NBER WORKING PAPER SERIES

A SKEPTIC'S GUIDE TO MODERN MONETARY THEORY

N. Gregory Mankiw

Working Paper 26650 http://www.nber.org/papers/w26650

NATIONAL BUREAU OF ECONOMIC RESEARCH 1050 Massachusetts Avenue Cambridge, MA 02138 January 2020

The views expressed herein are those of the author and do not necessarily reflect the views of the National Bureau of Economic Research.

NBER working papers are circulated for discussion and comment purposes. They have not been peer-reviewed or been subject to the review by the NBER Board of Directors that accompanies official NBER publications.

© 2020 by N. Gregory Mankiw. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

A Skeptic's Guide to Modern Monetary Theory N. Gregory Mankiw NBER Working Paper No. 26650 January 2020 JEL No. E0,H6

ABSTRACT

This essay discusses a new approach to macroeconomics called modern monetary theory (MMT). It identifies the key differences between MMT and the approach found in mainstream textbooks. It concludes that while MMT contains some kernels of truth, its most novel policy prescriptions do not follow cogently from its premises.

N. Gregory Mankiw Department of Economics Littauer 223 Harvard University Cambridge, MA 02138 and NBER ngmankiw@fas.harvard.edu Over the past year or so, much media attention has focused on a new approach to macroeconomics, dubbed Modern Monetary Theory (MMT) by its proponents. MMT burst on the scene in an unusual way. From its name, one might guess that it arose at top universities, as prominent scholars debated the fine points of macroeconomic theory. But that is not the case. Instead, MMT was developed in a small corner of academia and became famous only when some high-profile politicians—particularly Senator Bernie Sanders and Representative Alexandria Ocasio-Cortez—drew attention to it because its tenets conformed to their policy views.

This history is enough to make academics like me skeptical, but it is not sufficient to reject the theory. Even ideas that arise in unusual ways can be right. So I recently tried to figure out what MMT was all about. I wanted to identify the key differences between this new approach to macroeconomics and the approach in mainstream textbooks, such as my own.

Fortunately, there was an ideal vehicle for this endeavor. In 2019, Red Globe Press published a new textbook, simply titled *Macroeconomics*, written by three MMT proponents: William Mitchell and Martin Watts (both of University of Newcastle, Australia) and L. Randall Wray (Bard College). This brief essay explains what I have learned about MMT from this textbook treatment.

At the outset, I should admit that I found the task of figuring out MMT to be vexing. As I studied it, I was often puzzled about what precisely was being asserted. I hasten to add that the problems I had could have been of my own making. Perhaps after forty years in the profession, I am too steeped in mainstream macroeconomics to fully appreciate MMT. I raise this possibility because MMT proponents may say that I missed the nuances of their approach. But what follows is my honest reaction to MMT after a sincere effort to understand it.

MMT begins with the government budget constraint under a system of fiat money. According to Mitchell, Wray, and Watts (hereafter MW&W), the standard approach, which relates the present value of tax revenue to the present value of government spending and the government debt, is misleading. They write, "The most important conclusion reached by MMT is that the issuer of a currency faces no financial constraints. Put simply, a country that issues its own currency can never run out and can never become insolvent in its own currency. It can make all payments as they come due." (MW&W, p. 13) As a result, "for most governments, there is no default risk on government debt." (MW&W, p. 15)

When reading these words, my reaction alternates between languid concession and vehement opposition. To be sure, a currency-issuing government can always print more money when a bill comes due. That ability might seem to release the government from any financial constraints. Certainly, if an individual were granted access to the monetary printing press, his or her financial constraints would become much less binding. But I am reluctant to reach a similar conclusion for a national government, for three reasons.

First, in our current monetary system with interest paid on reserves, any money the government prints to pay a bill will likely end up in the banking system as reserves, and the government (via the Fed) will need to pay interest on those reserves. That is, when the government prints money to pay a bill, it is, in effect, borrowing. The money can stay as reserves forever, but interest accrues over time. An MMT proponent will point out that the interest can be paid by printing yet more money. But the ever-expanding monetary base will have further ramifications. Aggregate demand will increase due to a wealth effect, eventually spurring inflation.

Second, if sufficient interest is not paid on reserves, the expansion in the monetary base will increase bank lending and the money supply. Interest rates must then fall to induce people to hold the expanded money supply, again putting upward pressure on aggregate demand and inflation.

Third, the increase in inflation reduces the real quantity of money demanded. This fall in real money balances, in turn, reduces the real resources that the government can claim via money creation. Indeed, there is likely a Laffer curve for seigniorage. A government that acts as if it has no financial constraints may quickly find itself on the wrong side of this Laffer curve, where the ability to print money has little value at the margin.

Faced with these circumstances, a government may decide that defaulting on its debts is the best option, despite its ability to create more money. That is, government default may occur not because it is inevitable but because it is preferable to hyperinflation.

This discussion brings us to the theory of inflation. I have been adopting the mainstream view, explained most simply by the quantity theory of money, that a high rate of money creation is inflationary. Proponents of MMT question that conclusion. They assert that "no simple proportionate relationship exists between rises in the money supply and rises in the general price level." (MW&W, p. 263)

This assertion overstates the case against the mainstream view. In U.S. decadal data since 1870, the correlation between inflation and money growth is 0.79. Cross-country data exhibit a similarly strong correlation. (Mankiw, 2019, pp. 109-110)

Nonetheless, mainstream macroeconomists also go beyond the most simplistic quantity theoretic reasoning. They stress that money demand can be unstable, that distinguishing monetary and nonmonetary assets is difficult in a world of rapid financial innovation, that

3

expected future money growth can influence current inflation when people are forward-looking, and that various factors beyond monetary policy influence aggregate demand and inflation. They also acknowledge that, under current policy arrangements, central banks target interest rates in the short run and inflation in the longer run and that monetary aggregates play a small role. But these ideas refine the quantity theory of money rather than refute it.

MMT proponents advance a very different approach to inflation. They write, "Conflict theory situates the problem of inflation as being intrinsic to the power relations between workers and capital (class conflict), which are mediated by government within a capitalist system." (MW&W, p. 255) That is, inflation gets out of control when workers and capitalists each struggle to claim a larger share of national income. According to this view, incomes policies, such as government guidelines for wages and prices, are a solution to high inflation. MMT advocates see these guidelines, and even government controls on wages and prices, as a kind of arbitration in the ongoing class struggle. (MW&W, pp. 264-265)

Mainstream theories of inflation emphasize not class struggle but excessive growth in aggregate demand, often due to monetary policy. This idea also appears in MMT. Its proponents admit that "all spending (private or public) is inflationary if it drives nominal aggregate demand above the real capacity of the economy to absorb it." (MW&W, p. 127)

The advocates of MMT, however, make this possibility seem more hypothetical than real. We are also told that "capitalist economies are rarely at full employment. Since economies typically operate with spare productive capacity and often with high rates of unemployment, it is hard to maintain the view that there is no scope for firms to expand real output when there is an increase in nominal aggregate demand." (MW&W, p. 263)

4

At the risk of seeming like the boy with the hammer who thinks everything is a nail, let me connect this observation from MMT with mainstream new Keynesian research, some of which I participated in a while back.

Let's first recall the work on general disequilibrium from the 1970s. (Barro and Grossman, 1971; Malinvaud, 1977) These theories took wages and prices as given and aimed to understand the allocation of resources when markets failed to clear. According to these theories, the economy can find itself in one of several regimes, depending on which markets are experiencing excess supply and which markets are experiencing excess demand. The most interesting regime is the so-called "Keynesian regime" in which both the goods market and the labor market exhibit excess supply. In the Keynesian regime, unemployment arises because labor demand is insufficient to ensure full employment at prevailing wages; the demand for labor is low because firms cannot sell all they want at prevailing prices; and the demand for firms' output is inadequate because many customers are unemployed. Recessions result from a vicious circle of insufficient demand.

Now fast forward to the next decade. Because so much of the Keynesian tradition assumed that wages and prices fail to clear markets, subsequent new Keynesian research, mostly during the 1980s, aimed to explain wage and price adjustment. This literature explored various hypotheses: that firms with market power face menu costs when changing prices; that firms pay their workers efficiency wages above the market-clearing level to promote worker productivity; that wage and price setters deviate from perfect rationality; and that there are complementarities between real and nominal rigidities. (Yellen, 1984; Mankiw, 1985; Akerlof and Yellen, 1985; Blanchard and Kiyotaki, 1987; Ball and Romer, 1990) There is an important but often neglected relationship between these two lines of new Keynesian research. In particular, one can view the later work on wage and price setting as establishing the centrality of the Keynesian regime highlighted in the earlier disequilibrium research. When firms have market power, they charge prices above marginal cost, so they always want to sell more at prevailing prices. In a sense, if most firms have some degree of market power, then goods markets are typically in a state of excess supply. This theory of the goods market is often married to a theory of the labor market with above-equilibrium wages, such as the efficiency-wage model. As a result, the Keynesian regime of generalized excess supply is not just one possible outcome for the economy, but the typical one.

This logic brings me back to MMT. The conclusion that "economies typically operate with spare productive capacity" can be interpreted as meaning that economies are usually in the Keynesian regime of generalized excess supply. In that sense, MMT is akin to new Keynesian analysis.

At this point, it is worth distinguishing the *natural* level of output and employment from the *optimal* level. The natural level is the level where the economy finds itself on average and toward which the economy gravitates in the long run, whereas the optimal level is the level that maximizes social welfare. When generalized excess supply is the norm due to pervasive market power, the natural level is below the optimal level.

Inflation tends to rise when output and employment exceed their natural levels, even if they remain below their optimal levels. After all, price setters do not aim to maximize social welfare. They aim to maximize private welfare, and they do so by hitting their target mark-ups of prices over marginal cost.

6

Here is where MMT economists diverge from new Keynesians. An MMT economist might say that policymakers should aim for the optimum. If price setters are thwarting that goal by raising prices, policymakers can fix that problem by using price guidelines or price controls. A new Keynesian would admit that, in a world of pervasive market power, private price setting is not first-best. But while getting the government involved in price setting might improve the allocation of resources from the standpoint of simple theory, the complexity of the economy and the history of price controls suggest that this solution is not practical.

In the end, my study of MMT led me to find some common ground with its proponents without drawing all the radical inferences they do. I agree that the government can always print money to pay its bills. But that fact does not free the government from its intertemporal budget constraint. I agree that the economy normally operates with excess capacity, in the sense that the economy's output often falls short of its optimum. But that conclusion does not mean that policymakers only rarely need to worry about inflationary pressures. I agree that, in a world of pervasive market power, government price setting might improve private price setting as a matter of economic theory. But that deduction does not imply that actual governments in actual economies can increase welfare by inserting themselves extensively in the price-setting process.

Put simply, MMT contains some kernels of truth, but its most novel policy prescriptions do not follow cogently from its premises.

References

- Akerlof, George A. and Janet L. Yellen. 1985. "A Near-Rational Model of the Business Cycle with Wage and Price Inertia." *The Quarterly Journal of Economics*. Suppl., 100, pp. 823-838.
- Ball, Laurence, and David Romer. 1990. "Real Rigidities and the Non-Neutrality of Money." *The Review of Economic Studies*. 57:2, pp. 183-203.
- Barro, Robert J. and Herschel I. Grossman. 1971. "A General Disequilibrium Model of Income and Employment." *American Economic Review*. March, 61:1, pp. 82-93.
- Blanchard, Olivier Jean and Nobuhiro Kiyotaki. 1987. "Monopolistic Competition and the Effects of Aggregate Demand." *American Economic Review*. September, 77:4, pp. 647-666.
- Malinvaud, Edmond. 1977. The Theory of Unemployment Reconsidered. Oxford: Blackwell.
- Mankiw, N. Gregory. 1985. "Small Menu Costs and Large Business Cycles: A Macroeconomic Model of Monopoly." *The Quarterly Journal of Economics*. May, 100:2, pp. 529-537.
- Mankiw, N. Gregory. 2019. Macroeconomics, 10th edition, New York: Worth Publishers.
- Mitchell, William, L. Randall Wray, and Martin Watts. 2019. *Macroeconomics*, London: Red Globe Press.
- Yellen, Janet L. 1984. "Efficiency Wage Models of Unemployment." American Economic Review, May, 74: 2, pp. 200-205.