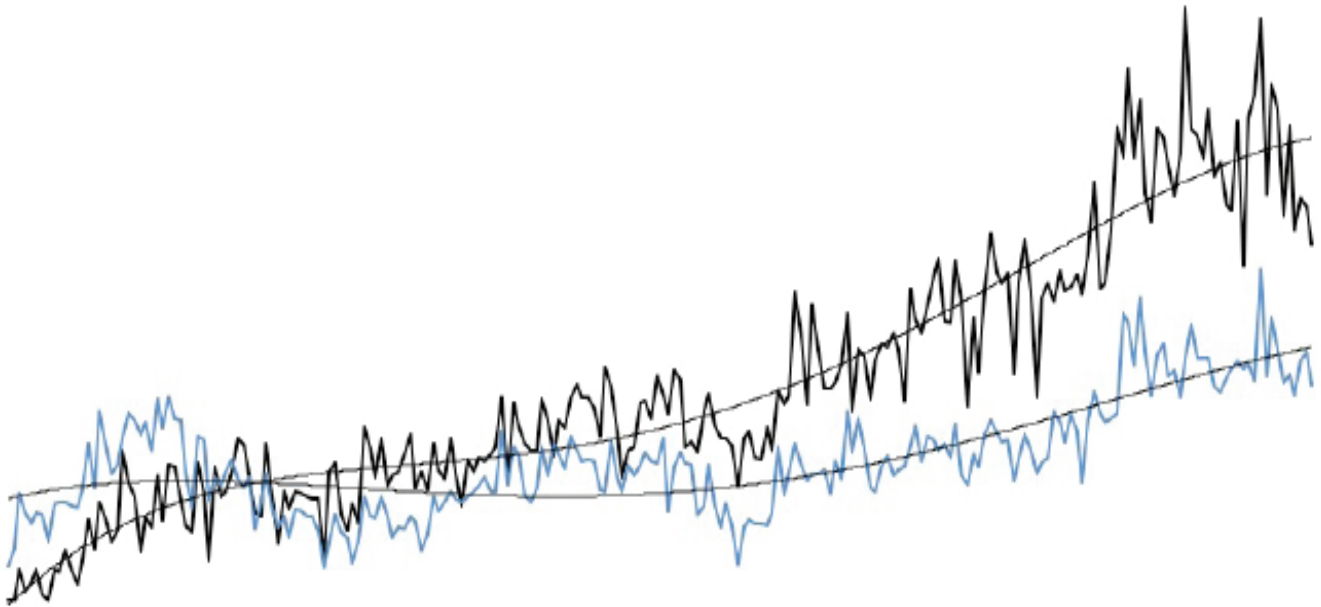


# ALPHA SOURCES

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MAY, 2020



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# FISCAL POLICY

*An old dog is back in town, and this time, it means business*

The work of John Maynard Keynes—JMK—is quoted far and wide, but the most famous reference to his ideas is probably the notion that: “In the long run we are all dead.” JMK wrote these words in his 1923 book, *The Tract on Monetary Reform*, and it is worth pondering the full quote from this text:

*“The long run is a misleading guide to current affairs. In the long run we are all dead. Economists set themselves too easy, too useless a task if in tempestuous seasons they can only tell us that when the storm is past the ocean is flat again.”*

The author is no longer around to clarify the exact meaning of these words, but I reckon they capture the two essential messages of JMK’s oeuvre: First, that the unchecked powers of supply and demand are not always enough to achieve satisfactory, or even optimal, economic outcomes; second, that economists should be prepared to get their hands dirty and engage in active—and sometimes normative—policy-making. It follows from these two statements that the government has an active and important role to play in managing, and bringing about, specific economic outcomes. Adherence to JMK’s core ideas has gone through cycles since he penned his key contributions to our dismal science in the 1920s and 1930s, and as I type these words in early 2020, they appear to be enjoying a renaissance. **Armed with the twin proposition idea that the global economy is still operating far below its true potential, and the notion that central banks have depleted their arsenal, the battle cry from all corners of the economic debate is increasingly clear: “We need to go fiscal!”**

Following the letter of the definition, this would mean the use of the government’s expenditure and tax levers to manage the economy. In the case of the vintage of fiscal policy being proposed now, however, it is fair to say that the impetus is centered on aggressive deficit-financed spending and investment, perhaps with the added (and for capitalists, ominous) nebulous idea of a “tax on the rich.”

I want to make my biases clear from the outset. I think the initial condition for this position—the idea that the global economy is going to hell in a hurry—is wrong, though I admit the Covid-19 shock could well force me to re-visit that prior. I’ll even go as far as to argue that at least half of the people clamoring for governments to open their purses have little to no knowledge of the actual economics of what they’re talking about. The other half does, but they’re being dishonest about the consequences of their propositions. Whether this position is sound or not, there can be little doubt that the support for fiscal activism is rising like a wave: It can’t and shouldn’t be ignored.

Because my endeavor involves tracing the history of the field of economics as a whole, I think it is important to be specific about what I will (and won’t) do. What follows is a run-down of this essay’s structure. I’ll start with the main man himself, JMK, and more specifically, the seminal *General Theory of Employment, Interest and Money*, first published in 1936. I will do so largely through the lens of the magnificent book, *Keynes - Hayek* by Nicholas Wapshott, which provides color to an otherwise relatively difficult and tedious text. Indeed, I will use Mr. Wapshott’s book as a source throughout this essay.

After tracing the origins, I’ll go through the undergraduate story of Keynesian economics, paying homage to the famous Keynesian Cross, the multiplier, and the Hicksian IS/LM model. I’ll then move on to the neoclassical thesis before finishing with the idea of a New Keynesian “compromise,” and the hotly debated Modern Monetary Theory (MMT), enshrined in L. Randall Wray’s book from 2012, *Modern Money Theory: A Primer on Macroeconomics for Sovereign Monetary Systems*. Given current events, my conclusion includes a perspective on the Covid-19 crisis. I concede that this sounds like an impossibly ambitious endeavor, but I shall proceed quickly and with precision. My aim is to anchor the current debate about fiscal policy, which to me seems either dishonest or outright non-sensical. If we are about to “go fiscal,” we ought to have a serious understanding of what that means, and where the idea comes from.

## ▶▶ A NEW IDEA IS BORN

For traditionally trained economists, Keynesianism is equated with two positions. The first is that prices don't adjust and markets don't clear as quickly or as smoothly as we would like them to. The second, which follows from the first, is that government expenditure and revenues can be used to affect real economic outcomes or, in a stricter sense, to manipulate aggregate demand. From an economic view, these are neutral propositions, but in the contemporary context in which they were made, they were anything but. During the 1920s and 1930s, these ideas were driven forward as a simultaneous assault on classical economic theory and a call to government action to counter stiflingly high unemployment and falling living standards during the Great Depression.

It is easy to interpret the rise of JMK during this period as a sweeping victory of his main ideas, but that would be a misrepresentation. By the beginning of the 1930s, the Great Depression had a stronghold on the British economy, providing fertile ground for JMK's ideas to flourish. But they weren't popular, at least not initially. JMK's early attempt to present his ideas to the world, *A Treatise on Money*, published in 1931, hadn't been a big success, and while the always articulate Keynes was never far away from public discourse, he was marginalized by the whims of domestic politics at the beginning of the 1930s.

The general election in 1931 was effectively a victory for the Conservatives (despite the ubiquitous moniker of "National Government" under Ramsey MacDonald), reducing JMK's influence in Whitehall to peripheral, at best. Wapshott describes how this frustrating setback was a catalyst for JMK to rethink his strategy. His new book, which eventually became his *General Theory*, would be written not for the public at large, politicians, or bankers, but for his fellow economists. If he couldn't influence policy directly, he would do so indirectly by enlisting young economists, if not the field as a whole, on his behalf.

JMK wasn't alone in refining his ideas during this period. Almost all historians recognize that the so-called Cambridge Circus—a group of economists consisting of Richard Kahn, James Meade, Joan Robinson, Austin Robinson, and Piero Sraffa—was an instrumental influence on JMK's work in *General Theory*. Richard Kahn was a particularly important influence, especially for spelling out the idea of the "multiplier effect," though arguably the most important overarching influence this group had was to help

spread JMK's ideas into the wider economics community, which provided the base from which *General Theory* eventually sprung.

By the summer of 1932, JMK was ready to present his ideas to the world via a series of Monday-morning lectures to his Cambridge students under the title: "The Pure Theory of Money." By fall, the audience had grown and JMK had further revised his ideas, changing the title of his lectures to "The Monetary Theory of Production." With this shift, according to Wapshott, JMK reached unstoppable momentum, at least in terms of igniting a shift within his own profession. Lorie Tarshis, a postgraduate student from Toronto, who attended all four main lectures, is quoted by Wapshott to have said that JMK, with these presentations, "effectively announced the beginning of the Keynesian revolution." In June 1933, JMK finally decided to present his theory to the general public via a series of articles in *The Times*, later collected in the pamphlet *The Means to Prosperity*, in which JMK succinctly laid out the ideas that would later be published in *General Theory*. According to Wapshott, these articles formed "the base camp for *The General Theory's* peak."

At this point, a level of casual cognitive dissonance usually sets in. *The General Theory* is long, complicated, and repetitive, and in any case, we now have hundreds of secondary sources available, which purport to summarize JMK's main ideas. As a result, Keynes' legacy, as told in the field of economics, collapses into a strictly scripted story, familiar to all economists. It starts at the undergraduate level with the circular flow, the 45-degree line, and the multiplier, finishing with the IS/LM model under different conditions of price flexibility. At the graduate and PhD level, Keynes tends to be relegated to the historical dustbin, in favor of models with complete price flexibility—underpinned by rational expectations and real business cycle theory—before the synthesis, in the form of New Keynesianism, emerges as the winner.

I'll pay adequate attention to this story in the next few sections, but for the sake of accuracy, I want to treat what I consider to be the three main takeaways from *The General Theory*: the critique of the classical school of economics, the multiplier, and the paradox of thrift. JMK devotes the initial parts of his *General Theory* to a revocation of the classical theory of the labor market, which is based on two core concepts of microeconomics, even today. First, labor is paid its marginal product, and second, this wage is precisely equal to the marginal disutility of the employment

▶▶ delivered. In simpler terms, workers are paid precisely equal to the amount that induces them to offer their labor, and this amount is equal to value of the increase in output that their effort produces. We don't have a time machine to go back and query whether the proponents of such a model would be willing to contemplate deviations from its ideal state, but JMK's intuition on the classical theory is sound. Given its assumptions, the supply and demand for labor are equal at all times, and the only sources of unemployment are frictional and voluntarily idle workers. The former type of joblessness, in this case, consists of temporary and short-term deviations from equilibrium, primarily thanks to a permanent, and ideally small, pool of unemployed people "between jobs." The latter consists of those people who are unwilling to work at the equilibrium wage offered for their marginal product. In this model, Keynes contends that there are, broadly speaking, three ways to increase employment: a reduction in natural frictions due to a more efficient search and matching process<sup>1</sup>; an increase in the willingness of voluntarily-unemployed workers to work for a lower wage; or a rise in the marginal productivity of labor. In contrast to these options, Keynes postulates the relatively simple idea that some unemployment might also be involuntary.

We see here the initial sketch to the stand-off between supply-side and demand-side economics still relevant to this day, though for Keynes' part, he progresses with caution. To him, the classical theory is a potentially viable description of the world, but it is hampered by not being able to contemplate a situation in which its key tenets do not apply. In the classical model, any kind of unemployment—however high and whatever the economic background—is primarily a result of workers' reluctance to accept a lower wage. Keynes disagrees, and it is fair to say he has a degree of common sense on his side:

*"The contention that the unemployment, which characterises a depression is due to a refusal by labour to accept a reduction in money-wages [nominal income] is not clearly supported by the facts. It is not very plausible to assert that unemployment in the United States in 1932 was due either to labor obstinately refusing to accept a reduction in money-wages or to obstinately demanding a real wage beyond what the productivity of the economy was capable of furnishing."*

Keynes' criticism on the classical analysis, and the intuition it conveys, forms the springboard for him to develop his theory. In the following section, I'll briefly sketch the contours of what I consider to be the two most salient features of his ideas, at least as far as his *General Theory* goes.

The fiscal multiplier is arguably the single-most important legacy of Keynes' economic analysis. In effect, the idea postulates that, contrary to conventional economic wisdom, free lunches do exist, at least on occasion. The multiplier is expressed as follows, linked, as it were, to another key Keynesian idea, the marginal propensity to consume (MPC), which is the share of income spent by households upon receiving one unit of income.

$$\text{Fiscal multiplier} = 1/(1-\text{MPC})$$

The intuition from this equation is simple. As long as the marginal propensity to consume is non-zero, an increase in government spending of  $x$  will lead to a rise in national income,  $y$ , where  $y > x$ , governed by the size of the marginal propensity to consume.

The formulation of the idea of the multiplier is generally attributed to Keynes' student Richard Kahn, a view that Wapshott runs with too, though as far as I can tell, creating the link with the marginal propensity to consume, as is the case in *General Theory*, was Keynes' doing. In any case, the genesis of the idea was a 1929 election pamphlet for the Liberal Party by JMK and Hubert Henderson, "*Can Lloyd George do it?*". It defended the party's plan to spend £100 million a year over three years to create jobs. Dismissed by the Treasury as "a waste of money," Keynes argued that the increase in business confidence, and associated gains in employment—reduction in unemployment insurance paid by the government—would more than pay for the initial outlay carried by the Treasury. For Keynes this was "common sense," and Kahn took up the mantle. In his 1931 paper, *The Relation of Home Investment to Employment*, Kahn set out to quantify this relation, and landed on a figure between 0.56 and 0.94, depending on the assumption about the degree to which the increase in demand leaked out via an increase in imports. As a result, Kahn also stipulated that the multiplier might vary from country to country, an intuition that is crucial in the context of analyzing fiscal stimulus in an open economy. Note that Mr. Kahn's estimates refer to the so-called

▶▶ employment multiplier, expressed as the increase in total employment as a fraction of the rise in primary employment from direct investment in a given sector.

A huge array of economic studies is now devoted to answering the key question: If the multiplier varies, what are the conditions under which it is relatively high and/or low? Seen from a bird's eye view, this line of inquiry is a way for economists to make objective an investigation that is inherently normative. This is to say, economists predisposed to disagree with Keynes' tenets will tend to argue that the multiplier is small, or even negative for a given level of marginal propensity to consume. Meanwhile, economists positively inclined toward Keynes will argue the opposite. In short, almost all economists agree that fiscal stimulus under some conditions can provide an effective lift to aggregate demand, but there is significant disagreement about what those conditions are, and how often they arise. It is beyond the scope of this essay to review the literature that tries to pin down the size of the multiplier in a modern economy, but a few general observations are worth making.

**1) Slack vs Full employment:** The multiplier is large when the economy is far away from full employment—with the presence of slack—and low when then economy is close to full employment. In the latter case, fiscal stimulus crowds out private sector activity. This is Keynes' fundamental insight in *The General Theory*, though this idea is hampered by its foundations. Because full employment is not observed, it is difficult to tell how far, or close, the economy is from it. Economists today often invoke the output gap—the gap between current and potential output—as a quantitative measure for the distance from such a hypothetical optimal state. While this is a nifty theoretical concept, it is also difficult to apply for the purpose of setting policy in practice.

**2) The importance of monetary policy:** Many studies, such as Eggertson (2011) and Christiano et al. (2011), argue that fiscal multipliers are high when the central bank is stuck at the zero bound. This is to say that when nominal rates go to zero, but monetary policy ought to be looser (due to inflation falling short of its target), fiscal policy is particularly effective in raising aggregate demand. Notwithstanding the arrival of Quantitative Easing—QE—and negative rates, it is fair to say that this conclusion has emerged as one of the central lessons from the financial crisis.

It describes a specific situation, however, and it can easily be turned on its head. In an economy with an independent inflation targeting central bank—the case in most modern economies—fiscal stimulus will tend to be less effective, insofar as it leads to higher inflation, above or close to the pursued target, forcing the central bank to raise rates.

This line of inquiry—the interplay between fiscal and monetary policy—has become the most hotly debated topic in macroeconomics, as we shall see later with the analysis of MMT. But from the point of view of the standard Keynesian analysis, it is framed by the same discussion that opens *The General Theory*. In order to take a stand on the potential effectiveness and merit of fiscal stimulus (with or without coordination with monetary policy), “you first have to consider the topic from the previous observation: How far or close is the economy to full employment?”

**3) Everything else:** We also have to consider that some public institutions are more efficient at transmitting fiscal stimulus—either investment, spending or transfers—to the real economy than others. The level of education and managerial culture are also arguably important factors. This idea is best described with an extreme example. It's possible to imagine a set of public institutions so corrupt that the multiplier from fiscal stimulus is very low, or even negative; equally, the opposite may well be true. This is to say, it is possible to imagine an economy with a naturally high multiplier thanks to highly skilled and judicious public administration. Because few aspects of this inquiry are objective, it's clear that the differences in economists' opinion and analysis of the efficiency of public administrations, in itself offers a perspective on the affinity toward Keynes' ideas. Neoclassical economics, for example—which is to some extent the antithesis to Keynesianism—believe that governments aren't that good at spending money on anything.

The obvious corollary to the idea of a fiscal multiplier, and the notion that it depends positively on the marginal propensity to consume, is that savings are bad. JMK would spin in his grave if I pinned this idea wholesale to his oeuvre. Be that as it may, the paradox of thrift (the idea that too much saving by individuals can be detrimental to the economy as a whole) is a cornerstone of Keynesian economics. Keynes already explored the concept in *A Treatise on Money*, linking savings to investment:



▶▶ *"mere abstinence is not enough by itself to build cities or drain fens. ... If Enterprise is afoot, wealth accumulates whatever may be happening to Thrift; and if Enterprise is asleep, wealth decays whatever Thrift may be doing. Thus, Thrift may be the hand- maiden of Enterprise, But equally she may not. And, perhaps, even usually she is not."*

In other words, investment demand comes before savings, and the latter cannot generate the former. This is a controversial statement, at least as a general rule, but Keynes stuck with this intuition in his *General Theory*, invoking the paradox outright:

*"although the amount of his own saving is unlikely to have any significant influence on his own income, the reactions of the amount of his consumption on the incomes of others makes it impossible for all individuals simultaneously to save any given sums. Every such attempt to save more by reducing consumption will so affect incomes that the attempt necessarily defeats itself."*

We find ourselves caught here between two distinct definitions of economic morality. Thrift, prudence, and the implied discipline in foregoing pleasure and consumption today to enjoy the next day are ancient markers of resilience and virtue. Keynes' argument, by contrast, is that individual virtue can be a vice for the community as a whole. Indeed, pulling spending forward from the future could, in fact, be the ultimate virtue, given the right economic circumstances.

To the extent that post-Keynesian economic theory was, at least to some extent, forged as an antithesis to Keynes' ideas—especially neoclassical theory—you would expect it to take a clear stand in favor of saving as a relative virtue. Instead, post-war economic theory displays a bifurcated relationship to consumption and saving. For homo economicus—the ubiquitous representative agent, always acting rationally—consumption is the only source of positive utility, at least in the vast majority of settings. Saving is but a mere residual, governed by the immovable objects of an exogenously determined interest rate and a fixed time-preference parameter. Yet, in modern growth theory, initiated by Robert M. Solow's seminal paper in 1956, only investment in productivity-enhancing endeavors generate prosperity in the long run. Consumption is at best relegated to a necessary evil, or ignored altogether, at least for the discipline of ana-

lyzing "long-run" growth in the economy. The potential problem in this perspective is easily corrected by invoking Keynes' idea of thrift and enterprise, though it is mostly absent in the generalized models.

It's best not to get bogged down in this issue. But, if you analyze Keynes' position on the relative merit of saving and consumption through the present-day debate, it's impossible not to be struck by the similarity between Keynes' point and the emerging consensus position that too much saving is at the heart of the global economy's ills. If only savers would spend a little more, all would be well. If the relative virtue of consumption over saving, or vice versa, is best interpreted as a spectrum, it is reasonable to claim that there is also a pendulum of overall opinion and analysis that swings alongside this spectrum. In the final part of this essay, I'll discuss just how far this pendulum appears to have swung at this point in time.

## THE UNDERGRADUATE STORY

Whatever the merits of my review of Keynes' core ideas, it almost certainly bears little resemblance to the story taught to undergraduate economics and business students. It's been a while since I sat down in a university classroom, but I am reasonably confident that the broad strokes of foundational macroeconomics haven't changed much. It consists of two elements. The first is the introduction of an analytical framework that can be used to discuss and show the Keynesian proposition of relatively sticky prices. The second is, effectively, a historical overlay of the first. Keynes' ideas were initially successful and widely adopted, but they fell from grace with stagflation in the 1970s and the rise of monetarism. The gracious interpretation of this transition is that economic theory eventually settled on a synthesis between Keynesian and monetarist ideas, though the tenor of the so-called advanced economic theory that students learn after their undergraduate degree is that traditional Keynesian economics is a rather naive and unsophisticated way to look at the world.

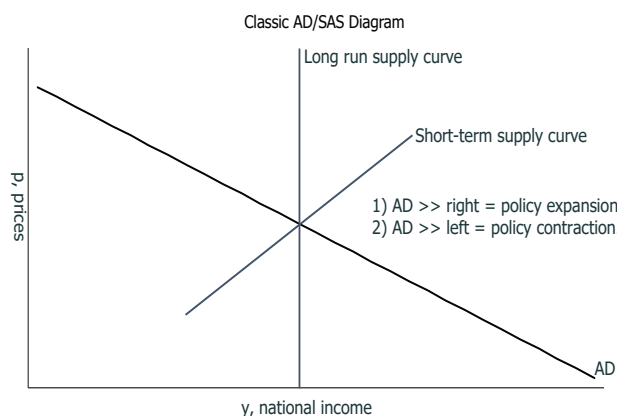
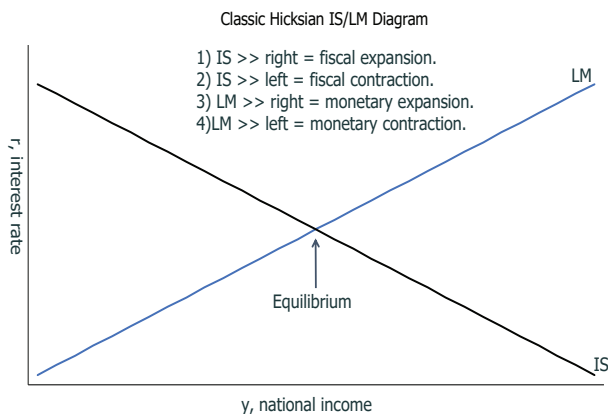
The analytical framework mentioned above is the so-called IS/LM model, attributed to J. R. Hicks' paper from 1937, *Mr. Keynes and the "Classics"; A Suggested Interpretation*. The model is sometimes also referred to as "the Hicks-Hansen model," as it was later expanded by Alvin Hansen. The original objective by Hicks was to reconcile Keynesian and classical economic theory, to provide a unified framework for determining the interest rate. This is a convoluted

► way of saying that it is a model combining equilibrium in the market for goods and services with equilibrium in the money market. Ingrid Rima describes it as follows in her book, *Development of Economic Analysis*:

*"Hicks' suggested interpretation, i.e. the IS/LM model, demonstrated that, by joining Keynes' theory and the neoclassical theory, it is possible to establish a determinate solution, for the interest rate, because together they include all the of the variables of the interest rate problem."*

This means that the interest rate is determined within the model, or endogenously. The IS/LM framework builds on the simpler Keynesian Cross, which first appeared in Paul Samuelson's textbook, *Economics*, from 1948 and is a geometric representation of the two core Keynesian tenets: 1) that consumers spend out of current income at a rate determined by the marginal propensity to consume, and 2) the idea of a fiscal multiplier related to the marginal propensity to consume. I'll spare readers the detailed derivations and skip straight to the two key charts.

As students of economics progress through their



studies, they learn to look at these two charts with the same kind of compassionate encouragement that parents direct at their children trying a new task for the first time. The perceived inferiority of this framework has as much to do with the relatively limited degree of quantitative acumen needed to master it, as it has to do with a critique of Keynes' ideas as such. Whatever the balance between these two sources of criticism, I am inclined to disregard both, at least for the purpose of framing the next part of my story.

Virtually all macroeconomic discussions about the effect of government intervention in the economy, and its trade-offs, can be discussed within the framework of these two diagrams. We keep coming back to a fundamental clash, always present in the macroeconomic debate: **The effectiveness and impact of fiscal and monetary policy intervention are intimately tied to the assumption of how quickly prices adjust.** Relatively sticky prices mean that policy has a big impact, while perfectly flexible prices render policy intervention null and void. Most economists subscribe to the idea that prices are sticky in the short run, and fully flexible in the long run, though this merely moves the fight to another field of battle—because what is the distinction between the short and long run exactly?

The IS/LM model assumes that the economy is forever stuck in the short term—it doesn't contain prices—which has profound consequences for the potential analytical conclusions. The case of fiscal stimulus is particularly interesting. In the context of an independent monetary policymaker, the model includes a hidden circuit breaker, but if the government can print money, anything goes. Let me explain. Let's assume the government starts to increase its deficit, moving the IS curve to the right. Inevitably, it will move alongside the upward-sloping LM curve, effectively raising interest rates at the same time as it is raising output. As a result, economists tend to assume that this process eventually runs out of steam thanks to the crowding out of private investment as interest rates increase. How quickly this happens is up for debate—and often divides economists—but it is reasonable to assume that the IS curve can't travel to the right on an upward-sloping LM curve forever. In an extreme case, an independent central bank might even cancel out the fiscal stimulus altogether by tightening policy, moving the LM curve to the left, so that output doesn't increase at all.

▶▶ When the central bank can print money, both of these obstacles vanish, in effect allowing the government to expand output indefinitely at a constant interest rate. In order to see this, all you need to do is to move the IS curve to the right, and then adjust the LM curve so that the interest rate returns to its previous equilibrium value, but at a higher level of output. At this point, the distinction between the short and long term becomes crucial. If we admit the hypothetical existence of a set of economic conditions that allow the government to expand output at a constant interest rate—by printing money to fund investment and spending—it seems obvious that the central question becomes how to define when such conditions are relevant, and for how long they prevail.

The AD/SAS model creates a framework with which to have this discussion, though it ultimately hands victory to Keynes' opponents, a point emphasized by Leijonhufvud (2006) in describing the genesis of the so-called NAIRU (non-accelerating inflation rate of unemployment), coined by Edmund Phelps and Milton Friedman in the 1960s. That said, in theory the AD/SAS models allow the possibility that output can be expanded in the short run—by moving the AD curve along the short-term aggregate supply curve—but its final equilibrium solution is guided by the idea of a vertical supply curve and a "natural level" of output. In the end, it's only a matter of time before the disappointing and suboptimal end result sets in; prices will increase for the same level of output.

Again, we find an underlying battle between the relative virtue of demand-side stimulus and supply-side shifts. According to the AD/SAS framework, the boost from the former is fleeting and often counterproductive, while the latter is the only true change that can permanently increase the wealth and output of the economy. In other words, pulling spending forward from the future via government borrowing and spending almost, by definition, prevents the saving, restraint, and investment (often painful in the short term) needed to lift potential output in the future. I am paraphrasing here, but as I pointed out, the debate between these two positions continues to drive much of macroeconomic discourse to this day.

The AD/SAS is presented to students as a synthesis: It is a compromise between Keynes' thesis and the monetarist antithesis that vanquished his ideas in the 1970s in the context of stagflation, supporting the rise of Reaganomics and Thatcherism in the US and UK, respectively. I've always found this story to

be a bit of a cliché, not least because it suffers from the narrowness that it is being told mainly from the perspective of political events in the US and the UK. Be that as it may, Mr. Wapshott provides a good overview of the story through the 1970s.

It starts with the arrival of Richard Nixon in the White House in 1969, and a pledge to cut the deficit. In his 1970 State of the Union Address, Mr. Nixon proclaimed that "millions of Americans are forced to go into debt today because the federal government decided to go into debt yesterday. We must balance the federal budget." Armed with the idea that trying to achieve full employment by running a budget deficit only serves to drive up prices, the government set about to cut spending. It didn't go well.

The cuts pushed the economy into recession, driving up unemployment from 3.9% at the start of 1970 to 6.1% at the end of the year, prompting a dramatic U-turn by the president, who was by now eyeing his re-election campaign in 1972. Mr. Nixon now wanted a full-employment budget, and in January 1971 the transformation was complete when he declared that "Now I am Keynesian in economics," even admitting that expansionary fiscal policies are useful, and often necessary, for incumbents to secure re-election. This change of heart drew skepticism from Keynesian economists and outright rage from Republicans, both of whom saw his economic policies for exactly what they were: opportunism.

In 1971 Nixon convened at Camp David with his economic advisors to hash out a plan, but initially opted to do nothing. Faced with conflicting advice, he adopted a policy of "four noes": No increase in expenditures; no tax cuts; no price and wage controls; and no devaluation of the dollar. It didn't take more than a few months, however, before the president had devalued the dollar (by breaking the gold standard), and introduced both tax cuts and increases in expenditures, not to mention a legal ban on raising prices and wages, and a 10% tariff on imports. This set of policies drew criticisms from economists of all persuasions, though that didn't prevent Nixon from securing an easy win in the 1972 elections, defeating Democratic rival George McGovern in a landslide.

It is fair to say that Nixon's economic policy choices were only partially related to the rapid shifts in the president's opinion on Keynesianism. The economic decisions during this period were ostensibly tied to the crippling expensive, and increasingly faltering, war in Vietnam. It's impossible to know what



▶▶ any other president would have done under such circumstances, regardless of their view on Keynesianism, but what is clear is that economic realities were steadily eroding the hitherto impenetrable Keynesian consensus. In October 1973, OPEC hit economies in the west with an oil embargo—targeted at those perceived to be supporting Israel in the Yom Kippur War—driving up prices sharply. The supply shock led economists to coin a new concept, stagflation, to describe the situation of high unemployment and high inflation, otherwise thought impossible seen through the lens of the Keynesian Phillips Curve. This would ultimately prove the death knell of Keynesianism, at least as the favored political economic ideology.

By the time the second oil crisis hit the global economy in 1979–80 (due to disruptions after the Iranian Revolution and the Iraq–Iran War), Milton Friedman’s monetarism was already well underway to usurping Keynesianism, or at least so goes the headline story. As I discuss next, though, the fall from grace of Keynesian ideas was as much about a shift within economics as a discipline as it was about the realities of the oil supply shocks in the 1970s.

### IT GETS COMPLICATED

As students of macroeconomics emerge from summer recess to begin their graduate or PhD studies in economics, they might be excused for thinking that they have walked into the wrong class. Where the government, and its choices, was a central pillar of the analysis before, it is now reduced to, at best, an ad hoc assumption, and at worst, an irrelevant interlocutor in the economic analysis. In this process, the traditional Keynesian analysis is killed off with weapons far greater than the gradual transition toward a monetarist view on fluctuations. The students of advanced macroeconomics are taught to view the world through the lens of models with microfoundations, with far more attention to the mathematical logic of the model than its practical relevance. It’s worthwhile providing a rough outline of why the process of writing off Keynesian economic analysis started immediately after the Second World War.

Statistical techniques were being refined in the period when Keynes’ theories rose to, and subsequently fell from, power in public policy circles. This development led some economists to sacrifice Keynes at the same altar that scientists used for Ptolemy’s geocentric model of the world after the heliocentric discoveries of Copernicus, Galileo, and Kepler.

In *Post Walrasian Macroeconomics*, the 2006 book edited by David Colander, the Swedish economist Axel Leijonhufvud gracefully throws Keynes under the bus:

*“the current generation of economists have been taught to think of Keynes simply as an incompetent. However, anyone who has worked with agent-based models will appreciate the near-impossibility of making headway with Keynes’ problems with the tools he had at hand.”*

The implication here is clear enough. Keynes did a good job with the methods and tools of his day, but the declining support of his ideas was part of a natural evolution in the discipline. It wouldn’t be the first time that a theoretical paradigm had been replaced in the social sciences, but the gradual rejection of Keynes’ ideas wasn’t just a question of shifting to a new, more modern theoretical framework; it was first-degree murder. And unlike the story told in basic economics textbooks, the knife wasn’t only wielded by Friedman and the monetarists. Writing in 1987, at the point in time when neoclassical economics had ascended the throne in the halls of economic theory, Robert E. Lucas Jr. noted that:

*“The most interesting recent development in macroeconomic theory seem to me describable as the reincorporation of aggregative problems such as inflation and the business cycle within the general framework of microeconomic theory. If these developments succeed, the term macroeconomic will simply disappear from use and the modifier “micro” will become superfluous.”*

It is one thing to say that the development of new tools made leading theory redundant, but it is quite another to question the premise of a pure macroeconomic approach to understanding the world. But that is precisely what happened. **In effect, neoclassical economics euthanizes Keynesianism, and the role of the government as an economic actor, only to reintroduce it later via a number of ad hoc models and assumptions.** But why?

Telling this story is the equivalent of a historian 200 years from now trying to sketch out the Cold War with sources from only the Soviet side. History tends to be written by victors, but on this occasion, it is told primarily by the losers, if at all.

►► It is true that the development of new statistical tools, and the computational power to deploy them on large data sets, drove a rapid change in economic theory after the Second World War, and it's plausible that this evolution helped to drive Keynesianism into the background. That said, the proponents of this shift were themselves in conflict with those in favor of microfoundations, which proved fatal for Keynes' analysis. It is not clear why Keynesianism, and the role of the government, should have been so effectively written out of the story by the simultaneous move toward microfoundations and the development of computational power to make statistical sense of published economic data, and conduct detailed quantitative forecasts of said numbers.

In principle, the origins of microfoundations go all the way back to Alfred Marshall's 1890 seminal book, *Principles of Economics*, which introduces the idea of the "representative firm," though this particular construct wasn't well received at the time, and it is also rejected by Keynes. In *The General Theory*, Keynes distances himself from the idea of a microeconomic foundation for a macroeconomic theory.

*"I mean by this [a General Theory] that I am chiefly concerned with the behaviour of the economic system as a whole, rather than with the incomes, profits, output, employment, investment and savings of particular industries, firms or individuals."*

This aspect of his General Theory was uncontroversial at the time, but in 1939 Hicks challenged the very core of Keynes' theory in his book *Value and Capital*, when he said that:

*"The transition [between micro and macro] is made by using the simple principle, already familiar to us in statics, that the behaviour of a group of individuals, or group of firms, obeys the same laws as the behaviour of a single unit." (...) If a particular change in price can be shown to increase the demand for a certain commodity on the part of a representative individual, then it must increase the demand for that commodity on the part of all individuals similarly situated."*

To the layman, this seems innocuous, but taken to its extreme, it kills off the idea of a fiscal multiplier and the paradox of thrift, two of the cornerstones of Keynesian analysis. In other words, a clash was brewing, and even during the period in which Keynesian

economics was enjoying its most influential period, the foundations for its demise were slowly being laid. One reviewer of *Value and Capital*, the German economist Oskar Morgenstern, noted that the removal of income and savings effectively made the traditional Keynesian analysis impossible. He subsequently mused about why the Keynesians at Cambridge were not objecting. In other words, if this argument was indeed a dagger into the heart of Keynes' core ideas, few of his supporters put up much of a fight.

The move toward microfoundations continued in 1946 and 1947, via the contributions by US economist and Nobel laureate Lawrence Klein. Klein was worried about the problem of aggregation, complaining that the emergence of business cycle theory was only loosely related to the behavior of individuals and firms. In his 1947 book *The Keynesian Revolution*, the contours of modern microfoundations appeared.

*"It seems best to develop treatment from the behaviour of an individual unit following an optimal principle, and then to derive the aggregative relationship for the economy as a whole."*

This attack wasn't directed at Keynes, at least not initially. Klein made his objections in the context of a separate debate between economists in favor of inductive theory creation and those in favor of deduction. The former seeks to build theories of the world based on the outcome and behavior of events and data, while the latter starts with theory, before moving into the real world to check its veracity. It's fair to say that a theory of macroeconomics, which begins with the behavior of individual firms and consumers, leaves little room for a Keynesian-style analysis of government intervention, but that wasn't part of the debate at the time, at least not as far as I can see.

The main battle between these two positions was fought at the end of the 1940s and pitted the theoretical work championed by the Cowles Commission against the empirical business cycle analysis conducted by the National Bureau of Economic Research (NBER) under the leadership of Arthur Burns and Wesley Mitchell. Looking at these two opposing standpoints in hindsight, it is easy to tell a story of a fundamental "fork in the road" for economics as a discipline. From his perch, Dutch-American economist and 1975 Nobel laureate Tjalling Koopmans accused the empiricists of "measurement without theory,"

▶▶ adding that “just looking at the data” is wrong. This position was briefly met by fierce resistance, but it was a relatively small skirmish in the end. It left the NBER to continue its empirical work outside mainstream economic theory. I doubt that many students of economics are aware of this split, which is a pity. Even with the benefit of hindsight that the deductive approach eventually marched to victory, it’s difficult to escape the feeling that this was a pivotal moment in economics, and one worthy of more scrutiny.

In the next two decades, the argument between economists about the exact nature of microfoundations continued, though the secondary sources we have available seem to spend a lot of time trying to rewrite history in the process of studying it. Their argument in a nutshell: It is difficult to see why microfoundations emerged to become the main paradigm in economics, let alone why it should have killed off Keynesian macroeconomic analysis in the first place.

It’s ironic for example that Milton Friedman, whose ideas on the critical importance of the money supply would later deal a fatal blow to Keynesianism, was ardently against the notion of microfoundational induction. King (2012) describes Friedman as sympathetic to the business cycle research pioneered by Burns and Mitchell, and later in 1976 he allegedly said that:

*“Keynes, like me, was clearly in the top-down category.”*

King (2012) draws the same conclusion in the context of the work in the 1940s by Paul Samuelson, which is largely considered foundational for modern economics, though not necessarily microfoundations. Instead he draws attention to the 1949 PhD thesis by American economist James Duesenberry, which seems to make the argument for microfoundations:

*“Every hypothesis ought to be stated in terms of the behaviour of individual firms or households, even if we are only interested in aggregate results.”*

On its own, Duesenberry’s thesis is a footnote in the annals of economic history, but his idea was picked up by the influential economist Kenneth Arrow, who stated a similar point in 1951:

*“To have a useful theory among aggregates, it is necessary that they be defined in a manner derived from the theory of individual behaviour.”*

In 1956, economist Sidney Weintraub is credited as being the first to use the moniker of “microfoundations,” and while King (2012) goes on to describe Weintraub’s idea as the “word without a concept,” it stands alongside a number of other important contributions in the 1950s by US–Israeli economist Don Patinkin in his book *Money, Interest, and Prices*, and James Tobin, who, when trying to derive the Keynesian money demand function noted that:

*“This aggregative function must be derived from some assumption regarding the behaviour of the decision making units of the economy”*

By the middle of the 1960s, the microfoundations movement had become clearer. In 1963, Austrian–American economist Fritz Machlup published twenty theses on the desired methodology of economics. Number nine reads:

*“The decision to seek microeconomic explanations for macroeconomic generalizations, that is, to search for the micro-theoretical foundations of macro-theoretical propositions, can be interpreted as a recognition of “methodological individualism” and of the methodological primacy of micro-theory.”*

This point was echoed by Nobel-prize-winning economist Edmund Phelps in 1969, when he presented a paper entitled *The new microeconomics in inflation and employment theory* at the American Economic Institution. It opens as follows:

*“It seems clear that macroeconomics needs a microeconomic foundation.”*

The work on consumption theory by Milton Friedman and Franco Modigliani had already turned researchers’ attention to the intertemporal nature of economic decision-making and, with this, a focus on a long-run equilibrium. Ironically, it was economists’ attempt to investigate the microfoundations of the Phillips Curve—a quintessential Keynesian concept—that ultimately drove the profession away from the IS-LM model. Phelps (1971) definitively finished off the IS-LM analysis, after which the Keynesian result (the idea of a short-term effect of economic policy) was irrevocably relegated. Up until midway through the 1960s, the macroeconomic debate was conducted in a framework of the IS/LM model, but within a few

▶▶ years, the discipline abandoned the endeavor of relying on relatively loosely defined macro equations in favor of a decisive push toward structurally resilient microfoundations. Colander (2006) puts it succinctly:

*"The shift in focus changed the policy prescriptions of the texts. The earlier approach gave the impression that macro policy could be used to choose among various unemployment rates; the new approach gave the impression that would have, at best, a temporary effect on output and unemployment."*

There is a more relevant and fundamental point to be made here. To the extent that one of the early (and pervasive) criticisms on Keynesianism came from the monetarists' focus on the money supply as the cause of cyclical fluctuations, the battle could be fought within the IS/LM model. Those emphasizing the prominence of monetary policy example would claim that the IS curve is very flat, making it possible for expansions or contractions in money supply to have a sizeable effect on output with a relatively small shift in interest rates. On the other hand, the flatter the LM curve, the more potent fiscal policy is, holding monetary policy constant. Arguably, the abandonment of this type of analysis was as important a hit to Keynesian analysis as the actual changes in the real economy, which focused minds on the challenge of stagflation. The conference held by the *International Economic Association* in the small Catalan coast town S'Agaró in 1975 marks the end of the beginning, chaired by UK economist Geoffrey Harcourt. Set at the luxurious Hotel La Gavina, the prominent economists of the time convened to debate *"the Microeconomic Foundations of Macroeconomics."* The collected conference papers suggest that economists were still in doubt about the applicability of microfoundations, but hindsight suggests that the Keynesian analysis had at that point already been killed off.

### WHAT'S LEFT THEN?

The story above yields two major conclusions. First, the Keynesian macro analysis wasn't directly refuted as much as it was squeezed into irrelevance in the methodological schism between induction and deduction. The former opted to seek out microfoundations, in part as response to what they perceived as too pure an empirical approach by the deductionists, led by Burns and Mitchell, who largely disappeared from the academic scene. Second, it is ironic to consider

the contrast between the original catalyst for the embrace of Keynes' ideas with the development in economic theory starting in the 1940s.

Keynes' ultimately succeeded in imposing his ideas on the world by sowing the seeds of his concepts in the academic environment. In fact, as Wapshott makes clear, this was a deliberate strategy on his part, but while his ideas were going from strength to strength in public policy circles—in both the US and Europe—the origins of their demise were slowly being created in the very same academic environment from whence they had sprung in the first place. It is not clear, even with hindsight, whether this was a result of a deliberate attempt by economists to oust Keynes from their curriculum, or at least to curb his influence, or whether it was simply a result of benign neglect.

What is true, however, is that Keynesian analysis, and the proactive and positive role of government, had all but been extinguished in economic theory by the end of the 1970s. More generally, while the theory of public policymaking was never fully assassinated by the economists of the day, it was reduced to a timid shadow of the role it had played when Keynes first put pen to paper. The conclusion was clear enough for everyone to see: **To the extent that the government's impact on economic outcomes isn't outright counterproductive, it is limited.**

Only a few carefully chosen dips into economic theory after the 1960s are needed to show this. The so-called Lucas Critique is a good place to start. Writing in 1976, US economist Robert E. Lucas Jr. put his finger on what he perceived to be a fundamental problem in macroeconomics. When economists try to predict the behavior of agents in response to a policy shift, they fail to take into account that agents' actions and expectations change in response to the announced policy. In the extreme, this means that economic policy is either ineffective—because of the inability to quantify its impact—or counterproductive, due to the fact that it upends an equilibrium of future outcomes that agents have already anticipated: the rational expectations hypothesis. The Lucas Critique has become an urban legend in macroeconomics, mainly because it is complicated to construct models that satisfy it. But for the purpose of this discussion, it is fair to say that the Lucas Critique quickened the departure from traditional Keynesian analysis. Not only did it question the significance of economic policymaking; it also solidified the use of microfoundations as a core methodological tool.



▶▶ Real business cycle theory (RBC) was probably the first and most well-known attempt to satisfy the Lucas Critique. RBC arrived on the scene at the beginning of the 1980s through the work by economists Finn E. Kydland and Edward C. Prescott, and it is arguably the clearest example of a neoclassical attempt to finish off Keynes once and for all. It was eventually vanquished by the New Keynesians, but to the extent that it is still seen as a core contribution in advanced macroeconomics, casting a long shadow over the discipline's treatment of government intervention.

RBC is at its core a case study in extreme induction, assuming, as it were, that the economy is characterized by perfect competition, perfectly flexible prices, and optimizing agents with rational expectations. These concepts would have been unknown to Keynes, though he would shake his head disapprovingly at their main consequences. Effectively, RBC sets out to reinvent an economy subject to the laws set out by the "classic school," which Keynes had tried to disprove with *The General Theory*.

The key results in RBC are usually presented analytically via a mathematical model, but the theory's main thrust is easily put into words. If the economy is always in equilibrium, cyclical fluctuations, by definition, become optimal deviations from a predetermined trend in growth. In RBC, such fluctuations are driven by supply shocks—shifts in productivity growth and labor supply—but that's a technical point compared to the main takeaway. **If the business cycle is the optimal response of the economy to exogenous shifts in supply-side factors, demand-side government policies not only become inefficient, but counterproductive.** Even attempts to control the money supply, which was key to Friedman's attack on Keynes, are considered suboptimal in the classic version of RBC.

Few economists were willing to accept the idea that recessions—and the associated loss of jobs and welfare—are optimal occurrences. Mankiw (1989) and Summers (1986) are good examples of the criticism levied at RBC at the time of its inception. Eventually, RBC had to cede ground to a synthesis, incorporating some of the theory's elements of dynamic analysis and rational expectations with sources of so-called nominal rigidities. This synthesis was dubbed the New Keynesian school of economics, and it is fair to say that is still the dominant paradigm in economics. **It is "Keynesian" because it reintroduces imperfect competition and price rigidities into the analy-**

**sis—a key precondition for the effectiveness of policy intervention—and it is "new" because it introduces these concepts in a microfounded representative agent model.**

Starting with the fact that this framework became the main paradigm in macroeconomics, it's difficult to grade the importance of its extreme version in the form of RBC. But it certainly hasn't disappeared. In 2012, for example, a speech by Charles Plosser—one of the founding fathers of RBC—kicked up a fuss by criticizing New Keynesian models for failing to satisfy the Lucas Critique. Episodes like this one suggest that RBC is always lurking in the background, drawing on the strength of a fundamental desire among many economic theorists to build models that represent the world as it ought to look. I doubt that this is going to change anytime soon.

It is easy to get lost in the immense volume of work done under the New Keynesian moniker since the beginning of the 1990s, but it's relatively simple to summarize the core idea. The New Keynesian analysis begins with a model of perfect competition—much like a classic RBC model—and then proceeds to add ad hoc elements of nominal rigidities. There are three main types:

**1) Price inflexibility** - Due to the assumption of imperfect competition or a probability model along the lines of Guillermo Calvo's famous staggered prices framework, which is most commonly used.

**2) Coordination failure** - A catch-all concept describing why the so-called invisible hand fails to allocate resources efficiently, at least in the near term.

**3) Labor market failure theories** - Ideas to explain deviations from full employment. The most common type of this framework is the efficiency wage model, where workers are paid more than their marginal product (preventing market clearing), for example, to increase productivity, by encouraging them to work hard, or prevent shirking.

The pinnacle of New Keynesianism was arguably the so-called dynamic stochastic general equilibrium (DSGE) models, which are constructed along a spectrum, starting with a pure RBC model with no frictions and extending to a model with all the bells and whistles to allow for nominal rigidities. These models are effectively systems of equations based on mathe-



▶▶ matically derived decision rules for the representative consumer and the representative firm. Government intervention is permitted, but mostly, DSGE models analyze the impact of monetary policy—changes in interest rates—relegating fiscal policy to an appendix.

For all the good faith devoted to the idea of less-than-perfect markets and policy intervention in the economy by New Keynesianism, it is difficult to escape the fact that the government is but a pale version of the one that commands the ground in the original Keynesian framework. In effect, the government is smuggled into the analysis as an appendix to the representative consumer's optimization problem. As such, the government's actions are ruled at all times by the intertemporal budget constraint, the existence of which tends to drive the focus toward the idea of fiscal sustainability, rather than the unique ability of the government to create something out of nothing, via the multiplier, to reach full employment. The constraint is often expressed initially as an equation describing the evolution of public debt:

$$D(t+1) = (G(t) + H(t) - T(t)) + (i-g)D - s/\text{GDP} \quad (1)$$

This equation states that the government's debt as a share of GDP in the future is equal to the primary deficit today, plus interest paid on the current stock of debt, less real growth in the economy as a whole, minus the part of the deficit that is financed by printing money, often termed "seigniorage". One crucial observation in this framework is that, even if the primary deficit is zero, debt can still rise—uncontrollably—if the rate of interest on the stock of debt exceeds growth in the economy as a whole. This phenomenon is often referred to as the "debt snowball."

By contrast, if the economy is growing faster than the rate paid on the debt, it allows the government the flexibility to run primary deficits effectively for free. Most economists dismiss the idea that the government can print money to finance its debt, beyond a minimal natural rate of seigniorage funding, though as we shall see in the final part of this essay, this particular assumption is now emerging as one of the most critically discussed concepts in macroeconomics today. The actual constraint on the government is often expressed by iterating forward the government's decision rule; more specifically:

$$G^* = T^* - (1+r)B_{(t=0)} \quad (2)$$

where  $G^*$  and  $T^*$  are the sums of government spending and taxes from here until the "end of time." This is a rather innocuous equation at first glance. Over time, the government's discounted expenditures must equal the discounted sum it raises in taxes, minus the interest rate paid on the initial stock of debt. For sustainability, however, the analysis quickly becomes constraining for the ability of governments to act. By the logic of the equation above, a fiscal stance is said to be sustainable if the present value of all future primary deficits is equal to the initial debt-to-GDP ratio. In other words, if you start with debt today, you need to run a primary surplus to satisfy the budget constraint in the long run.

Another more technical constraint on government behavior in the neoclassical analysis comes in the form of the so-called Ricardian equivalence (RE) result. Starting with the idea that government might wish to boost growth today by reducing tax, RE suggests that this is a futile endeavor, at least under a certain set of conditions. The theory is easily explained. Assume the consumer faces the following budget constraint:

$$C^* = A_{(t=0)} + (W^* - T^*) \quad (3)$$

In words, consumption between now and infinity is equal to a consumer's initial asset—held in the form of government bonds for ease of analysis—plus wages, minus taxes. Assuming the government satisfies its constraint, we can substitute (2) into (3) to get:

$$C^* = A_{(t=0)} + W^* - G^* - (1+r)B_{(t=0)} \quad (4)$$

Because assets are held in the form of government bonds, this simplifies to:

$$C^* = W^* - G^* \quad (5)$$

In words, we have expressed the consumer's consumption rule as a function of government spending, independent of whether this is financed by taxes or bond issuance. RE has a number of consequences, but the most important one here is the notion that cutting taxes to lift consumption, for example, in a recession, has no effect under perfect RE. The intuition is that forward-looking consumers anticipate that taxes will have to be raised in the future, to pay for the deficit, which in turn means that they'll be inclined to save the windfall received from the government.

▶▶ Needless to say, this is a naive assumption, especially in a world of generational shifts—overlapping generations—where households receiving the tax cut today might not be around once the bill is due. The interplay between this cynical view of human behavior and one based on a high level of inter-generational altruism means that defining the appropriate “degree” of RE is difficult.

An altogether more obvious conclusion is that households are nowhere near as forward-looking as economic theory assumes. In other words, if you send households a check today, many of them will spend it. Almost all economists concede that tax cuts do affect real economic activity, especially when studying the behavior of cyclical fluctuations. They also agree that temporary periods of rising indebtedness are allowable—even efficient—if used to lift the economy’s productive capacity, for example, though the prejudice of most economists almost surely is that public investment is inherently less productive than private investment. It’s also clear that the budget constraint allows for sustainable deficits in the situation where growth rate of the economy is higher than the interest paid on the debt. In fact, *permanent* deficits are possible in such a scenario, making such an “equilibrium” a holy grail for policymakers.

The wriggle room in the analysis of government debt sustainability with a budget constraint framework resembles the debate noted earlier between the relative definition of the long term and the short term. In this context, the definition of permissible “temporary” deficits is the key yardstick. The opinions vary from economists, but it is reasonable to argue, I think, that a focus on budgetary discipline emerged in the 1990s under the so-called Washington Consensus, which has persisted up until very recently. In this regime, governments are supposed to maintain budgetary discipline, primarily to lean against the burden of future and rising unfunded liabilities in the face of welfare states and rapidly aging populations. Recessions in this framework tend to be fought by monetary policymakers via lower rates, though a Keynesian element survives via so-called automatic stabilizers—mainly unemployment insurance—that are supposed to cushion the blow when the slowdown hits.

### THE RISE OF MMT, AND KEYNES’ REBIRTH

The narrative above recounts a story of a discipline that is at best lukewarm regarding the effectiveness of public intervention in the economy—via tax and ex-

penditure policy—if not outright dismissive. This is an odd state of play, given the huge importance played by the state in most modern economies. Still, insofar as it is possible to talk about “mainstream economics,” its position on fiscal policy is best described as one of begrudging acceptance. Government intervention—in this particular case, demand-side stimulus—is a tool best used sparingly and with care, if not altogether avoided. It’s beyond this essay’s remit to trace the finer details in the evolution of economics since the financial crisis, but that step is not necessary to arrive at the grand conclusion. **The discipline is now converging on the idea that demand-side stimulus directed by the government isn’t just useful: It is desirable and necessary.**

The catch-all concept for this groundswell is the rise of MMT, but before I can credibly describe what it is, I have to frame why economics is experiencing this shift, at this particular point in time. I’d emphasize two drivers:

**1) Making up for lost ground** - All economists agree that the financial crisis in 2007/08 and the ensuing global recession were uniquely severe. Comparisons with the Great Depression are not mere hyperbole, when we consider the depth and duration of the fall in activity, and the corresponding surge in unemployment across the global economy. The key point is that a majority of economists now also seems to agree that the response to the crisis has been suboptimal, relying, as it were, too much on monetary policy, and too little on the spending power of government. Through this process, the effect of monetary policy has been reduced, or rendered outright impotent. In other words, it’s time for a handover from monetary to fiscal policy.

**2) Keeping the pitchforks at bay** - The second more cynical view is that the period since the financial crisis has supercharged an already accelerating trend toward income and wealth inequality. This is a trend that has fueled populism across the political spectrum. It is life threatening for incumbent politicians and policymakers, whose fortunes are tied to the preservation of the status quo, or at least the absence of revolution. Faced with such a threat, it makes sense for politicians to reach for fiscal policy as a tool to attempt to appease an electorate that is increasingly driven toward the edges of the political spectrum. I call this perspective cynical mainly

▶▶ because it casts the prerogative to “go fiscal” in a normative political light. More specifically, it assumes that the push for demand-side government stimulus has more to do with a shift in politics than a shift in underlying economic structures. As I’ll show below, disentangling the two isn’t always easy.

All good narratives have a catchphrase and, in this case, the fondness for fiscal stimulus has propelled MMT to the forefront of the debate. This framework has quickly become the catch-all theory to explain, and justify, why demand-side stimulus is now needed more than ever. To sidestep the vast quantity of material—both objective and subjective—that has been produced on MMT recently, I’ll frame my discussion using three sources: a primary source (L. Randall Wray’s book from 2012, *Modern Money Theory: A Primer on Macroeconomics for Sovereign Monetary Systems*) and two secondary sources, critical of MMT, by N. Gregory Mankiw and Thomas Palley.

Mr. Wray’s book is an odd read. It cycles between the exposition of standard and common-sense economic ideas, and the introduction of radical assumptions about the government’s ability to finance spending under no constraints, and without incurring any costs. It is fair to say, though, that MMT is a multilayered framework. It approaches its main conclusion via a detailed description of the economy’s sectoral accounts—a restatement of the expenditure definition of aggregate demand—and a Chartalist view of money. Chartalism emphasizes that the value of money is derived solely through its ability to settle tax liabilities. In other words, money arises as a result of sovereigns directing economic activity, creating a latent demand in the private sector for legal tender to pay taxes. This theory stands in contrast to the notion that money derives value, or *raison d’être*, as a medium of exchange or store of value.

For the purpose of our present discussion, we can safely fast-forward to the latter part of Mr. Wray’s book. Using Abba Lerner’s theory of *functional finance* developed in the 1940s, MMT prescribes that:

*“A government that issues its own currency has the fiscal and monetary space to spend enough to get the economy to full employment and set the interest rate where it wants.”*

It doesn’t necessarily follow from this statement that the government *should* do this, but it is fair to

say that this is precisely what MMT prescribes, and the tone throughout Wray’s text is one of skepticism toward fiscal discipline and caution. Drawing further on functional finance, Wray notes that:

*“Lerner rejected the notion of ‘sound finance,’ that is the belief that the government should run its budget as if it were a household or a firm. He could see no reason for the government to try to balance its budget, annually, over the course of the business cycle, or ever.”*

An important methodological point has to be made here. MMT spends a considerable amount of time debunking the idea of a government budget constraint, as described above. Yet, the grand conclusion of MMT—the idea that a government issuing its own currency can’t run out of money, or default—is a trivial result in macroeconomics. It can be shown via the budget constraint, or by the simpler version, and in words, from Fisher and Easterly (1990):

*Budget deficit = money printing + (foreign reserve use + foreign borrowing) + domestic borrowing*

Mr. Wray is not blind to this point. He delivers a fair description, in my view, of the difference between the traditional budget constraint analysis and the emphasis in MMT of a sovereign nation issuing and spending its own currency. It is also on this part of the argument, though, where MMT steps out of the mainstream light. **It is one thing to say that governments can print money at will to affect economic activity; it is quite another to say that it *should*, in order to achieve “full employment”.** To paraphrase, MMT is the argument that economists, somewhere along the way, forgot about the potency of fiscal policy in the context of a sovereign that can print its own currency. Whatever the merit of this argument, “sound finance” is defined in the intersection between what a government can and should do, and it is on this question that MMT and its detractors must wage battle. I’ll split this story into four parts, starting with the critics of MMT, where Palley (2013, 2014 and 2019) is an indispensable source.

### 1) MMT ignores the Phillips Curve

The potential inflationary impact of government spending with freshly printed currency is the main *theoretical* critique of MMT. It encapsulates the trade-

▶▶ off described in the Keynesian analysis above and the transition from the IS/LM to the AD/SAS model. The attack on MMT from this angle is straightforward and well laid out in Palley (2013). While MMT certainly acknowledges the potential of inflation, it has no specific theory to explain it. In other words, MMT assumes that (excessive) inflation operates along an L-shaped supply curve. It is either there or not. In such a situation, the government can, and perhaps should, spend until full employment is achieved, at which point it can balance the budget.

Palley (2013) attacks this assumption using the tools of the trade, more specifically via the idea that inflation is a dynamic process embedded with expectations. That is to say, inflation builds gradually, and with lags relative to underlying economic dynamics. Policymakers must take this into account when they make their decisions. By the time inflation shows up, policymakers will be behind the curve, an intuition that has roots in the 1970s stagflation period described above. The issue is more delicate than that, though. MMT has very little to say about what constitutes full employment, and what excessively high inflation beyond this point is.

Charitably, this is because the proponents of MMT don't know where "full employment" is, any more than everyone else. This will forever be the Keynesian trap: An economy's potential growth rate is not observed in real time, and it is subject to often significant changes through time. Common sense, however, is enough to pinpoint the problem. For a theory espousing the idea that governments should print money until everyone is in gainful employment, it is not difficult to conclude that it would be difficult for policymakers to turn off the tap at the right moment. A cynic would even suggest that politicians in control of a printing press, with a mandate to give handouts to the electorate, would be prone to overdo it. And even if inflation does rear its head, the prescription of MMT is not entirely clear. The tools to combat inflation are either a balanced budget, reduced spending, or price controls, the latter of which would be extremely difficult to implement, at least in an open economy context. More specifically, the proponents of MMT simply seem to believe that the risk of inflation isn't much of a problem at all.

That position is untenable over time, but it is plausible that there is a time and a place for it. As it turns out, the present could be it. It's impossible to ascertain the exact point when MMT rose to become a key

part of the discourse, but it is clear to me that the Phillips Curve's fall from grace since the financial crisis is one of the main reasons. Macroeconomic slack is difficult to measure at the best of times, but something has happened since the 2008 crisis.

Unemployment has hurtled toward, even beyond, levels usually associated with "full employment" across the developed world, but inflation and wage growth have been relatively muted. It will take a separate essay about the labor market to explain this dynamic in full, but the main conclusion for the topic here is simple enough. **The costs traditionally associated with low interest rates and public deficit spending are now much lower than implied by standard economic models.** MMT's success in banishing the fear of inflation, at least for the time being, only gets the theory so far, though. The initial conditions present in the global economy represent obstacles to its implementation or, more specifically, it requires an open argument about what the proponents of MMT would like to change for their framework to be implemented.

## 2) MMT has a naive view of monetary policy

The discussion up until this point has already, at least implicitly, stated the crux of the argument that follows: In MMT, fiscal and monetary policy are joined at the hip. As I have explained, the theoretical ability of a government to create fiat currency to pay for expenditures is a trivial result in economics. Wray (2012) refers to *A Monetary and Fiscal Framework for Economic Stability*, a 1948 paper by Milton Friedman—otherwise known as a critic of large and freely expending governments—to support his case. In this paper, Wray (2012) notes, Friedman proposes to "combine fiscal and monetary policy, using the budget to control monetary emission in a counter-cyclical manner." From the point of view of modern independent monetary policy, MMT effectively proposes exile, if not a compassionate execution. The rationale is simple. For a sovereign that prints its currency, an independent central bank, with a separate policy rule, is, at best, a nuisance and, at worst, outright counterproductive. Wray (2007) proposes to limit monetary policy to a "tin man robot," which sets overnight interest rate at zero and keeps it there. This sounds controversial even for card-carrying Keynesians, but it is central to MMT. The potential conflict, or trade-off, between fiscal and monetary policy embedded in the IS/LM framework is an expression of an inherent,



▶▶ and entirely avoidable, inefficiency. MMT's response is uncompromising. In reference to Friedman's 1948 exposition of the potential powers of combining monetary and fiscal policy, Wray (2012) dryly notes:

*"it [Friedman's work] demonstrates how far today's debate has moved away from a clear understanding of the policy space available to a sovereign government."*

Palley (2014) is peculiarly charitable on this particular aspect of MMT, noting only in passing that consolidation between fiscal and monetary policy would run against informed wisdom that an independent central bank is a key feature of a modern institutional framework. I'd call that the understatement of the century.

There is one main issue: Initial conditions matter. The institutional interplay between governments and independent central banks is a crucial element of how modern economies function. Financial markets and agents in the real economy rely on this interplay to make their decisions, and it wouldn't be flippant to say that the rules of globalization are, at least in part, anchored to this structure. This doesn't mean that they can't be altered—indeed some would argue that they should for those reasons alone—but simply that it might have unintended consequences if you do. It is my experience that proponents of MMT often forget to mention such effects when they talk about a wholesale implementation of their policies.

### 3) Does MMT work with free capital mobility?

The issue with MMT and open economies is also related to the initial conditions of a highly interconnected world via trade and capital links, with a hub-and-spoke structure centered around the US dollar. The problem, in a nutshell, is that not all currencies are equally sovereign, a reality that is easily exposed in a world with free capital mobility. The issuer of the world's main reserve currency—the US—can get away with anything, but small open economies are constrained. There is a rich literature in macroeconomics analyzing this problem, but we only need the basics to unravel the issue for MMT. The so-called *impossible trinity* ("trilemma") stated independently by John Marcus Fleming and Robert Alexander Mundell in the early 1960s suggests that it is impossible to achieve the three following objectives simultaneously:

- 1) A fixed exchange rate
- 2) Free flow of capital
- 3) An independent monetary policy

The issue for any MMT-inclined policymaker is clear. You need an independent monetary policy for the theory to produce its intended outcome. You want the central bank to peg the interest rate at zero, and you then need the central bank to supply the fiat currency needed for the government to spend and invest its way to full employment. I am open to various degrees of MMT, but for the framework to deliver its main results, there can be no constraint on the government's ability to create currency at will.

The treatment by Wray (2012) of MMT in an open economy is baffling. The issue is afforded significant space, but the argument seems unable to move beyond the self-evident fact that the US is indeed special, and that all other countries operate under some form of constraint. I may be missing some nuance, but for a theory that purports to be a universal framework, it seems odd to adopt the position that the US does indeed enjoy an exorbitant privilege.

In fairness, Wray (2012) sticks to the letter of the theory by claiming that an economy that borrows in its own freely floating currency is unconstrained, but that proposition only stands up to the simplest of theories. In practice, an economy with a freely floating currency, which sets its domestic interest rate at zero, would soon face huge pressure on its currency, or at least run the risk of significant capital flight and resulting disruptions in the domestic economy. There are various degrees of this argument that depend on various scenarios in the global economy, but anyone analyzing it through the lens of the modern global economy quickly reaches a simple conclusion. **The implementation of MMT is subject to significant constraints in an open economy, especially in a relatively small economy with a current account deficit.** In fact, I'd argue that MMT, on a sustained basis, is impossible for any economy with an external deficit, with the exception of very few special cases. In effect, if you assume the country in question is issuing a currency not protected by an "exorbitant privilege," then you would need an extraordinarily credible and powerful set of public institutions, coupled with high productivity growth in the private sector. These economies exist, but ironically, they all tend to be net savers via external surpluses.



▶▶ If the treatment of the open economy implications of MMT in Wray (2012) seems to admit a significant limitation to the theory, it is outright non-sensical as described by Palley (2014). Referring to a contribution by Mr. Wray from 1998, Palley (2014) explains that the open economy implications weren't treated at all in the initial MMT contributions, but that the theory's proponents eventually accepted that a fully flexible exchange rate would be difficult to sustain. Palley (2014) then quotes Wray and Tymoigne (2013) for the idea that pegging the exchange rate is probably the better policy option. Given the proximity between this contribution and my main source of MMT (Wray, 2012) this seems like an odd shift.

In any case, whatever the proponents of MMT think is the optimal exchange rate policy—and in fairness, there may be many views here—we have now effectively cornered the theory. You can't peg your exchange rate without giving up monetary policy autonomy, which invariably leads us to this conclusion: **For MMT to work optimally, you must resolve the impossible trinity by choosing an independent monetary policy and a fixed exchange rate; in other words, you must close your external account with capital controls.**

Wray (2012) implicitly admits this in the discussion on functional finance, which is a theory molded in a world with capital controls:

*"(...) all countries in Lerner's time adopted strict capital controls. In terms of the "trilemma" they had a fixed exchange rate and domestic policy independence, but did not allow free flow of capital."*

The consequences of MMT in an open economy framework are the most problematic aspect of the theory, at least as it pertains to the current state of play in the global economy. I tend to quip that half of the current proponents of MMT have no clue about what the implementation of the theory means in a world of free capital mobility, and the other half knows it all too well, but they aren't being honest.

In the context of the modern global economic framework, the implications for the free flow of capital as a result of MMT are similar to the impact on monetary policy. **In other words, the full adherence to MMT in 2020 would require two dramatic changes in the global economic architecture: the end of politically indepen-**

**dent monetary policymaking, and a significant reduction in global capital mobility.**

Both changes are legitimate arguments, but initial conditions matter, and they can't be analyzed in a vacuum. In addition, they are arguments that, at least in part, should be made in the political sphere. Putting a stop to globalization to foster the emergence of sovereign currencies would have profound consequences for the structure and interrelationship of most macro and microeconomic entity that exists today. Finally, returning the power to create fiat currency at will to governments would have far-reaching political consequences, which I touch on next.

#### **4) Is a rules-based fiscal policy possible?**

If the initial conditions in the global economic architecture render MMT difficult without a fundamental shift in the rules of globalization, the political economy of the framework leaves a lot to be desired too. In short, handing over the keys for the money printer to politicians risks mission creep. This argument is an extension of the idea that, for all the good intentions of MMT, it's virtually impossible to observe full employment in real time. It has two components: moral hazard and normative distribution elements.

The ability of a political majority to print money at will is a recipe for a sick political economy. It is not difficult to imagine that competing political factions in such an environment would go way beyond the promise of "full employment" in their efforts to gain, or maintain, power. Moral hazard here could take two forms. The first, traditional form, covers the idea that the private sector, safe in the knowledge that the government will always stand ready to foot the bill for broken ventures, is incentivized to take excessive risk. The second, and more nefarious form, is an increasingly tight chokehold on private economic activity. After all, if the government can supply you with everything you need, at any price, why would workers need to work, or entrepreneurs take risks? These two trends sow the seeds for their own destruction. It is easy for governments to stimulate demand, but it is much harder to create the necessary supply, especially if you take crowding out of private activity to an extreme. In fairness to MMT, there is nothing to suggest that its proponents eschew productive private activity; indeed, they seem to welcome it as far as goes its co-existence with a large public sector.

It is easy, however, to see the potential slip-page from a benevolent government devoted to full

▶▶ employment, to one paying people to stay at home. This is best demonstrated by analyzing the anatomy of fiscal activism, at the current juncture, as a kind of economic Hippocratic oath. Effectively, the modern school of fiscal activism promises the eradication of economic hardship and adversity. That's commendable, but it is also reasonable to claim that, if such an aim is backed with the full power of a printing press, it would radically alter the incentive structure in the private sector for the worse, at least in my view.

The second element of mission creep is that all fiscal decisions are ostensibly political and entail a distributive outcome. The extreme counterpoint to this claim that everyone gets whatever they want simply isn't credible in a world where economic and political incentives invariably will create friction and conflict. In short, even with MMT, policymakers will have to answer the question of "Who gets what, and how much?" and the answer to this question will be driven by political considerations. We see this most clearly in the left-wing calls for fiscal activism, which are almost associated with a preference for significant wealth and income distribution via the tax system. To be clear, this is a legitimate political and economic position, but it also jars somewhat with the main message of MMT.

Finally, on the relationship between the political economy and MMT, I'd be remiss if I didn't mention the significant work currently being done on a modern rules-based fiscal policy. In effect, if monetary policy has its Taylor Rule for determining shifts in the short-term policy rate, fiscal policy could also, at least in part, be structured to follow a similar rule. Such a framework could be created in a number of ways, so it's best to focus on a concrete example.

The *Sahm Rule*, named after its founder Claudia R. Sahm, an American economist, has been rapidly rising in popularity recently. Ostensibly, the rule is a binary recession signal for the US economy. It stipulates that the economy will enter a downturn if:

*"the three-month average of the unemployment rate has risen by at least 0.5 percentage point above its low point in the previous 12 months."*

This type of binary indicator is not in itself novel, but when linked to the idea of a specific fiscal policy response—for example a tax cut, or a current transfer—it becomes a concrete way to operationalize government policy. It also arguably goes beyond the

traditional automatic stabilizers—unemployment insurance and the like—because it prompts policymakers to act in advance of a downturn.

It would be unfair to lump the kind of work that Ms. Sahm does together with MMT, but the *Sahm Rule*, and other frameworks like it, potentially correct a number of the issues with MMT described above. For starters, if monetary policy is to be assimilated by fiscal policy, it makes sense to anchor such a power via an objective policy function. Similarly, an objective rule could be established for the achievement of "full employment" that goes beyond the idea that the absence of "excessive" inflation should be associated with sustained money printing.

I am still suspicious, though. A government with a printing press almost surely will get into trouble eventually, not to mention the fact that any spending decision would still be political in nature. That said, in the current debate, I'd argue that the ground is ripe for an objective rules-based fiscal policy. Crucially, it would go a long way to demystify government intervention in the economy, and also institutionalize a way for fiscal policymakers to have a semi-objective dialogue with households, firms, and financial markets. After all, for a fused fiscal and monetary policy, the communication and transparency around policy shifts become critical.

It'll take a separate essay to hash out what an objective rules-based fiscal policy looks like. But even if the proponents of MMT don't get to implement their theory in full, it's more than likely that something along the lines of the framework described above will emerge from the rise of fiscal activism.

## A PERSPECTIVE ON THE COVID-19 CRISIS

At this point, I am more or less ready to wrap up my findings, but I can't finish without a perspective on our current crisis in the context of the Covid-19 pandemic. In a macroeconomic context, the virus is equivalent to a natural catastrophe, but the plot is slightly twisted compared to a tsunami or an earthquake. As the virus has gained a foothold in the developed world, governments have opted to implement widespread lockdown to contain the virus, decisions which have had enormous economic costs. The debate about the sense of these decisions is raging, but you don't have to take a stand to sketch the main issue. Two opposing forces are now colliding. Governments can't let the virus spread freely because it almost surely would lead to a crippling public

▶▶ health crisis. Similarly, lockdowns can't be maintained indefinitely. As I finish this essay, at the beginning of May 2020, governments in Europe are mulling how to reconcile these two forces, but in the terms of the economic response, the die has already been cast.

The true number is difficult to pin down, but it's fair to say that governments and central banks have mobilized support and stimulus packages to the tune of around 20% of global GDP—around \$17 trillion—to ease the pain on the economy. That's a lot of money, and questions about how to pay for all this are already being raised. As it turns out, a broad consensus among policymakers seems to be rallying behind the idea to ramp up the printing presses.

That makes sense. If there were ever a reason to throw caution to the wind in terms of economic support, a natural catastrophe would seem to fit the bill. That said, it's difficult to escape the idea that the speed and desire with which policymakers are oiling the printing press is at least tangentially related to the undercurrent of fiscal activism before the crisis.

This is a moot point, though. **The cat is now out of the bag, and however quickly the Covid-19 pandemic eases, the economy will be left with a policy structure that will look an awful lot like full-scale MMT.** The idea is that such measures are temporary, but I suspect that they won't be. It is easy for finance ministers and central bankers to throw money at markets and the economy, but it will be difficult to flick the off-switch. Finally, it is also far from certain that the money will go to where policymakers would like it to go as quickly as they would want it. In other words, political decisions need to be made, even when you have a printing press.

## CONCLUSION

This essay tries to create a narrative structure around the rising consensus in favor of fiscal activism. It begins with Keynes' work in the 1930s and works its way forward, culminating with MMT, which, rightly or wrongly, has become a byword for the movement supporting greater fiscal intervention. This perspective serves two objectives. First, it unearths a timeline for the evolution of Keynes' ideas, explaining why and how economics abandoned their old master in the post-war era, as well as inserting the idea of fiscal policy into a thorough theoretical context. Second, it subjects MMT to an investigation, evaluating the theory as a viable alternative in a modern context. It finishes with a perspective on the Covid-19 pandemic.

The idea of government intervention and demand-side fiscal stimulus was born by Keynes, eradicated by neoclassical economics, lazily reintroduced by the new Keynesians, and is now enjoying a renaissance. It's fiendishly difficult to judge history in real time, but I would bet that the current shift has momentum, a position that has been strengthened by the response to the Covid-19 crisis. It is perhaps unfair to insist on a marriage between this story and MMT, but it serves as an introduction to the issues at hand.

The idea that governments with sovereign Chartalist currencies can't run out of money, and that this power should be used to achieve full employment, is enticing. It is also, however, naive. MMT easily dodges the main theoretical critique, at least in the current environment. The Phillips Curve probably still exists, but it has also flattened significantly, making it difficult to attack MMT armed with the traditional trade-off between unemployment and inflation.

If MMT passes this first test, however, it fails the subsequent trials. The implementation of MMT in today's economy requires significant shifts in the relationship between fiscal and monetary policymakers and an end to the free flow of capital. My sense is that about half the proponents of the theory don't have a clue about any of this. The other half understands that MMT requires an end to central bank independence, and a significant reduction in capital mobility. The problem is that this latter group aren't being honest, and for that reason, I am skeptical about their true motivation. If you want to dial back globalization, the least you can do is to be honest about what this means for households and firms. If you think that an independent central bank is a sub-optimal institution, how will the alternative look, and how will it be held accountable?

Finally, the idea that money is a limitless resource, is naive in the extreme. Even a government with a sovereign currency can't ignore fundamental issues of distribution and the division of scarce resources. No matter how benevolent, a government with a printing press still has to decide who gets what and how much. The most well-informed proponents of MMT seem to dodge this issue via the support of wealth and income distribution via the tax system, though it is often difficult to tell exactly what they believe. The question of (re)distribution is a, as of yet, hidden layer of the debate. Until that changes, it will be impossible to have a proper debate about MMT, which is a shame, because we probably need one.

**NOTES**

<sup>1</sup> The idea of the labour market as a complicated search-and-match algorithm is a theory that emerged long after Keynes, but the intuition from such a framework is clear enough in *the General Theory*.

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