

# THE FUTURE OF CENTRAL BANKING



EDITED BY

Sylvio Kappes • Louis-Philippe Rochon Guillaume Vallet



THE FLIGAR SERIES ON CENTRAL BANKING AND MONETARY POLICY

# The Future of Central Banking

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THE ELGAR SERIES ON CENTRAL BANKING AND MONETARY POLICY



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## 1. The general ineffectiveness of monetary policy or the weaponization of inflation

#### Louis-Philippe Rochon

#### INTRODUCTION

I have grown somewhat disillusioned with monetary policy.

I should be clearer with what exactly I mean. Modern economic policy has traditionally downplayed the use of fiscal policy in order to put all its economic eggs in the monetary policy basket. In other words, monetary policy has been anointed with some special ability to somehow solve all societal and economic ills with little consequences – what I have elsewhere called "monetary policy dominance" (Rochon and Setterfield, 2012). This is certainly the view in normal times, at least in the last three decades or so, which accompanied fanciful theories of austerity. This said, the most recent crises has shown the limitations to such thinking. Nevertheless, in normal times, this thinking certainly prevails.

However, I have become disillusioned with this view, and with the use of monetary policy in general, if the aim is to fine-tune economic activity for the purpose of achieving a specific (or otherwise) inflation target. The overall claim is that somehow, by incremental fine-tuning changes to interest rates, monetary policy can impact inflation, through some channels of transmission. We are still not far from Friedman: inflation is still seen as a monetary phenomenon of sorts, or rather a monetary policy phenomenon.

Yet, after having studied central banking for the better part of the last 25 years, I have come to the realization that the conduct of monetary policy, from a mainstream perspective, is clumsy, if not outright faulty and "impotent" (Turner, 2020): incremental changes in interest rates do not deliver stable inflation around an arbitrarily-chosen target. The fact that we have had stable inflation for the last few decades around a chosen target can be explained by other arguments, which is more to do with conflict inflation and falling wage shares. As such, this requires a very different explanation of inflation.

My disillusion is the result of the way the mainstream model is constructed. It is based on transmission mechanisms that find very little empirical support. New Keynesian or Consensus models are based on the notion that changes in the rate of interest lead to expected changes in output, which in turn lead to changes in inflation rates. But what if these relationships are not observed in the data? The entire new consensus apparatus falls apart. And then, what is the purpose of monetary policy? And why do central bankers insist on obeying some debunked theories? As Borio (2021, p. 3) observes, "inflation has proved rather insensitive to monetary policy easing", in which case, then what?

Moreover, monetary policy is a blunt instrument largely due to its asymmetric nature. Indeed, while low – or very low – rates have very little impact on investment decisions and cannot engineer a recovery on their own, they can have disastrous effects if central banks insist on raising rates too high or close to the so-called natural rate. The irony is that by referring to natural rates as neutral, central banks don't realize how damaging monetary policy can be: the reality is that there seems to be nothing neutral in central banks' attempt to move overnight rates close to this neutral value. At high rates, you may indeed bring inflation down, but at an enormous economic/output cost. This is consistent with Lavoie. According to the author,

This is not to say that central banks have no power: central bankers can certainly induce a recession by raising nominal and real interest rates; in my view however, and as it has been verified since 2008, this power is asymmetric: central banks have much less ability to kick-start the economy. (Lavoie, 2016, p. 181)

This is echoed by Storm (2019, emphasis in original),

Monetary policy has never been robustly effective in promoting economic recovery or growth. While restrictive monetary policy, when credible, may be effective in *slowing down* economic growth and reducing inflation, this does not mean that monetary stimulus has the capacity to promote growth and raise inflation.

To be sure, I am not saying that monetary policy is not useful or does not serve a purpose. Rather, it does not follow the mainstream purpose, which I address below. This leaves the black box of monetary policy empty, only to be properly filled. Economists must better understand what monetary policy is and what it does, and adopt policies accordingly. This is where post-Keynesian theory comes in.

In this chapter, I will begin by deconstructing the mainstream New Consensus model. In the end, it will be shown how the central bank emperors have no clothes. The following section will rebuild the model along post-Keynesian lines based on a revolutionary view of endogenous money, as developed in Rochon and Rossi (2013), where the rate of interest is a distrib-

utive variable and monetary policy is foremost about income distribution. The final section will discuss some post-Keynesian contributions to the discussion of monetary policy and income distribution.

#### DECONSTRUCTING THE NEW CONSENSUS MODEL

Current monetary policy (Woodford, 2003; Taylor, 2000) appears to have evolved considerably from its monetarist early days. Indeed, rooted in Taylor Rules and inflation targeting, central banks today, through New Consensus models, have largely abandoned any attempts to control monetary aggregates in favour of interest rate setting. While some post-Keynesians have welcomed this as proof of the adoption of an endogenous money approach, monetary policy *thinking* remains nevertheless intact. Lavoie (2006, p. 167) has called it "old wine in a new bottle", and has stated recently (see Fiebiger and Lavoie, 2020) that it is left-over from monetarism. Indeed, according to the authors, remnants of monetarism can be found in: (i) a vertical long-run Phillips curve; (ii) a structurally-determined natural rate of unemployment; (iii) a natural growth rate determined by supply-side considerations; (iv) Wicksell's natural rate of interest; (v) crowding-out effects for fiscal policy, to which we can add (vi) inflation remains largely the result of excess demand: it is always and everywhere a monetary *policy* phenomenon.

So-called New Consensus models are based on a simple three-equation system: an IS curve, which assumes that changes in interest rates have a predictable, negative effect on consumption and investment, which lowers output; the second equation assumes that lower output will in turn lower inflation through the relationship embedded in the Phillips curve; and, finally, the third equation is the Taylor Rule, where central banks move short run nominal rates according to an inflation target.

In essence, whenever inflation is above target, central banks simply have to increase interest rates, which in turn lowers output, which then will lower inflation. It is further assumed that the transition to an inflation target is smooth and does not create too many disruptions to the economy. This view of monetary policy assumes a Goldilocks policy: monetary policy is just right.

From a post-Keynesian perspective, however, there are considerable ways of undermining this New Consensus model; I will focus on six arguments. Borio (2021, pp. 1, 2) has recently come out to say that central banks are facing "an intellectual challenge: facts on the ground are increasingly testing the long-standing analytical paradigms on which central banks can rely to inform their policies ... a number of beliefs that underpin the prevailing analytical paradigms may complicate this task" of rebuilding the art of central banking. It is precisely these facts that I refer to below.

#### First Argument

Let's begin first with the inflation target itself. We know that central banks have always been entrusted to protect price stability. Their mission has always been to keep inflation low and stable, as it is thought to promote efficiency and growth. This has not changed much through the history of central banking. Albeit that some central banks, during some periods, may have promoted dual mandates. Indeed, New Consensus models and Taylor Rules do account for the output gap, but inflation has always been the overwhelming preoccupation of central banks.

Yet central bank policy today is different in the sense that there is an actual inflation target. But what determines that specific target? In particular, why 2%, which seems to be the common target? Why not 4%, or 5%? In fact, at the time of writing this contribution (December 2021), inflation is increasing in many countries around the world, leading to some quasi-panic in some policy circles and some central banks beginning to raise interest rates. Yes, if the inflation target were 4%, we would hardly be having this conversation. So the choice of this target is important.

But, at 2%, Ben Friedman ridiculed the profession's decision to choose such a low target, arguing that "there is the arbitrariness surrounding the current 2 percent target. In retrospect, the paucity of serious empirical research underlying the identification of the 2 percent norm, now quite some time back, is a professional embarrassment" (Friedman, 2018, p. 187).

#### **Second Argument**

We can criticize central banks today for having kept faith in the existence of a natural rate of interest. Indeed, the entire meaning of the model is Wicksellian or what I have called elsewhere, "the search for the Holy Grail" (see Rochon, 2017). The purpose of monetary policy is not only to set interest rates, but to eventually get them back to their natural level, which acts as a centre of gravitation, as all natural variables do. Yet, the natural rate of interest remains a rather fictional variable, incapable of precise calculation. According to Borio (2017, p. 8), certainly an authoritative figure on these questions, "the natural rate is an abstract, unobservable, model-dependent concept." Borio doubles down in arguing that "r\* is very imprecisely estimated and contains little information beyond that provided by other variables ... As a result, r\* is not really needed when setting the policy stance. ... [Moreover] r\* has the potential of leading policy astray."

#### **Third Argument**

We can certainly point a finger to the use of the IS curve. This is the first of two vital equations: indeed, the model would not work were it not for these assumed relationships. When central banks raise interest rates, this change must have the desired impact on output; otherwise both the model and monetary policy are stunted. Moreover, the effect must be considerable. In other words, the IS curve must be to some degree elastic, thereby giving monetary policy the much needed degrees of freedom. Were it not so, then changes in the rate of interest would have no or little effect on output, and *de facto* the Phillips curve would also be jeopardized.

Yet, there is evidence that the IS curve might not be as elastic as hoped by policymakers and central bankers. For instance, Cynamon, Fazzari and Setterfield (2013, p. 13) summarized this view nicely:

The transmission mechanism from monetary policy to aggregate spending in new consensus models relies on the interest sensitivity of consumption. It is difficult, however, to find empirical evidence that households do indeed raise or lower consumption by a significant amount when interest rates change. Some authors have generalized the link to include business investments (see Fazzari, Ferri, and Greenberg, 2010 and the references provided therein) but a robust interest elasticity of investment has also been difficult to demonstrate empirically.

Kopp et al. (2019, p. 4) reach the same conclusion. According to the authors, there "appears to be little unexplained component of business investment beyond the expected demand effect. Other factors, such as reductions in the cost of capital, thus appear to have played a relatively minor role."

Moreover, in a *New York Times* column, Krugman (November 15, 2018, NYT blog) acknowledged as much: "It's a dirty little secret of monetary analysis that ... any direct effect on business investment is so small that it's hard even to see it in the data. What drives such investment is, instead, perceptions about market demand."

Finally, Federal Reserve economists reached the same conclusion:

A large body of empirical research offers mixed evidence, at best, for substantial interest-rate effects on investment. [Our research] find that most firms claim their investment plans to be quite insensitive to decreases in interest rates, and only somewhat more responsive to interest rate increases. (Sharpe and Suarez, 2014, p. 1)

#### **Fourth Argument**

The Phillips curve is also suspect, regardless of the above discussion. There are plenty of references to choose from to undermine the traditional Phillips

curve, which has become flatter in the last two decades or so. Yet, monetary policy relies on the traditional, downward-sloping curve; without it there is no mainstream monetary policy to speak of. There is, however, growing evidence, now too widespread to reference, that shows the Phillips curve relationship has broken down.

For instance, in a wonderful article, a labour specialist at the US Bureau of Labor Statistics, Politano (2021, online), has concluded that "Over the last 20 years, the Phillips curve relationship has nearly completely broken down in the United States". This echoes the views of Mary C. Daly, President of the Federal Reserve Board of San Francisco (see Daly, 2019; cited in Politano, 2021), who argues that "As for the Phillips curve ... most arguments today center around whether it's dead or just gravely ill. Either way, the relationship between unemployment and inflation has become very difficult to spot."

Similarly, Borio (2017, p. 2) argues that "the response of inflation to a measure of labour market slack has tended to decline and become statistically indistinguishable from zero. In other words, inflation no longer appears to be sufficiently responsive to tightness in labour markets" and again more recently (2021, p. 3), "inflation has proved unexpectedly unresponsive to economic slack – the Phillips curve is very flat."

According to Arestis and Sawyer (2003, p. 5), "It is a long and uncertain chain of events from an adjustment in the interest rate controlled by the central bank to a desired change in the rate of inflation." The current Fed Chairman, Jerome Powell, has acknowledged the problem: "We are also aware that, over time, inflation has become much less responsive to changes in resource utilization" (Powell, 2018).

The feeling was echoed by two prominent mainstream economists in two papers I published in the *Review of Keynesian Economics*, on the 50th anniversary of Friedman's infamous 1958 paper. For Solow (2018, p. 423), "The slope of the Phillips curve itself has been getting flatter, ever since the 1980s, and is now quite small. ... there is no well-defined natural rate of unemployment, either statistically or conceptually." Gordon (2018, p. 427) echoed the idea: "The slope of the short-run inflation–unemployment relationship has flattened."

Finally, as Gavin Davies, a former partner at Goldman Sachs, argued: "without the PC, the whole complicated paraphernalia that underpins central bank policy suddenly looks very shaky. For this reason, the Phillips Curve will not be abandoned lightly by policy makers" (Davies, 2017). This conclusion is very true: without it, central banks have lost the high moral ground when claiming they understand monetary policy and its transmission mechanisms.

#### **Fifth Argument**

We can raise questions about the entire model, based on the notion of fine-tuning. Monetary policy works in terms of incremental changes, like fine-tuning an old radio until you get the right frequency. Yet, the fine-tuning relies on the soundness of both the IS and the Phillips curves: without them, monetary policy becomes impotent (Summers, 2019). Joan Robinson recognized this problem as early as 1943: "The regulating effect of changes in the rate of interest was at best very weak" (see Robinson, 1943, p. 26), and again in 1952, where she describes as a "false scent" the use of counter-cyclical monetary policy, and rejects:

the conception of an economy which is automatically held on a path of steady development by the mechanism of the rate of interest ... But it is by no means easy to see how the monetary mechanism is supposed to ensure how that the rate of interest actually assumes its full employment value. ... The automatic corrective action of the rate of interest is condemned by its very nature to be always too little and too late. (Robinson, 1952, pp. 73–74)

Belief in fine-tuning and the existence of a natural rate of interest often leads central banks to increase interest rates repeatedly until they engineer a recession, which then slows economic activity, raises unemployment, and inflation finally collapses. This perfectly illustrates the asymmetric power of central banks and monetary policy: lowering rates may have no impact on launching investment (you can bring a horse to water but you can't force it to drink), but can certainly do considerable damage, if central banks stubbornly raise interest rates high enough: this is akin to using a sledgehammer to kill a fly: you will kill the fly, but also the table on which it was resting. This is precisely what Keynes had in mind when he stated that fine-tuning "belongs to the species of remedy which cures the disease by killing the patient" (Keynes 1936, p. 323).

Because reaction functions rely on fine-tuning the economy as needed, the central bank's policy obsession with inflation often translates into repeated increases in the rate of interest until the economy finally deflates (or collapses) in the misguided pursuit of a "soft landing". (Rochon and Setterfield, 2008, p. 15)

So the costs of fine-tuning can be large:

The same conclusion was reached by Lavoie (2014, p. 235), "inflation control can be achieved only at the cost of large losses in economic activity."

#### Sixth Argument

Finally, a few words about demand-pull versus cost-push inflation, relative to the use of monetary policy. The current mainstream justification for using monetary policy to regulate economic activity to achieve a given inflation is predicated on the assumption that inflation is demand-determined – the result of excess demand forces. Indeed, the entire transmission mechanism is based on this. Yet, while post-Keynesians recognize demand may play a role in the inflation process, we believe inflation is foremost a supply-side affair, largely the result of some conflict over the appropriate share of income.

If this view is correct, then how effective is a policy designed for demand-pull inflation in regulating inflation caused chiefly from cost-push? It is surely in this context that fine-tuning becomes ineffective. Increasing interest rates may not have the desired effect if inflation is caused by conflict over income shares. Moreover, raising interest rates will have no impact in solving supply-chain problems, as is the case at the time of writing this contribution (December 2021). This makes the current rush in some countries to raise interest rates misplaced.

In the end, we may surmise that monetary policy, in terms of fine tuning in order to achieve an inflation target, is fraught with both theoretical and empirical problems, and may have become ineffective, hence the title of this chapter. This conclusion leads us to conclude that monetary policy may have lost its mojo (did it ever have it?). This does not mean that we should abandon monetary policy all together, but rather that we must understand what it is and what it does. It is in this sense that I have become disillusioned with its use.

The discussion above leads us to two questions: if the model is not supported empirically, (i) why then do the profession and policymakers keep insisting on using it in determining monetary policy?; and (ii) what is the purpose of monetary policy, or again, what exactly does monetary policy do?

There is perhaps another question that we may ask: how much damage needs to be done in order to finally abandon the model? This is certainly related to the first question. As suggested above, monetary policy is a blunt instrument, lacking the finesse required to ensure the economy drifts down to its inflation target. But it is the hardcore belief in the sacrosanct idea that money and inflation are linked that will convince central bankers and policymakers to never give up on this monetarist idea.

I won't attempt to answer the first question posed above, as it requires me to consider questions that go beyond the scope of this chapter. I will, however, turn to the second question now, inspired largely by Rochon (1999) and Rochon and Seccareccia (2022).

### RECONSTRUCTING MONETARY POLICY ON HETERODOX GROUNDS

You can't deconstruct a model for the sake of deconstructing it. You must have something with which to replace it. In reconstructing monetary policy, the first question that we must ask is the following: what is monetary policy? More precisely, what are interest rates?

As explained above, in mainstream theory, monetary policy is the incremental use of interest rates in an effort to impact economic activity in order to achieve an inflation target. But I have argued that this policy framework is problematic on several fronts.

For post-Keynesians, we need to properly understand what the rate of interest is or what it does. For most post-Keynesian, the rate of interest is about income distribution: it is the rate of return on bonds. In other words, it is the income of bond holders, and as such, this carries important consequences. So as interest rates go up, you are essentially increasing the income of bond holders or rentiers. In this case, while the income share of the rentier class increases, this necessarily decreases the income share of workers. Income distribution is therefore at the heart of monetary policy.

If this view is correct, then monetary policy is not about fine-tuning economic activity at all; rather it is about the distribution of income from a monetary policy perspective (Lavoie, 2014; Seccareccia and Lavoie, 2016; Rogers, 1989; Rochon, 1999; Smithin, 1996; Kappes, 2022). Lavoie (1996b, p. 537) summarized this view perfectly:

It then becomes clear that monetary policy should not so much be designed to control the level of activity, but rather to find the level of interest rates that will be proper for the economy from a distribution point of view. The aim of such a policy should be to minimize conflict over the income shares, in the hope of simultaneously keeping inflation low and activity high.

To be clear, monetary policy still has an impact on aggregate demand, but it manifests itself through changes in income distribution caused by changes in interest rates, as in Keynes. Indeed, according to Seccareccia and Lavoie (2016, p. 208),

For Keynes, interest rates played a much more crucial role via the income channel or what we may describe as the income distribution transmission mechanism. ... interest rates accordingly affected aggregate effective demand through the income channel certainly much more so than through the interest cost channel.

Viewed from this perspective, so-called contractionary monetary policy leads to greater revenue for bond holders and will undoubtedly harm the wage share.

It is in this sense that Rochon and Seccareccia (2022) have called monetary policy a *de facto* long-term incomes policy.

Rochon and Seccareccia (2022) discuss two channels of monetary policy: an income channel, which contains a direct and an indirect mechanism, and a wealth channel. The direct channel is the one described above: the rate of interest represents an income for bond holders: changes in the rate of interest directly affect income distribution. The indirect channel impacts income distribution through the effect of changes in interest rates on labour markets and unemployment.<sup>2</sup> Finally, the wealth channel consists of the impact of monetary policy on financial markets and the price of assets.

It is thus in the spirit of the direct channel that in a series of articles with Mark Setterfield (2007, 2008, 2012), I have proposed three (direct) interest rate rules that focus on the income channel: the so-called Smithin Rule, the Kansas City or MMT Rule, and the Pasinetti Rule – which Lavoie (2014, p. 234) labelled an "excellent" contribution to post-Keynesian theory. All these rules are about income distribution.

The initial idea was to propose a post-Keynesian alternative to the Taylor Rule. I felt that it was somewhat unfair to post-Keynesians, who have been advocating exogenous interest rates set by the central bank for decades, to see one of their main contributions taken up by the mainstream. So, in a presentation in Dijon in 2005, I presented a paper that examined some of the existing post-Keynesian literature on this question, some of which proposed replacing the inflation target with another, real target, such as unemployment or capacity utilization. For me, this post-Keynesian approach, which I labelled activist (Rochon and Setterfield, 2012) is too close to the mainstream approach: indeed, both approaches are based on an activist central bank that uses interest rates to fine-tune economic activity. Only the target was different.

This left me to reflect on why central banks needed to be activist at all, and in particular, why did post-Keynesians believe in an activist central bank. In many ways, post-Keynesians are policy activists: we believe in activist institutions to fix the economic ills. So it was quite sensible that after advocating for an activist government, we in turn advocated for an activist central bank.

However, we know that empirically an activist fiscal policy works (with fiscal multiplies and all), so perhaps we assumed that an activist central bank must work as well. But as discussed above, we also know that the relationships embedded in the traditional transmission mechanisms of central banking are weak empirically. This must apply to both the mainstream and the post-Keynesian versions equally.

Lavoie's (1996b) excellent article in *Money in Motion* influenced me deeply, and was close to what I had been thinking all along: monetary policy was about income distribution, not fine-tuning. This view has a long tradition in post-Keynesian economics, which I explore below – a view that rejects

fine-tuning, what Rochon and Setterfield (2012) called the "parking-it" view. Yet, I started to see that even within this approach, there were different, yet similar, views. The idea was to maintain interest rates at a permanently low level, and fall back on fiscal policy for the fine-tuning.

But the idea of rules brought some pushback from some post-Keynesians, who harked back to Friedman's 1962 essay entitled "Should there be an independent monetary authority?", where Friedman proposes his famous monetary rules. But the post-Keynesian idea of rules is wholly different: for starters, it is based on interest rate rules, not monetary rules, therefore is fully consistent with endogenous money. Second, Friedman proposed his rules because he did not trust central bankers, and wanted "a monetary structure that is both stable and free from irresponsible government tinkering" (p. 224). Post-Keynesian rules are not based on the mistrust of powerful central banks, but on an empirically-observed breakdown in the theoretical model of central banking. In other words, a mistrust of the mainstream theory of the transmission mechanism.

#### Monetary Policy, Income Distribution and the Mainstream

In the last decade, more precisely since the 2007–2008 financial crisis, the income distributive implications of monetary policy have grown to be quite popular with the mainstream. For instance, "Monetary policy, both of the standard and non-standard types, *always produces* distributional effects. ... a reduction in policy interest rates compresses the distribution of income" (Ampudia et al., 2018, p. 3, emphasis in original), among countless quotes.

However, there are large differences with the post-Keynesian approach, starting with subtle differences in vocabulary. The mainstream discusses the "income distributive *impact*" of monetary policy, while post-Keynesians speak of the "income distributive *nature*" of monetary policy. Subtle, yet important. For post-Keynesians, as discussed above, monetary policy *is about* income distribution, while for the mainstream, monetary policy has income distributive *implications*.

The difference fits well with how the mainstream sees both monetary policy and income distribution. For them, first of all, income distribution is determined by market forces, or as we say, their marginal contribution to production. Second, monetary policy must be neutral in the long run, hence there cannot be long-run consequences from income distribution.

These two assumptions are crucial since, for the mainstream, any impact on income distribution can only be short-lived, by the very definition of long run money neutrality. And this is precisely their conclusion. If they are increasingly recognizing the impact of monetary policy on income distribution, they are equally quick to mention its limitations: such consequences are small and

short lived: "The overall effects of monetary policy on income inequality are modest, compared to its observed secular trend" (Ampudia et al., 2018, p. 3); "Monetary policy effects on income and net wealth inequality via financial channels are complex and ambiguous a priori and in practice they tend to be small" (O'Farrell et al., 2016, p. 6); and in a study about Japan, "Monetary policy shocks do not have a statistically significant impact on inequality across Japanese households in a stable manner" (Inui et al., 2017, p. 3).

As such, because the effects are small and temporary, then income distribution can be ignored in setting monetary policy: "Few [macroeconomists] would suggest that monetary policy should have targets for labor force participation, inequality" (Mankiw and Reis, 2018, p. 89). According to Adam Posen (2012, p. 10) from the Bank of England: "What matters is that the committee is pursuing a policy that is not clearly motivated or traced to a distributive effect as a goal", and "The ECB has a clear mandate to deliver price stability – and that mandate does not involve policies aimed at the distribution of wealth, income or consumption ... These distributional side-effects then need to be tolerated" (Mersch, 2014, online paper).

This is consistent with what I said above: for the mainstream, monetary policy may have income distributive consequences, while post-Keynesians claim that monetary policy *is always about* income distribution.

#### Monetary Policy, Income Distribution and Post-Keynesian Economics

The relationship between monetary policy and income distribution in post-Keynesian economics goes back at least three decades. While we can certainly refer to some passages in the *General Theory*, with respect for instance to the euthanasia of the rentier, or in other books, the first article on the topic to my knowledge is by Niggle (1989). In this excellent article, Niggle summarizes well the various channels through which monetary policy can impact income distribution. Notably, he discusses the same two channels that Rochon and Seccareccia (2022) discuss: the income (the direct channel (1), and the indirect channel (3)) and wealth channels (2). According to Niggle (1989, pp. 818–819),

The processes connecting monetary policy to changes in the distribution of personal income through the transmission mechanism of the level of interest rates are complex, with at least three causal sequences operating: 1) changes in interest rates can affect the functional distribution of income, and thus the personal distribution; 2) changes in interest rates change the market values of financial assets, effecting capital gains or losses; 3) interest rates influence investment, aggregate demand, employment and income.

He concludes (1989, p. 820), "monetary policy, through its effects on interest rates, debt to income ratios, and interest income, has contributed substantially to the observed increasing inequality in the personal distribution of income in the United States since the 1960s."

That same year, Moore (1989, pp. 25–26) also discussed that while central banks may indeed practice fine-tuning, such changes in the rate of interest operate through their impact on firms' mark-up. According to the author,

From the viewpoint of the post-Keynesian theory of distribution, the *functional* redistributional effect of changes in interest rates centres directly on the responsiveness of the mark-up to interest rates ... [which] will presumably depend both on the magnitude and expected permanence of interest rate changes. (Emphasis in original)

Moore's novel approach seems to offer a way of reconciling the activist and parking-it views, working through mark-up pricing.

Michl's (1991, p. 352) contribution aims to "verify and quantify the transfer of income implied by the payment of interest on the public debt, recognizing that much of the interest accrues to households indirectly by virtue of the financial intermediation of most of the national debt." His conclusion confirms the post-Keynesian position:

Interest on the national debt redistributes income regressively. The clearest and most reliable indication of this comes from the high concentration of interest paid directly to households. The top 10 percent of households by income receive over 75 percent and the top one percent receive over 40 percent of the interest paid by the Treasury to the household sector. Yet out of every dollar in interest paid by the Treasury, little over a penny arrives in the hands of the poorest 30 percent of households. (Michl, 1991, p. 364)

This article was followed by Arestis and Howells (1994, p. 56), who observe correctly that "it seems curious that so little attention has been paid to the distributional impact of interest rate changes", and offer some evidence on the impact on aggregate demand. Arestis and Howells' paper concentrates mostly on the wealth channel – or what they call the personal sector balance sheets. Unsurprisingly, they conclude that "a rise in UK interest rates now redistributes income away from the personal sector" (1994, p. 69).

A few years later, Argitis and Pitelis (2001, p. 620) offered a strong argument against using monetary policy to fight inflation, precisely because of its negative effect on income distribution. Echoing now a familiar refrain, the authors also claim that "little attention has been paid to the potentially profound effects of monetary policy and high interest rates on the functional distribution of income."

#### According to the authors:

Durable variation in the interest rate, ceteris paribus, may affect both the intracapitalist distribution of non-wage income between industrial profits and interest and the interclass income distribution between wages and non-wage income. More specifically, our perspective assumes that an increase in the interest rate, ceteris paribus, would cause an increase in the cost of production, resulting in a transfer of non-wage income from industrial to financial capital and result in a decline of the share of industrial profits to non-wage income.

The authors therefore add a fourth channel of monetary policy transmission mechanism, non-existent in the previous literature: the intra-capitalist channel.

Finally, there is the important literature by Smithin (1996), Lavoie (1996b), and Lavoie and Seccareccia (1988, 1999, 2019) that I won't discuss here, although it has been alluded to above. For these authors, the mechanism is direct: monetary policy *is* income distribution, although there may also be important indirect and wealth channels.

#### CONCLUSION

The purpose of this chapter was to discuss the importance of monetary policy on income distribution. As many have now observed, this is a topic that has not received its just attention, although it has grown in importance.

While welcomed, the bulk of the research is on either the indirect channel or the wealth challenge. More research needs to be done on the direct channel. This places post-Keynesians in a unique position, and offers a very different look at the nature of monetary policy and interest rates in general. By seeing monetary policy as income distribution, post-Keynesians are able to bring in discussions of conflict and social-biases, structural change and of social legit-imacy – all topics worthy of their own study.

#### NOTES

- 1. If you google "monetary policy dominance", almost nothing comes up, whereas there is a considerable number of links for "fiscal policy dominance". This leads me to conclude that economists and policy wonks do not believe there would ever be a thing such as "monetary" policy dominance.
- 2. There may be an impact on inflation; however, it is difficult to measure. For post-Keynesians, inflation is the result of conflict over income shares. What impact the indirect channel may have on inflation is difficult to predict. Increasingly, even low rates of unemployment, which may give labour more power, do not guarantee inflation.

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