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Working Paper No. 510

A Post-Keynesian View of Central Bank Independence, Policy Targets, and the Rules-versus-Discretion Debate

by

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ABSTRACT

This paper addresses three issues surrounding monetary policy formation: policy independence, choice of operating targets, and rules versus discretion. According to the New Monetary Consensus, the central bank needs policy independence to build credibility; the operating target is the overnight interbank lending rate, and the ultimate goal is price stability. This paper provides an alternative view, arguing that an effective central bank *cannot be* independent as conventionally defined, where effectiveness is indicated by ability to hit an overnight *nominal interest rate* target. Discretionary policy is rejected, as are conventional views of the central bank's ability to achieve traditional goals such as robust growth, low inflation, and high employment. Thus, the paper returns to Keynes's call for low interest rates and euthanasia of the rentier.

Keywords: Central Bank Independence, Interest Rate Determination, Real versus Nominal Rates, Interest Rate Targets, Rules versus Discretion

JEL Classifications: E12, E31, E43, E52, E61

I will address three issues surrounding monetary policy: policy independence, choice of targets, and rules versus discretion. The currently fashionable New Monetary Consensus (NMC) offers decisive advice in all three areas. The central bank needs policy independence to build credibility; the operating target is the overnight interbank lending rate, and the ultimate goal is price stability (Meyer 2001). Within those recommendations, there is room for maneuver. For example, elected representatives might dictate a range for an inflation target, leaving discretion to the central bank over the method used to attain that ultimate goal. Monetary policy makers, in turn, use a Taylor-type rule (that includes a reaction function to respond to output gaps and deviation of actual inflation from the target) to adjust the overnight interest rate toward a presumed "neutral rate." Thus, the NMC still leaves discretion in the hands of the central bank to establish operating procedures to hit the ultimate goal of price stability. For example, the central bank must decide how quickly to move to the neutral rate (and, similarly, how quickly to achieve the goal); whether to temporarily ignore undesired inflation outcomes when unemployment exceeds the natural rate; how active a role it should play (preemptive—fight inflation before it appears—or reactive policy); and so on. As these issues have been discussed elsewhere (Le Heron and Carre 2006; Warin 2006; Wray 2004b), I will not pursue them further.

Instead, I will take an alternative view, arguing that an effective central bank *cannot be* independent as conventionally defined, where effectiveness is indicated by ability to hit an overnight *nominal interest rate* target. I reject discretionary policy and doubt the veracity of conventional views of the central bank's ability to achieve traditional goals such as robust growth, low inflation, or high employment. Thus, I return to Keynes's call for low interest rates and euthanasia of the rentier. While I argue that Post-Keynesians should eschew the traditional arguments, unfortunately, some Post-Keynesian proposals come uncomfortably close to the orthodox consensus.

POLICY INDEPENDENCE

There are several dimensions of central bank independence.[1] Most economists believe the central bank should be independent, forcing the treasury into markets to borrow, imposing at least some market discipline and thereby reducing the chance of hyperinflation-inducing runaway monetization of deficits. Actually, such independence is wholly illusionary. Prohibitions of direct sales of treasury debt to the central bank have no impact on a sovereign treasury's ability to run deficits in its own currency. This is because sovereign governments spend by crediting private bank accounts, leading to an increase of bank reserves. Operating procedures are adopted to ensure the central bank and treasury coordinate their activities so that banks have the quantity of reserves desired (Bell 2000; Fullwiler 2006, 2007; Mosler 1996; Wray 1998). The consequence of a central bank's refusal to cooperate with the treasury would be an overnight rate that diverged from the target. In other words, the central bank's daily operations cannot be independent from treasury operations if the central bank wants to be able to hit interest rate targets. The exact procedures adopted are complex and vary across countries, but they simultaneously ensure that the central bank can hit its targets and that the treasury can spend (Bell and Wray 2002–3; Lavoie 2005; Wray 2004c, 2006b).

The second dimension is the supposed independence of the central bank from political manipulation. The quaint notion that the central bank is above the fray, formulating policy in an objective manner, free of ideological considerations, is patently absurd given what we know about actual policy formation. The members of the U.S. Board of Governors are political appointees who bring their ideologies with them to Federal Open Market Committee (FOMC) meetings. Even a quick perusal of the transcripts of those meetings will reveal a nearly infinite number of openings for politics to enter the decision-making process (FOMC 1993, 1994a, 1994b, 1994c). For example, as I have detailed previously, there is a strong bias against the interests of workers in favor of those of entrepreneurs (Wray 2004a, 2004b). By this, I do not mean to imply a massive conspiracy, but rather that the range of views represented at the FOMC reflect

[1] See the symposium in the Winter 1995–96 issue of the *Journal of Post Keynesian Economics* for a number of articles on central bank independence.

the mainstream views of privileged America. How many union leaders have sat on the BOG? How many welfare activists? Is it possible to believe that Fed policy would not have been different if the BOG had been dominated by members of Association of Community Organizations for Reform Now (ACORN)? Finally, as James Galbraith (1994) insists, the Fed is ultimately a creature of Congress—a fundamentally political body, even if the range of ideologies represented is narrow. Notwithstanding the fact that Congress normally chooses not to exercise its authority, it is clear from the transcripts that the FOMC does consider possible Congressional reactions in its policy making (no where was this more clear than in FOMC discussions surrounding the possible consequences of inaccurate statements made by Greenspan to Chairman Henry Gonzales regarding the existence of transcripts of FOMC meetings) (Wray 2004b).

There is a real issue surrounding monetary policy independence, however, that receives less attention. As we will discuss in the next section, it is widely accepted that central banks operate by setting the overnight interest rate. The question is, under what conditions the central bank has discretion to choose that target. In the Post-Keynesian literature, this issue has taken the form of a discussion over the exogeneity of interest rates. As horizontalists have argued, the central bank sets the overnight rate, and then accommodates the demand for reserves horizontally (Moore 1988; Wray 1990). However, is the central bank "free to choose" its target rate? Of course, this comes down to degrees, as the discretion to choose a target is constrained by the possible impacts of the choice, as well as by the willingness of the central bank to tolerate those outcomes. A zero interest rate might generate intolerably high inflation (or high unemployment!); an interest rate of 100% might cause equity prices to collapse. The range within which the overnight interest rate can be adjusted is thus determined by institutions, by regulations, by the financial structure, and by central bank tolerance of financial and economic disruptions. Given the conditions that existed in the United States in 1979–80, a double-digit interest rate target would lead to widespread defaults and insolvency of most of the nation's thrifts. Reportedly, Paul Volcker was well aware of the likely outcome, but was willing to tolerate the consequences—hence, he pushed the target above 20%, inducing the outcome expected (Wray 1994).

What is little discussed is the consequence of the exchange rate regime for exogenous interest rate setting by the central bank. Many Post-Keynesians have advocated fixed (perhaps adjustable) exchange rate regimes—either based on an international monetary system arranged along the lines of Keynes's bancor system, currency unions, or "go it alone" pegging to a dominant currency. This is claimed to reduce international financial instability (Gnos and Rochon 2004; Moore 2004). However, in the conditions faced by most nations today, a fixed exchange rate system reduces domestic policy independence—both for fiscal policy and for monetary policy (Kam and Smithin 2004; Sardoni and Wray 2006; Wray 2006). Those conditions include economies that are substantially open to trade in goods and services, as well as financial markets that are subject to potentially huge international short-term "capital" flows. For this reason, even if U.S. domestic monetary policy had been relatively independent with the fixed-but-adjustable Bretton Woods exchange rates in, say, 1960, that was in conditions of a virtually closed economy and with private capital flows across borders so small that they could be ignored. Those conditions no longer exist.

Leaving to the side the case of a thoroughgoing reform of the international financial system (currently politically infeasible), joining a currency union or pegging narrows the range of discretion for domestic policy for most nations. Except in those cases in which a nation can accumulate an unassailable foreign currency reserve, domestic policy—particularly monetary policy—faces an additional (exchange rate) constraint if it pegs. As I have argued, it is surprising that horizontalists have not made it clear that exogenous control of the overnight rate depends on the exchange rate regime (Wray 2006a, 2006b). While it is true that the central bank "sets" the interest rate even in a nation with a fixed exchange rate, its discretion over the choice of the target is severely constrained. If exchange rate stability is believed to be achieved with an overnight rate target of 15%, the central bank's "exogenous" setting of its target will lead to an overnight rate of 15%—give or take a small margin. Hence, policy independence in the sense of ability to exogenously and discretionarily set the overnight interest rate depends on a floating exchange rate regime.

In the discussion that follows, I presume we are addressing monetary policy formation in a floating rate regime. This does not mean that the monetary (and fiscal)

authorities ignore effects of domestic policy on exchange rates. However, they have a greater degree of freedom to pursue domestic stability because they allow the exchange rate to adjust.

WHICH INTEREST TARGET?

The announced overnight interest rate target is a nominal interbank lending rate—the fed funds rate in the United States. The Fed currently uses a notion of a "neutral rate," and "gradually" moves its target toward that neutral rate. Once achieved, the neutral rate is supposed to be consistent with price stability. Price stability, in turn, is defined as a rate of change of realized prices so low that it is not taken into consideration by economic decision makers. Many have noticed the similarity between the Fed's notion of a neutral rate and the "natural rate" of pre-Keynesian thought (most notably, Wicksell's).[2] The "natural rate" is usually described as a real (adjusted by expected inflation) interest rate ground out by the real forces of productivity and thrift. The transcripts of FOMC meetings, however, do not confirm that the Fed perceives its neutral rate in purely "real" terms (Wray 2004b). While some members do appear to have a "real rate" in mind, others think of the neutral rate as a nominal interest rate. Further, FOMC discussions seem to indicate that the neutral rate shifts about, perhaps for reasons unrelated to changes of productivity and thrift. Some members, including Greenspan, admit that they have no clear idea what the neutral rate is, but believe they will know it once it is achieved.[3] Presumably, that will occur when price stability is achieved.

Interest Rate Determination in the *General Theory*

The question for Post-Keynesians is whether the interest rate target should be nominal or real. This, in turn, depends on whether the interest rate relevant for analysis and policy

[2] For a discussion of modern formulations along Wicksellian lines, see the symposium on Michael Woodford's *Interest and Prices* in the June 2006 issue of the *Journal of the History of Economic Thought*.

[3] For example, Greenspan said: "You can tell whether you're below or above, but until you're there, you're not quite sure you are there. And we know at this stage, at one and a quarter percent federal funds rate, that we are below neutral. When we arrive at neutral, we will know it" (Wray 2004b).

making is a real rate or a nominal rate. If Post-Keynesians follow Keynes, then the choice is clear—the relevant concept is a nominal interest rate target. However, much like FOMC members, Post-Keynesians are all over the place on this matter, with some advocating a real rate target (Cottrell 1997, 1994; Kam and Smithin 2004; Lavoie 1996, 1997, 2002–03, 2005; Smithin 2002–03, 2003).

Keynes's most developed analysis of interest rates is in Chapter 17 of the *General Theory*, which puts forward a liquidity preference theory of asset prices (Wray 1992). He argued that "for every durable commodity we have a rate of interest in terms of itself,—a wheat-rate of interest, a copper-rate of interest, a house-rate of interest, even a steel-plant-rate of interest" (Keynes 1964, pp. 222–223). Each of these own rates can be stated in terms of money, which typically carries the "greatest of the own-rates," hence, "rules the roost," because money has special, peculiar properties (Keynes 1964, p. 223; see also Kregel 1996). The expected return on holding any asset measured in monetary terms is q-c+l+a, where q is the asset's expected yield, c is carrying costs, l is liquidity, and a is expected price appreciation (or depreciation). This total return can be used to calculate a marginal efficiency for each asset, including money. The composition of returns varies by asset, with most of the return to illiquid assets such as capital consisting of q-c, while most of the return to holding liquid assets consists of (the subjectively evaluated) l. Finally, changing expectations differentially impact marginal efficiencies of different kinds of assets. Increased confidence about future economic performance will raise the q's on capital assets while lowering the subjective values assigned to liquid positions (hence, the l falls), so the marginal efficiency of capital rises relative to that of assets that get much of their return from l. In that case, capital assets will be produced (investment rises, inducing the "multiplier" impact) and the full range of asset prices adjusts. Thus, expectations about the future go into determining the equilibrium level of output and employment.

Own rates are measured in terms of themselves. However, they can be compared only if one rate is taken as the standard. Because money's own rate sets the standard in a monetary economy, the expected returns of all assets are measured in terms of money. Money's return is necessarily a *nominal* return—an own rate measured in terms of itself. Trying to obtain a "real return" by adjusting nominal returns according to expected

inflation of the prices of some basket of commodities would simply mean choosing a different—commodity—standard appropriate to the study of a nonmonetary economy. Indeed, the entire analysis of determination of asset prices and rates of return is conducted without reference to prices of any particular group of commodities such as consumption goods. Hence, it would make no sense to deflate those returns by expected price changes of consumption baskets. Entrepreneurial profit maximization is directed to equalizing nominal own rates—not toward maintaining a constant purchasing power of asset values in terms of consumption baskets.

It is true that expected price changes of consumption (and investment) output will affect the own rates of capital used in production of specific outputs. However, the impacts on own rates will vary considerably across the spectrum of types of assets. If widgets are expected to rise in price, that will affect the "q's" from widget-making machines. But the inflation of widget prices—even if it feeds through to a consumption price index—would not cause all own rates to change by a uniform inflation adjustment. The expected rate of increase of, say, widget prices will be weighed against the expected rate of increase of widget production costs (such as labor), hence, the expected overall rate of inflation plays a role in decision making to the extent that it affects production costs. For physical assets that produce the specific output whose price is expected to rise faster than overall prices (including, most importantly, the wages paid to produce that output), own rates are higher. This will be offset by lower own rates on physical assets whose specific output prices will rise slower than overall prices (again including, most importantly, the wages paid to produce the output). In the aggregate, these forces on average will approximately cancel one another, however.

Keynes (1964, pp. 141–3) argued that expected inflation will tend to raise the general marginal efficiency of capital (MEK) relative to the rate of interest, encouraging investment, because future higher revenues will be compared with today's lower costs of production. This effect will be offset to the degree that inventions and future techniques cheapen production costs. He rejected any argument that the main transmission mechanism would operate through the effects of expected inflation on interest rates. If future inflation were not foreseen, it would not impact decisions today; if it were foreseen, then "prices of existing goods will be forthwith so adjusted that the advantages

of holding money and of holding goods are again equalised, and it will be too late for holders of money to gain or to suffer a change in the rate of interest which will offset the prospective change during the period of the loan in the value of the money lent"[4] (Keynes 1964, p. 142). Expected inflation will immediately affect the prices of existing assets, and will tend to stimulate production of new assets by raising the MEK. However, an expected future change in the interest rate will have no great effect "since the expectations, which are held concerning the complex of rates of interest for various terms which will rule in the future, will be partially reflected in the complex of rates of interest which rule today" (Keynes 1964, p. 143). There could be a small positive effect on today's MEK to the extent that capital produced today will compete with capital produced in the future that is subject to a higher interest rate standard—but that requires that today's interest rate does not fully incorporate a "Fisher Effect" so that it does not fully adjust to expected future inflation. If we complicate the analysis further to include short-term finance and longer-term funding, then investment today could be encouraged if it is possible to lock-in lower funding rates now—but that again requires that the Fisher Effect does not fully operate.

In conclusion, following Keynes's analysis, the impact of expected inflation across the spectrum of asset prices (or, own rates) is probably minimal—except to the extent that the monetary authority raises its interest rate target in response to expected inflation. Otherwise, there is no reason for expected inflation to greatly affect relative own rates, thus, there is no reason to deflate own nominal rates to obtain a "real" interest rate. In any case, if expected inflation affects production and employment, it does so through the MEK, not through changes to the interest rate.

Fisher Effects

There is an inclination to believe that nominal interest rates must incorporate Fisher Effects to induce creditors to hold financial liabilities, for otherwise the future real purchasing power of interest earnings would not be sufficient to purchase a given basket

[4] Davidson put it this way: "If expectations of inflation…which create the difference between the real and nominal interest rates do 'fully anticipate' the future so that, in Fisher's term, inflation is foreseen…then the existing stock of real durables can never be a better *ex ante* inflation hedge than before the change in expectations occurred." See Tymoigne 2006, pp. 4,5.

of commodities.[5] Such a view is consistent with the loanable funds approach, in which interest rewards saving or postponed consumption. However, Keynes insisted that interest is a reward to relinquishing liquidity. The saving decision consists of two steps—the decision to not consume income, and next the decision as to the form in which saving should be held. It is in the second decision that the interest rate becomes most important. Keynes does not deny that the first step might be influenced by the rate of interest, but that is considered to be of secondary importance—nearly insignificant with respect to the role played by income. In the second step, given a preference for liquidity, the saver allocates wealth among assets that offer different compositions of returns. As described above, asset prices adjust to equalize total expected returns as the wealthholder allocates according to subjective liquidity preference, choosing the asset with the greatest expected return. Whether that return is positive or negative in "real" (inflation-adjusted) terms is not relevant to the portfolio decision—which weighs prospective returns against the subjective return to a fully liquid asset (money).

As admitted, the prospective returns to holding assets play some role in the decision to postpone consumption, and thus, to the extent that expected inflation reduces desired saving, there could be an impact on the overall demand for assets to be held through time. However, because the equalization of expected returns to assets is established on the basis of liquidity preference and the standard set by money's subjective return, it is not necessary for own rates measured in terms of money to incorporate expected inflation in order to "clear the market." The nominal overnight interest rate established by policy sets the minimum standard return on risk-free loans of the shortest duration. Holding policy constant, the liquidity of other financial assets determines the premium paid to induce wealthowners to hold them, given carrying costs and yields in excess of credit losses. A modest increase of expected inflation will not affect this decision to any large extent. While rising prices could raise the total expected returns from specific capital assets (as their MEKs rise)—affecting production, employment, and income in those sectors—this will be mostly matched by negative

[5] Lavoie (1996, 1997) argues that as the real interest rate is an exogenous redistributive variable, it ought to be set by the authorities to keep the relative situation of rentiers constant through time. Following Pasinetti, he would set the real rate equal to the rate of growth of total productivity, what he terms a "fair" rate.

impacts on other types of capital assets. Finally, high rates of inflation—and, in particular, hyperinflation—can affect the liquidity of financial assets. As Keynes argued, money itself can lose its status as a liquid asset. If this happens, liquidity will be attached to another asset with "special characteristics" (low carrying costs, low elasticity of substitution, and low elasticity of production), the return of which will establish the standard.

When we turn to the "term structure" of interest rates, additional problems with the Fisher Effect arise. Empirically, longer term interest rates do not come close to incorporating inflation, on the assumption that inflation expectations are correct (Kregel 1996). As Kregel argues, it has been known since Macauley's exhaustive study in 1938 that "even in conditions in which [cyclical] price changes are perfectly foreseen, short rates should lead prices by a quarter of a cycle and the cyclical movement of long rates should show a perfect negative correlation with the price cycle…Thus, even if Fisher's hypothesis concerning the real rate of interest is fulfilled, it does not provide an explanation of positive correlation with either short or long rates" (Kregel 1996, p. 6). These different correlative results are required to equalize holding period returns across maturities, and can be used as an explanation for an inversion of the yield curve.

More fundamentally, the notion that rising yields on long-term bonds can cover losses due to inflation runs up against Keynes's "square rule," or the concept of duration. Raising interest rates to cover inflation leads to capital losses that can easily swamp the increased income from reinvesting interest at the higher rates. As Keynes concluded, if the rate of interest rises by more than the square of itself, the capital loss will just offset the coupon, leaving the investor with a zero return. For example, at a long-term interest rate of 8%, a 64 basis point increase will cause a capital loss sufficient to wipe out extra earnings; at the lower interest rate of 4%, it takes a rate hike of only 16 basis points to do the job (Kregel 1996). While it is true that bonds newly issued at the higher rate do not incur such losses, expectations of additional rate hikes mean expected capital losses—and a recent hike of 64 basis points increases the subjective probability of even larger hikes in the future. For this reason, the speculative demand for money rises, and a "liquidity trap" becomes possible even at high rates of interest. As Kregel says, "if the rise in the rate of interest is imposed in order to compensate for an equal rise in the inflation rate, then the

investor clearly is not being very efficient in protecting against the loss in real purchasing power due to the rate of interest. You can never get there from here—it can't work" (Kregel 1996, p. 9).

Nominal or Real Targets?

Given that it is the nominal interest rate that is important for economic decision making, we turn to the appropriate target for monetary policy. Many orthodox and some Post-Keynesian economists advocate a "real" inflation-adjusted target (Cottrell 1994; Kam and Smithin 2004; Lavoie 1996; Smithin 2003). This could be an *ex ante* real rate (current nominal rate less expected inflation), or an *ex post* real rate (current nominal rate less current inflation). Of course, it is important to determine how inflation is to be measured—a topic for the next section. For simplicity, we will assume it is measured as the *ex post* or *ex ante* rate of inflation of the CPI. There remain two issues: why is a real rate preferred over a nominal rate?; and is the central bank able to hit a real rate target?

The most plausible justification for a real rate target is the belief that this is the relevant variable for economic decision making. Spending decisions are claimed to be made on the basis of an inflation-adjusted interest rate. However, it is not the overall rate of inflation that enters into decisions but rather the relative rates of increase of one's own revenues (or income) and costs. It could be true in some cases that the overall rate of inflation proxies the individual firm-level rate of increase of costs. However, this must be weighed against firm-specific prospects for rate of growth of prices and revenues. If it is supposed that these will increase at the overall rate of inflation, then both revenues and costs could be adjusted by the overall inflation rate, and an appropriate comparison of net "real" revenues against an inflation-adjusted interest rate could be made. Since all variables would be adjusted by the same amount, there would be nothing wrong with such a procedure. However, there would be nothing gained, either. In many—presumably most—cases it would be incorrect to use the overall rate of inflation in the adjustments, hence, it would be better to weigh nominal costs, nominal revenues, and nominal interest rates. We conclude that in general, use of a real interest rate is not an improvement and in many cases, it is worse than use of the nominal rate.

For a debtor, the loan rate can be thought of as the rate of growth of liabilities, to be weighed against capacity to service them. Prospective income flows, as well as expected rate of growth of asset values, are most important. This comparison is made in nominal terms, although if all rates of growth are adjusted by the same factor—expected inflation—the outcome of the decision to incur liabilities will be the same whether it is made in nominal or in real terms. However, it does not follow that the economy as a whole will perform in the same way at different nominal interest rates so long as the inflation-adjusted interest rate is the same. An economy with zero inflation and a nominal rate of 2% will have the same real rate as one with inflation of 98% and a nominal interest rate of 100%. In the first economy, the rate of growth of liabilities will be 2% (with liquidity and credit risk adjustments) so that income growth on the order of 2% can allow service of debt. In the second economy, average income growth must reach approximately 100%. There are reasons to doubt that these two economies will perform in a similar manner. In the second economy, small errors in forecasts are ruthlessly compounded at very high rates; revenues in even the near-term future are practically worthless today; variance of returns will be much higher, and even the variance of net returns could be higher; and effects of "bracket creep" and other anomalies will be greater. Because the dynamics of a high inflation society are different, applying the same "real rate" target that is used in a low inflation society will be likely to have much different outcomes. By the same token, the current real rate provides little or no useful information to guide policymakers, while the nominal rates (2% versus 100%) do provide information.

Indeed, as I have shown previously, high nominal interest rates cause high rates of growth of credit (or, money supply if defined broadly) (Wray 1993b). Business working capital, largely financed on the basis of short-term loans, must cover growth of the wage bill and net interest payments; the higher the interest rate, the faster the "warranted" growth of loans. Government spending will also grow with inflation and so will debt service. At high interest rates and inflation rates, budget deficits grow rapidly—both because of the interest payments required to service outstanding debt, but also because many taxes are collected with a lag. The big deficits can contribute to inertial inflation, supporting a wage-price spiral. The most effective policy in this case is to reduce interest

rates, which results in fiscal tightening. The important point, however, is that a real interest target of, say, 2% could be highly stimulative in a high inflation–high nominal interest rate environment, while a reduction of the nominal rate to a level far below the rate of inflation (a large negative real rate) would be disinflationary.

Even if these arguments are not sufficiently persuasive, it is questionable whether the central bank can hit a real interest target.[6] The actual operating target is nominal, so hitting a real target requires adjustment of the nominal rate to the preferred measure of inflation. In most formulations, this should be a measure of expected inflation. Surveys of expected inflation are not comprehensive, and the expectations themselves often prove to be far from *ex post* measured inflation.[7] However, as the target is an overnight rate, the difference between actual and expected inflation should not be large—if contemporaneous measures of inflation existed. In fact, inflation is measured with a lag, and with substantial uncertainty that any reported measure actually captures inflation. Hence, even the most up-to-date data are not likely to reflect current expectations.

In addition, the interest rate target, itself, influences inflation expectations. Indeed, that lies behind the Fed's adoption of the NMC, which attempts to build a consensus of expectations. Unfortunately, a rate hike can cause expectations to move either direction: it can be taken as an assurance that the Fed will bring inflation down, or as evidence that the market has underestimated inflation. Thus, a rate hike meant to raise the real rate can actually lower it by raising expected inflation. Finally, some policy formulations recommend using a market proxy for expected inflation, such as the implied inflation expectations derived from the difference between the current nominal yield on equivalent maturity bonds and the index bond current yield to derive the expected rate of inflation. This suffers from two potential problems: policy can influence expectations and, thus, prices of inflation-indexed bonds; and the methodology presumes an operative Fisher Effect. We are left with the strong possibility that even if the Fed wanted to adopt a real rate target, it could not hit it.

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[6] According to Smithin 2003, "the central bank can set the real rate, if it wishes, simply by adjusting the setting of the nominal rate to offset changes in expectations of inflation." See Tymoigne 2006 for a critique.

[7] See Fongemie 2005 for an empirical study that rejects the Fisher Effect in favor of a liquidity preference explanation of yield curves.

We conclude that a nominal interest rate target is best on two accounts: the nominal rate is the relevant variable for economic decisions, and it is a rate the central bank can hit with perfect accuracy.

RULES VERSUS DISCRETION

Finally, we turn to rules versus discretion—a topic on which orthodoxy has come full circle. Post-war neoclassical Keynesians advocated discretionary policy, although it was generally accepted that an asymmetry exists: policy is more effective in slowing growth in expansion than in stimulating growth in a slump. Eventually, Friedman's call for a monetary growth rate rule came to dominate orthodox arguments against discretion invoking long and variable lags, political manipulation, central bank credibility, the Lucas Critique, and problems of time inconsistency. This led to experiments in the United States and the United Kingdom to implement such a policy.

However, it was accepted eventually that as central banks cannot control the money supply, and as money is not closely linked to spending or inflation, policy should focus on the interest rate as the intermediate target used to achieve price stability. Amazingly, discretion reemerged as the preferred procedure with the rise of the NMC. Indeed, as I have detailed elsewhere, the Fed has adopted a hyperactive, preemptive strategy reacting to inflationary pressures long before they actually result in observed price increases (Wray 2004b). The Fed moves the overnight rate to the presumed neutral rate—usually in a long series of small (25–50 basis points) steps. However, at each meeting, the FOMC carefully examines the evidence—largely dubious anecdotes and hunches—to decide whether conditions suggest a "stay the course" policy, or abrupt policy reversals. The main transmission mechanism through which policy is supposed to operate is expectation formation and credibility enhancement. A highly active Fed is thought to increase its inflation-fighting credibility, which then lowers inflation expectations and, thus, inflation itself. Current policy formation could not be further from Friedmanian rules.

Most heterodox economists also push for discretionary fine-tuning of interest rates, albeit at the hands of a Fed that places unemployment on par with, or even ahead

of, inflation. Thus, they would generally set a lower interest rate target, but would still adjust the target countercyclically. This is due to the belief that a low interest rate stimulates spending and growth, while a high rate is disinflationary.

I will argue against the use of discretionary monetary policy for three reasons. First, there is no simple relationship between interest rates and inflationary pressures. In some situations, raising rates will stimulate spending by raising aggregate demand; further, higher interest rates perversely affect costs and prices. Second, discretionary changes to rates disrupt financial markets. Third, discretionary use of interest rates as a policy tool conflicts with Keynes's call for the euthanasia of the rentier.

Interest Rates and Inflation

The usual belief is that higher interest rates raise borrowing or opportunity costs and, hence, reduce spending. The most important relation is between investment and the interest rate, although spending on consumer durables and housing is also supposed to be influenced by monetary policy. However, the interest rate is also a distributional variable, increasing the rate of growth of liabilities of debtors and the rate of growth of assets of creditors. In a closed economy with no government sector, the net effect will depend on the marginal spending propensities of creditors versus debtors. The normal assumption is that debtors have lower income and higher spending propensities; thus, higher interest rates reduce aggregate demand. Higher rates also cause capital losses on financial assets, reducing spending through the marginal propensity to spend out of wealth. Further, higher interest rates deter new borrowing and spending on investment goods, housing, and consumer durables. If we take the usual Keynesian argument that firms weigh the MEK versus the interest rate, a higher rate sets a higher standard that must be achieved by capital output, resulting in less investment. Lower aggregate demand and lower economic growth then reduce inflation pressures.

There are some reasons to doubt these effects. First, government debt is often between 50% and 100% of GDP; in some nations, government debt is large relative to private debt. Government interest payments are much like any other type of government spending, adding to private income, stimulating demand. Second, the presumption that creditors have low propensities to spend might not apply where a large portion of public

and private debt is held by retirees, widows, and orphans, whose spending is largely a function of interest earnings. Combining these two effects, on not implausible assumptions it can be shown that at higher interest rates, raising rates actually stimulates spending (Tauheed and Wray 2004). Third, interest is also a cost, most importantly, an addition to working capital expenses. Much as rising energy costs are passed along in higher prices, interest costs are incorporated in sales prices. While higher costs and prices might negatively affect economic growth, no one has proposed policy to push up the price of oil—or other production costs, such as wages—as an inflation-fighting tactic. Fourth, rising interest rates will not reduce investment (or house purchases) if the MEK (or real estate values) is rising faster.

Finally, even if higher interest rates did reduce aggregate demand, diminishing market pressures on prices, it is not clear that this would lower the inflation of indexes normally used as indicators of domestic price stability. Most U.S. inflation as measured by the CPI can be attributed to just three components of the consumption basket: housing, transportation, and food (Papdimitriou and Wray 1996). Inflation of the prices of these components is not likely to be affected in the desired manner by monetary policy. The housing component is dominated by shelter services, which, in turn, is comprised of rental unit and imputed owner-occupied rental equivalent components. Most Americans own their own homes, so the housing services component is dominated by imputed, not market, values. Empirically, rents on rental units and imputed shelter services on owner-occupied housing sometimes move in opposite directions (Fullwiler 2007). Further, while it might be true that monetary policy can be used to cool overheated real estate markets, the impacts on the shelter component are complex and can move in a perverse direction—leading to further policy tightening that raises measured inflation (Papadimitriou and Wray 1996). Measured inflation in the transportation sector results mostly from higher energy prices (new car prices have been stagnant or falling for a decade). As oil prices are determined in international markets and are influenced by a wide variety of forces, there is little reason to believe that domestic monetary policy has much influence over this source of inflation. Finally, a similar argument applies to food prices, which are also subject to global influence. Note also that transportation and refrigeration costs incorporated into food costs are related to energy prices—and outside

the control of monetary policy. We conclude that manipulation of interest rates is not likely to have desired effects on the components of the consumer basket that are most important in determining inflation as measured by the CPI.

For these reasons, confidence in the efficacy of discretionary policy is called into question. The usual counterargument is that greater central bank attention to inflation over the past two decades is correlated with falling inflation rates around the world. Critics of central bank policy also attribute generally slower economic growth since the early 1970s to persistently tighter monetary policy over the past three decades when compared with performance in the early postwar period. However, there are many other potential explanations for lower growth and moderating inflation. This is not the place to explore these disinflationary factors, but they could include: tighter fiscal policy, policy to promote greater labor "flexibility" (anti-union policy), globalization and increased competition from low wage countries, reduction of welfare and other social spending, balance of payment constraints resulting from pegged exchange rates (unification of European economies, pegged exchange rates among Latin American nations), negative demand shocks in the aftermath of exchange rate or debt crises (Asian Tigers, Latin American nations), and so on.

Interest Rates and Financial Markets

Interest rate changes have large and immediate impacts on financial markets. Because the central bank's overnight rate sets the standard, market participants scrutinize every piece of data that illuminates central bank thinking on current and expected future policy. Even a small but unexpected policy change generates huge capital losses or gains. For example, when the FOMC raised rates in 1994, bond markets tanked, surprising Chairman Greenspan. This is part of the reason that the Fed adopted gradualism and transparency (Wray 2004b). Henceforth, the Fed would clearly communicate with markets, and would telegraph policy changes in advance. However, to the extent that policy changes are known in advance, they are incorporated into asset prices before the policy changes occur. There is an obvious conflict between policy efficacy and transparency. As Wojnilower (2005) argues, policy largely works through "surprises" that create "credit crunches." With advance warning, market participants can hedge to

reduce disruption. For this reason, transparency is not consistent with active policy intervention.

Further, the Fed cannot perfectly foresee the future, hence, unanticipated developments cause it to change course. As a result, there is a great deal of "gamesmanship" with the Fed attempting to communicate a policy stance to markets that doubt the Fed's implied economic forecast. While the Fed controls overnight rates, it frequently cannot move long rates in the desired direction—in part because markets expect future policy changes to which the Fed is not publicly committed. Monetary policy has uncertain, limited, and lagged impacts on production, aggregate demand, and prices of consumer goods, but it can have large and immediate—often unexpected—impacts on asset prices. Although the Fed publicly announces that it does not, and should not, target asset prices, the transcripts reveal that the FOMC does indeed use monetary policy to try to "prick" asset bubbles—in spite of the fact that Greenspan repeatedly claimed it is impossible to identify, *ex ante*, asset bubbles (while his 1996 public statement about "irrational exuberance" is well known, he had already made such a pronouncement in 1994 at an FOMC meeting—providing further evidence of the Fed's inability to identify a speculative bubble!) (Wray 2004b). The problem is that the policy often does not work (raising interest rates 400 basis points will not necessarily reduce demand for assets that are expected to double in price annually), requires central bank second-guessing of the rationality of market participants, and is inferior to other methods of slowing speculation (such as margin requirements or other direct credit controls). As Minsky insisted, policy also stimulates innovations that undermine the effectiveness of policy. Finally, even if the Fed could stabilize asset prices, it is not clear that this is an appropriate goal. Thus, while monetary policy probably has greater influence over asset price inflation than it does over consumer prices, there is little justification for targeting monetary policy toward stability of asset prices.

Interest Rates and Euthanasia of the Rentier

Keynes famously called for lower interest rates and euthanasia of the rentier. The overnight interest rate set by policymakers establishes the minimum return that must be achieved by all assets. According to Keynes, capital is kept scarce and labor is kept

unemployed because the MEK falls to the interest rate before full employment is achieved. All things equal, lower interest rates allow more projects to be undertaken, reducing the scarcity of capital and increasing employment by lowering the acceptable "basic rate of reward." Further, a lower interest rate will reduce the role played by luck, allowing average good fortune and intelligence to succeed by lowering the stakes of the game.

Keynes insisted that the premium paid to those who surrender liquidity rewards no "genuine sacrifice," instead pays the rentier for fundamentally anti-social behavior.[8] He wanted to eliminate this reward and, thus, euthanize the rentier as a class. In the modern floating exchange rate economy, this is done by setting the overnight interest rate at zero, with other rates established above this to reward risk-taking. Keynes optimistically foresaw euthanasia of the rentier over "one or two generations." Three generations later, we actually have proceeded ever further down an alternative path that has resulted in exaltation of the rentier, with the share of national income going to the "functionless investor" rising on trend, with policy devoted to encouraging more inequality to induce more tax-advantaged saving, and with attempts to inflation-proof rentier income with Fisher-adjusted rate targets!

When the United States abandoned Bretton Woods, it became possible to pursue Keynes's policy recommendations. Freed of the necessity of using policy to peg the exchange rate, the Fed could target an overnight interest rate of zero. Instead, it began to more aggressively use interest rates to fight perceived inflation pressures. At first, its policy was somewhat constrained by existing institutions and regulations, so that relatively small rate hikes caused a credit crunch through what has been misleadingly called "disintermediation" (Wray 1999). Deregulation and innovation effectively removed those constraints, so that policy has been "freed" to provide previously unimagined rewards to rentiers. Similarly, fiscal policy could have pursued full-employment policy after abandoning Bretton Woods, however, it has instead used unemployment to fight inflation and returned in recent years to the principles of "sound finance." Finally, while there were some policies adopted in the early postwar period that

[8] It is somewhat surprising that Lavoie, as discussed in note 6, advocates a "fair" interest rate to preserve rentier relative living standards, rather than following Keynes in euthanizing the class.

were consistent with Keynes's call for "socialization of investment," these have been abandoned as we returned to the pre-Keynesian notion that the free market knows best. Thus, public infrastructure investment has lagged far behind even obvious needs. Policy has turned to mostly supply-side incentives (tax cuts for the rich, for savers, and for investment) on the assumption that the market can establish the proper "volume" of employment and not just its "direction"—a stance directly counter to Keynes's belief.

CONCLUSIONS

Some Post-Keynesians applaud the Fed's move to the NMC, although they might disagree with the ultimate goals—preferring low unemployment over low inflation (Le Heron and Carre 2006). Hence, many critics urge the Fed to adopt a somewhat more relaxed monetary policy stance. Still, they do not question the wisdom of active policy. Some even endorse real interest rate targets designed to fine-tune demand to keep unemployment low. Many accept the conventional wisdom that monetary policy is potent, hence, find criticism of the practice of monetary policy simultaneously easy and important—joining a global cottage industry devoted to reforming central banks that recommends everything from asset-based reserves to 100% reserve requirements and restoration of money targets.

Blaming the Fed for subpar economic performance is fun sport, albeit not very useful. At least some members of the FOMC have been delightful and irresistible targets. Who could repress a chuckle when FRB-Dallas President Robert McTeer recommended that consumers run out and buy Humvees to jumpstart the economy? Or when Governor John LaWare likened monetary policy to reading tea leaves and called for gold price targets? (Bradsher 1994). The "Maestro" (Chairman Greenspan) always kept Fed watchers guessing with his preternaturally glum demeanor, his penchant for recitation of unimportant factoids, his habitual claims that "history shows" something that it does not, and his carefully cultivated manner of speaking without saying anything. His marriage to Andrea Mitchell, as well as his practice of studying reports in daily extended baths, added a patina of celebrity mixed with a dose of repulsiveness to his aura, reinforced by his previous incarnation as a "gold bug" and Ayn Rand acolyte. Some cracks in his

reputation as “the most powerful man in the universe” began to show with the collapse of the “new economy” bubble, when the curtain was raised to reveal a somewhat clueless and impotent Wizard, spinning dials and yanking levers while professing faith in the almighty invisible hand, until it was time to escape into retirement via a hot air balloon (appropriately, green to match the cash for his memoir) and turn the whole thing over to Ben “the brainy Scarecrow” Bernanke to rule in his stead (Wikipedia).

As was often the case, John Kenneth Galbraith got it exactly right when he said:

> To limit unemployment and recession in the United States and the risk of inflation, the remedial entity is the Federal Reserve System, the central bank. For many years (with more to come) this has been under the direction from Washington of a greatly respected chairman, Mr. Alan Greenspan. The institution and its leader are the ordained answer to both boom and inflation and recession or depression… Quiet measures enforced by the Federal Reserve are thought to be the best approved, best accepted of economic actions. They are also manifestly ineffective. They do not accomplish what they are presumed to accomplish. Recession and unemployment or boom and inflation continue. Here is our most cherished and, on examination, most evident form of fraud. (John Kenneth Galbraith 2004, pp. 43–44)

The truth about monetary policy is rather simple: it usually doesn’t matter much. Unexpected rate changes can affect financial markets, and, as the New Classicals say, random policy has larger impacts, but there isn’t much to recommend it. In the current institutional environment, mostly free of regulations, supervision, and international financial borders, interest rate changes within usual ranges have small impacts on aggregate demand; larger policy changes have larger impacts, but are now avoided due to the policy of gradualism, based in the fear that big changes have undesirable impacts on financial markets. Further, policy changes—especially if gradual—promote innovations and evolution of financial institutions and practices that minimize the impact of policy. To make matters worse, we usually have no a priori reason for guessing the sign of the impact of rate changes, much less the precise magnitude. Given these considerations, as well as the arguments advanced by Keynes, a monetary policy rule is preferred—set the overnight rate at zero, and keep it there. A properly programmed Tin Man robot ought to do the trick.

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