

MMT: The good, the bad and the ugly

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Abstract

This chapter discusses three themes related to Modern Monetary Theory (MMT). First, there is an appraisal of the difficult relationship between MMT authors and their critics, in particular those from the post-Keynesian school. The second section recalls the major contributions of MMT authors, notably their detailed analysis of the clearing and settlement system, as well as the large influence that MMT authors have had on public discourse, reigniting the interest for functional finance, and forcing mainstream authors as well as central bankers to respond to the main MMT claims. The third section discusses some of the more controversial views of MMT, such as the assumption that the government and the central bank can be consolidated as a single institution because their actions need to be coordinated, or the claim that a government cannot default if its debt is issued in the domestic currency, whatever the institutional set-up.

Introduction

I first wrote about Modern Monetary Theory, or Modern Money Theory (MMT), previously labelled neo-chartalism, when I reviewed (Lavoie 1999) Randy Wray's book (1998). This led me to later distinguish between what I called *the neo-chartalist* view and *the post-chartalist* view while explaining the basics of monetary creation with the help of T-accounts (Lavoie 2003). In the neo-chartalist case, the central bank purchases the securities issued by the government, and later sells back most of these securities to the private sector; in the post-chartalist case, commercial banks purchase these securities and then sell some of these to the central bank, in order to acquire cash and the required reserves, a case which I had partially described in an earlier book (Lavoie 1992, p. 166-9). It took me another ten years to gather my thoughts on the subject, letting others to express their views on the arrival of this new school of thought, when I wrote a long 'friendly critique' back in 2011, which was published in 2013 (Lavoie 2013). I was asked to revisit MMT twice, as part of a symposium (Lavoie 2019) and then in a key lecture on MMT and the eurozone (Lavoie 2022). I should also point out that for a few years I benefited from research money provided by Warren Mosler, which many consider as the godfather of MMT, through the support of the UMKC Center for Full Employment and Price Stability. And I have often been invited to make presentations to the graduate students of the University of Missouri in Kansas City and to lecture at the Minsky Summer School of the Levy Economics Institute – two of the main centers of MMT thinking. All this to say, as Wray (2012, p. xiii) notes, that, despite not being part of the MMT group, I am among those outsiders who 'have also contributed to the development of the theory', while being then, and still today, critical of certain aspects of MMT.

I have recently written, in reference to Stigler and Ricardo's theory of value, that I agree with 93% of MMT. Much of what I will say here will be devoted to the remaining 7%, but that should not deter readers from recognizing that MMT is part of the Institutional branch of post-Keynesian economics, as also argued by Reynold Nesiba (2013) and that, whatever critiques one can make of MMT, it is certainly more correct than mainstream economics. Bill Mitchell, a founder of MMT, identifies MMT's defining characteristics and key advantage as its 'detailed analysis of institutions and how they actually operate', adding that MMT was 'developed on observing real-world institutions', in particular the 'institutional characteristics' of various currency systems (Mitchell in Armstrong 2020, p. 153).

In this chapter I will not exactly follow the outline provided by its title. I will start by discussing the ugly side of MMT, then its good side, that is, its contributions to fiscal policy and macroeconomics, and will finish with discussing the bad, that is, the aspects of MMT which in my opinion should be questioned or amended. This last section of the chapter will thus cover (part of) the 7% which I mentioned above. In so doing, I will try as best as I can to go beyond what I have written in previous papers on the topic. A broad

balanced review of the various earlier critiques addressed to MMT which is certainly worth reading is provided by Nesiba (2013).

The ugly

While getting much attention on social media, MMT has been subjected to a barrage of critiques, both from fellow post-Keynesians and from mainstream economists. Some are well informed, mostly those from heterodox economists, others rarely so. It is not always easy to keep one's cool, when told that 'MMT is a mix of old and new, the old is correct and well understood, while the new is substantially wrong' (Palley 2015b, p. 46), or when it is charged that 'what's right is not new, what's new is not right, and what's left is too simplistic' (Buiter and Mann 2019, p. 1). It is sometimes argued that 'professional jealousy' is the main driver of heterodox critics (Wray in Armstrong 2020, p. 289) with some resenting the success of MMT in drawing attention (Potts in Armstrong 2020, p. 432). Louis-Philippe Rochon (2019, p. 159) has argued that 'MMTers themselves must accept part of the blame for fanning the flames of some of their critics, by either refusing to directly answer pertinent or valid criticism, or by engaging in their own discrediting behaviour, dismissing critics, in an often cult-like behaviour', with Steve Keen (in Armstrong 2020, p. 363) adding that 'there are also a lot of people who just find them arrogant and difficult to deal with'. MMT authors have been defending their ideas and claims for 25 years, so there must be some lassitude in attempting to justify their main claims or to correct false perceptions about their theories.

Still, in a recent symposium, where various MMT and post-Keynesian authors were given the opportunity to respond to two well-documented critiques of MMT, their authors, Drumetz and Pfister (2023), complained that they were subjected to derogatory or insulting remarks such as: 'the authors do not understand that....; the authors make the hysterical claim that...; if the authors had read the MMT literature more thoroughly....; a paper which is littered with factual errors and misrepresentations; [the authors] repeatedly make claims which are unsustainable; the article falsely represents MMT as....'. Ironically, they had earlier complained that MMT authors often accused 'those who do not share their ideas of being incompetent' (Drumetz and Pfister 2021, p. 21). Similar sentences can be found in a recent MMT rebuttal to the critique made by two Marxian economists: 'their approach fails to stand up to scrutiny; [their arguments] are both theoretically hollow and not consistent with the evidence; the authors mischaracterize MMT, due at least in part to their paying insufficient attention to the MMT literature; their failure to understand operational reality in the eurozone at anything other than a superficial level' (Armstrong 2022, p. 49-50, 56). Phil Armstrong's (2023) chapter in this book asserts that 'the critiques emanating from within Post-Keynesianism fail to stand up to serious scrutiny and can be mainly attributed to a lack of understanding of the actual extant institutional arrangements which underpin the operation of the monetary system and a failure on the part of critics to come to terms with the actual content of MMT, as

opposed to how it is often mistakenly portrayed'. In his book of interviews, Armstrong concluded that the critiques of post-Keynesians are 'misguided and based upon an inaccurate understanding of the nature of money ... and a failure to correctly conceptualise the operational reality of monetary systems' (Armstrong 2020, p. 453).

There is nothing new in the tone of these critiques. I complained ten years ago about the unscholarly vigour with which some MMT authors responded to criticism, as well as 'the aggressive reaction against critics by some non-academic supporters of neo-chartalism', such that some post-Keynesians preferred to avoid any debate on the topic (Lavoie 2013, p. 7).

This brings to the fore the notion that MMT, in contrast perhaps to most economic theories, is being discussed intensely both by academics in university circles and by activists on blogs and the internet. John Quiggin identifies (2020, p. 528) two versions of MMT. One is an 'academic' version, which details all sorts of restrictions to the general validity of the theory; the other is what Quiggin called *popular or vulgar* MMT, 'in which the statement "taxes don't finance public expenditures" is interpreted to mean that government can increase spending as much as they like'. I made a somewhat similar distinction ten years ago, pointing out that, as recognized by MMT authors themselves, there exist two MMT strands, the so-called *specific or academic* one, which described in minute details the specific operational and legal procedures involved in the monetary and fiscal nexus, and the so-called *general* strand, which relied on the consolidation of the balance sheets of the government and of the central bank, and which is at the heart of the arguments that can be found in the blogosphere or in the bestseller book of Stephanie Kelton (2020). The presence of these two strands creates a lot of confusion, as MMT authors reverse back to the specific or academic version whenever the over-simplified general or vulgar version is being attacked, thus creating the criticism that the goalposts are constantly moving.

One annoying feature of MMT authors is their propensity to make believe that they were the first economists to make crucial points about monetary economics. I have given several examples in a previous paper (Lavoie 2019, p. 102-3). The worse example is that of Bill Mitchell (2019) when he claimed that 'MMT economists were the first in the modern era to point out that loans create deposits, not the other way around', thus leaving aside the whole post-Keynesian literature of the 1970s and 1980s associated with Jacques Le Bourva, Nicholas Kaldor, Tony Cramp, Joan Robinson, Alfred Eichner and Basil Moore, as well as many others.

Another example is the claim that in the past post-Keynesians failed to put fiscal policy to the fore and neglected the issue of crowding out, thus implying that MMT works were a great improvement on that front. It is easy to find several post-Keynesian works that very explicitly rejected crowding-out and advocated a dominant fiscal policy, as in

Nell (1988), Fazzari (1994-95) and James Galbraith (1994-95), not to speak of the numerous articles jointly written by Philip Arestis and Malcolm Sawyer.

In addition, despite MMT authors having initially clearly indicated their tight links with post-Keynesian economics (Lavoie 2013, p. 5-7), some give the impression that MMT came from nowhere, except as some type of modern revival of Keynes and of Lerner's functional finance, creating on its own all sorts of novel economic theories that question the mainstream view based on a vertical Phillips curve and a supply-led economy. This is most strongly asserted by Bill Mitchell (in Armstrong 2020, p. 163), who claims that MMT authors have 'built a body of work that's an identifiable school of thought', whereas 'in the Post-Keynesian world, there is no real coherent macroeconomics' (p. 152). His colleague and co-author Martin Watts (in Armstrong, p. 282) is much more generous, pointing out that MMT includes 'a lot of Post-Keynesian insights over a number of years concerning the monetary system, credit creating, quantity theory of money and the money multiplier not being valid'

Scholars interviewed by Phil Armstrong (2020) essentially believe that MMT is a variant within post-Keynesian economics. Armstrong (2020, p. 17) himself argues that that MMT 'is an important development in Post-Keynesianism'. He adds: I don't see any inconsistency with Post-Keynesianism. I just think MMT adds insights and pushes them into the foreground' (p. 21). This is also the view of James Juniper (in Armstrong 2020, p. 125), according to whom MMT 'is a recognisable school within Post-Keynesianism'. Similarly, for Geoffrey Harcourt (in Armstrong 2020, p. 116), MMT 'still got an underlying Post-Keynesian basis, but they have a unique twist on it', while for Anwar Shaikh (in Armstrong, p. 256), 'MMT is Post-Keynesian economics of a particular sort'. More straightforwardly, Andrew Kliman (in Armstrong, p. 138) thinks 'of MMT as Post-Keynesian', which is also the view of both Malcolm Sawyer (in Armstrong 2020, p. 229) and Engelbert Stockhammer (in Armstrong 2020, p. 272), the former saying that MMT authors 'operate within the general Post-Keynesian world' while the latter maintains that MMT 'is part of Post-Keynesianism'. Victoria Chick (in Armstrong 2020, p. 24) takes a stern view, arguing that MMT 'is a minor gloss on something which is already well known'!

The good

Rhetoric and economic policies

The first obvious good thing is that MMT's visibility has induced many non-economists to get interested in the arcane subject of monetary economics. The desire of MMT authors to speak to non-academic audiences has sparked phenomenal activity via blogs and social media. Their efforts have convinced several business journalists and financial advisors to reconsider their views of conventional wisdom, question mainstream austerity fears of public deficits and debt, and reconsider how interest rates get set. Several articles have appeared in magazines and influential newspapers, such as the *Washington Post* or the

New York Times, trying to explain to their readers the main claims of MMT and how they contradict the received view. As a consequence, government officials, central bankers as well as well-known mainstream economists have been forced to provide an opinion about MMT and its policy recommendations. Along with several others, Engelbert Stockhammer (in Armstrong 2020, p. 272) is impressed by how MMT advocates 'have demonstrated that you can reach unanticipated audiences and also become politically effective'. This political effectiveness is also pointed out by Palley (2015a, p. 21), when he says that in situations of high unemployment, which many countries have faced for many years, 'MMT makes a valuable contribution as part of the rhetoric advocating expansionary fiscal policy'.

Rochon (2019) points out that mainstream economists and the advocates of TINA (There Is No Alternative) once had an easy task, using simple rhetoric to compare governments with prudent households that avoid unsustainable debt levels and burdens on the next generation who may face rising tax rates in an attempt to balance the budget or reimburse the debt. The denials previously offered by old Keynesians or post-Keynesians, based as they were on complicated stories, could not make a dent on TINA. To this, the simple MMT polemical response has been that the government is not akin to a household and that 'sovereign currency issuing governments, with flexible exchange rates and without foreign currency debt, are financially unconstrained' (Palley 2020, p. 473). And as Palley (in Armstrong 2020, p. 187) further recognizes, despite being one of its most ferocious critics, MMT is 'a progressive polemic that counters the austerity polemic of the right-wing'.

It must be said that recent events have made it easier to convey the MMT message. After all, the actions of several Western governments during the Covid-19 pandemic, especially in 2020, appeared to come directly from the MMT bluebook. Extraordinary income-support programs were created for those unable to attend work, with households receiving more aggregate disposable income than before the pandemic; governments issued huge amounts of securities, most of which were quickly purchased by their central bank, which thus accumulated large amounts of government deposits before these were eventually transferred to the banking accounts of firms and households. All in all, short-term and long-term interest rates on government debt were brought down to or kept at zero or nearly zero, despite the huge government deficits. While government officials or central bankers were denying that they were now following the prescriptions of MMT, it was difficult for them to explain in which way these policies and their results differed from those advocated by MMT economists. The case of Japan with its large deficits and zero interest rates could not be considered an exception anymore.

MMT authors have certainly been influential in spreading the view among both their heterodox and orthodox colleagues that, at least within certain circumstances and

institutional frameworks, the decisions of central governments to raise public expenditures and public deficits were not constrained by financial considerations. Unfortunately, the rising inflation rates of 2022, essentially due to supply-chain problems, the war against Ukraine and the rise of commodity prices, have given apparent ammunition to those US Senators who predicted in 2019 that MMT posed a threat to the economy of the United States, as ‘the implementation of Modern Monetary Theory would lead to higher deficits and higher inflation’.

MMT is not only on the map as an alternative to TINA, it has induced a revival in the study of heterodox macroeconomics. Several students have told me or colleagues that they came to study post-Keynesian economics because they first heard of MMT on social media. In their desire to know more about MMT, they discovered that heterodox schools exist and that post-Keynesian economics in particular was in the background of MMT. One drawback of MMT today is that, besides the use of T-accounts and Godley’s three balance-identity – the fundamental identity – its authors rarely provide any formalized account of their theories. Students seduced by MMT but who favour formalization are thus enticed to move towards post-Keynesian economics, which thus benefits from the exposure that MMT gets on social media and in the press.

But besides this and the success that MMT has encountered on the policy front, what is the good side of MMT? What are its contributions to economics in general and to monetary policy more specifically?

Economic theory

MMT is usually recognized as having contributed to our understanding of specific theoretical issues. First, MMT authors have certainly helped to combat the mainstream view on the origins of money, based on commodity money as an improvement over barter. Their opposing views have resurrected Knapp’s chartalist approach and Innes’s credit approach to money. Secondly, the core of MMT and its proposals for the creation of job guarantee programs, also called the state as an employer of last resort or buffer-stock employment programs, have contributed to improved countercyclical macroeconomic policy. Of particular note is spatial Keynesianism, that is, geographically targeted government support, focussing on job creation where it is most needed. Another important contribution of MMT has been the revival of Abba Lerner’s functional finance approach, which plays such an important role when dealing with fiscal policy and challenging the mainstream view of sound finance. One might also argue that MMT authors have contributed to generalize the knowledge and usefulness of Godley’s three-balance identity, which, along with functional finance, helps to understand that public debt is not necessarily an evil. As a general statement, one can also argue that MMT authors have been quite active in combatting dubious alternative heterodox proposals such as 100% reserve requirements.

There is one aspect of MMT that constitutes a clear advance in post-Keynesian monetary theory. As Sawyer (in Armstrong 2020, p. 230) rightly notes, in the past, post-Keynesians associated with the monetary circuit approach were mostly concerned with the relationship between non-financial firms and the banks, while Cambridge post-Keynesians such as Kaldor and American post-Keynesians such as Basil Moore studied the relationship between commercial banks and the central bank. MMT authors have brought to the fore an analysis of the relationship between the government, its deficits and its central bank, as well as going into the details of the clearing and settlement system of a monetary economy.¹ As Mosler says in his white paper, ‘MMT began as a description of Federal Reserve Bank monetary operations, which are best thought of as debits and credits to accounts as kept by banks, businesses and individuals’ (in Armstrong 2020, p. 461). The inquiries of MMT authors, have allowed post-Keynesians to better understand the importance of autonomous liquidity factors, in particular the impact of government expenditure or of collected taxes on the reserves of the banking system, and the alternative ways in which government expenditures could be financed (Bell 2000).² This analysis allows to understand that if there are excess reserves in the system, there is nothing that commercial banks as a group can do to get rid of them, something not always well understood by some post-Keynesians, as reported by Fiebiger (2016). While this analysis can be said to have been first formulated by Mosler (1994), the works and blogs of several MMT scholars such as Bell-Kelton, Forstater, Fullwiler, Tcherneva, Tymoigne, Watts and Mitchell have gained both popular and academic recognition.

Further, Wray (1998, 2012), explains that whenever the government spends, it issues a cheque or an electronic payment that goes through the clearing and settlement system. This means that the recipient of the payment gets a deposit in some banking institution, while the bank sees an increase in its deposits (its reserves) at the central bank. There is thus an autonomous increase in the amount of liquidity in the overnight interbank market. Similarly, when the government collects taxes from an agent, the payment goes through the clearing and settlement system, so that there is a decrease in the bank deposits of the agent while the agent’s bank observes a decrease in its reserves at the central bank. This is another example of an autonomous factor. Note that the funds are not destroyed: while banks have less deposits at the central bank, the government now has a larger amount of deposits at the central bank (not part however of the definition of central bank money), which can now be used to fund more expenditures. A surprising feature, at least from the point of view of those that have been brought up in the tradition of the loanable funds approach or of the IS/LM model, is that, all else equal,

¹ However, as recalled in Lavoie (2013, p. 11-12), Cambridge authors such as Joan Robinson and also Godley and Cripps understood these relationships.

² Changes in official foreign exchange reserves are another autonomous liquidity factor, which central banks must take care of in order to achieve their target interest rate, as explained in post-Keynesian economics through the *compensation thesis* (Lavoie 1992, p. 189-92; Lavoie 2022a, p. 503-512).

a government deficit funded from its account at the central bank, tends to lower the overnight interest rate.

The bad

We now reach the 7% that I mentioned in the introduction. These 7% in fact represent what ought to be considered as amendments to the main MMT story or doubts about it. Many of these issues depend on the discrepancies between the *general* and the *specific* approaches, or between the *academic* and *popular* versions of MMT. Most of these amendments or critiques have been made already 20 years ago, so MMT authors may feel that they provided rebuttals for these critiques a long time ago. The fact that someone might disagree with an MMT proposition or with the relevance of an assumption made by an MMT scholar does not mean that the critic lacks understanding of monetary operational details or of the MMT literature. It may mean instead that the critic has a different interpretation of the operational details outlined by MMT authors and that the critic is aware of the existence of operational features in monetary systems which are different from those usually discussed by MMT authors – the US system. I start with the core claim of MMT, that the government does not need to tax or to borrow in order to spend, and will then move on to subsidiary issues that have given rise to critiques in the past.

Neither taxes nor bonds finance government spending

MMT authors make two nearly identical statements that need to be disentangled. The first one is that MMT ‘views taxation not as funding spending in a functional sense.... Taxes don’t fund spending, it’s just recapturing what they’ve already spent’ (Armstrong 2020, p. 17), the argument being that there is a causal priority of government spending over taxation. Now, as Chick (in Armstrong 2020, p. 17), responded ‘this is a parallel assertion to Keynes’s assertion that investment precedes saving. It’s exactly the same principle’. When asked about the logic of the statement that the government needs to spend before it can collect back taxes, Harcourt (in Armstrong 2020, p. 115) reacted in just the same way: ‘Well, that’s just Keynes. It’s that investment creates saving, its just another version of that’. Chick (p. 20-1) continues however by saying that ‘I don’t think it’s that important. It adds this one point, which Post-Keynesians should have thought of making, but didn’t.’ As Malcolm Sawyer (in Armstrong 2020, p. 221-2) points out, drawing on the analysis of the theory of the monetary circuit *à la* Alain Parguez and Augusto Graziani as MMT authors also have done, one can make a distinction between *initial* finance at the start of the circuit and *final* funding at the end of the circuit, and say that taxes provide final funding for government spending at the end of the circuit. So, there is no controversy here. Or if there is, it is only due to a problem of terminology.

But there is a second statement, apparently only slightly different from the first, which one often hears from MMT advocates, which is that ‘the US government does not

have to borrow in order to spend' (Kliman in Armstrong, p. 138). An earlier statement can be attributed to Wray (1998, p. 78): 'The Treasury spends before and without regard to either previous receipt of taxes or prior bond sales'. This is an entirely different ballgame. In the *general* or *popular* version, this is justified by the consolidation assumption, where the central bank and the Treasury are considered as a single consolidated unit. MMT authors base most of their popular arguments and slogans on this assumption that the central bank and the government (the Treasury) are or ought to be considered as one and the same institution. However, when Armstrong (2020) asked about this assumption in his interviews, nearly all scholars informed about this controversy were adamant that consolidation was improper and would lead to misleading conclusions and a mistaken understanding of the operational reality of monetary economics and of government spending.³ MMT authors on the other hand argue that critics are misled by the presence of self-imposed constraints and fooled by the smoke and mirror operations that these entail.

The purpose of MMT, according to Bill Mitchell (2021), is 'to understand the actual way in which the central banks, commercial banks and treasuries interact rather than specifying how we might want them to act in some stylised fictional world and then inferring things from that fiction as if it applies to the world we live in'. The *general* or *vulgar* version, for popular consumption, describes the world as Mitchell and other MMT advocates would like it to be or as it might have been at some point in the past (without self-imposed constraints), not as it is now.⁴ There is thus some irony, in making use of consolidation, as it leaves aside the crucial issue of initial finance. MMT authors like to make the distinction between currency users and currency issuers, with the US government being claimed to be a currency issuer. But as Chick (in Armstrong 2020, p. 18) sharply noted, at least under current arrangements, 'The Treasury doesn't emit money. The Fed does emit money'. Leaving aside consolidation, just like firms or households need to borrow from banks, the government (the Treasury) needs to borrow from financial institutions or from the central bank in order to acquire funds in its banking account. As in the private sector with investment, there has to be a stage of initial finance when the government wishes to spend. A statement to the effect that the government does not need to tax or to borrow in order to spend is thus misleading, at least in my opinion.

³ Chick (p. 18), Goodhart (p. 106), Reis (p. 207-8), Semmler (p. 241), Shaik (p. 257-8), Stockhammer (p. 269), Dow (p. 307), Keen (p. 361), Smithin (p. 447) all give a clear no answer to consolidation. Palley (p. 185-6) and Sawyer (p. 227) give a 'horses for courses' answer. Only Potts (p. 431), Armstrong's supervisor, gives a clear yes answer.

⁴ Kregel (1988) reminds us that in the past some central banks were created so as to provide an 'unoffchokable' amount of funds to the Treasury, so that in some sense they could be considered as a single institution. But at the time, these central banks were faced with gold convertibility, so that at some point they would decline to act as the initial purchaser of government debt. In modern times Kregel says, the central bank is 'divorced' from the Treasury.

Going through North American specifics

Of course, MMT advocates have gone through the specifics and have avoided consolidation when doing scholarly work. The easiest way out is to assume that the central bank always buys government bonds on the primary market, and figure out what happens to bank reserves from then on. This is what I have called the *neo-chartalist* case (Lavoie 2013). But we do know that central banks are often prohibited from purchasing bonds on the primary market (except when rolling over previously-issued securities), which means that the story has to be more complicated. The specific case described by a number of MMT authors is that government bonds have first to be sold to primary dealers. We are then told that the proceeds of the sales are being repatriated to the government account at the central bank (Wray 2012, p. 103-4). This means that the banking system will end up with a deficit amount of reserves, which the central bank will be obliged to provide in order to achieve its overnight interest rate target. This leads to the modified claim that ‘the US government and its agents [presumably including the central bank], from inception, necessarily spend (*or lend*) first, only then can taxes be paid or US Treasury securities purchased’ (Mosler in Armstrong 2020, p. 462, my emphasis). So now the story is that ‘it’s impossible to pay tax unless there’s been some spending or lending’ (Armstrong 2020, p. 184). The story is that for taxes or newly-issued bond purchases to be paid and settled, banks must first have access to reserves: these will be obtained either when the government spends from its central bank account, or when the central bank provides overdrafts to the banking system (the latter sometimes being confusingly incorporated within public spending by some MMT authors).

But even this modified neo-chartalist story can be misleading. First, under current circumstances, as a consequence of past quantitative easing policies, banks are flushed with excess reserves and hence are under a floor system; they don’t need to take advances from the central bank when their customers are paying their taxes and the funds are being transferred to the central bank (Fiebiger 2016, p. 599). Secondly, until the 2008 Global financial crisis, the US government held a large share of its proceeds from bond issues in various bank accounts, the so-called *Treasury tax and loans* accounts. This is noted by various MMT scholars (Tymoigne 2020: 52). This meant that most paid taxes were simply transferred from the account of taxpayers at commercial banks to the *Treasury tax and loans* accounts of the government at various commercial banks. Similarly, when primary dealers did purchase newly-issued government securities, there would be no reduction in the total amount of reserves in the banking system. While the payment would be immediately credited to the government account at the Fed, since the Fed acted as the fiscal agent of the Treasury, the proceeds would quickly be moved towards the *Treasury tax and loan* accounts, so as to neutralize their impact on the amount of reserves in the banking system, thus limiting any need for lending or repo operation.

What is ironic is that, starting with Bell (2000), MMT advocates have themselves described in great detail the functioning of these *Treasury tax and loans* accounts, emphasizing the required coordination between the government (the Treasury) and the central bank to avoid overly large fluctuations in the amount of reserves in the banking system. In fact, this necessary coordination is sometimes used as an argument in favour of the consolidation assumption. In the case of the United States, until very recently, the coordination thus occurred through the existence of these *tax and loan* accounts at commercial banks, so that federal tax payments only involved payments between banks, with transfers of reserves occurring mostly inside the private banking system. Symmetrically, whenever the government would spend, commercial banks would get a call and funds would be transferred from the *tax and loans* account of the Treasury towards its account at the Fed so as to keep constant the amount of government deposits at the central bank and thus minimize the impact on the overall amount of reserves. Thus, at least in the US case, either because of the floor system with excess reserves, or because of the presence of *tax and loans* accounts, the claim that there has to be government spending or central bank lending to allow the banks of taxpayers and of primary dealers to settle payment does not hold. The funds used for government spending come from bonds which have been previously sold to the private sector!⁵ In addition, other countries may have other coordination mechanisms.

Take the Canadian case (before Covid-19). I have provided an analysis of the Canadian monetary and payment system in a number of papers, showing that the simplicity of the Canadian system, with its zero-reserve framework, perfectly illuminates the accuracy of the post-Keynesian approach (Lavoie 2005; 2019). An additional feature of the Canadian system is that clearing is not done on the books of the central bank, as happens in most financial systems. Clearing occurs on the books of a private clearing house, run by the Canadian Bankers Association; only the settlement of the payments that have not been compensated throughout the day at the clearing house, notably through overnight market loans, occurs on the books of the central bank.

As long as transactions do not involve the central bank, on its own or as the financial agent of the government, the amount of reserves (now called settlement balances in Canada) will not change and will remain at zero. Note that there is no relationship whatsoever between economic activity, the amount of tax payments and the amount of bank deposits on one hand, and bank reserves on the other, since bank reserves at the end of each day are virtually zero. Monetary systems where there are no compulsory reserve requirements are a perfect case for the argument that the purpose of reserves is not to constrain the creation of bank loans and that central banks act essentially in a defensive manner. When payments involve the account of the central

⁵ See Fiebiger (2016) for a list of the differences between the standard MMT story and the post-Keynesian story essentially based on the above.

bank at the clearing house, the positive (negative) balances of the central bank at the clearing house will exactly balance the negative (positive) balances of the overall banking system. By the end of the day, if collected taxes exceed payments by the government out of its account at the central bank, the monetary authorities will need to remove its positive balances at the clearing house, and thus provide extra balances to the banking sector, so as to bring the deficit balances of the private sector at the clearing house back to zero.

Thus, in the Canadian system, banks do not need to hold reserves to compensate for the tax payments that are being made to the government; it is the central bank that will move government deposits towards the banks (through an auction) before the end of the day to ensure that banks are not in a negative position at the clearing house; banks are not forced to take advances from the central bank in order to settle tax payments. In both Canada and the US, at least before quantitative easing took over, to avoid fluctuations in the overall size of reserves and hence to achieve the target overnight rate, from a quantitative point of view, transfers of government deposits were the main tool, whereas open-market operations or repo operations were only a subsidiary tool.

Going through foreign specifics

Finally, we may deal with another institutional setup, different from the American one or the Canadian one, based on a so-called overdraft system, where the central bank cannot make outright purchases of government bonds, neither on the primary nor on secondary financial markets, as developed in Lavoie (2022b). This was the case of the Eurozone before 2010 and it is the case of Chile for instance, and it is a configuration promoted by the IMF. We may call this the *anti-chartalist case*. The bonds must all be bought by banks or dealers. If the government holds its funds at commercial banks, there is no loss of reserves when the bonds are being purchased. If the government holds the proceeds of the bond sales at the central bank, then the central bank must provide advances to the financial sector for settlement to happen. Such a central bank controls the overnight rate – it is a ceiling system as banks are *in the Bank* – but it has no control whatsoever on the long-term bond rate if financial institutions decline to purchase the newly-issued bonds or refuse to rollover existing stocks of bonds. The central bank is still a *lender of last resort to the banks*, but it is not a *purchaser of last resort to the government*, in contrast to the Canadian and American cases.

The main claim of MMT is that countries with a *sovereign currency* cannot default and hence the level of the deficit or that of the public debt is irrelevant. The standard definition of a sovereign currency (Wray 2019) is that the government runs a floating exchange rate, it chooses a currency that becomes the money of account, it imposes taxes in the chosen currency, it issues securities in its own currency, and it issues securities denominated in the home currency. The *anti-chartalist case* defined above corresponds to all these conditions, as long as we recognize, as Chick did in the interview previously

mentioned, that it is the central bank and not the Treasury that issues currency. Still, in this *anti-chartalist case*, the government may default, since there is nothing that the central bank can do if banks and other financial institutions decline to purchase or rollover the bonds issued by the government. The government is at the mercy of financial markets. Operational reality and self-imposed constraints do matter. One cannot always rely on the consolidated *general* or *vulgar* framework.

While it must be granted that the USA and several other advanced economies cannot default for the reasons outlined by MMT authors, several post-Keynesian authors with ties with semi-industrialized countries have underlined that the five conditions outlined by Wray are unlikely to be sufficient to avoid default or a financial crisis. External constraints do limit monetary sovereignty, irrespective of the chosen exchange rate regime, as Kregel (2020) points out. Running a flexible exchange rate regime will not alleviate the problems faced by these countries when having large deficits in an attempt to achieve full employment (Vergnhanini and De Conti 2017; Bonizzi et al. 2019; Epstein 2019, ch. 3; Prates 2020; Vernengo and Pérez Caldentey 2020). The main argument is that these countries have a currency which is low in the hierarchy of currencies, so that their exchange rate is more liable to fluctuations. A depreciation induced by a trade deficit resulting from a public deficit is likely to be accompanied by rising inflation, due to a high passthrough coefficient, and hence to falling real wages and a recession. Furthermore, while the government may issue its debt in the domestic currency, this is not necessarily the case of the private sector which needs foreign currency to import needed commodities, and hence currency depreciation will induce a rising debt burden for the private sector and hurt economic activity. In addition, if some portion of the public debt denominated in the home currency is held by non-residents, they may decide to sell the bonds to resident banks and trade the proceeds to obtain dollars, thus putting further downward pressure on the home currency.

Conclusion

In this chapter I have tried to show why MMT is still a controversial topic, not only among mainstream economists, but also among heterodox economists and in particular among post-Keynesian economists. At first sight this controversy and its occasional acrimonious debates are surprising since post-Keynesians share a considerable amount of common ground with MMT scholars, in particular the belief that fiscal policy can be more powerful than monetary policy to fight unemployment, the theories of money endogeneity and interest rate determination, the rejection of any argument based on the money multiplier or the fractional-reserve banking system, sharing as well the lessons that can be drawn from great economists of the past such as Keynes, Kalecki, Minsky and Godley. Despite this, or perhaps because of this common ground, there have been several articles by post-Keynesians questioning MMT. I have done this here, to a large extent, by making use of

the instructive and revealing interviews conducted by Phil Armstrong – the author of the alternative chapter on MMT.

The bulk of the debate, as shown in the previous section, turns around the interpretation of the operational reality relating government expenditures to its financing, as well as its relationship with the central bank and commercial banks. MMT authors conclude from their description of these relationships that it is best to amalgamate the Treasury and the central bank into one entity to apprehend correctly the underlying reality and thus avoid the smoke and mirrors brought about by formal prohibitions and other self-inflicted constraints. Other post-Keynesians, observing the same institutions, reject this consolidation, believing instead that it cannot be generalized to all monetary setups and that consolidation obstructs our comprehension of the political economy of the fiscal and monetary nexus. Some paradoxical MMT statements might thus be misleading, or they may be misinterpreted by orthodox authors.⁶ Some of the features that MMT authors consider to be MMT insights might thus be correct only under very strict circumstances.

There are many other MMT proposals that are open to debate, whatever MMT advocates may think of their validity. To conclude, I can provide a brief list of them. MMT authors often claim that a currency has value only because it must be used to pay taxes – chartal money; but this seems to overly minimize the importance and role of confidence and credibility for the worth of a currency, notwithstanding the existence of competing currencies. MMT authors believe that the target nominal overnight rate always ought to be set at zero per cent; but this seems to minimize the possibility of financial instability and asset inflation. MMT authors advocate the creation of a government employment of last resort (ELR); but isn't there a risk that such a program may induce the government to gradually let go well-paid unionized jobs within the public sector? MMT authors consider that the ELR program is an integral part of MMT because it can always be financed since there is no financial constraint on a central government and because they believe that since the government can set the ELR wage rate it will be able to control wage inflation and price inflation, thus simultaneously achieving full employment and low inflation; but isn't this an oversimplified view of the wage bargaining process in industrial relations, and doesn't this omit price inflation caused by external factors, such as the rise in the cost of imported intermediary commodities or the impact of exchange rate depreciation?

⁶ For instance, a survey was organized in 2019 asking economists whether the following statement, attributed to MMT, was correct: 'Countries that borrow in their own currency should not worry about government deficits because they can always create money to finance their debt' (https://en.wikipedia.org/wiki/Modern_Monetary_Theory). MMT authors claim that *printing money* is not what they mean, recognizing however that their terminology can be confusing (Fullwiler 2020). Saying that the vertical component of central bank money *leverages* the horizontal component of bank money is another useless MMT misuse of terms (Lavoie 2013, p. 8)

Yet, despite this, it remains that MMT has opened up the range of fiscal policies and has provided a useful *argumentaire* against the standard claim that the government is running out of money and hence can't financially afford this or that government program.

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