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Invited Article

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The modern monetary theory literature seems to have escaped Drumetz/Pfister

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This paper provides a response to the recently published critique of modern monetary theory (MMT) by Drumetz/Pfister, which is based on a superficial representation of the body of knowledge and follows a familiar script: MMT is about printing money to solve all problems and will cause accelerating inflation, a plethora of unproductive jobs, and a bond-market revolt. The paper demonstrates that if the authors had consulted the published academic literature, they would have realised that many of the assertions they make are simply without foundation.

Keywords: modern monetary theory, MMT, job guarantee, inflation

JEL codes: E12, E62, E63, H6, J6

1 INTRODUCTION

Drumetz/Pfister (hereafter DP) (2021: 355) assert that 'MMT is based on an outdated state of economic science and that its claims regarding economic policies are much exaggerated'. They conclude that modern monetary theory (MMT) is 'more that of a political manifesto than of a genuine economic theory' (ibid.: 355). In attempting a response to this striking dismissal of a body of academic work, the initial struggle is making sense of a paper that is littered with factual errors and misrepresentations.

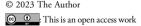
In this response, for space reasons, we consider only some aspects of their critique and assume that the omitted issues will be picked up elsewhere in the symposium. In no way should it be assumed we agree with the substance of their argument in the omitted topics. Far from it.

At the outset, DP (2021: 360) consider there to be a 'stark contrast' between 'MMT's approach and mainstream economics'. This represents progress on the usual mainstream critiques that suggest there is nothing new about MMT. But that would suggest the authors have engaged in a pedagogical journey, in the same way that we learn anything that is new when we are students.

Consulting DP's reference list, we find that DP rely significantly on 'working papers' or an 'airport book' to build their characterisation of MMT and ignore the extensive MMT literature in refereed periodicals and monographs published by the world's leading publishing houses. That is hardly a scholarly approach. Had they consulted that literature, they would realise that many of the assertions they make in their paper are simply without foundation.

Veriava (2015) wrote that: 'Textbooks matter Textbooks have been part of the stock in trade of the educator for centuries'. If DP were serious about learning MMT in its entirety, from some of the founders, they would have also consulted the pedagogical

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literature, which in this case is a 573-page textbook published by the leading textbook publisher in the world (Mitchell et al. 2019). The fact that they don't cite the book leads to the conclusion that they haven't really sought to put together a coherent picture of the entirety of the MMT body of knowledge. As a result, they repeatedly make claims which are unsustainable. They identify 'deficiencies' that have been fully dealt with in the MMT literature. They also rely on other authors for authority who have similarly engaged in these superficial research missions.

Further, they reveal a tendency to cultural insularity. As students we confront a body of knowledge sequentially, initially coming to terms with language, concepts and structure before moving on to more sophisticated interrogations of the main precepts. The danger is always that when we seek to construct the 'new world' using the language, concepts, and styles of analysis of the 'old world', we miss crucial elements. Anthropologists knew this problem long ago when they introduced the idea of cultural relativism into their enquiry (Boas 1938). The broad concept of culture that Boas subsequently developed represents a challenge for social scientists when approaching something 'different'. It was crucial to see past the biases on one's culture which invariably distort our judgements.

A paradigm is created and perpetuated by a scientific community (Kuhn 1962), which develops specific cultural traits. Some of those groups eventually form patterns of behaviour, which social psychologists refer to as Groupthink: a type of mob rule governs daily life and outside influences are decried (Janis 1972). In these instances, it is very hard for a person inside the group to see the world outside in unbiased terms.

We have seen what happens in economics when cultural relativism is ignored. For example, when J.R. Hicks developed the IS–LM interpretation of Keynes and spawned the Neoclassical Synthesis, much of the important insights in *The General Theory* were lost in the desire to see everything in terms of neoclassical equilibrium. As a result, Keynes's magnificent probing into the world of uncertainty was degraded as being just a special case of the neoclassical approach where rigid nominal wages prevented full market clearing.

DP have fallen prey to this sort of biased construction. There are several instances of this throughout their paper. For example, they use terms such as 'printing money' as if it is a separate government funding action from taxation and bond-issuance, which just reflects their capture within the mainstream government budget constraint (GBC) framework. They see the GBC as an a priori financing constraint, whereas MMT economists consider it to be an ex post accounting statement and attach little importance to it. The fact is that all government spending occurs through the central bank crediting private bank accounts with new currency deposits (directly or indirectly), a central precept of MMT. Further, DP claim that MMT is flawed and incapable of proving the main ideas because no formal (mathematical) model is deployed, thus falling prey to the mainstream view that the only way to advance knowledge in social science is to fall into line with the 'haiku' approach venerated by Blanchard (2009). Many great economists before the 'haiku' era would have disagreed with them. Further, they talk about 'debt monetisation' as if it is an option that central banks can always choose. Their narrative reflects a world view that is again governed by thinking within the GBC framework. However, an understanding of reserve dynamics, which is clearly articulated in the MMT literature, is that if a central bank is targeting a non-zero policy rate and does not wish to offer a competitive return on excess reserves, then it has to offer debt to the non-government sector. There are many examples of this sort of 'cultural' bias in their treatment of the 'starkly different' MMT. In what follows we consider some of these issues in more detail.

THE FIRST ELEMENTARY ERROR AND ABUSE OF HISTORY

DP fall into a common error when commenting on MMT – they confuse MMT with a policy approach and conflate the body of knowledge (the MMT) with more prescriptive options that some MMT economists have from time to time advocated. In providing an advisory against MMT, DP (2021: 6) write: 'Both historical precedents and an attempt to measure the impact of the MMT programme in the USA through public debt monetisation provide strong cautionary tales against such an approach'.

They fail to understand that MMT is not some policy regime or 'programme'. Rather, it is a lens which provides a superior understanding of our monetary system and better accounts for a range of important stylised facts that mainstream economics cannot explain. MMT joins institutional reality with behavioural theories and correct stock-flow accounting, which helps us to understand the capacities of the currency-issuing government and the consequences of different policy choices. Unlike the New Keynesian (NK) framework, which excluded the financial sector, MMT considers all the relevant institutions in the monetary system.

The traverse from an MMT understanding to the policy space requires a set of values (ideology) to be imposed. In this way, MMT is politically agnostic. For example, MMT does not 'support' a Green New Deal as DP claim, even though some MMT economists, according to their value set, might advocate in that space. What MMT helps us understand is that most policy choices that are constructed in terms of government 'financial constraints' are, in fact, just political or ideological choices.

DP appear oblivious to this. In citing the case of Argentina during the Juan Perón years (1945-1955), they also abuse history, twisting it to suit their argument. A similar abuse occurs when the Weimar years or the Zimbabwean hyperinflation are cited against MMT. The superficial claim is that central-bank currency increases caused the hyperinflation in these cases, and that would be the result if any government followed an 'MMT programme'. Not only does this wrongly assert the idea of an MMT programme but it also fails to appreciate the historical complexity of these episodes.

In the case of immediate post-war Argentina, the elites, whose wealth was sustained by the profits from large land holdings, were antagonists of the Perón government, given his policy of price controls of agricultural output via the Argentine Institute of Production and Exchange which he created in 1946. The Institute funded the government's development of state industrial enterprises. The response of the elite landowners was to significantly cut agricultural production (more than 50 per cent between 1946 and 1952) (Rock 1987; Whitaker 1956). There were also a series of external macroeconomic shocks that the government had to face early in its tenure. Further, and most significantly, Argentina operated a fixed exchange-rate regime, which means it had compromised monetary sovereignty in MMT terms. The 'modern' in MMT refers to the flat currency system that emerged after President Nixon closed the gold window in August 1971. A full account of the Perón years would inform any scholar that the situation was much more complex than the central bank creating reserves to match government deficits. No responsible economist would use an MMT understanding to advocate the plethora of policies that the Perón government introduced, given the political and monetary constraints the government faced.

FORMALITY

The Groupthink nature of DP's critique is also on display when they say that a 'major criticism that can be addressed to MMT is that its proponents are unable to prove their claims given the lack of formal modelling' (DP 2021: 6). This is a repetition of a standard mainstream criticism of MMT and brings into question the notion of 'proof' and the ability of mathematical reasoning in economics to establish anything more than a consistent end based on the starting assumptions (Caldwell 1982). But the claim is also based on the assertion that the only valid way to undertake social enquiry is to use the optimising calculus of mainstream economics. Not only is that assertion invalid but an adherence to it leads to a false claim to authority.

Were Smith, Ricardo, Marx, Keynes and many other great economists failures because they eschewed the trivial, self-fulfilling formality that pervades neoclassical approaches? Mathematics is just a language - one of many. Sometimes it helps to sort out problems that other languages cannot solve. Usually that is not the case, especially in a social science like economics.

The relatively naïve mathematics that has taken over mainstream economics generally hides a lack of substance. Paul Sweezy (1972: 58) long ago observed that mainstream economics,

remaining within the same fundamental limits ... of the 19th century free market economist ... had ... therefore tended ... to yield diminishing returns. It has concerned itself with smaller and decreasingly significant questions To compensate for this trivialisation of content, it has paid increasing attention to elaborating and refining its techniques. The consequence is that today we often find a truly stupefying gap between the questions posed and the techniques employed to answer them.

It is also untrue to assert there is no formal modelling in MMT. Mitchell/Muysken (2008) provide a detailed critique of the evolution of the Phillips curve and natural rate theories from an MMT perspective and use mathematical language throughout. Mitchell et al. (2019) use a lot of formal derivation where it helps to simplify and provide an exactness.

Moreover, most people do not appreciate that the dominant NK framework, which claims virtue and authority based on its adherence to so-called microfounded mathematical analysis, ultimately fails as a result. This failure reveals the limitations of using a mathematical approach to macroeconomic reasoning.

The NK approach provides the basis for the mainstream macroeconomic consensus, by merging the so-called Keynesian elements of money, imperfect competition, and rigid prices with the real business-cycle theory elements of rational expectations, market clearing, and optimisation across time, all within a stochastic dynamic model. The mathematical solution of the dynamic stochastic models as required by the rational expectations approach forces a highly simplified specification in terms of the underlying behavioural assumptions in their standard model. Therein lies the problem. We can simplify the NK approach to three basic equations that purport to capture the essential nature of the economic system (see Mitchell/Muysken 2008 for a detailed exposition). The three equations – an IS equation (saving equals investment), the Phillips curve, and a monetary rule (Taylor adjustment) - are extremely parsimonious to allow for tractable solutions.

Take the Phillips curve as an example. The NK Phillips curve (NKPC) bears a close resemblance to the expectations-augmented Phillips curve, the latter being based on natural-rate theory inherited from Friedman and Phelps. There is no long-run trade-off between inflation and unemployment and any attempts by the government to use fiscal policy to reduce unemployment below the natural rate causes accelerating inflation. However, as it is derived from so-called microfounded, optimising behaviour, its coefficients have a specific interpretation. Firms are assumed to employ so-called Calvo price-setting, which has become the standard NK approach.

Accordingly, under monopolistic competition only a fraction of firms set their prices in the current period. The remainder of firms keep their price at the level of the previous period. Optimal consumer and producer behaviour implies that the logged deviation of marginal costs plus mark-up on prices from its normal level is proportionally related to the logged deviation of output from its natural level. All this means is that there are adjustment lags imposed on the normal natural rate story, which allow short-run trade-offs between inflation and unemployment to occur. But Calvo price-setting does not allow lagged inflation to influence current inflation, which was basic in the original Friedman conception.

NK macroeconomists recognised that in the applied world of macroeconomics there is usually a lagged dependence between output and inflation. But trying to build this reality into their model from the starting microfounded principles is impossible. As a result, to gain any empirical traction, ad hoc lagged inflation terms are introduced. The problem then is that this destroys the virtue they claim from the use of microfoundations and tight mathematical specification with rational expectations. The rigour fails to deliver anything remotely consistent with reality and so in the end there is no rigour in their empirical models. The empirical results and policy implications cannot be traced back to any microfounded, optimising foundations. In the end, the mathematical rigour adds nothing of value to the exercise.

Rudd/Whelan (2005: 4) observed that 'the data actually provide very little evidence of an important role for rational forward-looking behavior of the sort implied by these models'. Similarly, Paloviita (2006: 858) concluded that 'results obtained suggest that NKPC can capture inflation dynamics in the euro area if the rational expectations hypothesis is not imposed and inflation expectations are measured directly - we find evidence that lagged inflation seems to be needed to properly explain the persistence of European inflation'. There are many similar studies that have exposed these sorts of weaknesses in NK models.

Clearly, the claimed theoretical robustness of the NK models must give way to empirical fixes, which leave the econometric equations indistinguishable from other competing theoretical approaches where inertia is considered important. And then the initial authority of the rigour is lost anyway.

Following Sweezy's 1972 observation, mainstream economics has evolved into a cute game, which Blanchard (2009) summarised as being an exercise in following 'strict, haikulike, rules [The economics papers] ... look very similar to each other in structure, and very different from the way they did thirty years ago ... '.

Graduate students are trained to follow these 'haiku-like' rules, which govern an economics paper's chances of publication success. If an article submission does not conform to this haiku-like structure it has a significantly diminished chance of publication, which creates a publication bias in the NK body of knowledge that extols the virtues of mathematical equations over substance and empirical congruency. The IT term 'garbage in, garbage out' applies equally to mainstream economics dominated by increasingly complex mathematical formulations hiding the 'trivialisation of content'.

The criticism that MMT departs from this standard should really be focused on the deficiencies of the standard rather than the MMT approach.

THE REAL WORLD INTERVENES: THE CASE OF JAPAN

In addition to the problem that a reliance on formality presents to the mainstream approach, there is the problem of empirical congruency. To be credible, a theoretical framework must at least be able to consistently explain relevant stylised facts. DP (2021: 356) mention Japan in passing, but they should have dwelled further on it. The Japanese historical experience reflects on what benchmark we might use to evaluate new theoretical approaches such as MMT. Since 1990, Japan has pushed fiscal and monetary policy parameters beyond their typical settings. Since the massive commercial property collapse in 1991, which was caused by the bursting of the debt-fuelled real-estate bubble, the Japanese government has run continuously large fiscal deficits and the public-debt ratio is the highest in the world. The Bank of Japan has also purchased most of the new government bonds issued over the last two decades. Mainstream economists, following the logic that DP deploy, predicted rising bond yields and eventual fiscal insolvency, higher interest rates, and accelerating inflation (for example, Doi et al. 2011; Reinhart/Rogoff 2009; Tokuoka 2012).

History shows that Japan has maintained low inflation or deflation, near-zero interest rates, and strong demand for government debt with low or negative yields since the 1990s. It has also managed to sustain low unemployment. Under current bond-market trends, there is a real possibility that the interest burden on the outstanding Japanese government debt will turn negative.

Mainstream economists have not been able to convincingly explain their predictive failures, whereas the MMT framework provides a convincing basis for understanding the Japanese experience since the commercial property collapse (Mitchell/Fazi 2017). Mainstream economists regularly invoke 'cultural differences' to cover their predictive failures (Katzner 1999). However, the monetary and fiscal institutions in Japan operate in a similar way to any advanced nation. What the mainstream economists failed to understand is that a currency-issuing government can meet all liabilities issued in its own currency and never faces insolvency. Further, the Bank of Japan can maintain yields and interest rates at very low levels indefinitely to suit its policy purposes. Bond markets can never overpower the financial capacity of government and can only determine yields if governments allow them to. These are core MMT propositions.

The Japanese example alone justifies the conclusion that the standard NK framework is 'bad science' and represents a degenerative research programme (Lakatos 1970). It should never be used as the benchmark for assessing new approaches to macroeconomics.

That conclusion is reinforced by the fact that mainstream economists also failed to fore-see the global financial crisis (GFC), and blithely continued to urge further financial deregulation even as the signs of crisis were evident (for example, Mishkin/Herbertsson 2006). Prior to the crisis, MMT economists noted the unsustainability of basing expenditure growth on credit-fuelled consumption expenditure, while governments were imposing fiscal drag in pursuit of surpluses (Mitchell/Muysken 2008). The resulting private-sector debt build-up rendered private balance sheets increasingly precarious, and it was only a matter of time before the system buckled (Godley/Wray 1999).

It should have been no surprise, then, that when the GFC emerged, the standard NK framework initially denied that financial markets could misallocate funds in any systemic way because they maintained confidence in the 'efficient markets' theorem (Cassidy 2010). As the fiscal deficits rose and central banks increasingly deployed quantitative easing, a raft of doomsday predictions about bond yields, interest rates, government solvency, and inflation emerged from mainstream economists. Governments were pressured by these economists to withdraw fiscal stimulus too early and rely on monetary policy (for example, Krugman 2010). The strategy resulted in slow recoveries and the eurozone nations suffered massive economic hardship because of the austerity. None of the mainstream predictions was realised.

Buiter (2009) was scathing of the NK orthodoxy: 'Most mainstream macroeconomic theoretical innovations since the 1970s ... have turned out to be self-referential, inward-looking

distractions at best [T]he Dynamic Stochastic General Equilibrium approach ... excludes everything relevant to the pursuit of financial stability'.

We conclude that criticisms of MMT based on the theoretical presumptions of mainstream theory are likely to be misplaced, given the flawed nature of those presumptions.

THE JOB GUARANTEE

DP characterise the job guarantee as merely an employment programme, suggesting they have not researched its provenance in MMT and its function within MMT as a macroeconomic stability framework (Mitchell 1998; Mitchell/Wray 2005; Mosler 1997/1998). This failure leads to a series of erroneous conclusions.

The present author developed the buffer-stock employment model during his undergraduate years in 1978. The date is important because at that time the burning economic issue was the elevated global inflation rates following the OPEC price hikes, and the rising unemployment rates because of the flawed policy response to the oil crisis. The Keynesian inflation gap narrative was being challenged, given the stagflation. The distributional struggle over real income shares that the imported raw material shock created presented a new challenge to policy-makers, who abandoned their commitment to full employment and used an unemployment buffer-stock approach to discipline that distributional struggle. This approach marked the dominance of the concept of the non-accelerating inflation rate of unemployment (NAIRU) in policy-making The costs of that approach were massive, not only in lost national income, but also in the personal costs borne by the unemployed and their families. Unemployment became a policy tool rather than a policy target to be minimised.

In developing the buffer-stock employment approach, the aim was to provide an alternative method for dealing with the inflation without relying on the creation of mass unemployment. This motivation sought to challenge the 'natural rate' acceptance by economists, which had resulted in elevated unemployment. Mitchell (1987) first challenged the NAIRU consensus by demonstrating theoretically, and with econometric support, the notion of hysteresis, which altered the perceived Phillips-curve dynamics. Mitchell (1998) went further, to compare the dynamics of the unemployment and employment buffer-stock approaches to inflation control. It was demonstrated that with a fixed-price offer (under the employment buffer stock), a contractionary policy stance by government can shift workers from an inflating sector to the fixed-price job guarantee. Under the NAIRU approach, the jobs flow into unemployment. Under the job guarantee, they flow into the job-guarantee pool of work. The rise in the buffer employment ratio (Mitchell 1998) ultimately attenuates the inflation spiral. Instead of a buffer stock of unemployed being used to discipline the distributional struggle, the job guarantee policy achieves this via compositional shifts in employment. While the aim should be to minimise the size of the job-guarantee pool, it was recognised that under certain conditions (wage-price, price-wage spiral) its function would help curtail accelerating inflation. Importantly, the early MMT economists (Mitchell, Mosler and Wray) considered the employment buffer-stock approach effectively 'flattens the Phillips curve' (see Mitchell 2021: 574). An additional relevant point is that the job guarantee does not rely on the government spending at market prices to exploit spending multipliers to achieve full employment, which characterises traditional Keynesian pump-priming. Mitchell/Juniper (2007) also argue that the job guarantee creates jobs in the regions where they are needed instead of everywhere as in the traditional Keynesian pump-priming. They termed this capacity 'spatial Keynesianism'.

DP (2021: 359) seem oblivious to this history and context when they claim the 'fact that the ... [job guarantee] ... sets the effective minimum wage floor for the entire economy may [sic] have inflationary consequences and cause job losses in other parts of the economy'. There is no argument provided to substantiate this assertion and it reveals, in fact, a failure to understand the mechanics of an employment buffer stock.

First, even if the minimum wage was initially elevated by the introduction of a job guarantee, that would represent a one-off level adjustment, which would not constitute an inflationary episode.

Second, the job guarantee involves the government spending on a price rule (as opposed to a quantity rule) where a fixed price (the wage) is offered unconditionally. As noted above, the use of an employed buffer stock means that workers are shifted from an inflating sector into the fixed-price job-guarantee pool. That cannot be inflationary.

Third, the operation of an employment buffer stock might be construed as causing 'job losses in other parts of the economy'. But, given that it is the alternative approach to an unemployment buffer stock, which is central to the mainstream approach to inflationary control, the criticism is rather lame. When nominal spending growth is outstripping the growth in the productive capacity of the economy, then government policy must aim to eliminate that discrepancy through fiscal and monetary contraction. Under the mainstream consensus, that will be achieved through cuts in net government spending and increases in interest rates. The aim is to generate unemployment and to discipline the distributional struggle over real income shares. The employment buffer-stock approach accepts that policy has to work to constrain the aberrant nominal spending growth but offers the workers, who would normally be rendered jobless, a chance to continue working at the socially inclusive minimum wage.

DP (2021: 359) are also inconsistent when they suggest that there might be 'displacement of private sector production if workers prefer better paid or less intensive PSE [public-sector employment] jobs'. If, as they acknowledge in the next sentence, the job guarantee sets the minimum wage, then the job-guarantee jobs could never be 'better paid' than the non-job-guarantee jobs.

Further, when DP attribute the observation that the job guarantee would become an automatic stabiliser to Palley (2019), it is further evidence that they have not read the primary literature going back to the 1990s closely enough. The automatic stabiliser feature of the job guarantee was articulated from the start (Mitchell 1998; Mosler 1997/1998).

DP also rehearse the usual claim that job-guarantee jobs would be equivalent to leaf-raking and boondoggling (that is, useless), which suggests they have not studied the extensive research on the type of jobs that could be generated. Extensive survey evidence is provided in CofFEE (2008). Further studies of relevance include Forstater (2003), Allen (2015) and Tcherneva (2020), among others.

DP (2021: 359) also disclose their narrow 'cultural' bias when they claim that 'public sector employment in activities that add little economic value or maintenance of skills at a guaranteed wage would simply be equivalent to unemployment benefits in disguise', thus denying a large body of literature located in psychology, sociology, and social welfare that understands that there is a significant human bonus to being employed as opposed to the social dislocation of being unemployed, irrespective of the work (see, for example, Applebaum 1992; Marques 2020). Applebaum (1992: xiii) wrote: 'people who work somehow manage to maintain their own self-respect, self-worth, and dignity because of their work', quite separate from the 'products of that work'. Note that this recognition of the wider benefits of work in no way accepts that job-guarantee jobs would be unproductive. That assertion betrays a very narrow concept of productivity – working for private capital to generate profits - whereas it is clear from studies (for example, CofFEE 2008) that there is significant scope to create highly productive and rewarding jobs that add to society within a job guarantee.

Finally, it is simply false to conclude that MMT, as a body of work, has a 'view that government intervention is more desirable and sustainable than private sector action in responding to climate change' (DP 2021: 359). Some MMT economists might advocate in that way, but as we explained in Section 2, that is an expression of their value set and quite separate from MMT as a macroeconomic framework, DP clearly have not understood that important separation. A person with an MMT understanding could, in fact, hold exactly the opposite view about the mix between public and private resource usage.

INFLATION

The notion of an employment buffer stock is also embedded in an extensive MMT analysis of inflation in a modern monetary economy. Palley's claim, repeated by DP, that 'MMT is especially dismissive of the problem of inflation and lacks a doctrine' (DP 2021: 358) is in denial of the facts. DP fail to reference Mitchell/Muysken (2008), which provided a very detailed exposition of how inflation occurs and what can be done about it from an MMT perspective. They fail to cite Mitchell (1987), Mitchell (1998) and Mitchell/Mosler (2002), all of which provide analytical (and in some cases econometric) perspectives on inflation from an MMT perspective.

Palley (2015: 53) noted that the present author (Mitchell) was 'a strong advocate of the traditional Phillips curve', which was an odd attribution, given that my PhD dissertation and many academic publications have been devoted to presenting alternative depictions (based on conflict theory, hysteresis, and buffer stocks). If, as Palley (2013: 8) claimed, MMT 'failed woefully' because 'MMT lacks an explicit theory of inflation', the question is: what were all those articles and books that analysed bargaining conflict, the battle of mark-ups, imported inflation via resource prices, incomes policy and indexation, the Phillips curve, buffer stocks and more about?

In the textbook (Mitchell et al. 2019), chapters on aggregate supply (chapter 16) and unemployment and inflation (chapter 17) summarise this literature from a pedagogical perspective. A moment's inspection would disabuse one from concluding that MMT has no inflation theory.

Palley (2013: 14) also claimed that MMT is based on 'an L-shaped aggregate supply (AS) schedule'. The introduction to aggregate supply presented in the MMT textbook certainly begins with a simple reverse-L approach, which is a common approach in pedagogical settings to allow the student to understand how mark-up pricing and cyclical labour productivity impact on unit costs. It also allows for the introduction of Okun's (1981) catalogue pricing and the distinction between quantity and price adjustment.

Palley (2013: 15) then tries to link this to his critique of the lack of an inflation theory in MMT by claiming that the reverse-L is 'not the way the macro economy works', which just denies the point of the reverse-L being to make the first simple step into a macroeconomics that is not based on perfectly competitive pricing and the supply curves that arise logically from those assumptions. The reverse-L is a de-conditioning heuristic to steer students away from the continuously upward-sloping supply models they get in neoclassical textbooks.

The discussion in the textbook (Mitchell et al. 2019) then moves on to highlight a plethora of behavioural factors that complicate this simple starting point. MMT incorporates these complications in its approach to inflation. It acknowledges that bargaining is central to the wage-price bargains but also allows for industrial concentration and regulative structures to influence outcomes.

The text explicitly states that 'The reverse L-shaped supply curve ... is too simple to represent real world behaviour' (ibid.: 239) and that

[t]here is some debate about when the rising costs might be encountered given that all firms are unlikely to hit full capacity simultaneously. The reverse-L shape simplifies the analysis somewhat by assuming that the capacity constraint is reached by all firms at the same time. In reality, bottlenecks in production are likely to occur in some sectors before others and so cost pressures will begin to mount before the overall full capacity output is reached. (Ibid.: 247)

It is explicitly acknowledged that 'some curvature' as full capacity is reached is likely and chapter 11, on inflation and unemployment, considers that question in more detail. All of this means that Palley should not be used as an authority on MMT's approach to inflation.

CONCLUSION

There are several other claims that DP make about the validity of MMT that we consider to be flawed (for example, that MMT is a US-centric analysis). Space precluded further analysis of these issues and we presume that other responses to this symposium will address those matters.

In this response, we have demonstrated that the highly assertive nature of DP's critique of MMT relies on a scant knowledge of the broad MMT literature that has been developed over the last several decades.

Consulting that literature makes it clear that those assertions are without foundation.

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