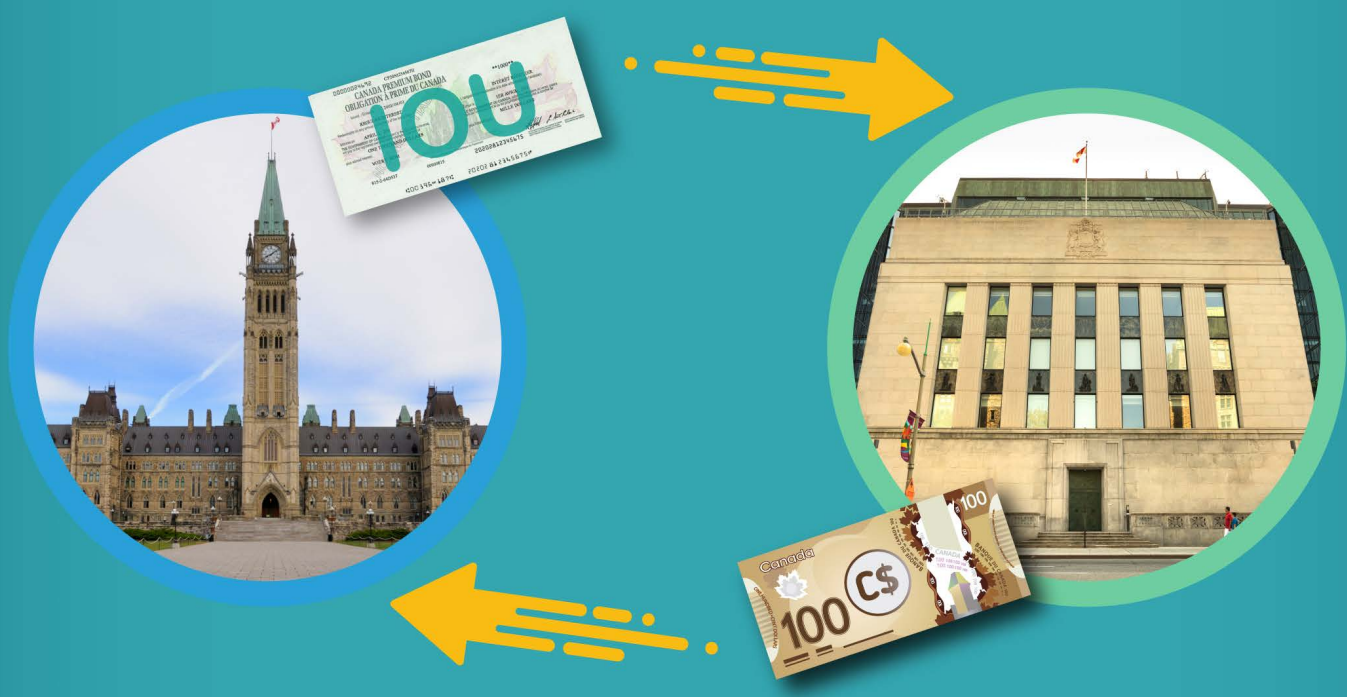


A Primer on Modern Monetary Theory



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Executive Summary

Modern Monetary Theory (MMT) is a policy model for funding government spending. While MMT is not new, it has recently received widespread attention, particularly as government spending has increased dramatically in response to the ongoing COVID-19 crisis and concerns grow about how to pay for this increased spending.

The essential message of MMT is that there is no financial constraint on government spending as long as a country is a sovereign issuer of currency and does not tie the value of its currency to another currency. Both Canada and the US are examples of countries that are sovereign issuers of currency. In principle, being a sovereign issuer of currency endows the government with the ability to borrow money from the country's central bank. The central bank can effectively credit the government's bank account at the central bank for an unlimited amount of money without either charging the government interest or, indeed, demanding repayment of the government bonds the central bank has acquired. In 2020, the central banks in both Canada and the US bought a disproportionately large share of government bonds compared to previous years, which has led some observers to argue that the governments of Canada and the United States are practicing MMT.

A related message of MMT is that increased government spending in pursuit of a variety of economic and social goals is socially desirable. MMT is arguably an expeditious way of funding increased government spending by obviating the need for government to raise additional tax revenues or to compete for private capital by offering competitive interest rates on government bonds sold to private sector investors.

The MMT policy model has been met with a number of objections. One is that central banks, such as the Bank of Canada, may not concur with government requests to fund the latter directly by purchasing government bonds. In principle, the Bank of Canada, as well as the central banks of other wealthy countries, are nominally independent of government control or funding mandates. However, since both Canada's Parliament and the US Congress can legally alter the charters of their respective central banks, the *de facto* independence of the Bank of Canada and the

US Federal Reserve ultimately exists at the will of the Canadian and US governments.

A second objection to MMT is that its implementation will lead to inflation, perhaps even hyper-inflation, with devastating consequences for domestic economies. MMTers acknowledge the potential for increased government spending financed by the central bank to generate problematic inflation in a “full employment” economy. However, most MMTers see a low risk of inflation pursuant to increased government spending given current economic conditions, including relatively high unemployment as well as recent experience of relatively low inflation notwithstanding growing amounts of government borrowing. MMTers also note that government can reduce its spending or increase taxes in the event that inflation is becoming a problem.

Whether government has the political will and technical ability to raise taxes and/or cut spending in response to rising risks of faster inflation is an open question. Hence, while the risk of MMT igniting a sustained and relatively fast rate of general price increases is uncertain, there has been relatively recent historical experience in Latin America and Greece where the implementation of MMT did, indeed, result in runaway inflation and a significant decline in the standards of living in the relevant countries. This experience is cautionary tale for those proposing adoption of the MMT framework.

1. Introducing Modern Monetary Theory

To provision itself with F-35 fighters, the U.S. Treasury instructs its bank, the Federal Reserve, to carry out payments on its behalf. The Fed does this by marking up the numbers in Lockheed's bank account. Congress doesn't need to "find the money" to spend it. It needs to find the votes! Once it has the votes, it can authorize the spending. The rest is just accounting. As the checks go out, the Federal Reserve clears the payments by crediting the seller's account with the appropriate number of digital dollars. (Kelton, 2020: 29)

The preceding quotation sets out the essential policy message of what has become known as Modern Monetary Theory (MMT). The essential message is that there is no financial constraint on government spending as long as a country is a sovereign issuer of currency. Put simply, MMT proponents argue that a government that issues its own currency (as does Canada and the United States, among others) and does not tie the value of its currency to another currency cannot default on the securities it issues to borrow money (in its sovereign currency) because it has the power to issue as much currency as needed to pay off the public debt (Sumner and Horan, 2019; Kelton, 2020). Consequently, if increased government spending in the pursuit of a variety of economic and social goals is a good idea, which is a foundational belief of MMTers, then MMT is a policy initiative that will facilitate increased government spending by obviating the "need" to tax or for government to compete for privately held capital by offering competitive interest rates on government debt in the capital market.

However, behind this essential message is a host of qualifications and complexities that have made MMT a highly controversial and debated focus of recent debates on macroeconomic policy. One qualification that will be discussed later in this essay is that the federal government does not in fact issue currency. The power to create money is typically reserved for

the nation's central bank.¹ Murphy (2020) criticizes what he sees as an implicit notion of MMTers that if the Treasury Department in the US or the Department of Finance in Canada tried to spend more money than it had in its account at the Federal Reserve or the Bank of Canada that the central bank would honor the payment request by effectively granting the Treasury (or Department of Finance) an overdraft whenever it was required. Murphy (2020) argues that the US Treasury has not had the legal option of overdrawing its account at the Federal Reserve since 1981, and before that, the Treasury only exercised the option rarely and out of convenience and not necessity.² However, he acknowledges that the US Congress (and, by extension, Canada's Parliament) ultimately can legally alter the charter of the country's central bank, so that the ostensible independence of the central bank's operations from those of the treasury exists at the will of the federal government.³

MMT is not a new prescription for macroeconomic policy. Most credit its articulation to the American financial practitioner Warren Mosler in 1992, although it has echoes in the even more distant past (Likos, 2021). However, MMT has become much more prominent recently in economic policy debates, especially as government deficits grow with COVID-19-related public spending and as projections of government debt as a share of Gross Domestic Product (GDP) increase in all developed economies. In this context, an argument that central banks of countries that issue their own fiat currency can print as much money as government needs is extraordinarily seductive, especially to politicians who favour large government spending. In this happy world, the government never has to worry about taxing its citizens to fund expenditures or about borrowing to fund deficits. It simply has the central bank essentially provide the equivalent of an overdraft facility that never has to be paid back and has no budgetary limit on its amount.⁴ In short, the notion that access to

¹ In Canada, the central bank is the Bank of Canada, and in the United States it is the Federal Reserve. The European Union has the European Central Bank, although each member country of the European Union has its own central bank that issues euros with the central bank coordinating overall monetary policy.

² Whether the Bank of Canada has an obligation to ensure that the government of Canada can pay its bills will be discussed later in this essay.

³ In both Canada and the US, there have been times when the independence of the central bank to act against the wishes of the federal government has been challenged. It is beyond the scope of this essay to discuss these episodes. Suffice to say that most economists view central banks in developed countries as having retained a meaningful degree of independence after being challenged.

⁴ As shall be discussed in a later section, government spending, even in an MMT

financial capital is never a budgetary constraint on government spending has become a central policy tenet of MMT as it applies to countries such as Canada and the United States.

The purpose of this primer is to elaborate upon and assess this central policy tenet. The primer proceeds as follows. The next section briefly explains how MMT would work in practice and how it differs in principle from quantitative easing (QE), which has been an ongoing policy of central banks over the past decade, and which is often conflated with MMT. Section 3 considers whether Canada, and by extension the US, is practicing MMT. Section 4 sets out the case that its proponents make for MMT and highlights the main assumptions supporting the case. Section 5 identifies prominent objections to MMT, particularly the likelihood that it will lead to higher and economically damaging rates of inflation. Section 6 offers concluding comments.

world, competes at some point with private spending for productive inputs such as labour. MMTers recognize this by acknowledging that increased government spending in a “full employment” economy might lead to inflation. See, for example, Kelton (2020).

2. Implementing MMT

This section briefly discusses in a non-technical manner the mechanics of how MMT would be implemented. The basic mechanics can perhaps best be explained by considering how the US Treasury could finance the purchase of an F-35 fighter plane without raising additional tax revenue or borrowing money.⁵ In this stylized discussion, there are three main participants in the relevant set of transactions: 1) the US Treasury, which is the paymaster for the US government; 2) the Federal Reserve (the central bank), which is the banker for the US government; 3) Lockheed Martin, which produces the F-35.⁶

To simplify the discussion, we assume that the US government must pay Lockheed the entire \$100 million purchase price when it places its order for the plane. This is done by the Treasury requesting its banker, the central bank, to debit the government's bank account and electronically transfer \$100 million to Lockheed's bank (say, Bank of America), which then credits Lockheed's account in the amount of \$100 million. If the US government has no money on deposit at the central bank, it has to essentially borrow the money by issuing the central bank the equivalent of a promissory note, e.g., a US government treasury bill in the amount of \$100 million. From the US government's perspective, it will wind up with an asset (the plane) and a liability (the treasury bill) both in the amount of \$100 million. At the time it creates the loan for the federal government, the central bank will have the treasury bill as an asset and the money it credits to the account of the US government as a liability.

What happens when the government pays Lockheed? The central bank must credit Lockheed's bank in the amount of \$100 million. It does so by essentially substituting the deposit it credited to the account of the US government with a deposit credited to the Bank of America (Lock-

⁵ The sticker price of an F-35 plane is estimated to be around US\$100 million. As an aside, the plane has been widely criticized for its expense and failure to perform as promised. For a discussion, see Axe (2021). For the purposes of using the F-35 illustration, we are ignoring any existing restrictions on the Federal Reserve bank from directly financing government purchases as discussed in Murphy (2020).

⁶ The use of the F-35 illustration is purely for consistency with the Kelton quote above.

heed's bank). This deposit represents a reserve that the Bank of America holds at the central bank. At the other end of the transaction, the Bank of America credits Lockheed's account for \$100 million, which represents a liability for the Bank of America. The liability is matched by an asset, the \$100 million reserve at the central bank.

So, at the end of this straightforward transaction, the US government has an asset worth \$100 million (the F-35) matched by a liability of the same amount (the treasury bill it issues to the central bank). The Bank of America has an asset worth \$100 million (its reserve at the central bank) offset by a liability of \$100 million (the money deposited in the checking account that Lockheed has at the Bank of America). Finally, the Federal Reserve has an asset (the US government treasury bill) offset by a liability (the deposit that the Bank of America has at the Federal Reserve).⁷ What is particularly important to note about this set of transactions is that there is now \$100 million of what economists called M1. This is the money supply as defined by the value of deposits at commercial banks.⁸

What is distinctive about the set of transactions described above is how the US government financed its purchase of the F-35, i.e., it borrowed directly from the central bank. There are other ways the government could have raised the funds to pay for the F-35. The most direct way would have been to increase taxes by \$100 million. Assume for simplicity, however unrealistic, that Lockheed Martin is the only taxpayer. In this circumstance, the government might issue an IOU to Lockheed for \$100 million that is then canceled out by Lockheed's tax obligation. Obviously, Lockheed would not be in business if it faced a 100 percent tax rate, but it is useful to look past this issue to understand the mechanics underlying MMT. The main point is that there would be no increase in the money supply if the \$100 million were to be raised through taxes. As MMTers might put it, the injection of money into the economy is matched by a withdrawal of an equal amount of money.⁹ MMTers would not deny that taxation is

⁷ For Lockheed, the balance sheet change involves the replacement of the F-35 as an asset by \$100 million in the form of a cash deposit at its commercial bank.

⁸ We will ignore the potential for the Bank of America to make loans using the reserves it has on deposit at the central bank. The issuance of such loans would further increase M1.

⁹ We are here assuming that an IOU from the government is equivalent to a monetary payment from the government as far as Lockheed is concerned. MMTers would object to this assumption and contend that the government would always need to "borrow" from the central bank to obtain money in order to make purchases in private markets. That is, the first set of transactions discussed above would need to occur, even though it would be effectively unwound once the government collected taxes in the amount of its spending.

a means to fund government spending. Rather, they would argue that it is not necessary to tax, as long as there is an option for the government to sell treasury bills, essentially IOUs, directly to the central bank. Furthermore, if the economy is, for whatever reason, operating at less than full capacity, the government should be injecting money into the economy through its spending. So, borrowing from the central bank is preferable to taxation as a means of funding government spending.

A third alternative means of financing the purchase of the plane is for the government to sell a treasury bill in the amount of \$100 million to public investors. Again, it is unrealistic, but for purposes of simplification, we will assume that Lockheed buys the treasury bill for its company pension fund. In this case, the government can again issue an IOU to Lockheed and take back the IOU as payment for the treasury bill.¹⁰ What is distinctive about this latter transaction from the transaction where the central bank acquires the treasury bill is that the government will presumably need to pay the pension fund a market rate of interest, whereas the central bank need not charge the government interest. Furthermore, if the government reneges on its obligation to redeem the treasury bill upon maturity, the pension fund would undoubtedly sue the government for payment, whereas the central bank might simply forgive the loan.

A variation on the third alternative way of financing the government purchase is for the government to sell the treasury bill to the pension fund initially, but at some point in the future, the central bank buys the treasury bill from the pension fund. Whether the pension fund sold the treasury bill because it was offered an attractive price to do so by the central bank, or because it needed cash to pay out to its retirees sooner than it anticipated, or for some other reason is immaterial to the analysis.¹¹ What is material is that the central bank's purchase of the treasury bill results in the creation of cash in the bank account of Lockheed, as the treasury bill asset is converted to a bank deposit, i.e., there is an increase in the M1 money

¹⁰ The assumption that the government issues an IOU to the central bank to pay Lockheed before Lockheed is either taxed or purchases a treasury bill obviates the issue of how Lockheed gains the means of payment for its tax obligation or to purchase the treasury bill. MMTers argue that the need for Lockheed to have a means of payment implies that the "first step" in the process of the government purchasing the plane requires the central bank to expand the money supply. To the extent that an IOU is an imperfect substitute for fiat currency, this is strictly true. However, when discussing government spending in an economy where there is already a substantial outstanding money supply, creating initial liquidity is not an essential justification for central bank financing of government spending.

¹¹ In practice, the government primarily sells treasury bills at auction to investment dealers who buy for clients or for their own accounts.

supply. Furthermore, if the central bank bids up the price of the treasury bill, it equivalently puts downward pressure on interest rates.

It is clear that the central bank's purchase of the treasury bill from Lockheed looks very similar to the central bank's purchase of the treasury bill directly from the government. In both cases, the central bank winds up with the treasury bill on its balance sheet and the government obtains funding for the plane. However, the central bank's purchase of the treasury bill in the open market is identified in the literature as Quantitative Easing (QE) rather than as an exercise in MMT. Is this a distinction without a difference? MMTers would say yes. Specifically, they argue that QE simply involves a change in the mix of assets held in the private sector, i.e., a treasury bill is exchanged for a demand deposit at a commercial bank (Mitchell, 2009). By transferring funds electronically to Lockheed's bank, which is then credited to Lockheed's bank account, the central bank credits Lockheed's bank with \$100 million worth of reserves on deposit at the central bank.¹² This allows Lockheed's bank to make loans against the reserves it holds at the central bank, which is also the case when the central bank buys the treasury bill directly from the government to enable the purchase of the plane. As an aside, MMTers argue that the ability of banks to lend is not dependent upon accumulating reserves tied to increasing bank deposits.¹³ Specifically, they argue that if banks can make profitable loans, they can borrow money from other commercial banks or from the central bank in order to do so (Mitchell, 2009). Their point is that the main purpose of the central bank is to facilitate government spending policies rather than altering the liquidity positions of commercial banks.

It is unnecessary at this point to evaluate the issue of whether QE operations ease lending conditions in the banking system in any economically meaningful way. However, the contention of MMTers that QE is a weak tool by which to stimulate the economy through increasing liquidity in the financial sector is a point to which we will return, since it is a prominent justification of the MMTers' strong preference for fiscal policy as a macroeconomic stabilization instrument.¹⁴ At this point, we would agree with the statement that there is no meaningful difference between

¹² The central bank typically pays interest to commercial banks for the reserves the commercial banks keep on deposit at the central bank. While this implies that the government will indirectly be paying interest on its borrowings, the central bank can obviously "print money" to pay the interest on commercial bank reserves. See Mankiw (2020).

¹³ For a more detailed discussion of QE from an MMT perspective, see Mitchell (2009).

¹⁴ The alleged impotence of monetary policy as a macroeconomic stabilization tool is secondary to the main argument for government spending in the MMT framework as will be discussed in more detail in a later section.

MMT and QE as long as the government pays the central bank a “market” rate of interest and redeems the treasury bill it is holding at full face value when it matures, whether the central bank acquired the bill directly from the government or from private sector investors.

In this context, the intention of the central bank in acquiring the treasury bill might give rise to a meaningful difference between QE and MMT. If the central bank bought the treasury bill from the pension fund without the intention to hold it to maturity but only in a futile (by MMT reckoning) attempt to ease liquidity conditions and stimulate bank lending over a given period of time, it will sell the treasury bill back to a private investor before it matures, and the government will have the ultimate obligation to pay the bearer of the treasury bill when it matures (along with the interest accruing while the bill is held by the private investor). On the other hand, if the central bank bought the bill to hold to maturity, it could simply forgive the government debt along with any accrued interest upon the bill’s maturity.

In the first case, the government would have to acquire the means of payment to redeem the matured treasury bill from a private sector investor. That could be done through raising additional tax revenues and/or by selling a new treasury bill to a private investor. In the second case, the central bank simply writes the transaction off as a bad debt. Since the central bank does not have shareholders in the traditional sense to answer to, it does not face any direct discipline from capital markets to minimize making bad loans. However, MMTers would argue that the government treasury department ultimately receives any net revenues earned by the central bank, including revenues from interest on treasury bills. Hence, the treasury department will indirectly bear some of the cost of “irresponsible” central bank lending. In effect, if the government defaults on its debt, it is ultimately defaulting on itself. The implication in this scenario is that there is no meaningful difference between QE and MMT. Of course, if the central bank is willing to buy unlimited amounts of government debt, any reduction in revenues that the government would receive from the central bank is immaterial to the government. Furthermore, since the central bank can “print money” to pay its own bills, it does not need to worry about collecting on its outstanding loans to stay in business.

In short, there is a meaningful difference between MMT and QE to the extent that the central bank is willing to forego interest and forgive the repayment of government-issued debt in the case of MMT.¹⁵ While both policies increase the money supply, government debt that must be repaid carries a future tax burden that private sector participants will incorpor-

¹⁵ A commitment by the central bank to refinance maturing debt indefinitely is equivalent, as a practical matter, to forgiving debt.

ate into their lifetime consumption plans. Specifically, they will save more in the present for anticipated higher taxes in the future. All other things constant, this makes QE a less expansionary monetary policy than MMT. This is especially so if private sector participants expect MMT to promote higher rates of inflation. This expectation should encourage increased spending in advance of anticipated higher prices for goods and services. However, as we shall discuss in Section 4, proponents of MMT argue that given current and foreseeable economic conditions, the expansionary effect of MMT is precisely what is needed and is highly unlikely to cause faster inflation.

This relatively long but hopefully not overly complex explanation of what MMT is and how it is carried out underscores the complaint of Nobel Laureate in Economics Paul Krugman and other well-known economists that MMT as a distinct concept is difficult to define and therefore hard to evaluate (Harvey, 2020). Perhaps the most straightforward way to interpret MMT is that it offers a third and relatively expeditious mechanism by which government can fund increased spending. Selling treasury bills to the central bank is arguably much more politically expedient than increasing taxes, and it is more economically expedient than competing for savings in private capital markets by selling treasury bills to private sector investors.¹⁶ Furthermore, since it does not directly reduce the amount of money that is held by private sector participants in the commercial banking system, it should not reduce private sector spending. In short, MMTers would argue that under current economic circumstances, financing increased government spending by the MMT mechanism increases aggregate real demand in the economy and is desirable precisely for this reason.¹⁷

In the next section we assess whether Canada and other developed countries have already begun implementing MMT. The discussion highlights the difficulty in making practical distinctions between QE and MMT. We then identify and evaluate the arguments of the MMTers for why the MMT financing mechanism is a more appropriate policy approach than QE under most circumstances, especially given the relatively high rates of unemployment and spare capacity created by the COVID pandemic and the associated reduction in economic activity.

¹⁶ This is not to suggest that reliance upon the central bank to finance government spending is an insight original to MMTers. Rather, the MMT framework maintains that it is not necessarily economically irresponsible for this policy measure to be implemented.

¹⁷ The specific (and unlikely according to MMTers) circumstance under which direct sales of treasury bills to the central bank might be problematic is discussed in a later section discussing the potentially inflationary consequences of the practice.

3. Has Canada Adopted MMT?

In the popular media, both the Bank of Canada and the Federal Reserve are accused of “printing money” with one controversial consequence being a recent and sharp increase in housing prices in both countries (Pittis, 2020). Some observers, such as Francis Donald, global chief economist at Manulife Investment Management, argue that elements of MMT have already become embedded in Canada’s economy and financial system since COVID-19 developed (Pittis, 2020). Others deny that the two central banks are practicing anything more than traditional monetary policy, albeit much more aggressively post-COVID-19 than in the past, which is effectively QE. Indeed, in his last speech as governor of the Bank of Canada, Stephen Poloz rejected the relevance of MMT as a monetary policy tool arguing that fiscal policy decisions are the purview of the government and not the central bank (Carmichael, 2019). In a similar manner, Jerome Powell, the current chair of the Federal Reserve, rejected the notion that the Federal Reserve would coordinate monetary policy with the US Treasury in order to fund spiraling government deficits (Maier, 2020). Still others, such as Ray Dalio, the head of one of the largest hedge funds in the world, posits that the adoption of MMT is inevitable, because QE is not an effective or equitable policy instrument to stimulate economic growth when interest rates are pinned at or near zero percent.¹⁸

One might ask why it matters whether central banks have embarked upon MMT or whether they are pursuing the closely related (but distinctly different) practice of quantitative easing. One reason is that the independence of the central bank from the government in matters of monetary policy has traditionally been seen by economists as a critically important institutional feature of a sustainably functioning price system. Indeed, in historical cases where this independence has been seriously compromised, such as during Germany’s Weimar Republic in the 1930s, the integrity

¹⁸ See Dalio (2019). He argues that QE is inequitable because central bank purchases of debt and other securities drive up the prices of those securities which are primarily owned by relatively wealthy investors. Hence, QE exacerbates wealth inequality.

**Table 1: Bank of Canada Assets
(\$ millions, 31 December)**

	2009	2015	2019	2020
Cash + Foreign Deposits	20.4	11.2	6.4	6.5
Loans + Receivables	25,377.0	60,96.7	15,521.9	155,323.5
Treasury bills	13,684.0	18,220.3	23,367.4	51,750.2
Other government securities	31,986.3	76,763.5	79,541.2	318,009.1
Other investments	38.7	405.2	438.3	22,005.6
Bank Premises	150.5	431.4	700.9	696.7
Other assets	98.5	218.6	66.7	41.5
Total Assets	71,355.4	102,146.9	119,642.8	547,833.1

Notes: 1. Other government securities includes bonds and government insured mortgages.

2. Other investments includes corporate bonds.

3. Loans and receivables are almost entirely repurchase agreements.

Source: Bank of Canada Balance Sheet at December 31, various years.

of the country's monetary system was destroyed by hyperinflation.¹⁹ A second and related reason is that any substantial change in the role and size of government, which is ultimately the fundamental rationale for MMT, deserves to be debated publicly and should not be obscured by arcane debates about precisely when QE becomes MMT.

Indeed, it is unclear whether the central bank has embarked upon MMT in the absence of an explicit acknowledgment that monetary policy is being coordinated with fiscal policy to facilitate increased government spending. There is certainly circumstantial evidence that this has been the case over the past year, as governments in developed countries have provided historically large amounts of financial assistance to businesses and households during the COVID-19 crisis, and central banks have been large purchasers of government debt. To illustrate, table 1 reports the assets held by the Bank of Canada for selected years, which include a recession (2009) and the COVID-19 crisis of 2020. The main categories of government debt are Treasury bills and "other government securities," which includes Government of Canada bonds and insured mortgages. Other investments, which were an insignificant amount of the central bank's assets

¹⁹ See Dalio (2019) for discussions of other historical instances of countries that have implemented what he deems to be MMT. Former Clinton Treasury Secretary and Obama economic advisor, Lawrence Summers, has called MMT "voodoo economics." See Yamada (2020).

Table 2: Government of Canada Debt (\$ millions), December

	2,009	2,015	2,019	2,020
Short-Term	219,693	237,413	217,361	361,821
Long-term	330,915	434,573	518,305	733,600
Total	550,608	671,986	735,756	1,095,421

Source: Statistics Canada, Table 10-10-0002-01.

prior to 2020, includes corporate debt. Loans and receivables are largely repurchase agreements. This category encompasses securities purchased from commercial banks and other financial institutions that will be resold to those banks and institutions before the debt matures.²⁰

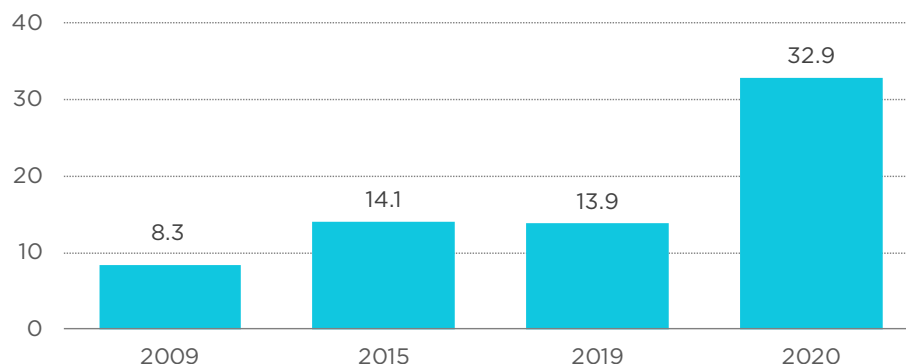
Table 1 illustrates the dramatic increase in the Bank of Canada's holdings of federal government debt in 2020. These holdings increased by 252 percent between 2019 and 2020. In absolute terms, these holdings increased by CA\$257.7 billion between December 2019 and December 2020. This increase primarily reflects larger holdings of government bonds. The Bank of Canada held CA\$79 billion of government bonds on January 1, 2020. The Bank's holdings increased by CA\$228 billion to CA\$307 billion on December 31, 2020 (see Bank of Canada, Undated). In comparison, the total holdings of government debt by the Bank of Canada increased by approximately \$56.7 billion from 2009 to 2019.

The recent increase in the Bank of Canada's holdings of federal government debt can be put into additional context by the data reported in table 2 and figure 1. The former reports government of Canada short-term, long-term, and total debt for the same years as reported in table 1. The latter shows the percentage of government debt held by the Bank of Canada. Table 2 underscores the dramatic increase in the federal government's outstanding debt between December 2019 and December 2020. In absolute terms, the debt increased by \$359.7 billion. This represents an astounding increase of almost 49 percent in that 12-month period. Figure 1 illustrates the increasing importance of the Bank of Canada as a holder of federal government debt, particularly over the 2019-2020 period.

The Federal Reserve also became a substantially more prominent holder of US government debt, especially in 2020. Davies and Ostroff

²⁰ Repurchase agreements are primarily implemented by central banks to alter short-term liquidity conditions in financial markets.

Figure 1: Percent of Federal Debt Held by the Bank of Canada



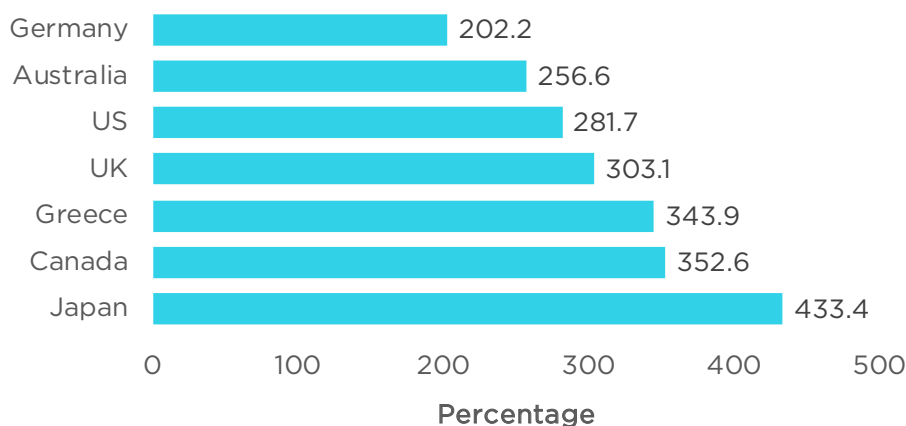
Source: Author's calculations from data in tables 1 and 2.

(2021) report that between 2010 and 2014, the Federal Reserve bought about 40 percent of the extra debt issued by the US government, thereby doubling its share of Treasury securities ownership to 18.6 percent. In 2020, the Federal Reserve bought more than 55 percent of the government's newly issued debt.

It is not possible to infer from the data discussed above whether the Bank of Canada (or the Federal Reserve) has begun practicing MMT. Both central banks have certainly become more important purchasers of federal government debt at the same time as government debt has grown substantially. If anything, the Bank of Canada has become relatively more important recently than the Federal Reserve as a buyer of government debt. Over the 10-year period from December 2009 to December 2019, the increase in the Bank of Canada's holdings of federal government debt equaled around 31 percent of the increased government debt. From December 2019 to December 2020, the increase in the Bank of Canada's holdings of government debt amounted to almost 72 percent of the increase in government debt.

Whether the Bank of Canada's increased prominence as a purchaser of government debt will continue or whether it will diminish as the economy recovers from the COVID-19 pandemic is an open question. Certainly, there will be economic pressure on central banks in developed countries to mitigate the economic consequences of rising interest rates tied to renewed economic growth given the large and growing amount of debt relative to GDP in those countries. Figure 2 shows the debt position of a sample of OECD countries. Specifically, it reports the debt of govern-

**Figure 2: Debt as a Percentage of GDP
(end of third quarter, 2020)**



Source: Argitis (2021).

ments, households, and non-financial corporations as a percentage of each country's GDP as of the end of the third quarter of 2020.²¹ The data suggest that increases in interest rates will impose a substantial burden on private sector debtors, as well as governments, and that there is likely to be substantial political pressure on central banks to mitigate interest rate increases. In particular, there is likely to be pressure on central banks to fund new government debt, as well as to forgive or indefinitely “roll over” existing debt held by central banks. Whether central banks are able and willing to resist this pressure depends importantly upon the *de facto* independence of central bank decision-makers from government officials.

Van den Berg (2018) notes that there is no consensus among academics about how best to measure central bank independence and accountability. The Bank of Canada Act sets out the central bank's mandate, powers, and structure and gives the central bank a considerable level of independence.²² In practice, however, there is usually a high level of coordination between the government and the central bank. Indeed, under the Act, the minister of finance and the governor of the Bank of Canada must consult regularly on monetary policy and on its relation to general

²¹ The cumulative outstanding marketable debt of central governments of OECD countries as a share of cumulative GDP is projected to reach 92.1 percent in 2021. See OECD (2021).

²² This interpretation of the Bank of Canada's independence draws heavily from van den Berg (2018).

economic policy. At the same time, the Act's preamble states that the central bank must work in the best interests of the nation's economic life rather than on behalf of government. As well, while the deputy minister of finance sits on the board of the Bank of Canada, which appoints the Bank's governor and deputy governor, the executive committee must approve the appointment and the deputy minister of finance has no vote in the executive committee.²³ The executive committee can dismiss the governor of the Bank of Canada, but needs a valid reason to do so. Van den Berg (2018) interprets this safeguard as providing the governor and deputy governor with substantial protection from dismissal by a government that does not agree with their decisions.

The governing structure of the Bank of Canada, as well as the fact that the Bank does not depend on government funds to finance its operations, would seem to give the Bank substantial independence to refrain from implementing MMT, even if the government wants that monetary policy strategy. However, under the Act, if the minister of finance and the governor of the Bank of Canada disagree on monetary policy, the minister of finance may give the governor a written directive that the Bank must follow. The directive must be made public, and the government must present the directive to Parliament. To date, no minister of finance has used this directive power, although the potential to do so clearly represents a limiting case threat to the Bank's independence.

Van den Berg (2018) contrasts the Bank of Canada's independence from government directives favourably with that of the US Federal Reserve. Under the Federal Reserve Act, the US president may remove any appointed member of the board of governors with "cause." However, the Federal Reserve Act does not define cause, and case law on this issue is considered to be vague. Legal scholars believe, on balance, that the chair of the Federal Reserve does not enjoy protection against being removed by the US president. Although the chair is only one member of the Open Market Committee that makes monetary policy decisions, the chair has traditionally had a major influence on the committee's operating decisions.

The independence of the US central bank from government directives is relevant to Canada given the high degree of product market and capital market interdependencies between the US and Canada. Depending upon the specific impacts of MMT on the US economy, there will be important consequences for the Canadian economy. For example, if MMT results in a significant increase in the rate of inflation in the United States, as many critics of MMT project and as will be discussed in more detail later, the Bank of Canada would be faced with a tradeoff between allowing

²³ The Executive Committee sets monetary policy.

the Canadian dollar to appreciate relative to the US dollar, thereby potentially hurting the export sector, or implicitly allowing inflation to increase in Canada through higher priced imports.

In summary, it seems premature to conclude that the Bank of Canada has endorsed MMT when the major change in its purchases of government debt occurred in the midst of a once-in-a-century pandemic. While both the Bank of Canada and the Federal Reserve embarked on QE prior to the COVID-19 pandemic, it is meaningful to maintain a distinction between QE and MMT for reasons discussed earlier. Going forward, it seems more relevant to address the issue of whether MMT should be implemented rather than debate whether it has already been implemented. We next turn to the arguments for adopting MMT.

4. Proposed Economic and Social Justifications for MMT

One claim that has been made for MMT is that “traditional” monetary policy, even encompassing QE, is a weak economic stabilization instrument, especially in periods of severe recession. In an earlier section, we discussed the MMT assertion that increased lending by financial institutions does not depend upon the central bank increasing bank reserves by buying government securities from private sector holders of those securities. This is because commercial banks and other lenders can borrow funds if they have identified profitable lending opportunities. A more ubiquitous argument is that traditional monetary policy becomes increasingly ineffective as interest rates move toward zero, since further lowering of the cost of borrowing may require negative interest rates, i.e., people are paid to borrow money, while lenders are charged interest for making loans, which is highly damaging to the domestic banking system, among other things.

A second claim, which is arguably the more prominent case being made for MMT, is that QE contributes to wealth and income inequalities without stimulating capital investments and other real economic activity. Increased investments in capital equipment, research, and development and the like would stimulate long-run economic growth, thereby benefiting the vast majority of citizens. Dalio (2018), among others, argues that QE helps relatively high-income earners more than relatively low-income earners, because QE helps drive up the prices of financial assets, which are predominantly owned by wealthier individuals.²⁴ Furthermore, the QE lever doesn’t target money to “good” investments such as education, infrastructure, and research and development. Coordinating fiscal and monetary policy, which is the essence of MMT, is effective and economically desirable because it both injects money into the economy and ensures that the money is spent, particularly in socially valuable ways.

²⁴ When the central bank increases its purchases of bonds and mortgages, it increases the demand for those assets, thereby increasing their prices and reducing their yields.

In sum, while one line of argument for MMT is that fiscal policy is a more robust tool than monetary policy for stabilizing business cycles, the broader and more forceful argument is that there are economic and social needs for a larger government in society—particularly ensuring employment opportunities for all seeking employment.²⁵ Therefore, if selling treasury securities directly to the central bank is the most expeditious way to finance “needed” government spending, it serves the public interest to employ that method of government financing.

It is beyond the scope of this primer to address these arguments for MMT in great detail. However, it is useful at this point to discuss some available evidence on the relative effectiveness of monetary policy as an instrument to promote price stability—which is the main goal of the Bank of Canada.²⁶ As noted above, a major concern expressed about the continued reliance on monetary policy as the main policy instrument for stabilizing macroeconomic performance is that it is impotent when interest rates are effectively pinned at or near zero.

Without debating the consequences of central banks promoting negative interest rates, the point should be made that current central bank policy in Canada has clearly been strongly influenced by the economic fallout associated with the COVID-19 crisis. Figure 3 reports the Bank of Canada’s overnight lending rate. This is the rate at which financial institutions borrow and lend among themselves (overnight), and it is the rate that the Bank of Canada targets as its main monetary policy instrument.²⁷ From March 27, 2011 to March 27, 2019, the overnight lending rate averaged 1.22 percent.²⁸ As recently as January 27, 2020, the overnight lending rate was 1.75 percent. On March 27, 2020, the overnight lending rate was down to 0.25 percent, and that is the rate at the time of writing.²⁹ It seems inappropriate to write off the effectiveness of monetary policy as the main

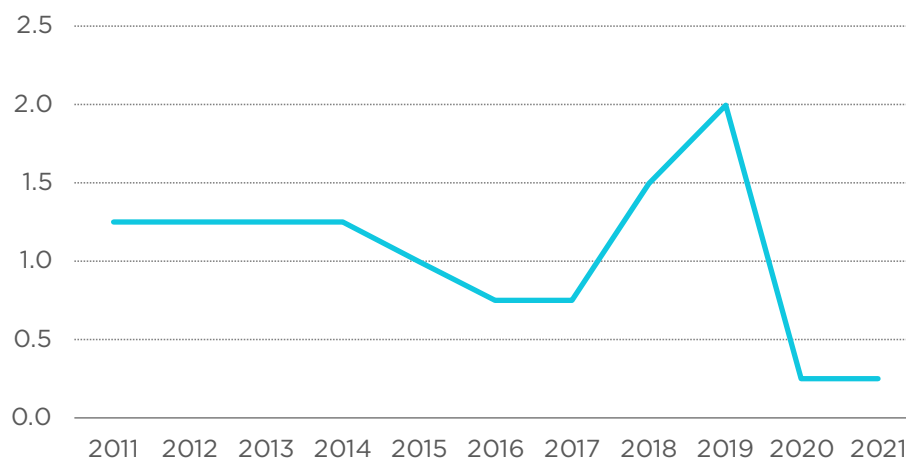
²⁵ A prominent feature of the MMT platform is the call for government to provide a “job guarantee” program.

²⁶ The Federal Reserve has the additional mandate to promote low unemployment. More recently, it announced a third mandate to promote employment equity. While this third mandate was not articulated in any measurable way, its aim is to promote employment of minority groups. Recently, the focus of central banks has been to stimulate spending in order to avoid price deflation.

²⁷ The target rate is usually 25 basis points below the actual overnight rate.

²⁸ March 27th was chosen as the representative date for each year, as it corresponds to the approximate date in 2020 when the economic shutdown triggered by COVID-19 began in earnest. However, the Bank of Canada’s target rate was constant throughout the month of March in every sample year other than 2020.

²⁹ The overnight lending rate and the target rate are reported in Bank of Canada (undated b).

Figure 3: Bank of Canada Lending Rate, March 27th*

* March 10th for 2021.

Source: Bank of Canada (Undated b).

macroeconomic policy tool on the basis of the historically low current interest rates when those low rates are an artifact of a once-in-a-century public health crisis.

Prior to the COVID-19 pandemic, the comparison between monetary and fiscal policy as the preferred instrument to mitigate recessions focused primarily on the lag times between recognizing the need for policy intervention and the impact of the intervention on the economy. Lags can be attributed to delays in recognizing the need for policy intervention—delays in actually implementing the relevant policy and delays in the policy’s effect on economic behaviour. Both monetary and fiscal policy have relatively long lags (Havranek and Rusnak, 2013). Equally important, if not more important, is for policymakers to diagnose the need for policy action correctly. A short policy lag associated with an inappropriate policy intervention is arguably worse than a longer lag associated with an appropriate policy intervention.

In this regard, it is relevant to highlight empirical evidence of forecast biases on the part of finance and treasury departments (Frankel and Schreger, 2016). Specifically, the bias is toward overestimating future rates of economic activity and associated tax revenues, thereby “justifying” increased government spending without projecting commensurate increases in government deficits or acknowledging the need for increased tax revenue to avoid larger deficits. In fact, there is also some evidence of biased forecasts by monetary authorities. For example, Champagne,

Poulin-Bellisle, and Sokkel (2018) find some evidence of bias in the Bank of Canada's staff long-run forecasts for GDP growth. However, considering the full range of forecasting done by the staff, the authors conclude that notwithstanding the difficulty of forecasting GDP, inflation, and other macroeconomic variables in real time, the forecasting by the staff of the Bank of Canada and by those at the Federal Reserve is near the frontier of predictability.

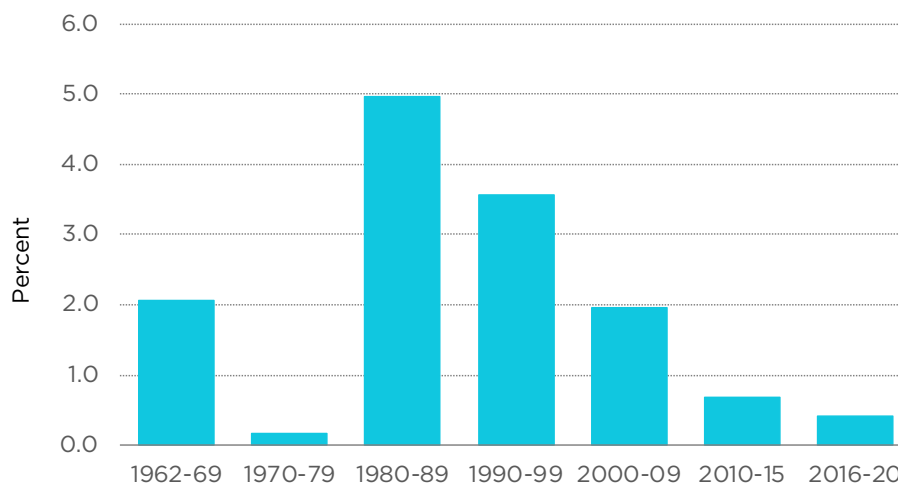
In short, the available evidence does not support an argument that fiscal policy is superior to monetary policy as an instrument for stabilizing macroeconomic cycles. Indeed, it is easier to make the opposite case. Hence, the primary argument for MMT rests on the notion that increased spending by government is desirable because it will promote a faster and "more equitable" and sustained rate of real economic growth.

There is an extensive literature focusing on the relationship between the size of government and the rate of real economic growth. Di Matteo (2013) summarizes much of this literature and adds some new evidence based on relatively recent data. He notes that the manner in which government affects economic growth is complex, as government activities can affect economic growth positively, in part by providing public goods such as basic scientific knowledge and rule of law, as well as by public investments in physical and social capital. However, as government spending rises, inputs that are more productively used in the private sector are bid away by the government. As a consequence, there is a slowdown of real economic growth.

Using data from 34 countries from 2000 to 2011, Di Matteo (2013) identified that the maximum annual real per-capita GDP growth rate of 3 percent corresponded to a government expenditure to GDP quotient of 26 percent. Beyond this "optimal" relative size of government, the rate of real economic growth declined.³⁰ Di Matteo (2020) acknowledges that this estimated relationship is sensitive to the countries included in his sample as well as the precise period covered by the data. However, even assuming a modest range around this point estimate, it can be argued that increases in the relative size of government in Canada are more likely to harm than help economic growth. In this regard, Whalen and Globerman (2020) report that for Canada as a whole (including the federal government and the provincial governments), government spending as a share of GDP was

³⁰ Di Matteo emphasizes that real economic growth might not be the only determinant of the optimal size of government. As well, the relationship between real per-capita GDP growth and the relative size of government might be influenced by the nature of government spending. In this regard, MMTers might argue that "productive" government spending increases the "optimal" size of government in relationship to real economic growth.

Figure 4: Yield on US 10-Year Government Bond Minus the Rate of Inflation



Source: Author's calculations from data in The World Bank (Undated).

40.3 percent in 2018—up from 37.4 percent in 2007.³¹ Almost two-thirds of government spending in Canada was on goods and services, i.e., directly competitive with purchasing by private sector participants.

MMT proponents would argue that the prolonged period of relatively slow real economic growth in developed economies over the past decade is not a consequence of “excessive” government spending but rather the opposite, or what Lawrence Summers (2020) and others have called “secular stagnation,” i.e., an excess of desired savings over desired investment which results in a deficiency of aggregate demand and prolonged underutilized production capacity. The savings glut is the alleged result of several factors including an aging of the populations of western countries, high savings rates in China that spill over into other capital markets, and a growing inequality of wealth.³² If secular stagnation is a problem, MMT proponents see increased government spending facilitated by MMT as a solution.

There is certainly evidence of a decline in the long-term real rate of interest in developed countries over the past decade that is consistent with

³¹ While they could not provide a numerical estimate, Whalen and Globerman (2020) assert that the relative size of government in Canada has increased significantly with the COVID-19 crisis.

³² Aging populations save relatively more of their incomes for retirement, while wealthy individuals save a relatively high proportion of their incomes.

an argument that attractive capital investment opportunities have been growing more slowly than funds available for investing. For example, figure 4 reports the difference between the yield on 10-year US government bonds minus the rate of inflation as measured by the Consumer Price Index averaged for sub-periods from 1962 to 2020. The 10-year US Treasury security is a benchmark long-term rate that is typically used as a long-run risk-free rate against which investors calibrate the relative attractiveness of alternative investment opportunities.

The data in figure 4 suggest that the real risk-free long-run rate of interest over the decade from 2010-2020 was substantially below that of earlier periods with the exception of the decade of the 1970s. This is consistent with the existence of a glut of savings relative to investment opportunities. However, it is not necessarily a justification for increased government spending financed by direct central bank purchases of government securities. Supply-side economists argue that increased government regulation, relatively high marginal income tax rates, and increasing government protections against foreign competition have discouraged private sector investing generally, and the formation of innovative business start-ups specifically, so that while savings rates may have increased over time, the “solution” to the savings glut is a public policy environment that encourages investment.

5. MMT and Inflation

While the MMT framework has been subject to a number of criticisms, perhaps the major objection to MMT is that it will facilitate essentially unlimited government spending that will ultimately result in an accelerating rate of inflation with damaging consequences for economic growth and for lower-income households that own limited amounts of real assets such as real estate. MMT proponents argue that the risk is low that increased government spending financed by the central bank will trigger faster inflation.³³ Furthermore, if the rate of inflation did increase to a point where it became an economic problem, the government could reduce aggregate demand by increasing taxes, or (less frequently acknowledged by MMTers) by reducing government expenditures, thereby slowing inflation.

Table 3 reports the average annual percentage change in the consumer price index for Canada and the US for sub-periods from 1962 to 2020.³⁴ Clearly inflation has been relatively quiescent in both countries for the past three decades. However, relatively rapid inflation persisted over a two-decade period during the 1970s and 1980s. The persistence of relatively high inflation is a caution against presuming that economic stabilization measures can quickly and easily be put in place that effectively mitigate aggregate price increases. Furthermore, the inflation experience of the 1970s and 1980s also teaches us that inflation is volatile, and that the rate of inflation can spike upwards relatively quickly. For example, the rate of inflation in Canada, as measured by the Consumer Price Index, was 2.7 percent in 1971. It reached 7.5 percent in 1973 and 11 percent in 1974. Inflation in the US, again measured by the Consumer Price Index, was 6.5

³³ MMT proponents argue that inflation has remained low in recent years in most major economies despite highly expansionary monetary and fiscal policies (Tavlas, 2020). However, Mankiw (2020) notes that there is a strong correlation between inflation and money supply growth since 1870.

³⁴ Steindel (1997) notes that the consumer price index is the most widely watched inflation measure, although its accuracy has been criticized. However, he also notes that alternative measures also have flaws, and that the consumer price index is still the most reliable indicator of changes in inflation.

Table 3: Average Annual Change in the Consumer Price Index

	US	Canada
1962-69	2.59	2.87
1970-79	7.14	7.38
1980-89	5.56	6.51
1990-99	3.01	2.24
2000-09	2.57	2.12
2010-15	1.86	1.69
2016-20	1.65	1.57

Source: Author's calculations from Macrotrends (2021) and The World Bank (Undated).

percent in 1977. By 1980, it had spiked to 13.6 percent. The point here is that even if governments were able to increase tax rates relatively quickly to tame inflation, the imperative to increase taxes in order to tame inflation might not be recognized until inflation became a serious problem.³⁵

I have seen no detailed discussion of precisely how the tax code would be modified to make it more effective as a counter-cyclical macro-economic policy tool. The MMT proposal to employ fiscal policy to dampen inflation raises the issue of whether tax reductions would be implemented if the rate of inflation fell below the central bank's (or the government's) target. It also raises the issue of which specific taxes would be increased or decreased to address "undesirable" changes in the overall price index. In particular, investors need some predictability in the tax regimes in which they invest in order to evaluate with some degree of confidence what their tax burden will be associated with their investment decisions. Will the relative tax burden be shifted across different sectors or industries depending upon economic conditions in those sectors or industries? If so, and in the absence of clearly specified conditions, the associated uncertainty would be a serious impediment to capital investments, especially in long-lived capital assets.

³⁵ Forecasting errors tend to be correlated with the economic cycle, at least in the case of Australia. That is, fiscal forecasts tend to underestimate growth during economic upswings and overestimate growth during economic downswings. See Australia (2013).

More generally, unless the tax system was fully indexed to inflation, there would be a strong bias built into the incentive structure of politicians to tolerate faster inflation, as inflation would move taxpayers into higher tax brackets as their nominal incomes and capital asset values increased, even as the real value of incomes and assets decreased. Inflation would produce increased tax revenues, especially given Canada's progressive income tax structure, which politicians would welcome. Would legislation be required to set a "maximum allowable" rate of inflation to protect taxpayers against opportunistic behaviour by politicians? Given that legislation can always be amended, would taxpayer protection require some sort of constitutional amendment that enshrines a "tolerable" target rate of inflation that is more difficult for politicians to evade? And what maximum rate of inflation should be legislated?

These and other issues surrounding the reliance on fiscal policy as an anti-inflation tool might be dismissible if one is prepared to argue that there is a negligible risk of inflation if the MMT program is implemented. Certainly, there have been factors at work over the past few decades that have exerted strong deflationary forces. In particular, freer trade and the emergence of global supply chains with China as a new and major participant are two such factors. Technological change has been a third factor. Whether those factors will continue to be as strong in the future as they have been in the past is an open question. It can certainly be argued that major economies including the US, the European Union, and China are becoming more protective of domestic producers, especially in technology-intensive industries. The COVID-19 crisis has arguably made national governments more reluctant to rely on imports across a range of products, especially products related to public health and national security.

Concerns about income inequality are also strengthening protectionist forces in service industries where technological change has arguably been biased in favour of saving labour. One example is the legal push in many political jurisdictions to have independent contractors working for companies such as Uber classified as employees, thereby obliging Uber and related companies to extend a range of benefits to their "gig workers." While some economists argue that innovation is becoming increasingly difficult (or costly) as the well of "basic knowledge" dries up, a more prominent risk to future innovation might be government legislation and regulations that restrict companies from substituting capital for labour.

While the recent debate about the potential inflationary consequences of MMT has proceeded largely on the basis of conceptual arguments, historical examples of MMT provide stronger guidance on the issue. Notably, Tavlás (2020) describes the experience of Greece before it became a member of the Euro Zone in 2001 and, therefore, used its own

sovereign currency, the drachma. From 1981 to 1994, the Bank of Greece (the central bank) was subservient to the Greek government. Indeed, at one point during this period, the same individual held the position of finance minister and governor of the Bank of Greece. During this time, the role of monetary policy was to help finance government fiscal deficits. Tavlas notes that the annual rate of money growth averaged more than 20 percent from 1981 to 1994, while the rate of inflation averaged 18 percent. He concludes that making money creation subservient to fiscal authorities can be a road map to inflation.

Edwards (2019) analyzes some of Latin America's episodes with MMT-type policies, specifically in the cases of Chile, Peru, Argentina, and Venezuela. In the case of each country, populist governments financed fiscal deficits through money creation by the central bank. In each case, the consequence was runaway inflation, huge currency devaluations, and precipitous declines in real wages. While each country had its own sovereign currency, Edwards points out that other than having to pay taxes in the local currency, economic participants switched away from using the local currency to using the US dollar as both a medium of exchange and a store of value. The point underscored is that expectations of rapid inflation erode confidence in a sovereign currency such that its utility to the government as a means of paying for goods and services is ultimately undermined by the fact that suppliers of those goods and services, particularly foreign-based suppliers, refuse to deal in the sovereign currency.

Against this background, Tavlas (2020) emphasizes the economic risk of granting governments unlimited fiscal space before a vaguely defined inflation constraint kicks in. Palley (2013) characterizes the MMT inflation theory as being a naive on-off switch, where "off" corresponds to a state of less-than-full-employment and "on" when at full employment. However, he notes that sectors of the economy can be approaching full employment at different rates, so that price level-output responses depend upon the mix of sector conditions, as well as overall aggregate demand and supply. MMTers such as Kelton (2020) want agencies such as the Congressional Budget Office in the US to evaluate inflation risks before government commits to funding new programs. However, as Palley (2013) notes, predicting inflation is notoriously difficult, and the role of increased liquidity in driving inflation is especially difficult because of long and variable lags associated with the effect of changes in liquidity.

Concluding Comments

The simple view of MMT is that a sovereign government that prints its own fiat currency does not have to be concerned about fiscal deficits as long as there is excess capacity in the economy so that increased government spending does not contribute to inflation. Since the government can effectively borrow money from the central bank and may indeed never be required to pay back the money it borrows, financing considerations should not be a constraint on government spending. Indeed, MMTers question the relevance of government deficits as a metric of a nation's financial condition, since money spent by government ultimately winds up in the bank accounts of the factors of production that produced the output demanded by government. Therefore, ignoring the potential for some of the money to be spent on imported goods and services, government deficits will be offset by credits in domestic private sector bank accounts meaning that there can be no increase in the net deficits of the country as a whole.

While much of the focus of the debate surrounding MMT has been on the potential consequences of alternative mechanisms to finance government spending, the more important issue raised by MMT is arguably the proper size and scope of government in modern developed economies. Proponents of MMT believe that society would be better off if government played a larger role in meeting the economic and social needs of its citizens. These needs range from universal access to health care, affordable (even free) education, guaranteed employment (if not universal basic incomes), clean energy sources, improved infrastructure, and so on. To the extent that the economy has unused capacity, some MMTers would argue that meeting these needs through increased government spending financed by the central bank is essentially the equivalent of a free lunch. Tradeoffs between public and private goods only become relevant as the economy reaches “full employment” when government must then bid productive resources away from the private sector, which results in broad-based price increases. While some MMTers acknowledge that a reduction in government spending can be a policy response to inflation, the more fa-

voured response is tax increases.³⁶ To the extent that MMTers see government spending as having a higher social rate of return than private spending at virtually any level of government spending, it is clear that increased taxes will always be favoured over reduced government spending as an anti-inflation policy instrument.

While much of the criticism of MMT has focused on the potential inflationary consequences of MMT and the implausibility of effective fiscal policy responses being implemented in response to the emergence of inflation, perhaps even hyper-inflation, there has been relatively little focus on the issue of whether it is in the interest of society to facilitate a major increase in government's relative economic size. If a larger government is seen by the bulk of the citizenry to be in society's best interest, the issue of whether MMT will lead to inflation should be only of minor concern, since taxpayers should be willing to pay more in taxes while reducing their spending on private sector goods and services so as to increase the supply of publicly financed goods and services. Hence, the issues surrounding MMT can be seen as a continuation of the very long-standing debate about the optimal size of government.

³⁶ For a discussion of alternative fiscal policy responses to inflationary pressures under MMT, see Edwards and Mohammed (2020).

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