part of some individuals and groups. In the past, every democratic society has had a marginal population, of greater or lesser size, which has not actively participated in politics. In itself, this marginality on the part of some groups is inherently undemocratic, but it has also been one of the factors which has enabled democracy to function effectively. Marginal social groups, as in the case of the blacks, are now becoming full participants in the political system. Crozier, Huntington, and Watanuki(1975, 114)

One can go back to the time of the drafting of the US Constitution to find this view expressed by Alexander Hamilton and others (Zinn 2015, 95). Furthermore, this taxpayer narrative has been used to inflame racist tensions:

Politicians and mainstream media portrayals distort [the state of poverty in the United States] in order to suggest that poverty in America is overwhelmingly Black, thereby triggering a range of racist responses and encouraging Whites to see poverty as a question of race. Too often the loaded and inaccurate message that parts of the media want to convey is “lazy Blacks sponge off hard-working Whites.” United Nations (2018, 15)

Overall, the taxpayer narrative leads to resentment and hostility toward government programs and a sense of superiority and righteousness among the taxpayers. It also promotes a sense of shame among recipients of government help and narrows the democratic process, which then becomes heavily dependent on wealthy interests.

MMT completely changes the narrative and emphasizes that the political agenda should be set by as broad a constituency as possible. Taxpayers and bond buyers are not in a privileged position to set the policy agenda and government does not depend on them financially to fulfill that agenda. Removing the taxpayers’ money narrative is one step toward improving the inclusivity of the democratic process that includes many other steps:

The prerequisites for effective democracy are not really automatic voter registration or even Sunday voting, though these would help. Rather, deeper institutional forces—flourishing unions, readily accessible third parties, inexpensive media, and a thriving network of cooperatives and community organizations—are the real basis of effective democracy. Ferguson (1995, 88)

Democracy is not just “one person, one vote”; it is about the ability to decide what is voted on. As such, MMT proponents emphasize a “bottom-up,” demand-led approach to policymaking instead of trickle-down, supply-side economics. Its goal is to increase economic stability and the legitimacy and transparency of the political process. While MMT proponents do have a specific political agenda they would like to see implemented, MMT can be used by all to make informed policymaking.

CRITICISM #7: MMT MOSTLY APPLIES TO THE UNITED STATES AND CANNOT BE APPLIED TO OPEN AND/OR DEVELOPING ECONOMIES

Some critiques argue that MMT mostly, if not only, applies to the United States because it is a closed economy and the US dollar (USD) is the currency of the world. That means that the United States is not subject to a balance of payment constraint and can run trade deficits without running the risk of depreciation of its currency. Any other country that decides to implement active fiscal policy will record a permanent increase in its trade deficit that is not sustainable because it will rapidly deplete the foreign reserves required to service foreign debts and to import crucial consumption, intermediary, and capital goods. In addition, a persistent trade deficit will lead to a depreciation of the currency, which in developing economies heavily reliant on imports will translate into inflation and lower real wages. As such, letting the currency float is not a viable option and so monetary sovereignty is not achievable or of limited use.

Use Domestic Policy Levers to Employ Domestic Resources

MMT starts from the basic principle layout by Keynes (1940 [1972], 416) in 1940: “A government which has control over the banking and currency system can always find the cash to pay for its purchases of home produced goods.”

Monetary sovereignty can most effectively be used by a government to ensure the full employment of domestic resources for the fulfillment of unmet domestic needs. Unused labor hours are usually plentiful and they can be harnessed to provide goods and services to the segments of the population (some of them JG participants) that are not serviced by other sectors

of the economy because of their inability to pay or because other sectors are not doing enough. Depending on the availability of nonlabor resources, the ability to achieve the full employment of labor may be difficult and so a policy like the JG may have to be limited in scope (Wray 2007). In addition, government policies such as the JG can be used to progressively lower the dependence on some critical imports by using labor and other domestic resources to produce them. Once again, government policies have to be designed consistently with the level and structure of resource constraints with an eye toward fulfilling whatever the public purpose is.

Fiscal Deficits Are Normal and Accommodative

While implementing policies for using domestic resources, the fiscal position usually will be in deficit and move countercyclically with the business cycle. This is not due to the nature of MMT policies but rather due to the usual desire of the nonfederal sector to accumulate net financial wealth in the form of government financial instruments. As such, the fiscal position will also move with the foreign sector's desire to accumulate the domestic currency.

The United States is special in the sense that the US dollar plays a central role in the international monetary system. This means that foreigners desire to accumulate US dollars and so the fiscal deficit must be larger than it would otherwise have been (Minsky 1986b). If the rest of the world thinks the net financial accumulation of US dollars is too large, the only way foreigners can reduce it is by buying more goods and services from US sectors (US exports rise), cutting sales of goods or services to US sectors (US imports fall), reducing their reliance on US dollar-denominated incomes and transfers, selling US dollars to US sectors for foreign currency, and/or repaying debt owed to US sectors. All of these may have an impact on the exchange rate but it depends on the pace of change and the ability of quantity adjustments to accommodate the change in desires to hold the US currency. The US government's fiscal balance would move to a surplus if the foreign sector wanted to record a large enough current account deficit with the United States (Wray 2019). Once again, the fiscal balance is the relief valve that performs at least some of the adjustment. Some countries within the foreign sector may also engage in portfolio reshuffling of US dollar-denominated assets, but that will not reduce the net financial accumulation of US dollars in the foreign sector and so will have no direct impact the US government's fiscal balance; it will just impact the US dollar exchange rate and asset prices.

A few countries, mostly in Scandinavia recently, have been able to simultaneously record a fiscal surplus, a domestic private surplus, and current account surplus (the foreign sector is in deficit) (figure 2). It may be tempting to view this as an “ideal” economic outcome because of the association of surplus with soundness (e.g., Bloomberg Editorial Board 2012). MMT notes that not only are those accounting balances not appropriate policy goals, but also trade deficits provide real benefits to the domestic population (Wray 2015). As such, policymakers should focus on existing resource and political constraints and adjust their policy accordingly, knowing that they have no control over the final fiscal outcomes. In addition, the “ideal” economic outcome relies on the willingness of the foreign sector to run deficits—something over which domestic policymakers have absolutely no influence. If the foreign sector is unwilling to be in deficit, policies that aim at achieving a current account surplus will fail. Similarly, achieving a fiscal surplus is also not a proper policy goal for reasons explained above. The usual/normal economic outcome is for a country to run a fiscal deficit while the current account can be chronically in deficit, chronically in surplus, or change sign overtime.

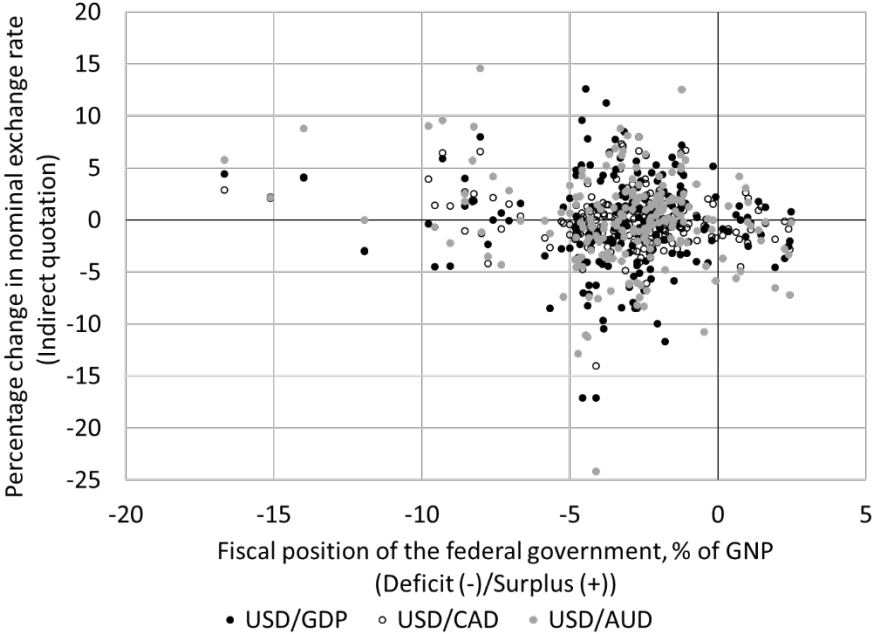
Current Account Balance and Exchange Rate

Two common criticisms of MMT are that large current account deficits are not sustainable and that chronic current account deficits depreciate the currency. The first criticism is based on the false premises that MMT wants to implement policies that increase and sustain large fiscal deficits, which in turn will result in large current account deficits. As noted above, MMT does not propose to put in place policies with a specific fiscal balance in mind. Proposing to achieve any specific fiscal balance is an improper policy goal and the goal is rather to make the fiscal position as countercyclical as possible by reinforcing the automatic stabilizers to promote full employment and price stability. This implies that the fiscal deficit will fall over a period of expansion. In addition, MMT does not aim at a major increase in government spending; this is a political decision and the policies proposed by MMTers use a small amount of resources. Finally, MMT argues that the causality behind the twin-deficit story is incorrect, because it is the foreign sector that decides how much of the domestic currency it wants to accumulate. The fiscal position is mostly the one adjusting to that desire and the desire of the domestic private sector and so there is not a one-to-one relation between the foreign and fiscal balances (Abbas et al. 2010). In addition, over time the size and sign of the current account balance may change but

some countries, given their economic structure and international conditions, must usually record a chronic current account deficit or a chronic current account surplus (see figure 2).

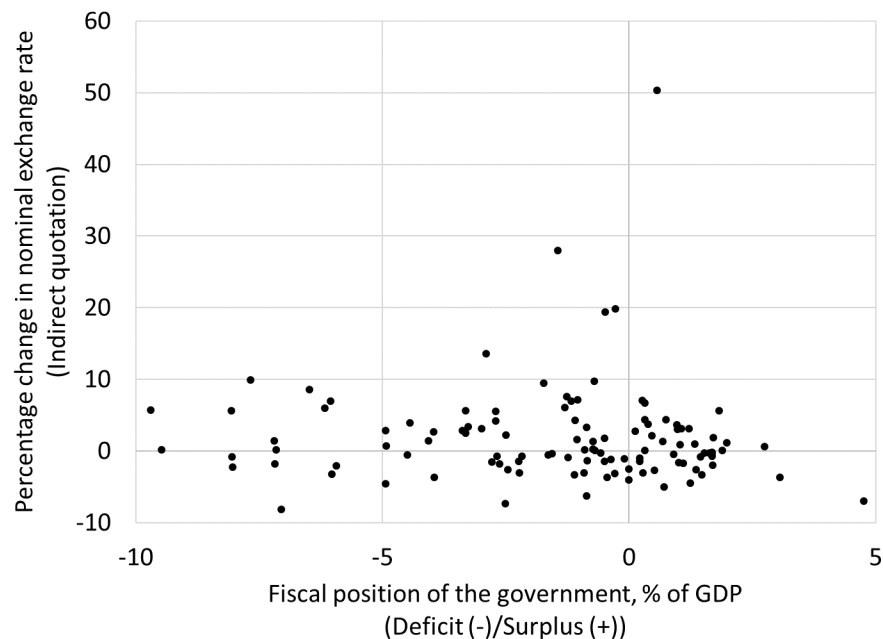
This leads to the second criticism that a current account deficit leads to a depreciation of the currency. The adverse impact of current account deficit on the foreign exchange rate is not supported by the data for developed economies (Harvey 1991, 2019). As shown in section 5, it is also well established by the early warning system literature that fiscal surpluses are associated with currency crises. Foreign exchange rates are mostly determined by portfolio arbitrages instead of trade flows and their determination follows the same logic as the theory of asset prices put forward by Keynes, with central banks still having the ability to influence interest rates even in an open economy (Lavoie 2000). While the relation between trade flow and exchange rate movements may be stronger for developing and open economies for which the foreign sector does not desire to hold the currency, the direct association of trade flows and exchange rate movements is unwarranted in the same way it is unwarranted to make a direct connection between the fiscal balance and price dynamics. Figure 9 shows that, for the United States, there is no relationship between the trade balance and exchange rate movements. The same applies to Mexico (figure 10).

Figure 9. Fiscal Position and the Exchange Rate in the United States, 1971Q1 to 2021Q1



Sources: Board of Governors of Federal Reserve System (H.10 series) and figure 8

Figure 10. Mexican Government Fiscal Position and the Dollar–Peso Exchange Rate, 1993Q1 to 2021Q2



Sources: Organisation for Economic Co-operation and Development, Bank of Mexico.

Accounting for Potential Challenges while Emphasizing the Use of Domestic Resources

That being said, there are five issues that need to be managed when dealing with foreign transactions. First, pass-through inflation that comes from the rising cost of imports following a depreciation is a relevant concern. Second, the balance sheet impact of depreciations when debts denominated in a foreign currency are present is also a concern. Third, the possibility that foreign reserves dwindle and prevent foreign debt servicing and the purchase of imports is also a concern. Fourth, some countries are highly dependent on food and energy imports and/or cannot develop on their own. Fifth, if there is no internal desire to accumulate the domestic currency, the ability of the government to spend without disrupting domestic prices will be limited. MMT proponents have long recognized these problems but, instead of giving up to the neoliberal policy agenda, they have embraced policies that work around these problems in order to give priority to full employment (Mitchell 2000; Wray 2007; Kaboub 2012; Kaboub and Aliriza 2019; Sylla 2020).

MMT proposes to mitigate these potential sources of instability by using, among others, import substitution policies and payment in-kind for JG production to limit the ability of the domestic

private sector to purchase imports. Second, MMT advises against the issuance of foreign-denominated public debt because there are no clear international bankruptcy procedures for default on such public debt. Third, to ensure that foreign reserves are generated, an export base should be developed. An international buffer-stock policy for raw materials also ought to be promoted to stabilize the commodity prices of developing economies that depend on exporting them for development. However, international long-term financial help through public institutions also ought to be promoted because the reliance on private finance for development is prone to Ponzi finance (Kregel 2004). Capital controls can also be an option if politically and technically possible. Fourth, policies should be put in place to limit tax evasion and increase the size of the formal sector in order to increase the demand for the domestic currency and so widen the policy space of the government.

Finally, some countries are in very dire straits with limited arable land, a majority of low-skilled, self-employed individuals, a large informal economy, a high dependence on food and energy imports, and poor political stability. Such a country cannot develop on its own and needs international help but that help should be inclusive of the desire and needs of the local population. Other countries may be not be in such a bad economic situation but are still dependent on international help for development. The JG can be used to reduce that dependency but international aid is needed to provide financial and physical resources, to sustain the local currency if it is used in international markets to import, or to provide grants to obtain the foreign exchange needed to buy imports.

Promoting a one-size-fit-all policy for developing economies is not possible given the diversity of their economic, social, political, and cultural institutions. However, in all cases, the point is to organize the economic and financial system in a way that allows policymakers to prioritize the management of domestic socioeconomic issues through a bottom-up approach to policy:

Most of the developing nations have a sovereign currency, which means they can “afford” to buy whatever is for sale in the domestic currency, including unemployed labor. [...] At the same time, many developing nations have fixed or managed exchange rates that reduce domestic policy space to some degree. They can increase policy space either through policies that generate foreign currency reserves (including development that increases exports), or they can protect foreign currency reserves through capital controls. In addition, they can favor policy that generates employment and development without increasing imports (import substitution policies, for example). They can create jobs programs that are labor intensive (so that foreign-made capital equipment is not needed) or programs that provide the output that the newly employed workers need (so that they do not spend their new incomes on imports). Government can favor domestic producers over foreign producers. It can limit its purchases of foreign goods and services to export earnings. It can try to avoid borrowing in foreign currency in order to limit its need to devote foreign currency earnings to interest payments. As discussed previously, ability to impose and collect taxes can be impaired in a developing nation. This will limit government’s ability to directly command domestic output. And even if it finds plenty of unemployed labor willing to work for its currency, those workers might find it difficult to purchase output with that currency at stable prices. More diligent tax collection will help to increase demand for the currency (since taxes are paid in the domestic currency). In addition, government needs to focus job creation in those areas that will lead to increased production of the kinds of goods and services the new workers will want to purchase. That can relieve inflationary pressures resulting from rising employment. Wray (2015, 217)

Adjustments to economic problems through austerity policies ought to be the last, temporary resort and, if any of those are to be adopted, the cost of adjustments should be spread throughout the population rather than through the promotion of unemployment and starvation at the bottom. Overall, however, the point is to design a full employment policy and to set a pace of implementation that accommodates the political and resource constraints of a country.

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