CAN (AND SHOULD) MONETARY POLICY PURSUE A ZERO REAL INTEREST RATE, PERMANENTLY?

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Abstract. In the final chapter of the *General Theory* Keynes raises the possibility of instituting a permanent policy of very low interest rates, as part of his response to the deficiencies of mature capitalism. This paper examines the grounds for such a policy, in terms of both descriptive theory and normative principles. It then appraises the practicability of the policy in relation to three obstacles: the consequent need for an alternative policy instrument for targeting inflation; the possibility that cheap money might be a potent encouragement to speculation; and the constraints imposed on monetary policy choices by globally integrated financial markets.

It would be an unsound fancy and self-contradictory to expect that things which have never yet been done can be done except by means which have never yet been tried.
Francis Bacon (1620 [1875]: 48)

The concept of an equilibrium real rate of interest determined by real forces has a long history in economic thought, stretching back well before the advent of marginalism. In the particular form that doctrine takes in marginalist theory, it leads naturally to a view of the appropriate purpose of monetary policy as stabilizing the economy at a desired inflation rate (and perhaps, at the same time, at a desired aggregate activity level, if spontaneous market forces cannot be relied upon for that purpose). In the current framework of explicitly interest-setting operating procedures, monetary policy is to do this by adjusting official interest rates around a 'neutral' level, in response to shocks to inflation (and perhaps activity), where the neutral nominal rate is defined by reference to the equilibrium real rate and the desired inflation rate. Thereby, for any given inflation target, monetary policy choices are foreclosed in the long run by the notion of a unique real interest rate, functionally necessary for system equilibrium, and determined by market forces (in the traditional language, the forces of productivity and thrift). Only temporary deviations of official interest rates from neutral are possible, as a response to shocks or disequilibria, otherwise monetary policy would destabilize the economic system.

The fundamental idea underlying this conception of the role of monetary policy has met with a variety of objections, but two are particularly noteworthy. On the one hand, Keynes (1936) advanced the view that the rate of interest is not uniquely determined by reference to the real forces of investment and (full-employment) saving – or demand for and supply of capital – but was free to take a range of values, even as aggregate output was equilibrated (but in general, with persistent involuntary unemployment). The rate of interest is then determined from among

these possible values by money-market conventions and liquidity preference, with monetary policy capable of exercising a decisive influence on the outcome.

On the other hand, in the context of his critique of marginalism, Sraffa (1960) demonstrated that the construction of conventional demand functions for capital is in general impossible in the context of competitive equilibria with heterogeneous capital goods, wherein quantities of capital are a function of income distribution. This explodes the marginal productivity theory of distribution, and with it, that unique equilibrium real interest rate determined by real forces which is fundamental to the current dominant view of the role of monetary policy. This is undertaken by Sraffa in the framework of a classical representation of production, distribution and competitive prices, in which, rather than functional income distribution being uniquely determined in a competitive equilibrium, there remains a degree of freedom: for functional distribution and prices to be determined, one distributive variable (a real wage or general rate of profit) has to be given from outside the system of competitive prices.

What follows here presupposes an endorsement of these two lines of argument. Its purpose is to explore the possibility that the long-run degree of freedom opened up for monetary policy by the mutually supporting arguments of Keynes and Sraffa, enables other choices as to what objectives monetary policy can and should pursue. In particular, we appraise the possibility of assigning monetary policy to the objective of permanent 'cheap money', taking into account three obstacles: the consequent need for an alternative policy instrument for targeting inflation; the possibility that cheap money might be a potent encouragement to speculation; and the constraints imposed on monetary policy choices by internationally open financial markets. The argument takes as given three postulates. We will not be defending these propositions, so that a reader who does not accept them will have to treat what follows as a consideration of what the role of monetary policy might be, *if* these postulates were true.

1. A mixed economy can settle at an equilibrium of commodity and asset markets, but with involuntary labour unemployment.
2. These equilibria are consistent with a spectrum of functional income distributions, such that profit rates are inversely related to real wages, for given technology, with a finite maximum general profit rate (associated with a minimum real wage determined by norms concerning minimum socially acceptable living standards), and minimum profit rates determined primarily by reference to premia for risk and illiquidity.
3. Relative rates of return on capital and financial assets are determined by competitive forces so as to compensate for differential risk and illiquidity, and the costs and profits (competitive or otherwise) of financial intermediaries in relation to their spreads, with the central bank via monetary policy determining the underlying riskless rate of return on default-risk-free government securities.[1] Hence equilibrium rates of return are a sum of the riskless rate and particular premia for risk, illiquidity and so on.[2]

1. Cheap Money as a Continuous and Permanent Policy

Keynes's advocacy of cheap money as a continuous and permanent policy involves two steps: his descriptive theory of how a competitive economy functions leads to the conclusion that the absolute level of interest rates is an independent variable susceptible of being determined by monetary policy; his *normative* beliefs then lead him to advocate the monetary authorities pursuing a zero riskless rate as a permanent policy. We are taking as given that the core content of Keynes's descriptive theory and its conclusions about interest are sound. What are the normative justifications for choosing zero interest or cheap money as the desirable policy, a choice which of course cannot be deduced from the merely descriptive theory? Keynes's reasons are grounded in the proposition which opens the last chapter of the *General Theory* and sets the

tone for his advocacy there of cheap money (and other complementary policies), famously articulated in terms of 'euthanasia of the rentier' (*vide* Aspromourgos 2004b):

> The outstanding faults of the economic society in which we live are its failure to provide for full employment and its arbitrary and inequitable distribution of wealth and incomes. The bearing of the foregoing theory on the first of these is obvious. But there are also … important respects in which it is relevant to the second.
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> (Keynes 1936: 372)

He is right, still. To state more fully, but concisely, the normative grounds for favouring permanent cheap money, they may be reduced to the following six considerations.

1. Permanent cheap money reduces yields on all capital assets and thereby is associated with higher real wages for any given technology in use (a result more transparent in Sraffa's system than in Keynes's).
2. It abolishes income from mere ownership of capital assets, as opposed to returns for risk-bearing, illiquidity and so on, so that wealth can then only be accumulated by saving out of earned income (putting aside asset price changes).
3. To the extent that entrepreneurs on average are net borrowers, it favours net remuneration of entrepreneurs relative to owners of capital, desirable insofar as entrepreneurship is the vehicle for innovation.
4. Cheap money is also likely to favour a regime of high effective demand (including increasing multiplier effects), by increasing the propensity to consume via redistribution of income, and by easing financing constraints on the capacity of governments to undertake expansionary fiscal policy. This is desirable to the extent that, in the absence of the intervention of government, there is a tendency towards aggregate demand deficiency.
5. It puts an end to the use of interest rate policy as an inflation-targeting instrument which rather arbitrarily imposes the burden of adjustment in proportion to the net debt position of agents in the economy.
6. By abolishing discretionary, short-run monetary policy changes, it removes the risk of monetary policy mistakes, in both directions, but particularly the risk of policy-induced excessive contractions, due to the impact of interest rate rises on agents' debt sustainability, and on employment and incomes via other routes.

Five comments may be added. With regard to the third consideration, financial speculation may also be thought of in part as entrepreneurship (e.g., 'financial engineering'), which it may not be so desirable to encourage in all respects (see sec. 3). With regard to the fifth, the desirability of this must be weighed against the distribution of the costs of inflation targeting via whatever alternative instrument might be proposed (see sec. 2). Also with regard to the fifth, the distribution of the entire burden of adjustment in a regime of inflation-targeting monetary policy depends upon the character of the transmission mechanism as a whole. Hence, for example, the role of shifts in the balance of bargaining power around the labour contract, exchange rate movements, and 'credit channels', are also pertinent to who bears the burden of adjustment.[3] With regard to the sixth, a policy of long-run stable official interest rates at *any* level will remove this risk; but fixing interest at any value other than that suggested here has no plausible ethical justification. Also with regard to the sixth, the desirability of cheap money on this account depends upon the risks and consequences of policy errors with regard to whatever alternative instrument is proposed.

Are there any undesirable consequences which would result from a permanent cheap money policy – consequences which might need to be traded off against the above desirable consequences – apart from any that arise from the difficulties considered in the following three sections? There seems to be only one possible issue. Roughly speaking, continuous cheap money

implies that all yields on income-earning capital assets would be reduced by the magnitude of the currently prevailing riskless rate of return. Over recent decades, for the US, this latter rate has averaged approximately 2.23 per cent in real terms.[4] The policy therefore implies that all recipients of income from capital of all kinds will have their returns reduced by that order of magnitude, if the appropriate cheap money policy is for a zero *real* rate. But since many – in some countries, most – wage-earners are also direct and indirect owners of capital assets (including owner-occupied housing, which enables avoidance of rent outlays) perhaps the beneficial income distribution consequences of cheap money are to be doubted.

But the idea that we are 'all' now recipients of non-wage income, at least in some societies – due most obviously to accumulated assets for the purposes of retirement income, and home ownership – so that abolishing pure property income is in 'no one's' interest, is too trite. The net impact of a permanent shift to zero pure property income, on individuals or households of particular economic profiles, has to be considered in terms of *the entire life cycle* of disposable income for such various types of households, taking into account the net effect of reduced outlay obligations during periods of net liabilities, and reduced revenues during periods of net assets, as well as the higher real wages associated with lower rates of return on capital. Households that overwhelmingly depend upon wage income and debt for the sum of their current consumption and their accumulation of assets (notably, owner-occupied housing and for retirement income) do not at all necessarily have a stake in keeping rates of return on capital relatively high. In truth, the appropriate short response on this issue is to endorse implementation of compulsory, defined-benefit, pay-as-you-go public pension systems for, say, the lowest eighty per cent of income-earners, so that reduced yields on private assets (whether held by the other twenty per cent or these eighty per cent) are no longer a matter of distributional concern in relation to cheap money (see, e.g., Pivetti 2006).

In fact, Keynes's normative grounds for a continuous cheap money policy in the *General Theory* (1936: 372–77) implies a zero *real* value of the riskless interest rate, not a zero nominal rate (Aspromourgos 2004b: 219–20, 232).[5] For given nominal asset values, a zero real rate just enables the real value of income-earning property to be preserved (if the nominal property income is saved). A negative real rate would be akin to capital taxation, preventing the preservation of agents' real capital (except by agents' saving more than their nominal property income), but with deductions from the real value of capital not appropriated via taxes, rather, benefiting agents in the system in their capacity as recipients of wages or as liability holders. If capital taxation is desirable, it should be undertaken as such, rather than attempting to indirectly reduce privately owned real capital in this manner. This specification of a zero real riskless rate as the strict target of Keynes-style euthanasia of the rentier points also to a final practical issue.

The question may arise, however ethically desirable a continuous zero-real-interest policy may be, can it be effected in practice? Under such a policy, government securities and outside money become closer substitutes as to pecuniary return. Might not the private sector demand for those securities then vanish? This would be true if, in all other economically relevant dimensions, outside money had at least as preferred attributes as government securities, and in at least one of those dimensions outside money had superior qualities (e.g., superior liquidity), sufficient to more than offset the advantages of government securities as to income differential (albeit a diminished differential).

This possibility is of no real moment. If true, it merely means that the permanently achievable target for the policy interest rate, on average over time, is not strictly the trend inflation rate (let us suppose equal to a positive target inflation rate, achieved over the medium term).[6] The interest target is then a somewhat higher rate. It is of no consequence for any element of the argument here, whether the permanently achievable real rate is zero, or 0.25 per cent, or 0.50 per cent – except that a positive real riskless rate would leave a positive real return on mere ownership of income-earning capital assets. Hereafter, we refer to this monetary policy simply as 'cheap money', leaving aside whether this means a zero or very low real rate. In practice, as

Keynes (1936: 202–04) well appreciated, market expectations have to be moulded towards acceptance of cheap money, to the extent that the policy is more or less unprecedented.

2. The Problem of an Alternative Instrument for Targeting Inflation

The most obvious obstacle to implementation of cheap money is the consequent need for an alternative inflation-targeting policy instrument. The only plausible possibility available would seem to be some form of fiscal policy. The only other possible inflation-targeting instrument at all contemplated in recent decades, some form of incomes policy, lacks plausibility in most countries, insofar as such policies are not readily compatible with decentralized labour markets and the decline of labour union membership. In this kind of institutional situation (most evident, among developed economies, in the Anglophone countries) only incomes policy administered via indirect government influence over private incomes could offer any hope for success. For example, income tax levers could be utilized as potential or threatened government responses to undesirable movements in private incomes. Even if capable of successful implementation, such measures in any case would be de facto fiscal measures. We therefore put aside the incomes policy option, though it may be worthy of further investigation.

Turning then to fiscal policy instruments, three distinct possibilities suggest themselves: 1) the overall ex ante, structural or full employment fiscal balance (hereafter, 'fiscal stance' for short); 2) commodity taxation in particular; and 3) income taxation in particular. (We are supposing that no single public expenditure instrument is capable of sufficient impact to serve the role of an anti-inflationary instrument, so that recourse to expenditure would collapse into recourse to fiscal stance.) With regard to the first of these three, since this involves potential revision of all aspects of government expenditures and tax revenues, changes in fiscal stance are rarely undertaken more frequently than once annually. If it is impracticable to do so more often, the question arises as to whether this is sufficient maximum frequency for an inflation-targeting policy instrument. With regard to the second, commodity taxation which involves taxing final domestic consumption alone – a value added (VAT) or similar consumption tax – is an attractive option to the extent that it varies purchasing power over commodities in proportion to individuals' contribution to aggregate consumption expenditures, while not similarly militating against investment expenditures (*cf.* note 3). On the other hand, a clear disadvantage is that in the face of inflationary pressures, raising a VAT rate in the first instance would *add* to upward pressure on prices.[7] Against this negative, a generalized increase in consumption taxation, given its broad reach, might not have to be considerable in order to replicate the dampening impact of a typical interest rate increase. The latter has a narrower direct contractionary impact on consumption (though it also more directly affects investment), which is also partly offset by its potential expansionary impact via the spending of agents holding net interest-bearing assets.

All three fiscal options face two further possible disadvantages over monetary policy. First, there is the question of implementation and compliance costs of using these instruments as discretionary policy tools – administrative costs both public and private. Already we have suggested that this renders fiscal stance incapable of serving by itself as an adequate anti-inflationary device, though this does not prevent fiscal stance, determined in an annual cycle, from playing a supporting role to other instruments, fiscal or monetary, as it commonly has. For example, there are the 'menu costs' of changing prices when VAT rates are changed; and the higher costs of determining income tax liabilities, and of government appropriating pay-as-you-earn income tax revenues, when income tax rates are varied within a fiscal year. But it should not be overlooked that interest rate changes impose administrative costs upon the private sector as well. In any case, the relative administrative costs of employing alternative policy instruments must be accounted for in any thorough evaluation of instrument choice.

This is not the place for a comprehensive consideration – either merely conceptual or also empirical – of those relative administrative costs. Any such analyses, however, should include

forward-looking inquiry. Progress in computer and information technology has surely reduced the public and private costs of varying both commodity and income taxes, relative to varying interest rates, and likely will continue to do so, though the riskless nominal rate still requires variation in a cheap money regime. That is to say, these technologies are enabling more flexible fiscal instruments – notably, adjustment of tax rates which is more frequent and quicker than is possible for 'fiscal stance' (in the strict sense defined above). The conventional view as to the superior flexibility of monetary policy over fiscal policy is based on comparing the former with fiscal stance as a whole. The rise of monetary policy as 'the' anti-inflationary instrument over the last three decades was in part justified by its superior flexibility *vis-à-vis* 'fiscal policy' in this sense. That comparative advantage may have declined, and may decline further in the future, relative to *particular* tax instruments.

The second disadvantage all three fiscal possibilities confront *vis-à-vis* monetary policy concerns the politics of discretionary power over instruments of public policy. The desirability of the separation of power over interest rate policy from the executive power of government is very widely accepted – and is not necessarily anti-democratic, so long as there remains an ultimate authority of the legislature over the monetary authorities. (Since the monetary authority is *constituted* by legislation, the authority's degree of independence is always the result of a self-denying ordinance of politicians.) If such a degree of independence of power over the inflation-targeting instrument is regarded as essential for successful policy, then fiscal alternatives to monetary policy are only as plausible as the possibility and desirability of transferring one or other of them to an authority independent of government.

It seems almost unthinkable that fiscal stance be delegated to an independent authority. It is more plausible that a narrower fiscal instrument, rates of VAT or income tax, be so delegated; but still, doubtful as to both practicability and desirability. In the constitution of independent monetary policy a rule is commonly placed over the policy objective in order to constrain discretion. In the case of an independent fiscal instrument, it would surely be necessary to impose a rule as well over use of the instrument itself; e.g., with respect to the maximum time horizon within which the tax rates must return to a norm, and perhaps also a rule with respect to the amplitude of variations in rates. It would be politically unsafe to undermine democratic principle, by otherwise allowing tax powers to be so considerably removed from electoral accountability. Also, in the absence of such constraints, government might lose a necessary authority over fiscal stance and budget coherence.

It is not completely impossible to imagine fiscal stance remaining under the control of government, even while the rate of a broad-based tax is independently determined, within limits. Fiscal stance would remain, in principle, an independent variable, due to other degrees of freedom. But governmental control of fiscal stance would be more or less considerably constrained. Hence in relation to this political dimension, if an independent fiscal authority is implausible, one must either abandon the possibility of a fiscal alternative to monetary policy, or reject the proposition that successful use of a fiscal instrument for targeting inflation requires some form of fiscal authority with a significant degree of independence from government. The latter view would be a departure from the current conventional wisdom that government cannot be trusted with direct responsibility for price stability.

To sum up, successfully replacing monetary policy as an inflation-targeting instrument with fiscal policy probably could not be merely a return to traditional styles of discretionary fiscal policy, with adjustments generally limited to only one annual turn of the policy lever, via the annual budget process. It likely requires a more flexible tool than that, with the capacity to adjust a sufficiently potent fiscal instrument more often and more quickly. Adjustment of just commodity or income tax rates would be capable of greater than annual frequency and shorter implementation lags.[8] As between these two options, an income tax instrument seems superior to commodity taxation, in being more equitable, not suffering the disadvantage of a perverse price-level effect, and probably involving lower administrative costs. Certainly both options are more equitable means of manipulating aggregate demand than monetary policy, insofar as they

spread adjustment more evenly across the population, rather than making the burden (at least the direct burden) proportional to net interest-bearing liabilities. Taking into account all the above-stated pros and cons, a flexible income tax instrument is probably the most viable fiscal alternative to monetary policy, though the possibility of a flexible VAT should not be completely dismissed.[9]

In a sophisticated stock-flow-consistent formal model grounded in the conception of growth as a demand-led process, Godley and Lavoie (2007a, building on their 2007b, esp. ch. 11) provide a theoretical justification for fiscal policy as a superior instrument to monetary policy, for aggregate demand stabilization (also Rochon and Setterfield 2007: 33–37; Martin (2008) provides further analytical clarification and confirmation of the Godly and Lavoie results.) This is strong support, in principle and in a coherent Keynesian framework, for fiscal policy as an inflation-targeting instrument, at least to the extent that inflation is due to excess aggregate demand. How successfully fiscal policy might address inflation due to incompatible distributional claims or 'cost-push' is another matter (the Rochon and Setterfield model incorporates this), though it is by no means impossible for demand management to influence such inflation (e.g, by shifting the balance of bargaining power around the labour contract, already mentioned above). In any case, to the extent that both fiscal and monetary policies only act upon inflation via their impact on aggregate demand, fiscal instruments cannot suffer in comparison with monetary policy on this account.

Nevertheless, the difficulties facing fiscal stance, and also narrower fiscal instruments, as possible substitutes for monetary policy, raised earlier in this section, cannot be addressed with theoretical modelling at the level of abstraction of Godley and Lavoie (see 2007a: 80, 89–90, 96; or Rochon and Setterfield 2007). There is also the further question of the relative lags involved in the conduct of fiscal instruments versus monetary policy. How quickly can fiscal adjustments be made and have their impact on aggregate demand, relative to monetary policy? The impact lags can be expected to be shorter for fiscal instruments than for monetary policy, and implementation lags are likely to be shorter for tax instruments than for expenditure instruments. There is no reason why any lag in policy-makers' recognizing the need for a policy change should differ between the two. But depending upon who is responsible for policy, there may be differences in *willingness* to make some policy changes, an issue related to the question of an independent fiscal authority raised above.

3. The Problem of Cheap Money and Speculation

As it happens, policies of low official interest rates have been under extensive discussion and scrutiny in recent years, in the context of explaining the Great Financial Crisis of 2007 forward. In particular, the idea has gained considerable currency that low US official rates *prior* to the crisis were at least a key element in the causes of the crisis – the so-called 'Greenspan put'.[10] Indeed, this quickly became a major motif of the conventional history of the crisis, particularly from the conservative perspective (e.g., Taylor 2009a; for a summary statement, 2009b). The ideological attractiveness of this is obvious, insofar as it fits neatly into a wider interpretation of the crisis, in which government is the main culprit – rather than capitalism itself, or under-regulated financial markets, or poor corporate leadership (poor in terms of competence or ethics or both). Posner (2009: 29–34, 46–47, 86–88, 105–06, 281–84, 315–19) outlines the view that low official interest rates caused the crisis, and endorses a partial role for easy monetary policy, but is emphatically not a 'government-policy-caused-it' conservative (see esp. pp. 112–16, 234–51). This is what makes his interpretation of the crisis particularly interesting. For Posner, the crisis is first and foremost an outcome of the 'rationality' of capitalist financial enterprise (see esp. pp. xii, 27–28, 235, 260, 269–87, 306, 320–26). In any case, one cannot invalidate a descriptive or causal proposition merely by demonstrating that its advocates have a morally dubious ideological motivation.

Actually, it is of no moment here whether the Greenspan-put notion is a fair and accurate interpretation of US monetary policy during those early years of the twenty-first century. What matters is the relation between the *notion* of such a policy and the cheap money policy being considered here. There are two distinct components to the former: official US interest rates were set at historically low levels, *and* those low rates were set at least partly in reaction to weak financial asset prices, with a view to placing a floor under prices. One may repudiate the second aspect of the policy – reacting asymmetrically to asset prices in this manner – without in any way contradicting the Keynes proposal of permanent low real (riskless) interest rates. Indeed, the Keynes policy implies a monetary policy regime in which the scope for policy to react to *any* short-run events – other than inflation, so as to aim for a zero real rate – might be eliminated, though in principle it remains consistent with such a policy regime to temporarily vary the real interest rate in response to inflation or asset prices. Repudiating the asymmetric, supposed Greenspan reaction function does not require repudiating short-run interest rate variations around a zero-real-rate norm.

With regard to the first aspect – setting low official rates – the argument that low official interest rates encouraged excessive risk-taking in pursuit of higher returns, or more particularly, that they contributed to the mis-pricing of risk, seems an altogether unreasonable blame to place on monetary policy.[11] How can the level at which the *riskless* interest rate is set be blamed for either excessive risk-taking or mis-pricing of risky assets? The correct pricing of risky assets requires calculation of appropriate premia for risks, to which the riskless yield is then merely to be added, in order to arrive at appropriate prices. Excessive risk-taking in search of higher yields in a low riskless interest rate environment is a species of myopia or other foolishness for which cheap money also cannot be held responsible. To suppose otherwise seems to be a highly ill-conceived variant of 'the devil made me do it'. A notion of irresistible temptation to behave badly with respect to risk-bearing or risk-pricing is offered as a justification for not having a zero riskless interest rate (the supposed temptation), with a positive riskless rate apparently being a cure for the bad behaviour. This is the monetary policy equivalent of prohibition as a solution for drunken debauchery.[12]

Should not the punchbowl be taken away only from the drunks? If higher interest rates are required for these kinds of reasons, it is not higher riskless rates, but rather, appropriately higher rates for the various classes of risky assets with common risk characteristics. To respond to these mistaken behaviours or misbehaviours with respect to risk with a positive riskless rate is to punish all holders of interest-bearing and wider liabilities, with an equal additional premium, as a response to the *different* riskiness of various subgroups of liabilities. Risks should be accounted for and priced in the assets where the risks reside. It is almost universally agreed in light of the Financial Crisis that restructuring the systems of financial regulation and supervision is required. This very likely must include structural or microeconomic policy measures which ensure better pricing of risk and allocation of credit, by more adequately imposing differential costs on provision of credit to different risk classes. Quite independent of the crisis, a monetary policy of cheap money along the lines under consideration here seems very much in need of a robust system of microeconomic regulation – but with *also* 'macro-prudential' aims – to ensure that risk is not under-priced, and to militate against asset price bubbles, whether they are due to risk under-pricing or other causes. For example, Charles Goodhart, among others, has been advocating time-varying, anti-cyclical capital and liquidity requirements for financial intermediaries (Brunnermeier *et al.* 2009).[13]

In a nutshell, the substantial obstacle that speculation constitutes for a zero real rate policy is that under these circumstances any expectations of real capital gain from acquiring some asset would offer the prospect of a loan-financed profitable opportunity, if loans for that purpose could be had at the zero real rate. In the face of positive asset price shocks that cause expectations of asset price inflation in excess of nominal interest rates, fixed nominal interest rates may cause greater debt-financed demand for those assets, so that the asset price shock is amplified (*cf.* notes 9, 13). Hence follows the policy importance of the magnitude of spreads between official riskless

rates and the variety of rates at which various financial products are transacted, in the cheap money regime under consideration here. It is the riskless nominal rate plus these spreads which will constitute the cost of funds for these speculative purposes. To put the same point differently and somewhat more broadly, if, from the loan demand side, a zero real riskless rate (together with positive shocks to asset prices) induces increased willingness to undertake debt-financed speculation in systemically dangerous ways, or to systemically dangerous levels, then a solution needs to be found on the side of debt supply and the supply-price of risky debt, and in the regulation and supervision of debt-issuing institutions. Krugman (2010) makes the point that a comparison of Canadian and US experience indicates that low interest rates can't have been a sufficient condition for the crisis, since Canadian rates followed US rates quite closely (nor the presence of too-big-to-fail financial institutions, since Canada's financial system is highly concentrated, with dominance by just five firms). The difference in financial and economic outcomes was due to the difference in the character and extent of financial regulation.[14]

4. The Problem of Internationally Open Financial Markets

Finally, there is the difficulty of whether a national monetary authority has the capacity to independently set interest, once one steps outside the framework of a closed, single-currency economic system with a singular monetary authority (Aspromourgos 2004b: 232–33). In a globalized world, the capacity for monetary policy to set interest would fairly straightforwardly continue to apply to economies with substantially restricted international financial flows – or to a closed global system of multiple interacting currency areas and internationally open, globally integrated financial markets, but with a single dominant monetary authority able to independently set the pace for global interest rates.[15]

The matter becomes more complicated if there is in the global system no single monetary authority able to independently impose its will as to interest. Then interest rate setting would be subject to a potentially complex matrix of forces, notably, the interacting and interdependent conduct of a small number of major central banks, none of which is capable of unilaterally imposing its will. Also, in conditions where monetary policy, in not being singular is less than decisive, there is greater scope for market sentiment to play a decisive role in setting the level of interest rates. The options for overcoming this kind of difficulty are either restricting international financial flows, or effecting coordination between globally significant monetary authorities, or establishing a genuinely singular global monetary authority.

5. An Alternative Real Interest Rate Norm

Our argument throughout the foregoing has been premised on an ethical norm, that a zero riskless real income return on capital as such – an absence of real income from mere ownership of capital – is desirable. A somewhat different normative principle has been offered by Lavoie and Seccareccia (1999; see also 1988: 152–57; Godley and Lavoie 2007a: 97), claiming to be following a lead from Pasinetti (1980–81; 1981: 156–75). They propose that the 'fair' rate of interest, ethically appropriate to impose in a mixed capitalist economy, is a nominal interest rate equal to the rate of wage inflation (at least in economic systems subject to nonnegative labour productivity growth), or a zero real rate *in terms of labour*. The rationale is that this 'maintains the purchasing power, in terms of command over labor hours, of funds that are borrowed or lent' (Lavoie and Seccareccia 1999: 544). When combined with the supposition of a constant general rate of profit, so that real wages rise in line with labour productivity growth, this norm generates also the neat result, that the associated real rate of interest *in commodity terms* is positive and equal to the rate of labour productivity growth.[16] In fact, since the nominal interest

rate is being set equal to the rate of wage inflation, in an economic system in which real wages are rising in *any* degree, the proposed fair interest rate will generate positive real interest in commodity terms, since the rate of price inflation necessarily will be lower than the rate of wage inflation. In short, under conditions of rising labour productivity and real wages the proposed fair interest norm produces a higher real interest rate than our preferred norm.

Pasinetti (1981) does indeed enunciate the interest rate principle which Lavoie and Seccareccia suggest applying to actual twenty-first-century economies. He does not provide any explicit ethical rationale for his interest rate norm; the rationale is merely implicit in the norm being an extension of the labour theory of exchange value to intertemporal exchanges given effect via debt contracts (Pasinetti 1980–81: 178; 1981: 169). But in Pasinetti (1981) a '*natural*' economy is being theorized, which in decisive respects does not align with the character of mixed capitalist economies. In that kind of natural economy his nominal and real interest rate norms have a rather compelling moral logic. (The 1980–81 article contemplates a somewhat more special case of the same system.) But in a mixed capitalist economy these norms do not have a similar ethical plausibility. In the natural economy, the loan contracts in which interest is embedded are between wage-earners only; they are only for intertemporal consumption transfers; and the interest rate bears no relation to the natural economy's profit rates. In a mixed capitalist economy, in which interest rates and profit rates are brought into alignment via free competition, and the distribution of ownership over income-earning capital assets conforms to no plausible principle of equity, a positive real riskless interest rate (in commodity terms) is not ethically defensible in the manner in which it may be in Pasinetti's natural economy. He himself rejects the applicability of his natural interest norm to 'capitalist economic systems' (Pasinetti 1981: 173–75; Rochon and Setterfield 2007: 15, 25–26, and Smithin 2007: 114, appear oblivious to this).

6. Conclusion

Our purpose has been to explore the proposition that a positive real riskless rate of interest is neither ethically desirable nor functionally necessary for the operation of mixed capitalist economies. In particular, the latter aspect can be confirmed if certain significant potential obstacles standing in the way of implementing a zero real riskless rate can be overcome. In particular, there is a need for an alternative inflation-targeting policy instrument, probably a flexible tax instrument, and to so structure the system of financial regulation that a zero real riskless rate is not a stimulus to systemically dangerous asset price speculation. In relation to the former issue, there is the derivative question of whether an independent fiscal authority would then be required. And there is the further issue of how policy control over interest can be exercised in a world of globally integrated financial markets. There is a need for further research into many aspects of all this: the distributional impact of lower yields on capital assets (together with higher real wages), across the life cycle, for various classes of representative households; the responsiveness of aggregate expenditures to variations in tax rates versus interest rates; the capacity of fiscal stance, set once a year, to carry the burden of inflation targeting; the relative administrative costs of utilizing fiscal and monetary instruments; the possible constitution of, and rules for, an independent fiscal authority, if required; the likely length of implementation and impact lags for fiscal policy instruments; the design of effective and efficient systems of financial rules and regulation for restraining systemically dangerous asset price speculation; and the possible constitution of national and international financial systems which can ensure policy control over interest in a globally integrated world.

In any case, our tentative conclusion is that while cheap money (in the strict sense of section 1) is implementable in principle, it faces very considerable, possibly insuperable, obstacles in practice. It may be noted however that parts of the world have had very low interest rate policies, persisting for some quite lengthy periods, even after the so-called Keynesian post-War

quarter-century. Human progress often has been the result of human beings thinking the unthinkable – thinking out human possibilities previously thought impossible. Cheap money might seem a very considerable policy challenge. But in the process of human socio-economic development, a possible world must first be *imagined* as feasible, if it is ever to prove practicable: if a substantial effort is not made to imagine it as a feasible world, it *certainly* will never be actuated (*cf.* Aspromourgos 2009: 89). Keynes (1923: 138) famously characterized Gold-Standard monetary policy as 'a barbarous relic'. Even if, for now, there is no practicable alternative to inflation-targeting monetary policy – with official interest rates varied around a long-run positive real interest rate norm – we should not therefore pretend that this is all for the best, in the best of all possible worlds. Perhaps this policy regime also will come to be regarded as a barbarous relic.

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NOTES

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1. That is to say, the nominal rate of return *to maturity* is riskless. If the yield curve is not horizontal, there are apparently multiple riskless interest rates on government securities, depending upon maturity. On this issue, see Aspromourgos (2004b: 218).
2. For the theoretical underpinnings for these postulates, apart from Keynes and Sraffa, see Garegnani (1978–79), Eatwell and Milgate (1983), Garegnani (1988) for the first; Garegnani (1984; or 1987), Kurz and Salvadori (1995), Aspromourgos (2009) for the second; Panico (1988), Pivetti (1991), Panico (1993), Aspromourgos (2007) for the third; and more widely, the literature presented in Aspromourgos (2004a).
3. To the extent that raising interest rates influences inflation by inhibiting or delaying investment expenditures, if inflationary pressures are at all due to capital stock capacity constraints it is a strangely perverse policy, since it obstructs the growth of production capacity.
4. This is the average real federal funds rate, 1977–2006 (the average nominal rate was 6.59 per cent and average CPI inflation, 4.36 per cent). The nominal 10-year Treasury yield over the same period averaged 1.09 percentage points above the nominal federal funds rate. It may be noted also that rates of return on securities as much default risk free as US government securities – e.g., those issued by the Australian government – may systematically differ from US riskless rates, due to the intervention of other risks. Notably, while returns on Australian

government, Australian-dollar-denominated securities held to maturity are riskless in Australian dollar terms, in the global context they are subject to exchange rate risk.

5. Rochon and Setterfield (2007: 24, 37) appraise various Post Keynesian normative views on monetary policy, favouring a view close to ours, following Smithin (e.g., 2007: 103, 114). Wray (2007: 136) and Smithin (2007: 114n) assert that Keynes's notion of euthanasia involves a zero nominal rate, without offering any supporting evidence. To be sure, Keynes is not very explicit on the issue. (There is no allowance for inflation, persistent or otherwise, in the parts of the *General Theory* directly relevant to 'euthanasia', nor hardly anywhere in the book.) Without going into detail here, suffice it to note that his construing euthanasia as allowing a return which covers the *replacement* cost of capital entails a zero real, not nominal, rate, when the two differ (Keynes 1936: 375).
6. In fact, even a nominal riskless interest rate below zero could be quite feasible policy, so long as secure storage of cash has positive costs. See Münchau (2009), who suggests as a plausible figure for storage costs, one to two per cent per annum of the value of cash held.
7. In fact, in the theoretical framework which informs our thinking here, at least *persistent* rises in interest rates will also *ceteris paribus* place upward pressure on the price level, and this is compatible with interest rate policy also being capable of effectively targeting inflation (Aspromourgos 2007: 520, 528). But an increased VAT rate (even if only temporary) may be expected to pass through to prices very rapidly, if not almost immediately.
8. The frequency with which monetary policy changes are typically made in the era of fiat moneys, floating currencies and explicitly interest-setting policy, over the last two decades, should not be exaggerated. For the decade 1997–2006, in a range of jurisdictions, the number of official interest rate changes were: Australia (22), European Union (23, including German policy changes for the period 1997–1998), Japan (6), UK (34) and US (39). The decade to 2006 has been used to avoid the extreme circumstances associated with the Great Financial Crisis.
9. The inflation rate with respect to which the nominal interest rate is set so as to achieve a zero real rate should be the actual inflation rate, not the policy target rate, even if the latter is successfully realized over the medium- to long-run. In the face of demand shocks that cause inflation to change in the same direction, fixed nominal interest rates will cause real interest rates to move in the opposite direction; and if also real aggregate demand varies inversely with real interest, then *ceteris paribus* demand shocks are amplified. However, a monetary policy pursuing a long-run, zero-real-interest-rate target could at the same time play a supporting role in inflation-targeting policy, by adjusting not only the nominal interest rate as actual inflation varies, but also deviating the real rate around zero. As inflation deviates temporarily from target the policy nominal rate would be temporarily adjusted in the same direction and by more (Aspromourgos 2004b: 232). But this would entail giving up some of the benefits of abandoning inflation-targeting monetary policy. See the last two of the six benefits enumerated in section 1.
10. It is possible to render this conviction consistent with the view that low, even very low, official rates were an element also of the correct policy response to the crisis, at least in the immediate crisis situation, from 2008 forward. But there is surely at least a tension between the two views. In effect, one must argue that the Greenspan put and the moral hazard it is supposed to have generated were avoidable; but once the crisis unfolded, very low official interest rates were an imperative response, even if generating moral hazard. The moral hazard generated by the latter policy response was left to be dealt with 'later', by appropriate restructuring of the systems of financial regulation. On the notion of the Greenspan put, see, for example, Morris (2008: 62–65) and Kaufman (2009: 171–72, 197–98, 207–09, 235-37).
11. Of course, at the theoretical level, behind some (in particular, academic) versions of these arguments is some variant or other of Knut Wicksell's equilibrium natural rate of interest, combined with the view that low official rates involved holding the wider set of rates persistently and inappropriately below equilibrium levels.
12. US Federal Reserve Chairman (1951–1970), William McChesney Martin, famously spoke of taking away the punch bowl just as the party gets going, as a metaphor for preemptive tight monetary policy.
13. Consistent with a long-run zero-real-interest policy, it remains possible for monetary policy, still, to respond to asset price inflation or bubbles by temporarily leaning against the wind (so

long as it is only needs to be temporary), just as monetary policy could continue to respond to 'flow inflation' – inflation of goods and services prices and of incomes (see note 9). Obviously, if asset price inflation and flow inflation are deviating from target in different directions simultaneously reacting to both could be problematic. But if the asset price problem is asymmetric from a policy standpoint (only *positive* asset price inflation may warrant an interest rate policy reaction) such a dilemma would only arise if there were positive asset price inflation simultaneous with flow inflation deviating below target.

14. If, after consideration of all relevant issues, the potential for low interest rates to encourage speculation is regarded as nevertheless still sufficient justification for an underlying and permanent above-zero real riskless interest rate as a component of all yields, then this nevertheless would be a functionality very different from that in the traditional and still dominant marginalist economic theory. The latter ultimately explains positive real interest as a necessary inducement for 'waiting', so as to enable the balancing of saving and investment in a general equilibrium with full employment of resources.
15. Impediments to international financial mobility, even in the absence of legal restrictions on mobility, leave some scope for national monetary authorities to set domestic interest rates, even in a world of globally integrated financial markets.
16. We put aside the complications that structural change and associated differential rates of labour productivity growth across industry sectors would introduce to these results (see Pasinetti 1981: 161–68).