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Interest rates, income distribution, and monetary policy dominance: Post Keynesians and the "fair rate" of interest

Abstract: In light of the growing interest in "new consensus" models, this paper examines Post Keynesian alternatives to the Taylor rule. It identifies two distinctive approaches to Post Keynesian interest rate policy, which we label the activist *and the* parking-it *rules. The first approach advocates the use of nominal (or real) interest rates as a tool of aggregate demand fine-tuning, whereas the second approach moves away from reaction functions, claiming that monetary policy has become too dominant in economic discourse. It proposes, instead, an interest rate policy whereby the central bank "parks" the interest rate (real or nominal) according to a specific rule. Three possible parking rules are examined—the Smithin rule, the Kansas City rule, and the Pasinetti fair rate rule. The paper then explores the macroeconomic consequences of a genuine Post Keynesian alternative to new consensus monetary policy along the lines of the fair rate rule.*

Key words: income distribution, inflation, interest rates, monetary policy, stabilization policy, unemployment.

The "new consensus" in macroeconomics has found many adherents in recent years, largely because it institutionalizes "good" monetary policy and imposes discipline on reluctant central banks. Advocated chiefly by adherents to new Keynesian macroeconomics, it has been adopted by a number of central bankers and policy makers. The policy content of the

new consensus rests on two important elements—an interest rate rule (the Taylor rule) and an inflation target, where the former element leaves the money supply endogenously determined.

At first glance, it appears that proponents of the new consensus defend the exogeneity of the rate of interest as well as the endogeneity of money, and, so it seems, support some long-established key features of Post Keynesian theory. Such a conclusion, however, would be premature. Despite some seemingly revolutionary ideas, this new consensus approach remains very much conventional, and relies heavily on orthodox theory. In fact, many economists even refer to the new consensus as the "new neoclassical synthesis" (Goodfriend and King, 1997; Linnemann and Schabert, 2003)—a telling reference to a previous attempt at combining some Keynesian insights into an otherwise conventional framework.

Recently, a number of Post Keynesians offered appraisals and criticism of the new consensus. In particular, Lavoie argues that the new consensus is "old wine in a new bottle. [It simply reproduces] accepted dogma among neoclassical economists" (2006, p. 167), whereas Setterfield, echoing a similar sentiment, writes that "the NC [new consensus] model is clearly imbued with some familiar Classical macroeconomic properties" (2004, p. 5). (See Seccareccia, 1998, for the original Post Keynesian critique of the new consensus.) Finally, Monvoisin and Rochon (2006) show that this new consensus is not very new, and that, although there may be endogenous money in the new consensus model, there is no *theory* of endogenous money.

Despite the criticism, there has been little in terms of a Post Keynesian alternative to the new consensus monetary policy (Taylor) rule. As Palley observes, "the Post-Keynesian literature on monetary policy is actually quite thin. . . . [On] the question of how interest rate policy should be set . . . there is almost no Post-Keynesian literature on this important matter" (2006, pp. 78–79). This paper seeks to take up this challenge.

In developing an alternative to a new consensus interest rate rule, two very different Post Keynesian approaches have emerged. The first approach shares much, however, with the new consensus model, in the sense that it rests on the use of the short-run rate of interest as an adjustment mechanism. A careful read of Moore (1988) reveals that the author had fully anticipated the Taylor rule, which relies on monetary policy and central banks to "do the right thing." Fontana and Palacio-Vera (2006), Moore (1988), and Palley (2006) defend this use of monetary policy.

The second Post Keynesian approach, however, rests on the use of the long rate of interest and aims at reducing the reliance on monetary policy, arguing that using short-run interest rates as a policy tool distorts

income distribution and relies on engineering an economic slowdown to regulate the economy. It is inspired largely from Smithin's (1994) criticism of the natural rate of interest, and the author's plead that Post Keynesians must not only advocate a theory of endogenous money but must also reject any notion of a Wicksellian natural rate. (See Rochon, 2008, and Seccareccia, 1998, for an analysis of the Wicksellian origins of the new consensus.)

Yet Smithin's criticism leaves unaddressed a critical piece of the Post Keynesian monetary puzzle: If central banks set the interest rate at the short end of the spectrum, what do Post Keynesians define as an appropriate value for the long-run rate of interest? Although Post Keynesians reject any influence of productivity and thrift, exactly what value should the long-run interest rate take? And, in a related second question, what role does this rate play? Is it the same role as the Wicksellian rate, guaranteeing full employment?

Even though Post Keynesians reject any unique relationship between unemployment and rates of interest, some Post Keynesians have attempted to define the "proper" value of the long-run rate of interest. In fact, in the Post Keynesian literature, there has been essentially three such attempts, all rooted in the endogenous money approach.

First, there is the Smithin rule, which suggests that the real rate of interest should be set to zero, or as close to zero as possible. Second, the Kansas City rule, defended by Wray (2007, this issue) and Mosler and Forstater (2004), among others, suggests that it is the *nominal* rate of interest that should be set to zero, leaving the real rate (probably) negative. Finally, there is the fair rate rule, defended by Gnos and Rochon (2007) and Lavoie and Seccareccia (1999), which stipulates that the real rate should be set equal to the rate of growth of labor productivity (Pasinetti's fair rate of interest). These various approaches thus offer Post Keynesians serious alternatives to the natural rate hypothesis defended by neoclassical theorists and proponents of the new consensus.

Although these three Post Keynesian alternatives may appear at odds with each other, in fact, they share two important features: (1) they all shift the focus of stabilization policy away from monetary policy, and (2) they are compatible with a shift in the focus of macroeconomic policy away from inflation. As such, each of these three rules proposes to end both the monetary policy dominance and inflation dominance of policy embedded in the new consensus.

The ultimate purpose of this paper is to offer a Post Keynesian alternative to the new consensus that features explicit consideration of genuine Post Keynesian monetary policy rules. This is achieved by constructing a

model that includes one or the other of the three Post Keynesian monetary policy rules described above. Our model thus contrasts with previous Post Keynesian attempts to fashion alternatives to the new consensus, which amount to amended new consensus models based on adulterated Taylor rules (see, for example, Lavoie, 2004, 2006; Setterfield, 2004).

The new consensus: a brief overview and criticism

The emergence of a new consensus in macroeconomics has recently captured the attention of a growing number of economists interested in monetary theory and policy. From theoretical economists to a number of central bank practitioners, the rise of "modern macroeconomics" (see Taylor, 2000, p. 90) has, in many ways, redefined our approach to monetary policy, and has generated broad agreement on the role of the central bank.

The policy content of the new consensus includes two key features, each carrying important implications for macroeconomics.[1] The first feature is an interest rate rule that emphasizes the central bank–controlled nature of the short-run interest rate (the Taylor rule); the second feature is an inflation target. The two features are interrelated because the central bank uses monetary (or interest rate) policy to achieve its inflation target. In this sense, interest rate policy is only an intermediate target: Price stability or low inflation remains the final or ultimate objective of central bank policy.

With respect to inflation targeting, there is little doubt that it is a growing policy choice for many countries—developed and emerging economies. Bernanke and others, who analyze the effect of inflation-targeting regimes on inflation rates, define these regimes as

> a framework for monetary policy characterized by the public announcement of official quantitative targets (or target ranges) for the inflation rate over one or more time horizons, and by explicit acknowledgement that low, stable inflation is monetary policy's primary long-run goal. Among other important features of inflation targeting are vigorous efforts to communicate with the public the plans and objectives of the monetary authorities, and, in many cases, mechanisms that strengthen the central bank's accountability for attaining those objectives. (1999, p. 4)

Under inflation targeting, therefore, central banks commit to controlling inflation, with an explicit target rate and a "tolerance band" around the

[1] The Appendix outlines the complete new consensus model and also contrasts this model with the Post Keynesian alternative developed below.

target rate. There are four different inflation-targeting regimes—point targets (where a specific rate of inflation is chosen as a target), point targets with a range (where a point target is defined within a range, to allow for possible deviations), inflation targets defined as a range of two percentage points, and inflation targets defined as a range broader than two percentage points.

An inflation target does not preclude a central bank from pursuing other goals, as many inflation-targeting regimes also pursue output stabilization. Yet even when central banks follow other objectives, inflation remains the primary objective.

Advocates of inflation targeting list three important advantages of this policy. First, they argue that adoption of an inflation target provides a nominal anchor for policy. A nominal anchor may be required in economies with a floating exchange rate or where central banks no longer target the growth of the money supply (as in Taylor rule regimes). Governments or their central banks may need such an anchor to stabilize inflation, which they can generate by announcing an inflation target and then adopting the appropriate policies to hit that target. Second, proponents of inflation targeting claim that such a policy leads to more transparency, as economic actors are now better informed about the explicit goals of monetary policy. Third, by hitting their inflation target, central banks gain credibility, something that is eroded (according to proponents of inflation targeting) whenever inflation rises.

The Taylor rule was first advocated by John Taylor (1993) more than a decade ago, in a paper published in the *Carnegie-Rochester Conference Series on Public Policy,* where the author proposed a "leaning-against-the-wind" interest rate rule for central banks. According to this rule, the central bank sets the short-run nominal interest rate, yet targets the short-run *real* interest rate. There are many ways to represent the Taylor rule, but perhaps the simplest is as follows:

$$r_r = r_r^* + \delta_1(p - p^T) + \delta_2(y - y^*),$$

where r_r is the short-run real rate, p is the current inflation rate, p^T is the central bank's inflation target, y is current (real) output, and y^* is the natural rate of output (corresponding to the nonaccelerating inflation rate of unemployment [NAIRU]); r_r^* is the Wicksellian natural rate of interest.[2] According to Carlstrom and Fuerst, the natural federal funds rate is "consistent with 'neutral' monetary policy. That is, if the real

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[2] Because of the inclusion of the natural rate of interest, Rochon (2006) refers to the new consensus as the "Wicksellian revival" and shows the close similarities between the new consensus and the economics of Knut Wicksell.

funds rate is equal to the natural real rate, the monetary policy will be consistent with both the inflation and output targets" (2003, p. 1). In the short run, however, the central bank will change the real rate whenever current output diverges from its long-run natural level, or when current inflation diverges from the central bank's target inflation rate.

One of the remarkable features of the new consensus, and the Taylor rule in particular,[3] is the total absence of any monetary aggregates. The Taylor rule focuses exclusively on the determination of the rate of interest; there are no references to any levels of money, or discussion of the predictive power of money, irrespective of whether this may be M1, M2, or any other definition of money. As McCallum explains, adding a money equation or reference to money would be "superfluous, in the sense that it would not affect the behaviour of our dependent variables" (2001, p. 146). This is simply an attempt to better model the actual practices of central banks. As Romer confirms, "most central banks pay little attention to the money supply in making policy. . . . [Monetary aggregates] play at most a minor role" (2000, p. 154).[4]

In short, the new consensus may be summarized by the following six arguments:

1. A production function determines potential ("natural") output, which acts as a center of gravitation. The supply conditions of the model determine the capacity of the economy. The growth of the labor force and the rate of technical progress dictate long-run growth, given by the Solow growth equation.

2. A vertical long-run Phillips curve coincides with potential output (consistent with the NAIRU); there is no long-run trade-off between inflation and unemployment. Monetary policy (interest rate policy) is neutral in the long run; it does not affect real variables, only nominal ones (inflation).

3. Changes in aggregate demand determine short-run deviations from potential output. These can be induced by lending rates different than the natural rate, or by fiscal policy. After an appropriate lag, the economy gravitates toward its long-run values. With price fix-

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[3] The new consensus also includes two additional equations, an IS curve, and a Phillips curve embodying the accelerationist hypothesis.

[4] The absence of money is a remarkable feature in itself given the great emphasis placed on money during the monetarist years. The overwhelming consensus of those years was the belief in the remarkable ability of central banks to control the money supply in order to control the price level. It was argued that the central bank has direct control over the supply of reserves, the quantity of which is supplied exogenously in order to hit a money supply growth.

ity (ibid.), the model generates all the more conventional short-run Keynesian conclusions.

4. There are important inflation-expectation effects. This means that expectations of possible inflation will affect output and employment, primarily through adjustment in the central bank nominal rate.

5. There is an exogenous rate of interest set by the central bank according to a given policy rule (Taylor rule), thereby implying a rejection of the LM curve (Blinder, 1997; Romer, 2000). In this sense, the money supply adjusts to the needs of trade: money is endogenous (Allsop and Vines, 2000, p. 7). While the central bank sets the nominal rate, it targets the real rate.

6. In addition to an exogenous short-term rate of interest, the forces of productivity and thrift determine a natural rate of interest, at which the economy is at full employment (natural rate of unemployment).

The Post Keynesian alternative

Given the above discussion, and the obvious similarities that can be drawn between the new consensus and previous orthodox approaches to central banking, the purpose of this section is to discuss alternatives to the new consensus that focus on a genuinely Post Keynesian approach to the role and conduct of monetary policy. To date, most papers written by Post Keynesians on the topic of the new consensus offer either a critical appraisal (see Lavoie, 2004, 2006; Monvoisin and Rochon, 2006; Setterfield, 2004; Smithin, 2004) or a simple variation based on amended new consensus behavioral rules (Lavoie, 2004, 2006; Setterfield, 2004).

At first glance, some may conclude that there are important similarities between Post Keynesian monetary theory and the new consensus. Indeed, in both approaches, the rate of interest is an exogenous variable and the money supply is endogenous. Yet, whatever similarities exist, they are, at best, superficial.

With respect to interest rates, an exogenous rate is not the same as a policy of leaning against the wind. Post Keynesians emphasize the administrative nature of interest rate policy. In other words, policy is independent from market forces: any decision to increase or decrease interest rates is an administrative decision taken by central bankers and not the result of automatic forces. For proponents of the new consensus, however, whereas interest rates may be exogenous, the Taylor rule endogenizes monetary policy by linking it to market forces—that is, deviations

from an inflation target. As long as the objective is clearly stated, rules of transparency require central bankers to follow the rules of the game.

Second, whereas the money supply is endogenized in the new consensus model, there is no theory of endogenous money. For Post Keynesians, the endogeneity of money is of a natural order: Money cannot be anything but endogenous because of its logical relationship with debt and credit (Lavoie, 1992; Rochon, 1999). As Lavoie states, "this endogeneity is not a matter of institutions but rather one of *logical necessity*" (1996, p. 533, emphasis in original). As for the central bank, its role is to supply the necessary liquidity in order to prevent widespread crises.

In the new consensus model, however, money is allowed to be endogenous only because the central bank finds it difficult to control the money stock because of the unreliability and unpredictability of the demand for money. As Setterfield argues, "this is understood to be a policy choice on the part of the central bank. Interest rate targeting is simply *preferred* to money supply targeting. . . . The PK [Post Keynesian] model contains an IROP [interest rate operating procedure] because central bank control over the quantity of money in circulation is *impossible in principle,* not simply *difficult in practice* (as in NC [new consensus] macroeconomics)" (2004, pp. 37–40, emphasis in original).

A final, and important, difference between Post Keynesians and the proponents of the new consensus concerns the existence of a natural rate of interest. In this sense, the new consensus model is simply a restatement of the Wicksellian theory of money (Rochon, 2008; Seccareccia, 1998). The natural rate, what Davidson (2006, p. 691) refers to as the "holy grail," remains a center of gravitation toward which the real rate, set by the central bank, tends. There is thus a unique relationship between full employment, price stability, and the natural rate of interest. Yet, as Smithin (2004) has made clear on numerous occasions, the Post Keynesian theory of endogenous money must also reject the existence of a natural rate. In other words, there is no unique relationship between output and the rate of interest. According to Davidson, "If there is no natural rate of unemployment, or a neutral rate of interest, then the whole notion of the desirability to subject monetary policy to attempt to achieve an overriding and unchangeable inflation rate target collapses" (2006, p. 691).

The above discussion raises two important questions regarding monetary—interest rate—policy. First, if Post Keynesians reject the existence of a natural rate of interest, then what should be the appropriate value of the long-run rate of interest, if any? Second, what is the Post Keynesian alternative to the new consensus? Both answers require a clear understanding of the transmission mechanism and the realization that monetary policy has important real effects.

On the question of the transmission mechanism, economists do not know much. Some will claim that all we know is that as interest rates increase, output decreases. Yet even this rather vague statement is not completely accurate. A better statement would be to say that if we push interest rates high enough, the economy will eventually collapse. Beyond that, we know remarkably little.

In light of this policy void, two distinct Post Keynesian views emerge over a possible alternative to Taylor rule–type central banking. Even though these views agree on the endogeneity of money, they offer different perspectives on the proper use of interest rates by monetary policy makers.

The activist approach

The first alternative, which we call the *activist* rule, relies on the use of nominal (or real) interest rates to fine-tune the economy. Resting on the theory of endogenous money and a central bank reaction function, the idea here is that the central bank controls the short-run interest rate and changes it in accordance with its overall economic objectives. This approach is wholly consistent with the spirit of the Taylor rule,[5] and would simply replace or augment inflation targeting with other targets or central bank objectives. The purpose is simply to change the rate of interest whenever the economy deviates from the central bank's objectives. This position is defended, among others, by Moore:

> A central bank reaction function with short-term interest rates as the dependent variable, includes the authorities' estimates of
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> 1. the future state of the domestic economy (demand factors),
> 2. the responsiveness of system behavior to interest rate changes,
> 3. their ultimate goals (full employment, price stability, growth, balance of payments, terms of trade, exchange rates, the distribution of income),
> 4. the effects of interest rate changes on the viability, prosperity, and liquidity of the financial system, and
> 5. in democracies at least the implication of interest rate change for the governing party in the next election. (1989, p. 487)

As such, "[i]n pursuit of their macroeconomic stabilization goals central banks ordinarily vary interest rates procyclically, in response to the perceived state of the economy" (Moore, 1994, p. 123).

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[5] It is not, of course, consistent with the *letter* of the Taylor rule, because the concept of a natural rate of interest, the preeminence of inflation targeting, and acceptance of NAIRU analysis have no place in a Post Keynesian framework.

Palley (2006) also defends the use of a short-run central bank reaction function to regulate the economy, arguing that the central bank should look at the minimum unemployment rate of inflation (MURI) as its economic objective. Palley makes use of a backward-bending Phillips curve, where workers in depressed industries are willing to accept, at low levels of inflation, inflation-induced reductions in real wages in order to increase employment levels. "From a Post-Keynesian perspective, the monetary authority should set the MURI as its inflation target" (ibid., p. 87).

For their part, Fontana and Palacio-Vera (2006) also see manipulation of short-run interest rates as part of the preferred Post Keynesian alternative to the new consensus. Advocating what they call an "asymmetrical opportunistic" approach, Fontana and Palacio-Vera argue that "the short-run output-inflation trade-off has a (relatively wide) flat section or range of output values for which inflation is roughly constant" (ibid., p. 55). According to the authors, when inflation is below the central bank target, the central bank should "exploit the flat section . . . by reducing real interest rates instead of keeping them constant" (ibid.).

The "parking-it" approach

The second Post Keynesian alternative, which we call the *parking-it* view of monetary (interest rate) policy, however, although recognizing the endogenous nature of money and the ability of central banks to set short-run interest rates, moves away from a reaction-function-type of analysis. This approach—or, as we will see below, approaches—rests on the criticism that monetary policy has become too prevalent in today's economy. Rochon (2008) argues that contemporary central bank behavior is fundamentally misguided. Rather than fine-tuning the economy, the central bank's policy obsession with inflation often translates into repeated increases in the rate of interest rate until the economy finally deflates (or collapses), in the misguided pursuit of a "soft landing." In short, the new consensus and other mainstream views are characterized by monetary policy dominance. As Kelton and Wray argue, "this instinctive turn towards monetary policy for stabilization represents the culmination of a long-term trend away from 'Keynesian' reliance on fiscal policy" (2006, p. 101).[6]

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[6] Arguably the best trick in economic theory over the past three decades or so has been to convince the profession at large (and most policy and political advisors as well) that fiscal policy is somehow monetary policy's poor relation, and is simply incapable of addressing fluctuations in economic performance.

In line with Smithin's warnings about the "revenge of the rentier," an emerging Post Keynesian consensus on central bank policy aims at downgrading the importance of interest rate policy in regulating cycles, in favor of fiscal policy, due in large part to the realization that interest rates are, first and foremost, a distributional variable that affects the income shares of various social groups (Lavoie, 1992; Rogers, 1989). This does not mean, of course, that central banks should stop setting the rate of interest but rather that they should cease to use interest rates as a tool of economic fine-tuning. This is consistent with Davidson (2006), who questions the wisdom of using monetary policy to fight inflation. Wray is even more direct: "I reject discretionary policy and doubt the veracity of conventional views of central bank ability to achieve traditional goals such as robust growth, low inflation, or high employment" (2007, this issue, p. 120).

Rather, what is required is an interest rate policy for long-run purposes: a rule that establishes a "proper" value for the real rate of interest (in the absence of a Wicksellian natural rate) that is invariant to economic fluctuations over the course of the business cycle. But if this is the case, then as Smithin asks, "[i]f the level of the real rate of interest finally boils down to a target chosen by the central bank . . . what should the target be?" (2004, p. 63).

We discern three versions of this "parking-it" approach within Post Keynesian theory, although we can group two of these rules under a single heading.[7] What distinguishes one group from the other is their perception and treatment of the rentier class: to euthanize or not to euthanize? That is the question. In fact, Lavoie summarizes these various approaches in this way:

> Two points of view may be proposed at this juncture. One may be of the opinion that rentiers are parasites and that, as a consequence, interest rates should be kept as low as possible, even at negative real rates, to get rid of this useless economic class. . . . Another approach is to view rentiers as a necessary evil, a class the ranks of which are constantly replenished by the arrival of new retiring generations. Under these circumstances, the

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[7] As should be obvious from what was said above, the "parking-it" approach does not, in general, mean that the central bank becomes completely inactive, never undertaking to adjust the nominal interest rate. Instead, the approach involves identifying a benchmark rate of interest and then only seldom changing the actual rate in conformity with any discrete (and infrequent) changes in the benchmark rate. This approach to monetary policy can be contrasted with the activist approach described earlier, which will give rise to much more frequent changes in the nominal interest rate.

> elimination of the rentier class is a utopia. . . . This amounts to finding a
> fair share for those earning interest income. (1996, pp. 536–537)

Let us briefly discuss the three rules mentioned above. First, the
"Smithin rule" advocates that central banks pursue a policy of "low but
still positive" real interest rates. According to Atesoglu and Smithin,
"[a]s a practical matter, this would likely involve adjusting the nominal
policy rate one-for-one with observed inflation" (2006, p. 686). Their
policy of low, but positive, real rates is analogous "to an incomes policy
of a sort, albeit an incomes policy for rentiers rather than for workers
or entrepreneurs" (ibid., p. 686). In the model discussed in the next sec-
tion, we take the Smithin rule to mean a zero real rate of interest. This
is consistent with Atesoglu and Smithin's claim that "for the reasons
explained by Smithin (2004), the theoretical 'optimum' value of the real
interest rate is probably actually zero" (ibid., p. 686, note 7).

The second rule, what we call the "Kansas City rule," proposes a mon-
etary policy where the central bank would set the nominal rate to zero,
thereby letting the real rate adjust endogenously (becoming, in most cases,
negative). The Kansas City rule should be considered a two-prong argu-
ment. First, it is claimed that the "natural" nominal rate of interest is zero;
in other words, as fiscal deficits swell bank deposits and thus increase
bank reserves, this will, in turn, bid down the nominal rate. In fact, rates
will naturally fall to zero, unless the central bank adopts a defensive policy
and sells securities in order to drain reserves from the system—which they
will normally do given that the central bank nominal interest rate target
is positive—or pays interest on bank reserves: "In a state money system
with flexible exchange rates running a budget deficit—in other words,
under the 'normal' conditions or operations of the special institutional
context—without government intervention either to pay interest on re-
serves [or] to offer securities to drain excess reserves to actively support
a non-zero, positive interest rate, the natural or normal rate of interest of
such a system is zero" (Mosler and Forstater, 2004, p. 10).

But proponents of this approach also argue that central banks *should*
let nominal rates fall to zero by explicitly targeting a zero nominal rate.
This is what Wray calls a "neutral rate" policy: "indeed, a very good case
could be made that the neutral rate is a Japan-like zero" (2004, p. 27).
According to Mosler and Forstater, "the central bank clearly controls
short-term interest rates in a state currency with flexible exchange rates,
and there are a number of good reasons for setting the overnight rate at
its natural or normal rate of 0%, and allowing markets to factor in risk to
determine subsequent credit spreads" (2004, p. 10). They then add that

"allowing the rate of interest to settle at its natural rate of zero makes good economic sense" (ibid., p. 14). As Wray makes clear: "A monetary policy rule is preferred: set the overnight rate at zero, and keep it there" (2007, this issue, p. 138).

Finally, the Pasinetti's "fair" rate of interest rule is advocated notably by Lavoie and Seccareccia, where the "fair" interest rate is the rate that leaves "unchanged the distribution of income between interest and non-interest income groups, regardless of lending and borrowing activities" (1999, p. 543). They claim that this scenario is achieved only when the central bank sets the real interest rate equal to the rate of growth of labor productivity: "Under those conditions, an amount of money equivalent to one hour of labor time, if lent at that normal rate of interest, will still be worth one hour of labor time when recovered with its interest payments. The purchasing power of the rentier will increase if the productivity of the overall economy has increased. The relative situation of the rentiers in the social hierarchy stays the same, whatever economic conditions" (Lavoie, 1996, p. 537).

Although it is not the aim of this paper to critically evaluate each of these rules, a few conclusions can nevertheless be drawn at this stage. For instance, all three approaches share some important similarities. They all emphasize a limited role for the central bank in economic stabilization. Low real rates of interest are associated with increased growth and lower unemployment, but all three rules question the use of interest rate policy as an efficient tool for short-run fine-tuning of the economy. By setting real rates at or close to zero, they essentially seek to neutralize interest rates as a tool of stabilization policy. The argument for this approach rests on the notion that interest rates' effects on real variables are slow and unpredictable. The proper role of monetary policy is, instead, to affect the distribution of income. It is in this spirit that Lavoie writes, "[i]t 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 income shares, in the hope of simultaneously keeping inflation low and activity high" (ibid., p. 537).

Second, all three rules correctly recognize that being exogenous, the rate of interest is not a market phenomenon in the sense that it does not move on its own given changes in market conditions. In other words, any movement in the base rate of interest is the result of a deliberate action on behalf of the central bank. Hence, rates of interest are not necessar-

ily tied to economic activity per se so that, for example, increased fiscal deficits or increased economic activity do not automatically lead to higher interest rates.

Yet despite these similarities, there are several important differences between the rules described above. First, the Kansas City rule targets nominal rates, but the Smithin and Pasinetti rules target the real rate (see Rochon and Setterfield, 2007, for further discussion on this topic). Second, unlike the Smithin and Kansas City rules, the Pasinetti rule does not suppose a strictly constant value of either the real or nominal rates of interest. Instead, the real rate adjusts to changes in labor productivity growth.[8] Third, each rule conceptualizes interest rates as affecting the distribution of income, but the fair rate rule does not advocate the euthanasia of the rentier, instead allowing rentiers to share in the distribution of income. The Pasinetti or fair rate rule thus sees the rentier class as a "necessary evil." This suggests that, contrary to Keynes (1973, p. 376), proponents of the Pasinetti rule do not see the "rentier aspect of capitalism" as a "transitional phase" but rather as a permanent feature of capitalism, with new generations of rentiers simply taking over where their progenitors left off.

Finally, there is some ambiguity with respect to the Kansas City rule. Indeed, the two other rules seem to have a firmer theoretical foundation: the Smithin rule advocates the euthanasia of the rentier by setting the real rate at (or close to) zero; the fair rate rule believes that the rate of interest should not be used to change the distribution of income, thus neutralizing monetary policy with respect to its role in both macroeconomic stabilization and in determining the distribution of income. With respect to the Kansas City rule, however, there does not seem to be an explicit distributional rationale for setting the nominal rate at zero. As Mosler and Forstater observe, "the rate of interest offered is simply up to the discretion of the" monetary authorities (2004, p. 10). And although they claim that "there are a number of good reasons for setting the overnight rate at its natural or normal rate of 0%" (ibid., p. 10), they provide no justification for this except to say that "asset pricing under a 0 interest rate policy is the 'base case' and that any move away from a 0 rate policy constitutes a (politically implemented) shift from this 'base case'" (ibid, p. 11). In other words, although the rule is a welcome addition to the Post Keynesian literature, it needs to find a better grounding in theory.

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[8] Note, however, that in practice, use of the trend rate of growth of productivity in determining the fair real rate of interest will render even the latter constant in the short run.

Moreover, there is the possibility that targeting a nominal rate—particularly a nominal rate of zero—will lead to instability. Assuming a conflicting claims model of inflation (as in the next section), if workers' demands for higher wages are passed on by firms as higher prices, the real interest rate may fall below zero. This would create a strong incentive to borrow, increasing output, lowering unemployment, and perpetuating the cycle of increasing wage inflation–higher price inflation–lower real rates of interest. The system is thus prone to some instability.

The Post Keynesian model

The purpose of the model developed in this section is to provide a Post Keynesian alternative to the new consensus that incorporates a genuinely Post Keynesian approach to monetary policy. In light of this objective, the model we construct is made structurally similar to a new consensus model, insofar as it includes three distinct components—an IS curve,[9] an IROP, and a description of the inflation-generating process.[10] At the same time, as will become clear, it stands in stark contrast to the new consensus model for three interrelated reasons: it describes a money-using economy characterized by the nonneutrality of money; there is not a unique, supply-determined equilibrium level of real activity (as encapsulated in a natural rate of unemployment or NAIRU) toward which the economy automatically gravitates; and conflicting nominal income claims (rather than excess aggregate demand) are central to the inflation-generating process.[11] Moreover, and most important from the point of view of this paper, it features Post Keynesian IROPs based on a Post Keynesian approach to monetary policy and interest rate determination (rather than just an amended Taylor rule). In this way, the model seeks to transcend both the monetary policy dominance and inflation dominance of policy characteristic of the new consensus, and to illustrate, in

[9] We recognize that for many Post Keynesians, the IS curve is problematic (see Lavoie, 2006; Rochon, 1999). We retain it here for reasons of familiarity.

[10] An important precursor of our model can be found in Palley (1996, ch. 11). Palley's three-component Post Keynesian model also features an IS curve, an IROP, and a description of the inflation process based on conflicting claims theory, and even makes the distinction between an "accommodationist" IROP (in which the interest rate is fixed) and leaning against the wind (i.e., a Taylor rule–like IROP). However, the level at which the interest rate is (or should be) fixed in Palley's accommodationist IROP is not discussed. As such, the model developed here can be thought of as building on Palley's contribution by explicitly modeling his accommodationist IROP.

[11] See the Appendix for an explicit contrast between the structure of the new consensus model and that of the Post Keynesian alternative developed below.

the process, the macroeconomic consequences of conducting monetary policy in accordance with the sort of Post Keynesian approach to interest rate determination discussed in the previous section.

The inflation-generating process

The following equations, which describe nominal wage and price inflation, respectively, characterize the inflation-generating process:

$$w = \mu_1(\omega_W - \omega) + \mu_2 p^e + \mu_3 q \tag{1}$$

$$p = \varphi_1(\omega - \omega_F) + \varphi_2(w - q), \tag{2}$$

where w is the rate of growth of nominal wages, ω_W is the target wage share of workers, ω is the actual wage share, p^e denotes expected inflation, q is the rate of growth of productivity, p is the actual rate of inflation, and ω_F is the target wage share of firms. Equations (1) and (2) are predicated on the assumption that both the relative power of workers vis-à-vis firms in the wage bargain and the relative power of firms in commodity markets is incomplete; hence, $0 < \mu_i, \varphi_i < 1$ for all i, indicating that neither workers nor firms are automatically capable of fully indexing the determinants of wage and price inflation, respectively, into the realized rates of growth of nominal wages and prices. It is possible that $\mu_i \neq \mu_j$ and $\varphi_i \neq \varphi_j$ for $i \neq j$. For example, workers may focus more or less effort on incorporating expected inflation into nominal wage growth depending on the *size* of the expected inflation rate (Akerlof, 2002; Palley, 2006). Firms, meanwhile, may be better able to pass on increases in the rate of growth of unit labor costs to consumers (on the basis of a common understanding of what constitutes "fair" pricing practices) than to raise markups in accordance with their preferred profit share. However, for the sake of simplicity, it is convenient to assume that $\mu_i = \mu_j$ and $\varphi_i = \phi_j$ for all i, j. On this basis, we can rewrite Equations (1) and (2) as

$$w = \mu(\omega_W - \omega + p^e + q) \tag{3}$$

$$p = \varphi(\omega - \omega_F + w - q). \tag{4}$$

Now consider the determination of the equilibrium rate of inflation and equilibrium wage share on the basis of Equations (3) and (4). First, we assume that $q = \bar{q}$—that is, there exists a given trend rate of productivity growth. Equilibrium is then achieved when two conditions are satisfied: $p = p^e$ (inflation expectations are realized) and $p = w - \bar{q}$ (the wage share is constant). Substituting $q = \bar{q}$ and $p = p^e$ into Equations (3) and (4) yields

$$w = \mu(\omega_W - \omega + p + \bar{q}) \tag{3'}$$

and

$$p = \varphi(\omega - \omega_F + w - \bar{q}), \tag{4'}$$

which, because $p = w - \bar{q}$, can be rewritten as

$$p + \bar{q} = \mu(\omega_W - \omega + p + \bar{q}) \tag{3''}$$

and

$$p = \varphi(\omega - \omega_F + p). \tag{4''}$$

Rearranging Equations (3″) and (4″) yields, respectively,

$$p = \Omega(\omega_W - \omega) - \bar{q} \tag{5}$$

and

$$p = \Psi(\omega - \omega_F), \tag{6}$$

where $\Omega = \mu/(1 - \mu)$ and $\Psi = \varphi/(1 - \varphi)$. Using Equations (5) and (6), we can now solve for the equilibrium wage share (ω^*) and rate of inflation (p^*). Hence, combining Equations (5) and (6), we have

$$\Psi\left(\omega - \omega_F\right) = \Omega\left(\omega_W - \omega\right) - \bar{q}$$
$$\Rightarrow \Psi\omega + \Omega\omega = \Omega\omega_W + \Psi\omega_F - \bar{q} \tag{7}$$
$$\Rightarrow \omega^* = \frac{\Omega\omega_W + \psi\omega_F}{\Psi + \Omega} - \frac{\bar{q}}{\Psi + \Omega}.$$

Equation (7) implies that the equilibrium wage share has both social (ω_W, ω_F, Ω, Ψ) and "technical" ($\bar{q}$) determinants.[12]

Similarly, substituting Equation (7) into (6) yields

$$p = \Psi\left(\frac{\Omega\omega_W + \Psi\omega_F - \bar{q}}{\Psi + \Omega} - \omega_F\right)$$
$$\Rightarrow p = \left(\frac{\Omega\omega_W + \Psi\omega_F - \bar{q} - \Psi\omega_F - \Omega\omega_F}{\Psi + \Omega}\right) \tag{8}$$
$$\Rightarrow p^* = \frac{\Psi\Omega\left(\omega_W - \omega_F\right)}{\Psi + \Omega} - \frac{\Psi\bar{q}}{\Psi + \Omega}.$$

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[12] We assume for simplicity that it is satisfactory to regard the trend rate of productivity growth as a technical variable. Productivity growth may, of course, have social determinants, including the value of the wage share (see, for example, Foley, 2003).

Once again, the equilibrium rate of inflation has both social and technical determinants.

The inflation-generating process can be illustrated graphically by plotting Equations (5) and (6) (which are labeled p_W and p_F, respectively, in Figure 1, to call attention to the fact that the first equation derives from the wage bargain and the second from the price-setting process).[13]

At this point, it is worth calling to attention two comparative static results associated with the model developed above. First, recall that, by definition,

$$\Omega = \frac{\mu}{1-\mu}.$$

It therefore follows that

$$\frac{d\Omega}{d\mu} = \frac{1}{1-\mu} + \frac{\mu}{\left(1-\mu\right)^2} > 0.$$

Now assume that $d\mu/dU < 0$; in other words, worker bargaining power in the wage bargain is decreasing in the rate of unemployment (the higher the rate of unemployment, the lower is worker wage-bargaining power).[14] It follows that

$$\frac{d\Omega}{dU} = \frac{d\Omega}{d\mu} \cdot \frac{d\mu}{dU} < 0.$$

Now note that differentiating Equations (7) and (8) with respect to Ω, we obtain

$$\frac{\partial \omega^*}{\partial \Omega} = \frac{\Psi\left(\omega_W - \omega_F\right) + \overline{q}}{\left(\Psi + \Omega\right)^2} > 0$$

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[13] Note that the p_W schedule in Figure 1 is drawn under the assumption that $\Omega\omega_W - \overline{q} > 0$, which is a necessary (but not sufficient) condition for the equilibrium rate of inflation to be positive. The sufficient condition for a positive rate of inflation is $\Omega(\omega_W - \omega_F) - \overline{q} > 0$, as is revealed by inspection of Equation (8).

[14] As previously noted by Palley (1996, p. 199), endogenizing one of the structural determinants of inflation in Equations (3) and (4) in this manner ultimately renders conflicting-claims inflation outcomes in Equation (8) amenable to change by traditional macroeconomic stabilization policy. However, as will be demonstrated below, the *desirability* of using stabilization policy to lower inflation is questionable because of its simultaneous effects on the level and distribution of income.

Figure 1 The inflation-generating process
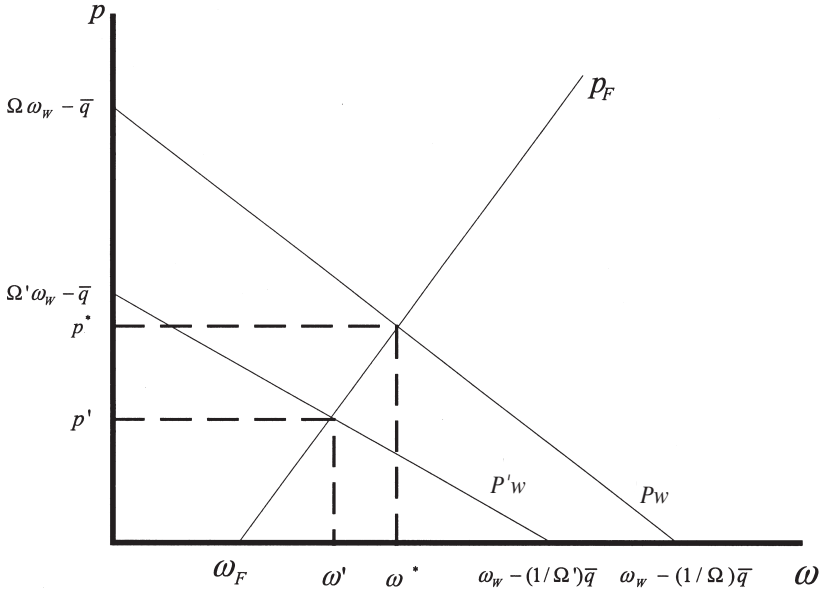
and

$$\frac{\partial p^*}{\partial \Omega} = \frac{\Psi^2 \left(\omega_W - \omega_F\right) + \Psi \overline{q}}{\left(\Psi + \Omega\right)^2} > 0.$$

In other words, given that $d\Omega/d\mu > 0$, as demonstrated above, the equilibrium rate of inflation and wage share are increasing in worker-bargaining power. Combining these observations, we arrive at the two key comparative static results alluded to earlier:

$$\frac{dp^*}{dU} = \frac{\partial p^*}{\partial \Omega} \cdot \frac{d\Omega}{dU} < 0$$

and

$$\frac{d\omega^*}{dU} = \frac{\partial \omega^*}{\partial \Omega} \cdot \frac{d\Omega}{dU} < 0.$$

These results are clearly visible in Figure 1. Hence, note, for example, that a decrease in worker-bargaining power caused by an increase in

unemployment will shift the p_W schedule to the left (by changing the intercepts of this schedule on both axes, as Ω falls to Ω'),[15] thus reducing both the equilibrium rate of inflation and wage share (to p' and ω', respectively).

The real economy

Using unemployment as a proxy for the level of activity in the real economy, we model the latter as follows:

$$AD = f(r), f' < 0$$

$$U = g(AD),\ g' < 0$$

$$\Rightarrow U = h(r),\ h' > 0,$$

where AD denotes aggregate demand, r is the nominal interest rate, and U is the rate of unemployment. Linearizing, we arrive at[16]

$$U = \gamma_1 + \gamma_2 r,\ \gamma_1, \gamma_2 > 0. \tag{9}$$

Monetary policy

The conduct of monetary policy is described by an IROP, something that is a matter of policy choice. For example, a Post Keynesian alternative to the new consensus might describe monetary policy in terms of a pseudo-Taylor rule of the following form:

$$\dot{r} = \delta(p - p^T),\ \delta > 0,$$

where p^T is the central bank's target rate of inflation. Both the workings and the pitfalls of such an IROP are immediately obvious from Equation (9) together with the comparative static exercise conducted in Figure 1.

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[15] Note that the hypothesized reduction in Ω will also decrease the slope of the p_W function, as illustrated in Figure 1.

[16] Note that by regarding γ_1 as a constant in Equation (9), we are abstracting from the influence of the wage share on AD and, hence, U in our description of the real economy. This is a deliberate modeling strategy designed to avoid simultaneity between the inflation-generating process described earlier and the determination of real outcomes. This, in turn, allows us to present our Post Keynesian model as a logically decomposable, three-component structural model (consisting of an IROP, an IS curve, and an inflation-generating process, none of which interact simultaneously) that mimics the analytical structure of new consensus models such as in Taylor (2000) and renders straightforward comparative statics exercises based on the three components of our structural model. For a model that includes the influence of the wage share on real outcomes, see Setterfield (2006b).

Hence, suppose that $p^T > p^*$ initially. This would result in an increase in r and, hence, from Equation (9), an increase in U. And, as demonstrated earlier, an increase in U will succeed in reducing the equilibrium rate of inflation toward the central bank's target rate. But the cost of this policy intervention is a permanent increase in unemployment accompanied by a permanent decrease in the wage share of income.[17] In short, a pseudo-Taylor rule IROP will yield Kaleckian "cold bath" results, where ω and U are always sacrificed in order to attain $p = p^T$ (Setterfield, 2006a).

However, the purpose of this paper is to avoid such a Taylor rule–type approach to monetary policy (and the results associated with it) and to offer, instead, Post Keynesian alternatives based on the three Post Keynesian interest rate rules described earlier. In other words, suppose that the IROP is deliberately specified to avoid both monetary policy dominance and the inflation dominance of policy—both of which arise when the IROP conforms to some variant of the Taylor rule. This can be achieved by incorporating one or the other of the following Post Keynesian IROPs into our model:[18]

The Kansas City rule:

$$r^* = 0, \tag{10}$$

that is, the nominal interest rate is set to zero.

The Smithin rule:

$$\begin{aligned} r^* - p^T &= 0 \\ \Rightarrow r^* &= p^T, \end{aligned} \tag{11}$$

that is, the real interest rate is set to zero.

The fair rate rule:

$$\begin{aligned} r^* - p^T &= \bar{q} \\ \Rightarrow r^* &= p^T + \bar{q}, \end{aligned} \tag{12}$$

that is, the interest rate is set equal to the "fair" interest rate (which keeps the real value of any initially given stock of debt constant over time and

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[17] Note that by treating γ_1 as a constant in this analysis, we are abstracting (for the sake of simplicity) from the potentially adverse impact on U that will be associated with a decrease in ω if the economy is "stagnationist."

[18] Note that we continue to assume in what follows that the policy authorities have an inflation target, so that $p = p^T$ in equilibrium and hence in the determination of the appropriate value of the equilibrium interest rate, r^*.

thus keeps the rentier share of income constant). These IROPs have two important things in common: (1) they all propose to "park" monetary policy according to some sort of fixed interest rate rule[19] in a manner compatible with (2) the pursuit (using nonmonetary policy tools) of real economic targets by the policy authorities (such as unemployment or the functional distribution of income).

A complete Post Keynesian model

In what follows, we use Equation (12) to provide an example of how a complete Post Keynesian model that "parks" monetary policy would work, and what it would imply for macroeconomic outcomes.

Consider, then, an economy described by Equations (5), (6), (9), and (12), in which the policy authorities pursue target values for p, U, and ω, and which initially conforms to the equilibrium configuration depicted in Figure 2. Note that in Figure 2, the equilibrium interest rate, $r^* = p^T + \bar{q}$, determines the equilibrium rate of unemployment, U^*, in the southwest quadrant of the figure. U^* then determines the extent of workers' wage-bargaining power (μ) and, hence, the value of the parameter Ω, which, in turn, determines the slope and position of the p_W schedule in the northeast quadrant of the figure. The p_W schedule together with the p_F schedule determine p^* and ω^*, as shown in the northeast quadrant of the figure. The resulting coincidence of U^* and p^* is captured as a point on the Phillips curve in the northwest quadrant of Figure 2. Note that the Phillips curve is used here as an "accounting device" to keep track of p and U outcomes that are determined by causal processes operative in the northeast and southwest quadrants of the figure, respectively. It is negatively sloped because, as demonstrated earlier, an increase in interest rates that raises unemployment will simultaneously reduce worker bargaining power and hence the rate of inflation.

Figure 2 is deliberately drawn to depict a situation in which $\omega^* = \omega^T$, but $U^* > U^T$ and $p^* > p^T$ (where T superscripts denote the policy authorities target values of variables). The question that arises is: What can the

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[19] The reader is reminded that this will not, in general, mean that the nominal interest rate remains fixed in perpetuity and that the central bank will be completely inactive. Hence, note that in two of the three "fixed" interest rate rules stated above, the benchmark value for the nominal interest rate depends on the trend rate of productivity growth or the policy authorities inflation target, or both. The values of these variables can be expected to change over time, but only infrequently. As such, the central bank will seldom be called upon to change the value of the nominal interest rate—the obvious contrast being (once again) with the far more frequent rate changes we would expect to observe under an activist monetary policy regime.

Figure 2 Equilibrium in the Post Keynesian model
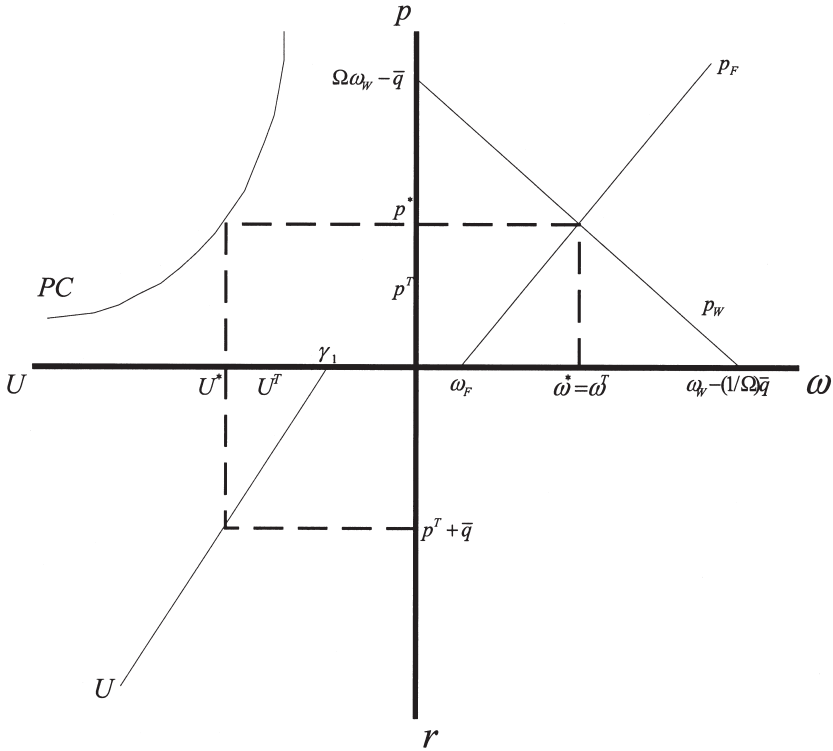
policy authorities do to align the equilibrium values of ω, U, and p with their target values for these variables? Note that monetary policy is now "out of bounds"; the value of r is predetermined by the requirements of the "fair" interest policy in Equation (12). Fiscal policy remains open, but note that this cannot be used to combat inflation by depressing demand (specifically, increasing γ_1 thus increasing U, decreasing Ω and thus reducing p) because this strategy would push unemployment further away from its target value (as well as lowering ω and thus disrupting the $\omega^* = \omega^T$ result in Figure 2). With monetary policy "out of bounds," this would leave us with no policy instrument capable of influencing aggregate demand and hence raising U and ω to their target levels. However, fiscal policy can be used to stimulate demand, lowering the value of γ_1 and thus lowering unemployment toward its target value at the prevailing "fair" interest rate. This policy intervention is illustrated in the southwest quadrant of Figure 3. The use of fiscal policy in this fashion will, ceteris paribus, increase worker-bargaining power and hence the value of Ω (to

Figure 3 Reconciling unemployment, inflation, and income share targets in the Post Keynesian model
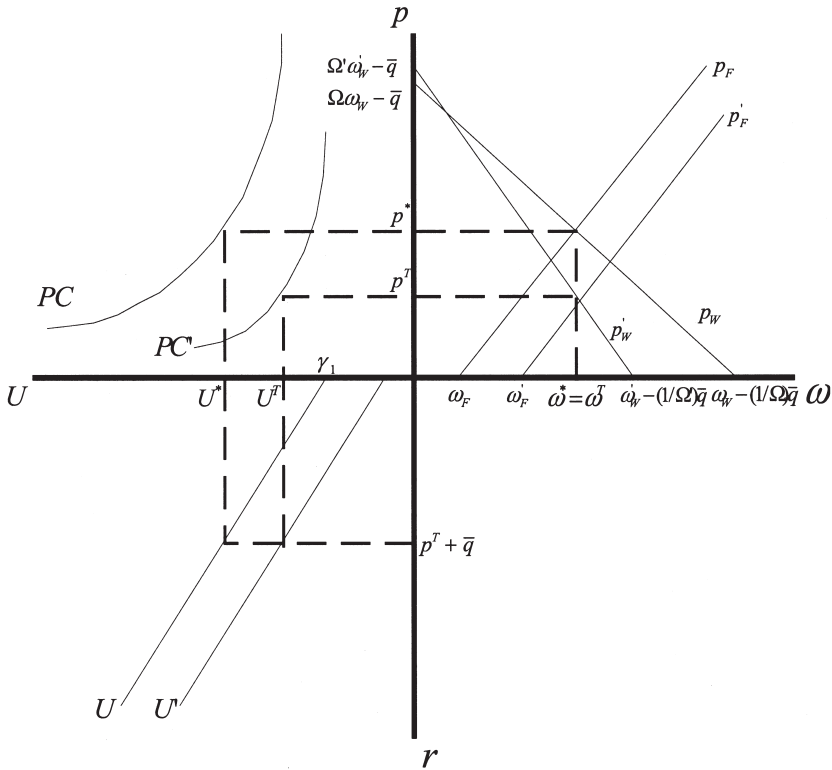
Ω'), thus increasing p further above its target value and raising ω above its target value. But other things need not be equal: if a simultaneous incomes policy is used to narrow the gap between ω_W and ω_F (changing the values of these targets to ω'_W and ω'_F, respectively), then both inflation and the wage share can be reconciled with their target values even as the economy achieves its target rate of unemployment. These developments are illustrated in the northeast quadrant of Figure 3 by the shifts in the p_W and p_F schedules to p'_W and p'_F, respectively.[20] The final equilibrium configuration so described is summarized by an inward shift in the Phillips curve (to PC') in the northwest quadrant of Figure 3, consistent with the reductions in both U and p to U^T and p^T, respectively.

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[20] Note that p'_W, as depicted in Figure 3, reflects both the change in Ω to Ω' associated with a fall in U, and the change in ω_W to ω'_W, as discussed immediately above.

The policy mix described above may be difficult to achieve. Nevertheless, it demonstrates what is required of the policy authorities when the economy is characterized by the principle of effective demand and a conflicting-claims inflation process, if inflation, unemployment, and the distribution of income are all taken seriously as policy targets (thus ending the policy dominance of inflation) and if the appropriate use of monetary policy involves "parking" the interest rate at some predetermined value consistent with a fair income share for the rentier class (thus ending the monetary policy dominance of short-run macroeconomic stabilization policy).

Conclusion

In light of the growing interest in new consensus models in Post Keynesian circles, this paper seeks to contribute to the literature by discussing genuine Post Keynesian alternatives to new consensus monetary policy.

We presented a brief overview of the new consensus model, along with a list of critical observations from a Post Keynesian perspective. We concluded that, despite its seeming embrace of endogenous money, the model does not have a theory of endogenous money, and is consistent with Wicksellian models, complete with a natural rate of interest. The new consensus model simply repackages orthodox assumptions and conclusions and presents them in a new light.

We also discussed two Post Keynesian approaches to monetary policy, which can be seen as alternatives to the new consensus. The first approach, which we label the *activist* rule, shares some similarities with the new consensus model, inasmuch as it advocates the use of monetary policy (interest rates) to regulate business cycle fluctuations. The second approach rejects the use of countercyclical monetary policies arguing that there is too much reliance on monetary policy, what we call *monetary policy dominance.* According to this view, which sees the rate of interest as a distributional variable, the central bank should "park" the rate of interest at a given level, with fiscal policy or incomes policies then used to pursue other macroeconomic objectives.

We examined briefly three "parking-it" rules. The Smithin rule argues in favor of low real rates (close to zero), whereas the Kansas City rule prefers having nominal rates set at zero. Both of these rules therefore propose keeping real or nominal rates close to zero in order to redistribute income away from rentiers. Finally, the Pasinetti rule (also called the "fair rate" rule) prefers setting the real rate equal to the rate of growth

of labor productivity. In this case, monetary policy is essentially neutral with respect to the distribution of income.

Finally, we developed an alternative (to the new consensus) macroeconomic model featuring the Pasinetti rule. We presented a model that is structurally similar to the new consensus, insofar as it incorporates an IS curve, an IROP, and a description of the inflation-generating process.[21] At the same time, our model stands in contrast to the new consensus by describing a money-using economy characterized by the nonneutrality of money. Moreover, there is no unique, supply-determined equilibrium level of real activity (as encapsulated in a natural rate of unemployment or NAIRU) toward which the economy automatically gravitates, and conflicting nominal income claims (rather than excess aggregate demand) are understood to be central to the inflation-generating process.

Although the model is simple, its purpose is to show that with monetary policy appropriately "parked," there is more room for the use of fiscal and incomes policies to achieve Post Keynesian macro-policy objectives—such as lower unemployment and a more equitable distribution of income—at the prevailing fair rate of interest.

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[21] See Rochon and Setterfield (2007) for a more fully developed Post Keynesian alternative to the new consensus.

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Appendix

The new consensus and Post Keynesian models

Component	New consensus model	Post Keynesian model
IS curve	$(y - y') = \alpha_1 - \alpha_2(r_r - r_r^*)$	$U = \gamma_1 + \gamma_2 r$
Inflation-generating process*	$\Delta p = \beta(y - y^*)$	$p^* = \dfrac{\Psi\Omega(\omega_W - \omega_F)}{\Psi + \Omega} - \dfrac{\Psi\,\bar{q}}{\Psi + \Omega}$
Interest rate operating procedure	$r_r = r_r^* + \delta_1(p - p^T) + \delta_2(y - y^*)$	$r = 0$
		or $\quad r = p$
		or $\quad r = p + \bar{q}$

Note: * In the Post Keynesian model, $d\Omega/dU < 0$.

Definitions of variables

y	real output
y^*	potential output
r_r	real interest rate
r_r^*	natural rate of interest
p	rate of inflation
p^T	target rate of inflation
U	rate of unemployment
r	nominal interest rate
p^*	equilibrium rate of inflation
ω_W	workers' target wage share
ω_F	firms' target wage share
$\bar{q}$	trend rate of productivity growth