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Deficits Do Matter: A Review of Modern Monetary Theory

As government spending and deficits have burgeoned in response to the COVID-19 crisis, Modern Monetary Theory has moved to the centre of public discourse, with proponents using it to allay fears over massive government spending. What does the theory get right? and, more importantly, what does it get wrong?

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THE STUDY IN BRIEF

The global financial crisis has had lasting impacts on the global economy and how we think about it. In its wake, the resulting surge in government debt in many countries has been accompanied by lower, rather than higher, interest rates and subdued inflation pressures. These events have sparked questions about the validity of conventional economic theories, opening the door for new, and at times radical, theories to emerge; a trend that has only been heightened by the current global COVID-19 pandemic.

One such theory that has been at the centre of public discourse is Modern Monetary Theory (MMT). It has gained popularity as part of the “green new deal” discussions and is now garnering even more attention in the midst of the COVID-19 crisis, where the issuance of government debt has burgeoned.

MMT is controversial and, as such, has been subject to different understandings and interpretations. In this paper, we attempt to discern what MMT really is from what it is not, and provide a primer on its core tenets with respect to its views on the role monetary policy and public debt management.

MMT is commonly assumed to be about printing money while ignoring any inflationary consequences. This is largely a result of its politicization and is an incorrect understanding of the theory. Contrary to common misconceptions, MMT actually accepts that government deficits matter, and acknowledges the need to contain inflation. In its simplest form, MMT argues that a monetary sovereign government – one that issues its own currency, borrows mainly in that currency, and operates a floating exchange rate – does not face financial constraints. Instead, it concedes that governments will face a *real* constraint on spending when aggregate demand reaches the economy’s aggregate supply, which, if surpassed, would lead to inflationary pressures. Unlike conventional thinking, however, MMT prescribes fiscal measures, such as raising taxes or cutting government spending, to deal with these pressures. Rather than tasking independent central banks with achieving full employment and controlling inflation, MMT puts the onus squarely on fiscal authorities to accomplish those tasks. While MMT believes deficits matter, it does not view a deficit that temporarily increases the debt-to-GDP ratio while increasing productive capacity as a sign of overspending. Rather, MMT views excess capacity in the economy as a sign of underspending by the government.

With this understanding of MMT in mind, we find that MMT overstates the degree of monetary sovereignty that governments like Canada, with a small and open economy, enjoy in a world where capital is mobile. In addition, we argue that having an independent central bank tasked with an explicit inflation control mandate is essential for a well-functioning economy to anchor market perceptions about inflation. This anchor is less likely to hold fast if the task of controlling inflation is solely left to fiscal policymakers who might hesitate to raise taxes or reduce spending in the face of rising inflationary pressures and prices.

Policy Area: Monetary Policy.

Related Topics: Central Banking; Inflation and Inflation Control; Interest Rates; Money Supply.

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Issuance of government debt has exploded around the world over the past dozen years. The initial wave of large debt issuance appeared about ten years ago in the wake of the global financial crisis.

That was dwarfed by an even bigger wave in 2020 as governments, including Canada this time around, shepherded their economies through the global COVID-19 pandemic. In both cases, central banks acquired a significant portion of the issued debt through a variety of quantitative easing operations¹ as they sought to contain the economic damage of the two crises.

To the surprise of some observers, the surge in government debt and its acquisition by central banks since the global financial crisis has been accompanied by lower, rather than higher, interest rates across the maturity spectrum.² Inflation pressures have also been notably absent. Governments in Canada and many other advanced countries are currently able to borrow at rates that are close to or in some cases below zero. Their

economies have been confronted with the risk of inflation moving below official targets. These events have sparked questions about the validity of conventional economic theories such as the Phillips curve – the hypothesized link between inflation and real economic performance – that traditionally have guided macroeconomic policymaking. Nature abhors a vacuum, as do the social sciences. This has opened the door for more radical ideas, both new and old. One of these is Modern Monetary Theory (MMT), which argues that countries such as Canada, which operate in a floating exchange-rate regime and mainly borrow in their own currency, need not worry about financial constraints and should use their fiscal powers to pursue full employment and other socially desirable objectives while controlling inflation.

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- 1 Quantitative easing operations consist of large-scale purchases of tradable securities and other assets by central banks either on an outright basis or temporarily via term repos, a form of short-term loan. Central banks have conducted these operations mainly to facilitate an expansion of base money (ie., highly liquid funds in the money supply) and to influence the slope of the yield curve in an environment of weak aggregate demand or to support market liquidity when the markets involved are experiencing stress.
- 2 Conventional monetary theory suggests that a major expansion of central bank balance sheets will be reflected in a correspondingly large expansion in base money unless the expansion is sterilized by withdrawing a corresponding amount of liquidity from the financial system. At some point, an unsterilized expansion would be expected to boost growth in the broader monetary aggregates and, ultimately, inflation as commercial banks lend out their excess reserves. Interest rates then would rise in anticipation of the emerging inflation pressures. This chain reaction did not happen over the past decade. Instead, global interest rates remained low and actually fell to record lows as weak consumption spending and private investment spending globally contributed to a growing excess savings glut. In addition, more stringent prudential liquidity and capital requirements increased the global banking system's demand for excess reserves, which limited the extent to which the surge in base money could boost growth in broader monetary aggregates.

Key Concept Explainer

MMT and Inflation: Contrary to the belief of opponents, MMT is indeed very sensitive to inflationary pressures. It considers all forms of spending to be inflationary if they drive aggregate demand above the real capacity of the economy to absorb it. Despite the name, MMT relies heavily on fiscal policy to anchor inflation and bring it back to target – another distinction from conventional economics. Whereas, under current frameworks, many central banks have the authority to conduct monetary policy in pursuit of an inflation objective, MMT prescribes fiscal measures, such as spending cuts or tax hikes, to fight inflationary pressures.

The authors assert that the theory overstates the degree of monetary sovereignty that governments enjoy in a world where both domestic and foreign investors can deploy their funds wherever they see fit with the click of a mouse.

This *Commentary* offers a primer on the core tenets of MMT with respect to monetary policy and public debt management. We review critically their merits for small open economies such as Canada, which have few restrictions on the flow of funds in and out of the country. While MMT acknowledges the need for inflation control, we assert that the theory overstates the degree of monetary sovereignty that governments enjoy in a world where both domestic and foreign investors can deploy their funds wherever they see fit with the click of a mouse. Drawing on economic theory, we argue that governments need to remain mindful that excessive borrowing can have undesirable feedback effects on the broader economy. This is especially true if the purpose of the borrowing is mainly oriented toward supporting current living standards and consumption, rather than investing in human capital and physical infrastructure that will generate future income to service the additional debt.

Finally, we argue that, although greater reliance on fiscal policy to support aggregate demand is appropriate in the current pandemic environment,

in which interest rates are near zero, there is still a role for monetary policy and central banks tasked with an independent mandate to achieve agreed inflation targets. An important benefit of such a policy is that it would provide better inflation control than if inflation control were left exclusively to governments that might shy away from tightening fiscal policy to contain inflationary pressures, as MMT suggests. In turn, this would help create an economic environment more conducive to longer-term investment commitments that add to Canada's future productive capacity.

In the next section, we briefly explain the origins of MMT in Chartalist theories, which were popular in the nineteenth and early twentieth centuries, as well as the logic behind the core tenets of MMT. We then address the proposition that countries such as Canada that enjoy monetary sovereignty need not worry about the size of government deficits. This is followed by an examination of whether it is possible to dispense with the conduct of independent monetary policy by central banks, as MMT proposes. We end the *Commentary* with some concluding observations.

MODERN MONETARY THEORY: AN OLD IDEA DRESSED IN NEW CLOTHES

Modern Monetary Theory recently appeared in public discourse as a part of the “green new deal,” and is now garnering more attention in the midst of the global COVID-19 pandemic. The theory, however, is neither modern nor really a monetary theory per se. MMT synthesizes ideas that can be traced back to the early 1900s – notably Chartalism, a term introduced by Georg Knapp and then adopted by Keynes in 1930. Chartalism defined money as deriving value from its status as legal tender – that is, what a government accepts as payment for its tax obligations – rather than from its function as a cost-minimizing medium of exchange and store of value. Randal L. Wray (2000) coined the term “neo-Chartalism” to describe post-Keynesian work that revived the Chartalist approach to money – particularly Abba P. Lerner’s work on functional finance (Lerner 1943, 1947). Lerner argued that the government’s budget outcome matters only to the extent that it produces a balanced economy. In other words, policies should be judged by how they function, and we should accept any budget outcome – balanced, deficit or surplus – so long as it achieves full employment, stable prices and a better, more equal, distribution of wealth. Neo-Chartalism is now better known as Modern Monetary Theory, a term coined by Bill Mitchell in his blog posts (Matthews 2012).³

MMT, in the form we know today, took to the stage in the wake of the 2008–9 global financial

crisis and its aftermath. The economic meltdown caused by the crisis and the failure of conventional theory to predict it (Colander et al. 2009)⁴ paved the way for some economists to consider alternative heterodox theories, including MMT. Frustration with conventional wisdom and a willingness to consider alternative theories have been further whetted by the rise in inequalities in societies around the world and by large-scale asset purchases by central banks that, contrary to many predictions, did not ignite either inflation or higher interest rates. The emergence of new and, at times, radical ideas in response to sluggish global macroeconomic conditions has been heightened by the current global pandemic (*Economist* 2020).

MMT is commonly assumed to be about printing money to pay for public expenditures while ignoring any inflationary consequences. This is largely a result of its politicization and the way in which certain US politicians have promoted it. Inflation constraints, however, are at the core of MMT; they arise not when government spends, but when aggregate demand in the economy exceeds the country’s aggregate supply. In its simplest form, MMT argues that a monetary sovereign government – one that issues its own currency, borrows mainly in that currency and operates a floating exchange rate – does not face financial constraints. MMT economists acknowledge, however, that governments would face a *real* constraint on spending if aggregate demand surpassed the economy’s aggregate supply, which would lead to inflationary pressures.

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- 3 Wray and Mitchell are two of the more prominent advocates of MMT today. Wray, Mitchell and Martin Watts produced the first undergraduate macroeconomics textbook to adopt MMT’s views of government finances. Another prominent advocate of MMT, and arguably the best known, is Stephanie Kelton, who served as an advisor to Bernie Sanders’s 2016 presidential campaign and recently published a book on MMT. We relied on these two books, as well as on Wray’s second edition primer on macroeconomics for sovereign monetary systems, Bill Mitchell’s blog posts and other sources to discern what MMT really is from what it is not.
- 4 MMT proponents ascribe this failure to the orthodox belief that monetary policy should be separate from fiscal policy (Mitchell, Wray, and Watts 2019, chap. 32).

Where MMT truly deviates from conventional economics is in the measures it prescribes to deal with these inflationary pressures. MMT focuses on the conduct of fiscal policy to achieve full employment and to control inflation. MMT does not view a deficit that temporarily increases the debt-to-GDP ratio while increasing productive capacity – which raises the gross domestic product denominator of the debt ratio over time – as a sign of overspending and a failure on the part of fiscal policy.⁵

Mainstream critiques of MMT are often rooted in this misunderstanding and in thinking about MMT as a shift in policy regimes where governments would start spending infinitely and irresponsibly. Indeed, in a blog post, Bill Mitchell highlights an important condition for objectively thinking about MMT: understanding that MMT in and of itself is not a policy regime, but a way of understanding and thinking about monetary systems and extrapolating the capacities of a monetary sovereign government within that system (Mitchell 2019).

In the remainder of this section, we strive to depict MMT and its understanding of the monetary system accurately and to describe its implications for a currency-issuing government. We take a deeper look at the key tenets of MMT, particularly as they pertain to government spending, deficits and inflation.

Key Tenets of MMT

Unlike orthodox economics, MMT views governments differently than it does firms and households. It dispenses with the budget constraint for a monetary sovereign government that issues its own currency and borrows in that currency, such as the federal governments of the United States and Canada. According to MMT, a government that issues and mainly borrows in its own currency can never run out of, or become insolvent in, its own currency. It will always be able to service its debts and make payments that come due. This stands in contrast to other levels of government, firms and households, which are users of the currency – they need to receive the currency, either through income, the sale of assets or borrowing in order to make payments. Therefore, MMT's first deviation from conventional economics is that it does not start from a budget constraint, and does not think a monetary sovereign government is financially constrained, as firms and households are. In fact, MMT considers the government budget constraint to be a voluntary one and a political issue, rather than a binding financial constraint.⁶

Importantly, for economic sovereignty to hold, MMT acknowledges that a government must also accept a floating exchange-rate regime. Many countries today operate under such a regime, including Canada, which, in 1950, was the first major country to move to one in the post-war Bretton Woods era. (Canada briefly returned

5 MMT proponents also advocate for a job guarantee program, where the government acts as the employer of last resort, offering fixed-wage employment to anyone who is willing to work and is not employed by the private sector. The wage would be set at the national minimum wage to limit interference in the private job market and disturbance of the relative wage structure (Mitchell 2010). While central to MMT, the job guarantee is not critical to our discussion of the theory in this *Commentary*, which is focused on the core monetary policy and public debt management aspects of the theory.

6 Another way of thinking about this is that, according to MMT, governments need to spend in order to tax the money back from firms and households, which need the currency to finance their spending and pay their taxes. This is the opposite of the orthodox way of thinking of government spending as needing to be matched or financed by taxes. Extending this thinking to bond sales, MMT does not consider this function as borrowing that must take place before the government spends, since the government needs to spend and to provide the currency and reserves necessary to buy the bonds.

to a fixed exchange-rate system between 1962 and 1970.) A floating exchange rate liberates a government from its obligation to maintain a fixed exchange rate against a foreign currency.⁷ It allows a government to pursue independent domestic macroeconomic policies that might result in a current account deficit, without the need to maintain adequate reserves of foreign currency by borrowing them or deflating the economy through higher interest rates and/or spending cuts in order to maintain the fixed exchange-rate parity.⁸

MMT proponents claim that when these conditions of monetary sovereignty are met – issuing the national currency, mainly borrowing in the national currency and a floating exchange rate – a government has sufficient freedom to use its full fiscal capacity to achieve other policy goals, such as economic growth, full employment and price stability.

A common misunderstanding of MMT revolves around the importance of government deficits. MMT adherents agree that deficits do matter, but for reasons that are different from those we often hear. They agree that a deficit could be too large, and the evidence would indeed be inflation. But they also think that a deficit could be too small, evidence of which would be unemployment. This is because MMT thinks of government deficits as the mirror image of surpluses in the non-government sector. One way of thinking about this

is to consider the deficit as the difference between what the government spends and what it taxes back. When a government spends \$100 in the economy and taxes back only \$90, then \$10 is left in the private, or non-government, sector. This line of thinking allows MMT proponents to consider deficits that arise from government spending in the context of their policy objectives – such as having a healthy economy, achieving and maintaining full employment and stabilizing prices. They argue that the conversation should transition from whether deficits are good or bad in and of themselves to what are the purposes of deficits.⁹

It follows from this shift in thinking and conversation that governments can spend on programs that increase the future productive capacity of the economy and, in turn, boost longer-term growth and increase living standards equitably. Think of education, removing barriers to entry that hinder minorities from fully participating in the labour force, green investments necessary to facilitate the global fight against climate change and research and development. Although such spending would increase the deficit and lead to a higher debt-to-GDP ratio in the near term, it arguably could help boost future economic activity as the deficit is put to use building economic capacity and ultimately supplying the means to service the additional debt. Governments can continue to borrow and spend on building this capacity so long

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- 7 This relates to the well-known policy trilemma, whereby a government must choose two out of the three of a fixed exchange rate, free capital mobility and monetary policy independence.
 - 8 A country with high interest rates attracts capital inflows from investors seeking higher returns, which increases the demand for the domestic currency and appreciates its value relative to foreign currencies. Spending cuts, on the other hand, reduce aggregate income and demand and curtail imports, limiting the outflow of the country's foreign currency reserves and improving the trade balance.
 - 9 Under modern-day government accounting a deficit and hence rising government debt represents a decline in the government's net worth. This signals a burden on future generations because the way government accounting works is that a deficit in the public accounts indicates that at some point in the future there will be a decline in the government's ability to deliver current services at current tax rates.

as the ensuing aggregate demand does not cause the economy to overheat. Only when the economy reaches full capacity and there is a shortage of real resources, such as labour and capital, does MMT concede that a government faces a limit on spending if it is to avoid igniting inflation pressures.

Contrary to the belief of opponents, MMT is indeed very sensitive to these inflationary pressures. It considers all forms of spending to be inflationary if they drive aggregate demand above the real capacity of the economy to absorb it.¹⁰ Despite the name, MMT relies heavily on fiscal policy to anchor inflation and bring it back to target – another distinction from conventional economics. Whereas, under current frameworks, many central banks have the authority to conduct monetary policy in pursuit of an inflation objective, MMT prescribes fiscal measures, such as spending cuts or tax hikes, to fight inflationary pressures.¹¹

KEY CHALLENGES TO MODERN MONETARY THEORY

As we have seen, MMT is not a policy regime that countries can start or stop undertaking. Rather, it provides a new lens through which to view the capabilities of a monetary sovereign government and the opportunities that lie in shifting the conversation from a focus on a balanced budget to one on a balanced economy. Therefore, in discussing MMT's limitations and challenges, we do so with this understanding in mind, commenting on the

limitation of the theory's applicability in the real world where market perceptions matter, given that money can move fairly freely around the world.

We begin with the simplest case: what could happen if Canada on its own used its fiscal capacities as prescribed by MMT. After that, we look at the implications of MMT in a broader context where Canada's actions are consistent with those of other countries. We close the section by considering how the current situation, where interest rates are well below the future growth rate of the economy, might affect these considerations.

MMT Limitations Are Most Acute for a Country that Tries to Go It Alone

MMT is correct that there is no magic debt-to-GDP ratio – much depends on what the money has been used for. It is also correct in saying that government debt denominated in the domestic currency does not necessarily crowd out private investments when the economy is operating below its full potential. And, it is right that government debt does not pose credit risk for investors when the issuing government controls the monetary printing press. But that does not mean that governments can issue debt with impunity when aggregate demand is weak or that their debt will always be perceived as risk free by investors.

Setting aside any inflation concerns, investors, be they domestic or foreign, care about the link between government debt yields and the expected

10 Mainstream theory dictates that deficit spending could be financed through issuing debt or “printing money” – with the former being less inflationary. In MMT, there is no difference in the inflation risk of deficit spending arising from different funding options, since the government is not financially constrained but resource constrained.

11 MMT is not the only theory to envision a bigger role for fiscal policy in the conduct of macroeconomic policy. The Fiscal Theory of the Price Level (FTPL) also underscores the importance of the fiscal authority in determining inflation (Cochrane 2005). However, under the FTPL, monetary policy continues to influence inflation expectations (Cochrane 2020), where inflation dynamics are the consequence of the interaction between the fiscal and the monetary authorities (Leeper and Leith 2016).

path of the exchange rate when considering whether to invest in Canadian government debt obligations or other investments, such as debt issued by other governments abroad.¹² Unless investors believe the additional debt is likely to be used in a way that generates future income to service it, they might begin to worry that some of their returns from investing in Canadian government debt instruments could be offset by a depreciation of the Canadian dollar in real terms relative to other currencies.

What could give rise to such an exchange-rate depreciation? To the extent that investors believe future resources might need to be directed to servicing the additional debt, then, all things being equal, the Canadian economy likely would perform more sluggishly than other economies. Moreover, private sector investment could be impaired if domestic and foreign investors begin adding risk premiums to their Canadian investment decisions to compensate them for the added uncertainty about whether their future profits might be taxed to help pay the additional government debt-service costs. In turn, this likely would be accompanied by an exchange-rate depreciation in real terms as the economy adjusts to its weaker standing compared to its foreign counterparts, again all things being equal.

Although such a depreciation eventually would

boost demand for Canadian exports, it would also increase the prices Canadians must pay for imports, including those necessary to expand Canada's productive capacity. Investors are likely to foresee that and to factor in the expected future path of the exchange rate in their investment decisions by demanding higher yields to compensate them for this additional exchange-rate risk.

MMT proponents argue that the interest rate on government debt is a policy variable. As such, debt-service costs can be contained by having the central bank acquire the additional debt at low interest rates (Kelton 2020, chap. 3).¹³ This seems to solve for the need to redirect resources in the future to service that debt, and to protect against rising borrowing costs through higher risk premiums. But the policy itself is not without risk. If investors and the public more generally begin to believe that the central bank is buying government debt to keep borrowing costs artificially low, rather than to support aggregate demand in the economy, as is currently the case, this could undermine public confidence in the Bank of Canada's control of inflation pressures and be seen as an indication that the government's fiscal position is no longer sustainable. This, in turn, could spark significant capital outflows as investors and the public more

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- 12 Although domestic investors might have some home country bias, given that their future spending is likely to be mainly in their home currency, at the margin they are likely to behave the same as foreign investors in assessing investment opportunities when there are few impediments between investing domestically or abroad. Past research indeed shows that the advent of the internet, the increase in mutual funds investments and, to a lesser extent, the development of emerging markets and chasing market returns, have contributed to reducing home bias (Amadi 2004). This home bias is likely to continue receding as barriers to information and capital movements weaken (Johnson 2019).
- 13 MMT proponents even go so far as to argue that the government could offer investors higher interest rates by simply using "keystrokes" to credit their accounts at the central bank with more interest, and the government can always afford larger keystrokes (Wray 2015, chap. 4). However, interest rates on government debt also affect private sector borrowing costs, and such a path at some point is bound to be seen as economically unsustainable in the eyes of investors. If that happened, it could eventually result in capital flight and an exchange-rate crisis along the lines we describe.

generally look for more solvent jurisdictions in which to park their savings, which would further undermine the exchange rate.¹⁴

Unfortunately, Canada has some experience with what can happen when financial markets start to question the sustainability of public finances, regardless of who is responsible for controlling inflation. Clinton and Zelmer (1997) outline how, in the early 1990s, Canada was confronted by heightened uncertainties and risk perceptions that impeded the Bank of Canada's ability to conduct monetary policy in pursuit of the 2 percent inflation target. They note how rising public and private debt, uncertainties about Quebec's role in Confederation, the need for large-scale restructuring and cuts in government spending and chronically high inflation through much of 1970s and 1980s harmed consumer and investor confidence by creating uncertainty about the future path of the economy, employment and prices. This led to increased risk premiums, accompanied by a weaker Canadian dollar due to capital flight and weak economic activity. Any action by the Bank to stimulate the economy was interpreted as a weakening commitment to inflation control. This led to higher inflation expectations and, in turn, higher risk premiums and a weaker dollar. The conduct of monetary policy during the first half of the decade thus was determined and constrained by market perceptions. See Box 1 for a summary of market conditions and the conduct of monetary policy during early 1990s.

The upshot of all this is that there are significant risks for a country such as Canada to issue debt with impunity on its own when the economy is weak, unless the money raised is likely to be spent in a way that will generate future income to service the additional debt. Going alone and issuing debt to maintain current living standards, focusing on encouraging present consumption over investment, would be risky even if the economy were operating below potential, unless a clear argument could be made as to how the added debt burden would be sustainable over time. Past experience has shown that the price of doing so could appear in the form of a real exchange-rate depreciation and higher interest rates for non-federal government borrowers. That effectively would be a standard of living cut of another form that, one way or another, all Canadians would bear.

Safety in Numbers: MMT Offers More Flexibility when Many Countries Follow the Same Path

What we have described so far applies to a country that decides to exploit its monetary sovereignty on its own. But what about when many other countries are going down the same path, as has been the case during the pandemic? Here, MMT proponents have a fair point. If Canada and its peers all decided to relax fiscal discipline to broadly similar degrees, and if public perceptions regarding such

14 Despite the similarities in terms of its views on the government budget constraint and the role of fiscal policy, one can draw the same insights from FTPL. Under FTPL, the price level depends on the market prices of government bonds, expectations of future taxes, government expenditures and the real return on the portfolio of government bonds. In this model, any changes in the market's perceptions of the government's ability to increase future primary surpluses or of the riskiness of government bonds will affect the price level directly. As well, under FTPL, relative changes in foreign and home country deficits affect the exchange rate. For example, in an economy with nominal rigidities, a reduction in current and future primary surpluses will be accompanied by a decline in real discount rates, so that the asset-pricing equation linking government surpluses and, in this case, the exchange rate is satisfied. This decline in real discount rates then prompts a depreciation of the local currency (Jiang 2019).

Box 1: Canada's Experience with Adverse Market Perceptions and Debt Unsustainability, 1992–96

The conduct of Canadian monetary policy during the first half of the 1990s was determined and constrained by market conditions and perceptions (for a detailed discussion of the conduct of monetary policy during the period, see Clinton and Zelmer 1997).

When the Bank of Canada introduced inflation-reduction targets in 1991, inflation was hovering around 4 percent. These targets were successful in taming inflation, which was mostly below the midpoint of the target range for much of the period between 1992 and 1996. During the same period, however, economic growth was quite sluggish, with GDP in real terms increasing less than 2.5 percent annually on average. Cautious household spending, a result of uncertainties about future employment and income prospects, was largely behind this weak domestic activity.

These uncertainties arose due to multiple factors, but most important were the high real interest rates and growing public awareness of the government's unsustainable fiscal position, and, in turn, anticipated cuts in government spending and economic restructuring in the private and public sectors. High real interest rates throughout the first half of the decade were a reflection of heightened risk perceptions as gross government debt continued to rise rapidly, with Canada accumulating budget deficits as a share of GDP way above those of most other G-7 countries. As Canadians grew wary of what seemed to be unsustainable growth in public debt and anticipated spending cuts and tax hikes, they became reluctant to spend, even well ahead of the actual beginning of cuts in 1995.

As Canada's current account deficit grew in the early 1990s, so did its external financial liabilities, further strengthening perceptions of the country's riskiness and increasing reliance on foreign lenders in the media and among the public. Large international holdings of Canadian debt, if nothing else, made Canada more susceptible to disturbances such as the 1994 Mexican peso crisis, which made investors wary of governments with large deficits and increased their fears that Canada was fiscally unsustainable.

At the same time, the Canadian dollar was depreciating rapidly, and although this led to an increase in net exports, it also fuelled higher import prices. As this depreciation accompanied investors' demand for higher risk premiums, the short-run trade-off between output and inflation became more severe, limiting the Bank of Canada's ability to support either. Specifically, any attempt by the Bank to stimulate the economy was interpreted as inflationary, which led to even higher interest rates and a weaker Canadian dollar.

The backlash of the Mexico peso crisis raised concerns about Canada's debt situation and created market pressures that were evident through higher short-term interest rates, which were only partially offset by a weaker Canadian dollar. These furthered worry about the fiscal balance and higher debt-servicing costs. The Bank's initial hesitancy in raising its operating band for the overnight interest rate only added to investors' uncertainty and diminished the credibility of the Bank. The resulting capital flight out of Canada sent real interest rates across all maturities soaring and further weakened the exchange rate.

Eventually, however, the Bank raised the operating band for the overnight rate and succeeded

Box 1: Continued

in calming markets down. The sharp downward pressure on the Canadian dollar, coupled with invidious comparisons to Mexico and the growing threat of an investor run, eventually forced the Canadian government to take action to put its finances on a more sustainable path.

By 1996, market conditions were much improved. The Bank of Canada was successful in meeting its inflation-reduction targets – with the exception of a short-lived uptick in 1995, to which the Bank reacted by clearly communicating its policy response to the public and, in turn, was able to stabilize inflation expectations. Low and stable inflation, the difficult, but successful, restructuring of the public and private sectors and substantial reductions in fiscal deficits changed the outlook for the Canadian economy, which was reflected in lower real interest rates.

These episodes of heightened uncertainty and market volatility highlight the importance of the Bank of Canada's having a clear policy objective and clearly communicating its policies and actions to the public. The introduction of explicit inflation targets in the early 1990s, combined with improving the transparency of its operating framework and better communicating monetary policy conditions and decisions to the public, all contributed to reducing market uncertainties and stabilizing expectations. More generally, these episodes also show that small, open economies with flexible exchange rates receive a daily reminder of the market's mood, which ideally leads to better behaviour.

actions were consistent in these countries, then the exchange-rate argument discussed above would be less likely to apply, given that the exchange rate is simply a relative price between currencies. Thus, if investors do not view Canada's deficit as an outlier and are confident that it will keep inflation under control, they might be more willing to accept – or perhaps might have no choice but to accept – a relaxation in fiscal discipline, because they know their investment returns are less likely to be eroded by an exchange-rate depreciation in real terms. Moreover, the risk that their investment returns will be subject to additional taxes to pay for the larger deficits would be broadly similar across jurisdictions.

This suggests that so long as its deficits remain within the perceived norm, Canada can exploit its full potential and focus on priorities such as removing labour force and employment barriers as well as facilitating the economy's adaption to a less polluted world without risking a panic in financial markets and, potentially, uncontrollable inflation.

In pursuing this course, however, the need for prudence would be even more essential in the current environment given Canada's rather fragile financial situation more broadly. While MMT asserts that investors, domestic or foreign, cannot “force the government's hand” to pay higher interest on its debt – because the interest rate is a policy variable and the role of the central bank is to stand ready to buy up

that debt – MMT is largely silent on the investors’ ability to force the private sector hand.¹⁵

As shown in the tables in Box 2, Canadian businesses and households entered the pandemic with relatively high levels of private sector debt compared to their counterparts in other countries, which has important implications for Canada’s overall financial stability. Moreover, foreign investors are acquiring an increasing share of Canada’s debt, thus exposing the country more to market perceptions about how its economic and financial conditions will evolve. Although this situation has been manageable so far, Canadians should think twice before compounding their growing private debt load with more public indebtedness, through deficit spending, beyond what similar countries are undertaking.

Exceptionally Low Interest Rates Do Not Change Our Conclusion on Modern Monetary Theory

It is true that the current environment – in which interest rates have been exceptionally low and, in some countries, even negative – provides some room to absorb higher risk premiums and in turn higher debt-service costs. The COVID-19 pandemic has contributed to a further lowering of rates: in Canada, the overnight rate now sits at the Bank of Canada’s effective lower bound and the federal government’s debt-service costs continue to decline. This room, however, is far from infinite.

Economists increasingly adhere to the view that, as long as interest rates remain below the economy’s future growth rate, the debt-to-GDP ratio and, in turn, debt-servicing costs can be kept under control (see, for example, Cecchetti and Schoenholtz 2020; Kronick 2020). Although this outlook might provide some ease of mind, consistently low interest rates are not the best of news: they usually go hand-in-hand with sluggish investment

and economic activity. Recent estimates by Dodge (2020) of different recovery and growth scenarios in a post-COVID world show that interest rates might remain well below the economy’s growth rate, but this world would be one of “miserable low growth.” Dodge (2020) and others concede that the situation is manageable for the time being, but they urge prudence, since neither the growth rate of the economy nor interest rates can be predicted with certainty in the longer term. A focus on gearing government borrowing toward increasing the future productive capacity of the economy, rather than boosting present consumption, is essential, as it would help reinforce perceptions that Canada’s debt levels are sustainable and are contributing to robust economic growth.

Putting further downward pressure on interest rates since the global financial crisis have been shortages in the supply of global safe assets, such as highly rated government debt (see, for example, Caballero, Farhi, and Gourinchas 2017). Over the past few decades, the growth rates of the advanced economies and, in turn, their supply of safe assets have not kept up with growing demand, particularly from high-saving, high-growth emerging economies. The financial crisis and ensuing tightening of prudential regulatory requirements not only increased demand for safe assets, but also rendered risky many sovereign assets that investors previously had perceived as safe. In a world in which there is a limit on how much interest rates can fall – the “effective lower bound” – the prices of safe assets cannot clear the market on their own. Shortages of safe assets spill over into the macro economy and translate into sluggish economic growth and below-potential output. Caballero, Farhi, and Gourinchas (2017) discuss a variety of solutions to these shortages, including the issuing by governments of more safe assets – that is, more

15 Unless MMT’s prescription is extended to include central bank purchases of private debt instruments.

Box 2: Canada's Finances Compared with Those of Other G-7 Countries

Public debt in Canada and other advanced economies has been growing rapidly in the years since the 2008–9 global financial crisis. The increase in Canada, however, was more moderate than in other G-7 countries prior to the COVID-19 pandemic, leaving the country with more fiscal room to finance the cost of the pandemic through regular borrowing operations (see Table 1).

On the other hand, as Tables 2 and 3 show, Canadian households and businesses have become significantly more indebted than their peers in other G-7 countries over the past dozen years. As a result, they were more vulnerable to the economic weaknesses brought on by the pandemic.

Fortunately, Canada's household sector net worth has continued to grow since the financial crisis (Table 4). These opposing trends can be explained partly by low interest rates, which have kept debt-service costs largely under control.

As for its external position, as Table 5 shows, Canada has been recording small current account deficits in recent years. Canadians have also been net investors abroad in terms of direct investments. These net outflows have largely been offset at the margin by net inflows of

Table 1: General Government Gross Debt as a Share of GDP (percent)

	2019	2006	Change
Japan*	239	176	63
Italy	155	115	40
United States	136	86	50
France	124	77	47
United Kingdom	117	51	66
Canada	108	91	17
Germany	68	69	-1

Notes: * 2018 last available data.

Debt reported in this table includes all levels of government to provide consistency across countries given differences in constitutional arrangements.

Source: OECD, General government debt indicator. doi: 10.1787/a0528cc2-en (Accessed on December 16).

Table 2: Household Debt as a Share of Personal Disposable Income (percent)

	2019	2006	Change
Canada	181	143	38
United Kingdom	142	160	-18
France	122	97	25
Japan*	107	109	-2
United States*	104	141	-37
Germany	96	108	-12
Italy	88	75	13

Note: * 2018 last available data.

Source: OECD, Household debt indicator. doi: 10.1787/f03b6469-en (Accessed on December 16).

Table 3: Non-Financial Corporate Debt as a Ratio of Surplus

	2019	2006	Change
United States*	8.8	7.1	1.7
Canada	7.9	4.8	3.1
United Kingdom	6.7	6.5	0.2
France	6.3	5	1.3
Japan*	5.3	6.8	-1.5
Italy	4.2	3.8	0.4
Germany	3.6	3	0.6

Note: * 2018 last available data.

Source: OECD, Non-Financial corporations debt to surplus ratio indicator. doi: 10.1787/dc95ffa7-en (Accessed on December 16).

Box 2: Continued

funds from foreign investors to Canadian bank accounts and Canadian debt instruments. The growth in Canada's external liabilities increases its exposure to international disturbances and turbulence in financial markets. Fortunately, Canada's growing external indebtedness has been more than offset so far by valuation gains on its foreign assets over the period, so that Canada's net international investment position has expanded over the period. Bear in mind, however, that the holders of those foreign assets are not necessarily the same entities that have been accumulating external liabilities. Although the overall picture in the first three quarters of 2020 remained the same, noteworthy is the increase in international holdings of Canadian debt instruments as government spending ramped up in response to the pandemic and resulting economic recession.

Table 4: Household Net Worth as a Share of Net Disposable Income (percent)

	2019	2006	Change
Japan*	596	563	33
United States*	592	560	32
Canada	588	471	117
France	560	468	92
Italy*	541	543	-2
Germany*	478	388	90
United Kingdom*	443	406	37

Note: * 2018 last available data.

Source: OECD, Household net worth indicator.
doi: 10.1787/2cc2469a-en (Accessed on December 16).

Table 5: Canada's International Accounts as a Share of GDP (percent)

	2015	2016	2017	2018	2019	Q1 2020	Q2 2020	Q3 2020
Current Account Balance	-3.5	-3.1	-2.8	-2.3	-2.1	-0.7	-0.5	-0.5
Net external liabilities								
Net foreign direct investment	-1.5	-2.2	-3.2	-1.1	-1.8	0.1	-0.2	-0.3
Net foreign portfolio investment, equity	-0.7	1.5	-0.6	0.8	-0.3	1.0	-2.3	-0.2
Net foreign portfolio investment, debt	3.0	5.2	5.1	-1.0	0.5	2.4	4.1	-0.1
Net foreign investment, currency and deposits	3.3	-0.5	0.6	1.6	5.2	-3.0	-1.6	0.7
Net other foreign investment*	-0.6	-1.0	0.9	2.0	-1.5	0.3	0.5	0.5
Net international investment position	13.2	15.4	27.1	37.6	36.5	39.7	53.7	52.4

* Includes changes in official reserves and net errors and omissions.

Note: Numbers for 2020 are not annualized.

Source: Authors' calculations based on Statistic Canada tables 36-10-0471-01, 36-10-0472-01, 36-10-0016-01, 36-10-0104-01, and 36-10-0485-01.

debt – so long as their debt-servicing costs remain manageable; this is parallel to saying that their interest rates should remain below their growth rates, as we discussed above. This might provide an opportunity – particularly during the pandemic and crisis response, when the issuance of public debt is at record highs – for countries to issue debt and, possibly, boost economic growth in the long run (Davies 2020).

Caballero, Farhi, and Gourinchas (2017) warn, however, that the space for issuing public debt created by this shortage of supply is limited. First, to the extent that future resources might need to be redirected to service the debt, this could constrain the private sector from issuing safe assets. Moreover, the inherently slower growth of advanced economies – typically suppliers of safe assets – compared to emerging economies – typically users of safe assets – could signal to investors that the quantity of safe assets supplied to meet demand might jeopardize the fiscal capacity of one or all issuing countries. This perceived weakness in fiscal capacity might trigger the same mechanisms of capital flight and demand for higher risk premiums discussed above. Finally, the risk of a change in the environment prompting a sudden drop in the demand for safe assets, whether global or specific to an issuing country, would leave the issuer dealing with an exploding and unsustainable debt situation.

DON'T RUSH TO DISPENSE WITH CENTRAL BANKS

Finally, although MMT proponents acknowledge the need to control inflation, they are keen to allocate that task to elected officials and fiscal authorities. They are not so keen to continue the current delegation of that task to central banks. This reflects the thinking of theorists on employment in relation to stable prices, as discussed in the context of the job guarantee in footnote 5. MMT proponents challenge the way central banks conduct monetary policy – notably, their tendency to tighten

their monetary policy stance to contain inflationary pressures before the labour force is fully employed.

More specific to the United States, MMT proponents claim that the Federal Reserve has been biased toward overtightening monetary policy in order to contain the inflationary risk of labour market shortages even before inflation rises above target or becomes an issue. They believe this unnecessarily “locks” people out of employment and creates significant output and real losses, such as the depreciation of human capital and adverse effects on families and physical and mental health. The result of this line of thinking is MMT’s proposal for a federal job guarantee program that achieves full employment and acts as a non-discretionary automatic fiscal stabilizer – when the economy is growing, the government spends less on guaranteed wages as people shift to the non-government sector, and vice versa – with the wage offered at the national minimum wage acting as an inflation anchor (see Kelton 2020, chap. 2).

It is important to note that this way of thinking emerged before the Federal Reserve’s August 2020 announcement that it will be targeting average inflation and maximum employment. The Fed’s statement more particularly specifies that its policy decisions will be informed by its assessment of the *shortfall*, rather than the *deviation*, of employment from its maximum level. This reflects the Fed’s renewed understanding that high employment might not necessarily lead to uncontrollable inflation, and its willingness and commitment to sustain a robust job market at maximum employment alongside stable prices (Powell 2020).

Would MMT proponents consider the Bank of Canada guilty of the same charge?

Inflation in Canada has been largely below target since the global financial crisis – indeed, advanced economies across the world have experienced low inflation over the past decade. A scan of the Bank of Canada’s Monetary Policy Reports since 2010 suggests that, when inflation was consistently below target and when the Bank judged the downward

risks to inflation dominated upward risks, the Bank often made reference to imbalances in the household sector – particularly citing buoyant housing markets and record-high debt levels. This suggests the Bank might have been reluctant to allow the economy to run hotter when it had room to do so, due to its concerns about household debt and other growing macro financial imbalances. If this is indeed true, it would be understandable, and perhaps even prudent, on the part of the Bank.

MMT's policy prescription is to “demote” monetary policy and “elevate” fiscal policy, putting the onus of stabilizing prices, and the macro economy more generally, on elected officials and fiscal authorities (Kelton 2020, chap. 8). This prescription follows from MMT's views on the capabilities of a monetary sovereign government, and is parallel to the functional finance approach discussed above – prioritizing a balanced economy over a balanced budget – with the non-discretionary nature of job guarantee wages acting as a barrier to political exposure. MMT deduces this would ensure full employment and automatic stabilization independent from the political process, and allow monetary sovereign governments to focus on better outcomes for their citizens and deploy their full fiscal capacities to achieve them.

According to MMT, until the economy starts pushing on its real resource constraint, governments could focus on priorities such as universal income or other measures that reduce inequality, rather than worry about budget outcomes. However, as the economy approaches its potential output and inflationary pressures emerge, MMT prescribes tax hikes or spending cuts to contain these pressures. The role of a central bank in MMT, therefore, is simply to clear financial markets and to stand ready to buy government debt and keep (nominal)

interest rates low, while elected officials are tasked with maintaining full employment and stable prices. Left unsaid by MMT is the impact on private sector interest rates. The central bank's ability to affect them would be only indirect at best, unless the central bank stood ready to buy that debt, too.

We find this prescription for fighting inflation to be at odds with MMT's claim that government debt does not pose a burden on future generations. There is a natural limit on how much spending and debt can increase the economy's real capacity before driving nominal aggregate demand above it. This is particularly true when considering Ricardian equivalence – the idea that households take into account government spending decisions when making their own. When the government increases its spending and debt, households will anticipate future tax increases, and will therefore save more and spend (and invest) less. Once inflationary pressures arise, MMT's prescription to cut spending or raise taxes in effect would place a burden on the generations paying the higher taxes or facing program cuts (Buiter and Mann 2020).

More important, however, is our scepticism about MMT's thinking around the role of an independent central bank.¹⁶ This strikes us as a step backwards. Canada's economic performance, and thus Canadians' standard of living, has benefited tremendously over the past 25 years from having an explicit inflation target and tasking the Bank of Canada to conduct monetary policy in pursuit of that target, which is public and jointly set by the government and the Bank.

Much has been written on the macroeconomic benefits of having an independent central bank with an inflation-targeting framework, in Canada and other advanced economies (see, for example, Debelle et al. 1998; Dodge 2002; Laidler and

16 For our purposes, we assess whether MMT's prescription would achieve the Bank of Canada's 2 percent target more efficiently than the current framework of inflation targeting.

Robson 2004; Mishkin and Schmidt-Hebbel 2007; Parkin 2016; Koepl and Kronick 2020). These benefits include low, stable and predictable inflation, improved functioning of markets and allocation of resources and, most important, establishing transparency, credibility and accountability in monetary policy. We saw how the lack of a transparent and credible monetary anchor in Canada during the early 1990s – a period of rising uncertainty and public and private debt – increased the perceived risk of fiscal unsustainability and inflation and destabilized financial markets and the Canadian dollar (see Box 1). Only when the Bank of Canada established credibility and convinced the public that it was committed to pursuing its transparent monetary anchor was it successful in stabilizing the economy and financial markets (Thiessen 2001).

Even if everything prescribed under MMT were true, inflation could still spin out of control if the government balked at raising taxes or cutting spending when the time came to control inflation and/or investors lost confidence in the currency and in the government's ability to control inflation and service its debts.¹⁷ The main benefit of a central bank's conducting monetary policy in pursuit of an inflation target is that it delivers superior inflation control. This also helps promote confidence in the currency and avoid potential exchange-rate crises by giving comfort that the Bank will act to ensure that the inflation target is achieved if fiscal policy on its own is not consistent with that target. Tasking the government to control inflation exposes the process to political risk: would a government

want to deal with the backlash from raising taxes or cutting spending in response to rising prices? These considerations might jeopardize investors' confidence, causing both domestic and foreign investors to favour foreign markets, devaluing the government's currency in international markets, destroying productive capacity and, eventually, creating runaway inflation.

This is particularly important in the current circumstances, when both private and public indebtedness are on the rise, exacerbated by the response to the COVID-19 pandemic, with governments in Canada and all over the world engaging in unprecedented fiscal stimulus to bridge businesses and households through the crisis. In the meantime, fiscal anchors such as the debt-to-GDP ratio have been set aside, facilitated in the short run by low interest rates and falling borrowing costs. In the medium and long run, however, having credible and transparent fiscal and monetary anchors will help to keep inflation expectations under control and give investors and the public more generally confidence that monetary policy will do what is necessary to keep inflation on target (Kronick, Zelmer, and Dodge 2020).

CONCLUSION

The economic environment in Canada and elsewhere has been chequered, to say the least, over the past dozen years or so since the global financial crisis. Economic growth has been sluggish, and the need for low interest rates to support aggregate demand has been accompanied by rising

17 Although the bitter experience of rising inflation in the 1970s and 1980s occurred despite the Bank of Canada's being ostensibly independent at the time, independence remains a necessary condition for inflation control, just not a sufficient one. It was really the Bank's independence combined with the adoption of an explicit and credible inflation target in the 1990s that brought inflation under control. Even if, in an MMT world, the government continued using the 2 percent inflation target and had its performance judged accordingly, removing the delegation of the objective to an independent agency (the central bank) from the process would expose Canada to the risk that inflation will not be as well controlled in the future.

asset prices that have exacerbated inequalities. Compounding this situation have been weak commodity prices, which have weighed heavily on Canada's natural resources sectors. Growing private sector indebtedness is also making the Canadian economy less resilient and thus less able to cope with unexpected shocks. The onset of the global pandemic only served to exacerbate what was already a tenuous situation.

It is thus not surprising that there is growing dissatisfaction with conventional economic frameworks and a growing interest in exploring new ways of thinking about the economy. The same thing happened during the Great Depression of the 1930s, when Keynesian economic principles began to take root and eventually supplanted classical economics in macroeconomic policymaking. Hence,

the stage has been set for alternative frameworks to capture the public's imagination.

One of these proposed alternatives is Modern Monetary Theory. The theory, however, has important limitations, including for a country such as Canada, where savers, both domestic and abroad, can move their money in and out of the country, and thus are likely to care about the exchange-rate consequences of government fiscal policy. In addition, MMT fails to recognize that a central bank tasked with an explicit inflation-control mandate delivers superior inflation control. In turn, this gives market participants (savers) more confidence that their investment returns are likely to be less eroded by inflation than if control of inflation is solely left to fiscal policymakers with conflicting political objectives.

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