

## Post Keynesian Monetary Economics: A Critical Survey

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### 1 Introduction

The first task one faces in preparing a survey of post Keynesian monetary economics is arriving at a sensible delimitation of the field: who is to count as a post Keynesian, and what is to count as monetary economics? Since this is not the only article in the present series dealing with post Keynesian themes, nor the only one dealing with money, I have adopted relatively narrow definitions on both counts. On the first question, I have for the most part restricted myself to writers who self-consciously classify themselves as post Keynesians. This means that some writers who have made interesting contributions to monetary economics that can be regarded as ‘post-Keynesian’ in a more extended sense—Hicks, Tobin, Clower, Leijonhufvud—will appear only on the sidelines in this essay. Further, I have employed the distinction made by Dutt and Amadeo (1990), between post Keynesians proper and the ‘neo-Ricardian Keynesians’ (such as John Eatwell, Murray Milgate, and Pierangelo Garegnani): the work of the latter will be considered only insofar as it bears directly on concerns raised by the former.<sup>1</sup> I shall also operate with a fairly restrictive defini-

<sup>1</sup>Some surveyors (Dow, 1985; Harcourt, 1987) have employed a broader definition, including the neo-Ricardian Keynesians under the post Keynesian rubric. Davidson (1991A, pp. 282–283) offers an even broader definition, but subdivides the Post Keynesians into Socialist-Radicals, Neo-Keynesians, and Keynesians proper (placing himself in the latter category).

tion of monetary economics;<sup>2</sup> even so, the field of post Keynesian monetary economics thus demarcated is still a large one, particularly in view of Eichner and Kregel’s claim (1975, p. 1309) that since “post-Keynesian theory deals with a monetized production economy in Keynes’s sense, there can be no analysis of money separate from the analysis of the overall actions of the system.”

At the outset it may be helpful briefly to situate post Keynesian economics as a whole, to provide a context for the specifically monetary work in this tradition. At its most general, the post Keynesian point of view may be summed up as follows. Keynes inaugurated a radical break in the way we ought to think about the workings of market, capitalist economies, yet this radicalism has been sold short in the post-war development of mainstream ‘Keynesian’ economics. The neoclassical synthesis, as embodied in textbook IS-LM analysis, is seen as traducing Keynes’s essential message. Post Keynesians are then in one sense ‘fundamentalists’, seeking their inspiration in Keynes’s original texts, uncontaminated by the contagion of the neoclassical revival. The charge of insufficient radicalism may, however, also be turned against Keynes himself. There is Joan Robinson’s famous remark, that the younger members of the Cambridge ‘Circus’ “had some trouble in getting Maynard to see what the point of his revolution really was” (1973, p. 170). More recently, Nicholas Kaldor and Basil Moore have argued that Keynes’s assumption (in *The General Theory*) of an exogenously-determined stock of money indicated his failure thoroughly to break with outmoded conceptions. Keynes’s acceptance (again in *The General Theory*) of the ‘first classical postulate’—namely that in equilibrium the real wage equals the marginal product of labour, and that the latter is a declining function of the level of employment—has come in for similar attack

<sup>2</sup>Due to space constraints I have attempted so far as possible to distinguish between *monetary* questions proper and financial questions, and to hold to the former. Unfortunately this means that Minsky’s (1976, 1982) ‘financial instability hypothesis’ is given less prominence than some readers may feel it deserves. Readers wishing to follow up on this theme may care to consult Dow and Earl (1982), in which Minsky’s ideas are applied to a number of historical instances of financial crisis, and also Kindleberger and Laffargue (1982), in which J.S. Fleming, R.W. Goldsmith and J. Melitz offer some interesting criticisms.

(see for instance Brothwell, 1988, p. 47).<sup>3</sup> And in this attempt to push Keynes beyond himself, so to speak, the post Keynesians have enlisted the aid of other economists whose work, while intersecting with Keynes's concerns in certain respects, had different foci and stemmed from different theoretical traditions: Kalecki, Sraffa, and—from even further afield—Ricardo and Marx.

Fundamentalism, in the sense of a return to the authentic Keynes, is therefore modified, among the post Keynesians, by a wish to develop the radical elements in Keynes and to discard the conservative. The resulting tensions are, as we shall see, apparent in monetary theory as much as in other areas of concern.

Another, somewhat narrower, view of what post Keynesian economics is about may also be useful in providing focus. That is, all post Keynesians would surely subscribe to, and regard as of the first importance, the proposition that wage-stickiness stemming from 'imperfections' in the labour market is *not* the explanation for persistent unemployment within Keynes's theory, contrary to many textbook presentations of the matter. Stated a bit more fully, the idea is that while deflation of money-wages in the face of large-scale unemployment *might* result in an increase in aggregate demand and employment under certain special circumstances (as suggested in chapter 19 of *The General Theory*), wage-deflation is both unreliable and dangerous as a putative cure for unemployment. At best, the positive effect of wage-deflation is highly indirect, and there is a good possibility that deflation may actually worsen the unemployment problem. Further, the absence of any reliable endogenous mechanism for overcoming persistent unemployment licenses Keynes's talk of 'unemployment equilibrium'—a stable state in which saving equals intended investment, the marginal efficiency of capital equals the rate of interest, and employers have no incentive to increase employment, yet a substantial fraction of the workforce remains idle. This proposition is common ground for all post Keynesians. But which par-

<sup>3</sup>Some post Keynesians have, however, stressed the tactical advantage of granting as many of the orthodox assumptions as possible, in order to produce a critique *a fortiori* of the orthodox conclusions: in relation to the exogeneity of money see Joan Robinson (1970), and on the first classical postulate see Chick (1983).

ticular element of Keynes's theory is the *key* to sustaining it, the *sine qua non* of Keynesian results?<sup>4</sup> Here there is room for debate, and from this perspective one of the central aims of post Keynesian *monetary* economics is to determine if and how this key element may be found in Keynes's monetary theory—or extensions thereof. I do not mean to suggest that justifying the concept of unemployment equilibrium is the sole object of post Keynesian work on money; nonetheless it is clearly important, and we shall return to it below. First, however, let me offer a brief account of the main distinguishing features of post Keynesian monetary economics.<sup>5</sup>

I suggest that there are two such features. First, and most generally, there is a stance that can be roughly indicated by the phrase 'money matters'. I shall expand on the meaning of this below, but as a first pass one can say that it refers to the integral role of money in a market, capitalist economy existing in historical time and facing an uncertain future (to coin some commonly used post Keynesian phrases). It signals the view that one cannot first analyse the economy in purely 'real' terms and then add on one's monetary theory 'afterwards'. This idea is common ground for most varieties of post Keynesianism, although it has been developed in various different ways. Second, many post Keynesians place great emphasis on the endogeneity (and causal passivity) of the quantity of money in modern economies. The centrality of the endogeneity issue is indicated by the fact that it is a principal concern in two recent volumes bearing the title *Post Keynesian Monetary Economics*—one in America (Rousseas, 1986) and one in the UK (Arestis, 1988).<sup>6</sup> If this is conjoined with the first stance, one

<sup>4</sup>Neo-Ricardian Keynesians might be distinguished from post Keynesians in the narrower sense by their belief that Keynes's own theory does *not* in fact provide an adequate basis for this proposition, and that his ideas must be supplemented by the Cambridge critique of orthodox capital theory before the concept of unemployment equilibrium is secure. See for instance Milgate (1982) and the contributions in Eatwell and Milgate (1983).

<sup>5</sup>Many specific references will be given later. To get a good overview of the field, see Paul Davidson's *Money and the Real World* (1978, or for a more condensed version, 1972), Chick (1983), and Kaldor and Trevithick (1981).

<sup>6</sup>It is also notable that in Sawyer's (1988) collection of post Keynesian papers, the two essays in the 'Money' section are on endogeneity (one each from Kaldor and Moore).

has the idea that while money matters (qualitatively, analytically), the actual *quantity* of the stuff in existence at any moment does not. The endogenous money theme, however, clearly sets up a tension with those of Keynes's arguments in *The General Theory* which presuppose an exogenous money stock. While some post Keynesians are willing to argue that Keynes was simply wrong in sticking with exogenous money, and even that the whole liquidity preference (LP) theory of interest is unserviceable as a result, others have been more reluctant to part company with LP theory. We shall return below to the question of whether one can take on board endogenous money and retain LP theory without falling into inconsistency.

Sections 2 and 3 of the paper survey these two themes—that money matters, and that modern money is essentially endogenous—in turn.

## 2 'Money matters'

'Money matters.' 'Money is non-neutral, even in the long run.' Such phrases recur frequently in the post Keynesian literature.<sup>7</sup> Somewhat confusingly, they are *not* the direct contraries of the propositions that 'money doesn't matter' and that 'money is neutral', as these have been understood by the economists who have from time to time asserted them. First, 'Money doesn't matter', in the Radcliffe sense,<sup>8</sup> means that the nominal stock of money has little or no independent causal role to play in the economy, and cannot be expected to bear a reliably close relationship with other macroeconomic variables of greater intrinsic interest. Its direct contrary is the statement that 'money matters' in the sense of Milton Friedman (1968), i.e. that variations in the nominal money stock *do* have an important role, in causing fluctuations in output and employment (in the short run) and in governing the rate

<sup>7</sup>Indeed, *Money Matters* is the title of one post Keynesian work: Dow and Earl (1982).

<sup>8</sup>That is, the Report of the *Committee on the Working of the Monetary System* (Cmd. 827), of 1959 (Radcliffe Report). Useful discussions of the ideas in the Radcliffe Report are to be found in Croome and Johnson (1970), Kahn (1972), Kaldor (1964, 1982), Roussea (1985) and Moore (1988).

of inflation (in the medium to long run). Secondly, 'neutrality of money' in the predominant modern sense of the term means that exogenous changes in the nominal money stock will have strictly temporary effects (if any) on real variables, and that the long-run response to such shocks will simply be a proportional re-scaling of nominal variables. 'Non-neutrality of money', within the same framework, means that exogenous changes in money stock have effects on real variables that persist into the long run: such shocks are not fully dissipated in nominal re-scalings. This is typically coupled with the idea that some obstacle ('friction') stands in the way of such re-scaling.

Now when post Keynesians say that money matters, they are neither rejecting Radcliffe nor agreeing with Friedman; and when they say that money is non-neutral they are not (for the most part) saying that exogenous changes in the stock of money have permanent real effects—many would say that the latter thought experiment is misconceived as there is no such thing as an exogenous shock to nominal money supply in a modern credit-money system. Rather, both phrases signify that money-holding, monetary exchange, money prices, monetary calculation, and the monetary financing of production are integral to a capitalist economy. They find their contrary in the idea that one can analyse a modern economy as if it were ultimately equivalent to a barter system, in which all decisions are made in terms of 'real' goods, with money supervening as a veil—a mere numeraire, or something whose use as medium of exchange is imposed by external fiat (of the theorist, or perhaps of the state). For the post Keynesians, it is the very *existence* of money that is 'non-neutral', rather than simply variations in its quantity:<sup>9</sup> an economy with actual money works quite differently from a barter economy with an arbitrarily selected numeraire labeled 'money'.<sup>10</sup>

<sup>9</sup>Variations in the quantity of money *can* be important in a post Keynesian context, but not as 'prime mover'. When firms wishing to carry out additional investment expenditure approach the banks for funds, it will make a difference whether these requests are granted (in which case money supply expands) or not. But this is far from the sort of exogenous 'helicopter drop' which is the starting point for orthodox discussions of the impact of changes in money stock.

<sup>10</sup>Some writers (e.g. Rotheim, 1981; Torr, 1988; Dillard, 1963) have suggested

This conception places the post Keynesians in what Schumpeter (1954) called the tradition of Monetary Analysis, as opposed to Real Analysis, to cite a distinction that has recently been reemphasized by Colin Rogers (1989). It serves to distinguish their views from all varieties of neoclassical theory; on the other hand, it is still a very general conception. It is arguable that both Hayek and Marx—theorists whose ideas were otherwise very different from each other’s, and from Keynes’s—participated in Monetary Analysis.<sup>11</sup> A lot therefore turns on the particular manner in which the theme of Monetary Analysis is developed.

As suggested above, we can focus our examination of the post Keynesian development of Monetary Analysis by means of the question, What is it about money that justifies and explains the notion of unemployment equilibrium? Let us first register the argument that the post Keynesians have to counter. If one is to justify the idea of unemployment *equilibrium* one must somehow break the following chain of reasoning, familiar to the reader of any macro textbook: persistent high unemployment will lead to ongoing deflation of wages and hence prices;<sup>12</sup> this will lead to a reduction in the rate of interest as the transactions demand for money falls (the ‘Keynes effect’), which will in turn stimulate investment, causing an increase in aggregate output and employment through the multiplier effect, hence (eventually) returning the economy to full employment. Keynesians of any variety are unlikely to dispute the idea that an increase in investment will re-

duce unemployment, so if the chain is to be broken, the break must occur before the rise in investment. Logically, the possibilities are therefore: (1) unemployment fails (readily) to generate deflation; (2) deflation fails to reduce the rate of interest; or (3) a reduction in the rate of interest fails to stimulate investment.

that this general conception of the non-neutrality of money is clearer in some of Keynes’s early drafts of the opening chapters of the *General Theory*—framed in terms of the distinction between the Barter Economy, the Cooperative Economy and the Entrepreneur Economy—than in the final published version (see Keynes, 1979). Leijonhufvud (1983) finds support in these writings for his own and Clower’s interpretation of Keynes’s theory in terms of the distinction between notional and effective demands. Barends (1990), however, argues that Keynes had good reasons for eventually rejecting this mode of presentation of his argument.

<sup>11</sup>On similarities between Keynes and Marx with regard to the general project of Monetary Analysis, see Kenway (1983); on Keynes and Hayek, see Hudson (1988), Cottrell (1993). But also see Lawlor and Horn (1992) for the argument that Hayek failed to make good on his promise to do Monetary Analysis.

<sup>12</sup>Note: “and hence prices”. If the economy is at the point of effective demand there will be no *direct* pressure for prices to fall, regardless of the amount of unemployment. If deflation is to occur at all, it must be initiated by falling wages.

A brief digression before proceeding: It might be thought that in the following pages I devote undue attention to the ‘Keynes effect’, out of proportion to the extent to which this effect is discussed in the post Keynesian literature that is under scrutiny. My reply is that I am trying to get at what *differentiates* post Keynesian theory (monetary theory in particular) from more orthodox macroeconomics. It seems to me that the Keynes effect is a key component of that orthodoxy—with its notion of eventual convergence on full employment—and therefore the negation of this effect must be a key component of any attempt to defend the idea of unemployment equilibrium, whether or not it is always recog-

<sup>13</sup>As regards point (3), it is clearly possible that a fall in the rate of interest fails to stimulate investment, if the investment demand schedule is simultaneously shifting downwards, and we return to this below. It may be noted, however, that the neo-Ricardian Keynesians have a particular interest in possibility (3), for they argue that the Cambridge capital critique undermines the whole notion of a negatively interest-elastic investment demand schedule (Garegnani, 1983; Milgate, 1982). Hence Keynes’s MEC schedule (see below) is seen as a neoclassical holdover, to be excised from an updated Keynesianism. For a contrary view, see Pasinetti (1974), Brothwell (1988), Rogers (1989).

nised as such by the post Keynesians themselves.

## 2.1 Money and contracts

The first sort of argument noted above is perhaps most closely associated with the name of Paul Davidson (1972, 1978, 1991A; see also Minsky, 1982). Briefly, it goes as follows (though typically step 1 below is left implicit):

1. The complex division of labour and ramified interdependence that characterise a capitalist economy are unthinkable without money as a universal medium of exchange. It would be impossible, that is, to arrange the necessary multilateral exchange relations via any form of barter.<sup>14</sup>
2. Further, money as universal medium of exchange in *spot* transactions is not adequate in itself. Production takes time, and the capitalist who would undertake a given production process needs financing to bridge the gap between his initial purchases of means of production and the eventual realization of sales revenue. This implies the existence of monetary debt contracts. And once such debt contracts are recognised, other money-denominated contracts follow. The capitalist taking a debt position to finance production, and therefore committed to repaying certain quantities of the medium of exchange at specified future dates, will wish to gain advance control, so far as possible, over his ongoing money costs and revenues: he will be disposed to favour long-term wage contracts, and to seek prior agreement on the prices his customers will pay for his output. In this way he limits the uncertainty attaching to a time-consuming production process.
3. It follows that ‘stickiness’ of wages and prices in a monetary capitalist economy is neither accidental nor undesirable;

<sup>14</sup>This is not to prejudge the issue of whether a complex division of labour might be coordinated without the use of money, via a central plan: given private property in the means of production, central planning is not an option for a capitalist economy.

rather it is a prerequisite of money playing its proper role. If all markets were spot markets, with fully flexible prices, this would create an intolerable degree of uncertainty and severely limit the ability of capitalists to enter into monetary debt contracts, hence also severely limiting the possibilities for capital investment.

This argument serves at once to fend off the ‘classical’ claim that full flexibility of wages and prices would ensure continuous full employment, and to justify an analysis of the determination of output and employment which assumes, as a first approximation, a given level of money wages. The claims made on behalf of wage and price flexibility are spurious from the start, for they overlook the deep structural reasons why full flexibility is incompatible with the very nature of capitalist production. We have here, so to speak, a *monetary* theory of wage and price stickiness, in contrast to the usual accounts in terms of market imperfections or irrationality.<sup>15</sup>

The argument seems generally plausible, and it also rationalizes Keynes’s lifelong concern with price stability (Meltzer, 1988), which is here seen as a prerequisite for money’s retaining its full ‘moneyness’. On the other hand, it can be argued that money is a somewhat more robust institution than this sort of reasoning tends to suggest (Chick, 1983, pp. 307–311). Price instability has certainly created problems for the functioning of capitalist economies, including, arguably, the debacle of the U.S. Savings and Loan institutions (insofar as their troubles originated when inflation speeded up, and current deposit rates came to exceed the fixed rates at which they had made mortgage loans in an earlier period of comparative price stability). But it has not, over the past two decades, led to the “monetary collapse” that Davidson (1991A, p. 253; original publication 1979) considered “inevitable” in the absence of a permanent incomes policy. That the monetary system has survived a long period of inflation does not, however, mean that it could survive perfect price flexibility in both

<sup>15</sup>Hence Magnani’s (1983) contention, that in producing a ‘sticky-wage’ interpretation of Keynes Davidson ultimately fails to distinguish his own position from the orthodox neoclassical synthesis, does not seem entirely fair.

upward and downward directions, and to that extent Davidson's (and Keynes's) point retains its validity.

## 2.2 'Monetary equilibrium'

I now turn to the argument that there is no necessity for the rate of interest to accommodate itself to the full-employment level of investment. I begin with a brief account of Keynes's views before examining the post Keynesian elaboration. According to Keynes, there exists a downward-sloping schedule of the marginal efficiency of capital (MEC): that is, the prospective return on investment—expressed as the discount rate that equates the present value of expected profits with the current supply price of capital goods—is a declining function of the current rate of investment. And for any given rate of interest, the equilibrium condition for investment is that the rate of production of new capital goods should be pushed to the point at which the MEC equals that rate of interest. It would seem to follow that, under most circumstances, there should be *some* rate of interest—Keynes (1936, p. 243) calls it the 'optimum rate'—which would generate a volume of investment sufficient to absorb full-employment saving. In pre-Keynesian loanable funds theories of interest, the actual market rate of interest is typically seen as gravitating towards precisely this rate, often labeled the 'natural rate'. Sustaining the concept of unemployment equilibrium, from this perspective, involves substituting an alternative theoretical scheme in which 'monetary equilibrium' (with a stable rate of interest, plus satisfaction of the MEC = interest rate condition) may be reached at an investment level which falls short of full-employment saving.

Keynes's own position on this is well known. He attacked what he called the 'classical theory', according to which the rate of interest is the factor that brings saving and investment into balance,<sup>16</sup> and substituted two new conceptions: first, it is the level

<sup>16</sup>Garegnani (1983) argues that this piece of labeling is quite misleading, since the so-called 'classical' theory of interest is not to be found in Ricardo, and is rather the property of later *neoclassical* writers. Both Ricardo and Malthus, says Garegnani, took for granted that saving and investment were necessarily equal, and therefore had no theoretical need for the rate of interest as equilibrating factor.

of *income* that adjusts to bring about equality between saving and intended investment, via the multiplier effect; and secondly the role of the rate of interest is to equilibrate the demand for money with the available stock of money. Hence, if a fully employed economy experiences a fall in intended investment, this will not, directly and of itself, generate a fall in the rate of interest sufficient to preserve full employment; rather there will be a fall in both income and saving via the multiplier. Nonetheless, this argument leaves the potential loophole of the 'Keynes effect' (see above) whereby deflation might, indirectly and eventually, lead to a reduction in the interest rate sufficient to reestablish full employment.

Post Keynesians have attempted to close this loophole in various ways. I shall first consider the argument of Rogers (1989), and then examine the position that stresses money's 'negligible elasticities of production and substitution', as analysed by Keynes in chapter 17 of the *General Theory*.

Rogers, who offers one of the most fully elaborated arguments of this sort to date, places great weight on Keynes's conception (1936, p. 203) of the rate of interest as a 'highly conventional phenomenon'.<sup>17</sup> Rogers reads this as implying that the interest rate is basically an exogenous variable, i.e. the relevant 'convention' is not sensitive in any systematic way to changes in other macro variables.<sup>18</sup> Keynes's early critics—notably D. H. Robertson—complained that his liquidity preference theory of the rate of interest left the latter as a 'bootstrap' variable: speculation on changes in bond prices would ensure that the actual rate of interest was kept fairly close to the perceived 'safe' or normal rate, yet the safe rate itself was left without any real theoretical determination.<sup>19</sup>

<sup>17</sup>Keynes's concept of 'convention' has attracted considerable attention lately. For an extended discussion see Littleboy (1990); and for the argument that the notion of convention in the *General Theory* is underpinned by Keynes's distinctive philosophical views, see O'Donnell (1989). A penetrating early discussion is given by Townshend (1937).

<sup>18</sup>A further possible reason for believing the rate of interest to be exogenous is provided by the post Keynesian theory of endogenous money, which is discussed at length below.

<sup>19</sup>The term 'bootstrap' was, I think, first used by Hicks (1939, p. 164), but

Rogers' move is in effect to embrace the bootstrap theory, by arguing that the average or normal rate of interest *cannot*, by its very nature, have any deep theoretical determination: it is inherently a matter of 'convention'.

In making this case, Rogers recruits the aid of Marx, by way of the discussion in Panico (1983). For Marx, as Panico reminds us, credit is a commodity *sui generis*, to which the laws of production do not apply, and it therefore can have no 'natural price' in the classical sense. Interest represents the share of total profits payable to the lenders of money-capital, and the size of this share is a matter for struggle or negotiation between the lenders and the industrial capitalists. It will vary depending on who is able to gain the upper hand, or upon the mutual accommodation reached between the two parties, but not in any scientifically predictable way.<sup>20</sup> This borrowing from Marx is somewhat problematic, as the rate of interest clearly plays a very different role in Marx and in Keynes (in particular, Keynes's conception of the interest rate as governing the rate of investment, and as equal to the MEC in equilibrium, is absent in Marx). The citation of Panico is also somewhat selective, as the latter finishes his piece by arguing that Marx was *wrong* in this respect, that in a well-specified Marxian model the rate of interest does, after all, have a determinate equilibrium value. Be that as it may, it is clear that Keynes laid stress on the idea of a conventional long-term rate of interest, and Rogers' idea—that this conception rules out the efficacy of the Keynes effect—merits attention in its own right.

I find the argument problematic. Suppose for the sake of argument that persistent high unemployment does give rise to continuing wage (and hence price) deflation. Let us also suppose, in the first instance, that the nominal money supply remains fixed. So long as deflation proceeds, the transactions demand for money progressively shrinks. In Keynes's terms, therefore, the maintenance of monetary equilibrium requires that an increasing proportion of the existing money stock must be held in the hoards of bears who believe that the rate of interest cannot go any lower, on

Robertson made more of the point. See for instance Keynes (1973, p. 98).

<sup>20</sup>The source for the above paraphrase is Marx (1971, chapter XXII).

a long-term basis (i.e. those who maintain an unchanged view of the conventional rate of interest). But here we are forced to consider Leijonhufvud's point (1981, p. 164): How long can the bears afford to allow such non-interest bearing hoards to accumulate? Surely sooner or later they must cut their losses, inferring that the conventional rate must, after all, be adjusted downward. The 'Keynes effect' ought eventually to outweigh the speculation that the old conventional rate can be maintained indefinitely—*unless*, of course, high unemployment fails to produce a continuing fall in wages and prices, or the actual money stock tends to shrink *pari passu* with the demand for money.

Now of course there are other possible effects—with negative consequences for employment—that may follow from prolonged deflation, as discussed by Keynes in chapter 19 of the *General Theory* as well as by various other writers. The main point here is the debt-deflation argument, which has two dimensions, *ex post* and *ex ante*. On the *ex post* side, agents who have taken out loans earlier, with no expectation of deflation, find their debt service much more onerous than anticipated, with potentially serious consequences for the solvency of borrowers and even for the integrity of the financial system as a whole (Fisher, 1933; Kalecki, 1944; Minsky, 1982). At the same time, and independently of the possibility of financial chaos, the transfer of wealth from borrowers (who have a relatively high propensity to spend) to lenders is likely to depress aggregate demand (Tobin, 1980, 1993). On the *ex ante* side, even if the nominal rate of interest is low, the prospective real rate may be high enough to deter investment, given an expectation of continuing deflation, as stressed by Moore (1988). The 'Keynes effect' may be powerless to offset these depressing influences. But these additional considerations, which suggest in various ways that recovery may fail to occur *even if* the Keynes effect is working to lower the rate of interest, would be theoretically redundant if one felt able to rely upon the 'exogenous interest rate' argument to the hilt.

I now turn to the argument based upon money's negligible elasticities of production and substitution. Davidson (1972, 1978) was the pioneer in re-emphasizing this aspect of Keynes's monetary

theory; Chick (1983, chapter 17) provides a lucid summary of the issues. As to money's negligible elasticity of production, this aspect of the case is quite straightforward. The idea is that the object chosen to serve as money must in the nature of things have a very low elasticity of supply. If this were not so, its quantity would be too variable, and hence the general price level too variable, in which case money would lose its moneyness (as discussed in section 2.1 above). With any ordinary commodity  $x$ , if there is an increase in the demand for  $x$  in preference to other goods this may be expected to lead to a reallocation of labour and other resources into the production of  $x$ , but if there should occur an autonomous increase in the demand for *money* this will generate unemployment, as demand is diverted away from producible goods towards non-producible money. This problem can't be solved by instituting a money that is readily producible by private enterprise, since, to repeat, such ready producibility would destroy the very 'moneyness' of the object in question.<sup>21</sup>

This point is important, in that it provides an avenue whereby a monetary economy might move into a high-unemployment state in the first place. It does not, however, negate the Keynes effect, whose mechanism relies upon the deflation supposedly consequent upon high unemployment. It may be suggested that the second negligible elasticity—that of substitution—offers something more here. I examine the argument as put by Keynes himself, since on this point his post Keynesian commentators have basically just paraphrased him.

Keynes (1936, p. 234) says that we cannot hope to find any other 'factor' that is "capable, if it is sufficiently cheap, of doing money's duty equally well." As deflation proceeds—i.e. the prices of labour and goods fall in terms of money—we might be tempted, Keynes seems to suggest, to imagine that one or other of these now relatively cheaper items might be able to stand in for money. But this is not so: money, for a monetary economy, is as irreplaceable as insulin for the diabetic. Hence, just as we might expect the demand for insulin to be highly price-inelastic, on the

<sup>21</sup>For an extension of this argument, in the form of a rebuttal of proposals for a 'competitive payments system' without any fiat currency, see Mott (1989).

grounds of the *substitution* effect at least, so will the demand for money be highly price-inelastic on substitution grounds. To this extent, deflation will be ineffective in lowering the rate of interest. What is strange about this argument, perhaps, is that it probably would not have occurred to most of us, without Keynes's prompting, to imagine that substitutability *would* be important in the case of money. (Raising this possibility, even if only to dismiss it, is characteristic of the depth to which Keynes probes money in chapter 17, taking nothing for granted about money or moneyness but seeking to establish everything from first principles.)

What *would* occur to the orthodox monetary theorist is not so much that other goods might come to stand in for 'high-priced' money, in the latter's roles as means of payment or supremely liquid asset (let alone as the unit of denomination of contracts), but rather that the quantity of money required to fulfill the former functions, in the ordinary way, would fall as prices fall. Hence if the stock of money in the system remains unchanged there should emerge an incipient excess supply of money. And on this point Keynes (1936, p. 232) agrees, although he insists that this will not *directly* generate an increase in spending on goods; rather, it will bring about a fall in the interest rate sufficient to make a home, in somebody's holdings of idle balances, for the money that is surplus to transactions requirements. By this indirect route, spending ought to be stimulated. This is precisely the Keynes effect.

So the second 'negligible elasticity' doesn't suffice to nullify the Keynes effect either. *Can* the concept of unemployment equilibrium be saved by monetary means? Maybe we should simply say that in these matters the equilibrium/disequilibrium couple is inappropriate. If the designation of the state of high unemployment as a case of *disequilibrium* is supposed to indicate that this state is automatically self-rectifying, provided only that the relevant prices are sufficiently flexible, then I fully share the post Keynesian objection to such talk. There is no *reliable* automatic mechanism for getting to full employment; and it is true that a range of equilibrium conditions may be satisfied in underemployment states (money demand equals money supply, interest rate equals MEC, real wage equals marginal product of labour). But

on the other hand a high unemployment state is not entirely a 'state of rest'. There *will* typically be downward pressure on wages, and hence on prices, and hence on the nominal interest rate, although there will also be offsetting effects in process, as in the discussion of debt-deflation above.

Further, there are good grounds for saying that full employment is not an 'equilibrium' state for capitalist economies either, as argued rather presciently by Kalecki (1943): if all those who wish to work can find jobs without difficulty, this in itself shifts the balance of class forces in a destabilising way. Perhaps Kaldor was on the right track when he urged us to do *Economics without Equilibrium* (1985).

With this thought I now turn to the second major theme of post Keynesian monetary theory.

### 3 Endogeneity of money

In most macro textbooks (as in Keynes's *General Theory*), it is presumed, at least as a first approximation, that the nominal supply of money is exogenously fixed by the central bank. I say as an approximation, because it is widely recognised that money supply is in some degree endogenous, in two distinct ways. First, in relation to the formula, money supply equals money multiplier times monetary base, it is recognised that the magnitude of the money multiplier is in part determined by the portfolio decisions of the private sector, so that even if the central bank were rigorously to control the monetary base, this would not yield precise control over the total supply of money (e.g. Tobin, 1963). Secondly, it is said that the central bank can, if it wishes, choose to control interest rates rather than money stock; and under such a regime the private sector demand for money must be passively accommodated. The latter effect might be referred to as *political* endogeneity of money, since it is seen as arising from a deliberate choice on the part of central banks *not* to exercise a quantitative control over money that is nonetheless within their power.

The endogeneity of money envisaged by post Keynesian theorists is more deeply rooted. According to Nicholas Kaldor and

Basil Moore,<sup>22</sup> the central bank simply does not have the option of exercising genuine quantitative control over the stock of money: the accommodation of the private-sector demand for money, at an interest rate of the authorities' choosing, is not a political choice but a structural necessity in a modern credit-money system. Their argument is that direct control over the monetary base would conflict with the central bank's function of lender of last resort, which is necessary for maintaining the integrity of the whole pyramid of money and credit. Changes in money stock are driven in the first instance by private-sector *loan* demand, which, they claim, the commercial banks are obliged to accommodate (particularly given the prevalence of overdraft agreements and pre-arranged lines of credit). Having created deposit money in response to such demands, the banks then need to get hold of extra reserves (to meet reserve requirements set by the monetary authority, or simply to maintain the convertibility of their deposits into fiat currency on demand). The central bank cannot simply *refuse* to supply the needed reserves; this would be to court financial disaster. All the authorities can do, if they wish to restrain the process of creation of bank money, is to adjust the *terms* on which they supply base money.

This argument leads to a particular perspective on the disinflationary policies pursued in both Britain and the USA in the late '70s and early '80s. While the monetarist argument for such policy ran in terms of a prior reduction in money growth (cause) leading to lower inflation (effect), according to Kaldor (1982) this is a smokescreen. Restrictive monetary policy actually takes the form of raising interest rates, and if this policy reduces inflation it must be by depressing investment (or perhaps exports, via the exchange rate), generating unemployment, and hence (eventually) slowing the growth of money wages. As wage costs decelerate, price inflation will also abate. Finally, as a *result* of all this, the growth rate of the demand for credit will decline and hence the money supply

<sup>22</sup>Perhaps the most succinct summary of the position is Kaldor and Trevithick (1981); the most fully elaborated version is Moore (1988). See also Kaldor (1964, 1970, 1982), Moore (1979, 1983), Lavoie (1985), Rousseas (1986), Arestis (1988), Wojnilower (1980), Wray (1990).

will grow more slowly. That is, the eventual slowdown of money growth is merely a side effect of disinflation achieved by the traditional means of recession and high unemployment. Monetarist theory provides a (false) rationalisation that may nonetheless serve the political function of making such a high-unemployment policy respectable.

This view of disinflation, although clearly controversial, stands in the tradition of mainstream UK postwar Keynesianism (as witness the evidence given to the Radcliffe committee, for a summary of which see Rousseas, 1985), and is not exclusive to the post Keynesian school. And the idea that direct control over the monetary base is not a realistic option for a modern monetary authority has been affirmed by central bank ‘insiders’ such as Charles Goodhart (1984). Kaldor and Moore, however, claim a further and more theoretically contentious corollary to the endogenous money theory, namely that in a credit-money system, the supply of money is “always and necessarily equal to the demand for money” (Moore, 1988, p. xiii; equivalent formulations may be found in several of Kaldor’s writings): supply is not only endogenously demand-driven, but actually has no existence independent of demand.

Before assessing the validity of this view (which I shall call the radical endogeneity theory), let us take stock of its rather far-reaching consequences. It entails the abandonment of Keynes’s liquidity preference (LP) theory of interest, according to which the role of the rate of interest is to equilibrate the (stock) demand for money with the available stock of money; rather it is the stock of money which always passively adjusts to match demand, regardless of the rate of interest.<sup>23</sup> Hence LP theory becomes at best a complicated means of determining the value of a mere residual devoid of any causal significance—the nominal stock of money (Lavoie, 1985, p. 73; Wojnilower, 1980, p. 324). In line with this general view, several post Keynesians who endorse the rad-

<sup>23</sup>Besides attacking liquidity preference theory, Moore (1988, pp. 309–315) argues that Keynesian multiplier is invalidated by the theory of endogenous money. I cannot go into details here, but it seems to me that Moore’s argument involves confusing a balance sheet identity (expansion of bank deposits equals expansion of bank advances) with an equilibrium condition (intended saving equals intended investment).

ical endogeneity theory have suggested that the monetary analysis in the *General Theory* is actually a retrograde step in relation to Keynes’s (1930) *Treatise on Money* (Rousseas, 1986; Arestis, 1988; Moore, 1988).<sup>24</sup> Lavoie (1985, p. 76) urges post Keynesians to excise those elements of the *General Theory* that are incompatible with endogenous money, and takes Paul Davidson to task for his “too great desire to stick to Keynes’ portfolio approach and to his vertically given money-supply”.

Besides the idea that the rate of interest equilibrates money demand and money stock, Keynes’s ideas on money’s ‘negligible elasticities’ of production and substitution (see section 2.2) are clearly under threat from the radical endogeneity theory. Money is said by Kaldor and Moore to have a *perfectly elastic* supply schedule; and a further aspect of the radical endogeneity theory—somewhat independent of the passively accommodating behaviour of bank money—also contradicts Keynes’s negligible elasticity of *substitution*. Kaldor and Stephen Rousseas, in particular, argue that even if money supply (as officially defined) were *not* passively accommodating, money stock would still be more or less irrelevant, because money’s ‘velocity’ is highly flexible. Milton Friedman argued from the observed stability of velocity (prior to the 1980s) to the conclusion that if the central bank were to control money supply it would thereby readily control nominal GNP. Not so, says Kaldor (e.g. 1982, p. 29): stability of velocity has arisen simply because the central bank system has accommodated money demand; and if it were to cease to do so, the private sector would soon find a way of creating money-substitutes (financial innovation), so that observed velocity would rise.

The corollary to the theory of radical endogeneity of the money stock is the idea that the rate of interest is exogenous, in the sense that it is set by decision of the central bank. Of course, this is strictly true only for the central bank’s own discount rate, which leaves the term- and risk-structure of rates in relation to the dis-

<sup>24</sup>There is a certain parallel here with Leijonhufvud (1981, chapter 7), who argues that the LP theory in the *General Theory* marks an obfuscatory backward step in relation to a sophisticated loanable funds theory of the rate of interest. For a rejoinder to Leijonhufvud and attempt to justify LP theory, see Cottrell and Lawlor (1991).

count rate still to be determined. But in some versions of the endogenous money theory the latter relativities are conceived as fairly straightforward cases of Kaleckian mark-up pricing. Philip Arestis (1988, p. 67) is not afraid to draw the conclusion that “the ‘post-Keynesian’ portmanteau ought to be changed to read more appropriately the ‘post-Kaleckian paradigm’.”

This conflict between the radical endogeneity theory and Keynes’s ideas extends to his post-*General Theory* writings. For instance, Keynes (1937) argued that while any expansion of investment will necessarily generate extra savings to match, *ex post*, nonetheless the pace of investment may be limited by the need for ‘finance’, in the sense of monetary resources obtained in *advance* of the actual investment expenditures. In this respect, Keynes saw the banks as playing a key role: by acceding to or denying such demands for advance finance, they determine whether or not *ex ante* investment plans will be realised. They are able, in effect, to place a limit on the pace of investment that is quite distinct from the ultimate limit posed by full employment. On the Kaldor/Moore view, on the other hand, the banks are mere ciphers in this process, passively accommodating whatever demands they happen to experience.

Not all post Keynesians, however, accept that endogenous money undercuts Keynes’s (later) monetary theory to this extent. At the minimum, it has been suggested (e.g. Mott, 1985; Dow and Dow, 1988) that LP theory—albeit in somewhat attenuated form—still has an important role to play in accounting for changes in the differentials between various market rates of interest and the discount rate; thus, even taking the latter as given, an increase (decrease) in liquidity preference will tend to raise (lower) long-term bond rates. Going further, some writers have tackled the radical endogeneity theory head on, arguing that the passive accommodation of the demand for bank credit is overstated (e.g. Wray, 1992), and that the demand for bank credit is anyway not the same thing as the demand for money to hold (Coghlan, 1981, p. 30; Chick, 1983, p. 237; Goodhart, 1984, chapter 10 and 1989; Cottrell, 1986, 1988). The latter argument points in two directions. First, it means that even if we accept that the banks pas-

sively accommodate the demand for loans, it does not follow that money demand and supply are always necessarily equal. When new money is brought into existence via bank lending, we may safely assume that it will be readily accepted in exchange (just like ‘old’ money, from which it is indistinguishable by the recipient), but we cannot assume that the resulting increase in money stock will be without any further consequences. The arguments of the money demand function will have to change, over time, in such a way that the new total stock is willingly held as such (cf. Keynes, 1936, p. 200, who discusses the case of an increase in government spending financed by money creation). Secondly, one can argue that even though the banks may (typically, but not automatically) accommodate the demand for loans to finance potentially profitable economic activity, the reaction to an autonomous increase in the liquidity preference of the public (i.e. the demand to hold money or near-money assets) is likely to be quite different, and non-accommodating (Wray, 1992). Agents wishing to adopt a more liquid position, rather than to finance production, will not (under most circumstances) apply for bank loans; they will probably try to sell off some less liquid assets. This will tend to lower the price and raise the yield on such assets, just as Keynes says. To rule this out, the banks would have to stand ready to buy, at a fixed price, whatever less liquid assets the public wish to unload; but *this* sort of ‘accommodation’ is not at all plausible.

It is thus quite possible to combine endogenous money with important elements of LP theory, provided that the former is *not* taken as implying that the supply of money always and necessarily equals the demand. Indeed, with the latter obstacle removed one may agree with Dow and Dow (1989, p. 149) that, with respect to some important issues at any rate, “Keynes’s exogenous money assumption simplifies, without altering the result of, a more holistic analysis”.

At this point we might pause to ask two closely related questions. What theory of the rate of interest emerges from the above arguments? And what bearing do these arguments have on the concept of underemployment equilibrium? A brief observation on the latter question to begin with: historically speaking, it does

not appear that there is an intimate connection between monetary endogeneity and underemployment equilibrium. If one believes that Keynes succeeded in making his point in *The General Theory* (under the assumption of exogenous money), it follows that the endogeneity of money is not *required* to justify unemployment equilibrium. And neither does endogenous money seem to be *sufficient* for this purpose, in the light of both Wicksell's (1936) theory of the 'cumulative processes' of inflation and deflation (where endogeneity of bank money is combined with a full-employment model), and the new classical Real Business Cycle theory, which requires endogeneity of money to escape the conclusion that the price level ought to move counter-cyclically in response to the supply-side shocks that are presumed to be the predominant cause of cyclical movement of output and employment (McCallum, 1986).

That said, we can get a deeper insight into the possible relationships between endogeneity of money and underemployment equilibrium by considering the first question above, concerning interest-rate theory. In section 2.2 we examined the argument that unemployment equilibrium finds its basis in the notion of 'monetary equilibrium', with the volume of investment tied to an interest rate that is unresponsive to the existence of excess supply in the labour market. At that point I raised some objections to the version of this argument that relies upon the idea of an exogenous 'convention'. Might it be that the endogenous money theory provides firmer ground for making such a claim?

The argument would be that if the interest rate is essentially an exogenous policy instrument (e.g. Moore, 1988), then deflation in the face of high unemployment will lead to lower interest rates (hence tending to return the system towards full employment) if and only if the central bank wills it. There is no automaticity. We have, however, already qualified the notion that 'the' interest rate is exogenous, by noting a role for liquidity preference in determining term- and risk-differentials. Suppose that a deflation-induced fall in the transactions demand for money leads to an increased demand for bonds. Unless the central bank stands ready to sell bonds out of its own portfolio, the long-term rate will fall rela-

tive to the discount rate. There may be some degree of 'Keynes effect' even if the central bank stands firm on the rate that is directly under its own control. And may there not be pressure on the central bank to lower the discount rate in line with market rates? This leads to a broader question. To say the discount rate is set by the central bank (and hence is 'exogenous' in one sense of the word) is surely not to say that it is set in a totally unconstrained manner: the behaviour of the central bank itself can be seen as 'endogenous', in some degree, to the working of the system as a whole. What theory of the central bank's own interest rate do the endogenous money theorists propose?

Kaldor (1982, p. 24) draws attention to international constraints on individual central banks. After writing  $r$  as an exogenous variable, he points out that for any single country "it could be a far more complicated equation, with the Bank Rate or Minimum Lending Rate being a function of the level, or of the rate of change in Central Bank Reserves, of gold or foreign currencies, and/or the rate of interest in other financial centres, etc." Such factors are clearly of great practical importance, but from the point of view of monetary theory as such it is perhaps more interesting to enquire into the forces governing central bank behaviour in a closed system (or in a dominant economy—the Federal Reserve or the Bundesbank). Marc Lavoie (1985, p. 78) adopts a Marxian view (cf. section 2.2), suggesting that the interest rate should be seen as "the result of a coalition between the bankers (including the central bank) who set the rates on loans and the rentiers whose savings are being continuously revalued on the stock market... a consensus between those who can manipulate and those who can benefit from interest rates." As in Marx, this sort of view precludes any 'general theory' of the rate of interest, since the particular accommodations reached by the institutions and groups in question are presumably historically specific.

Granting the force of this conception, we might still ask if there are not economic pressures at work, influencing the outcome of such a process. It is interesting to note that Moore (1988, chapter 13) ends up toying with a classically Wicksellian position on the

matter.<sup>25</sup> If the central bank sets a nominal interest rate that is ‘too low’ this will over-stimulate investment and lead to inflation; and to the extent this gives rise to expectations of continuing inflation, the *ex ante* real rate of interest will fall, compounding the inflationary pressure. Sooner or later, it would seem, the central bank will be forced to raise the nominal rate. On the other hand, if the nominal rate is set ‘too high’, this will generate deflation, the further expectation of which will raise the real rate, compounding the deflationary pressure. It then seems to follow that a central bank pursuing price stability will be pushed into setting a rate that is neither ‘too low’ nor ‘too high’ for full employment. The main qualification is, however, that inflationary pressure may arise short of full employment, and that the attempt to restrain this pressure via monetary policy will lead to persistent unemployment. Moore, like many post Keynesians, recommends some sort of incomes policy to cope with this problem.

In general terms, it seems that the ‘grey area’ created by the tendency for cost-inflation to emerge short of full employment—and for wages and prices to respond sluggishly, if at all, in the downward direction in the face of high unemployment—destroys the ‘knife-edge’ quality of the Wicksellian analysis. Thus there is a range of values over which the rate of interest is ‘too high’ for full employment, yet this is not signaled in the form of runaway deflation, and indeed the rate may appear ‘too low’ from the point of view of price stability. Hence the scope for the operation of the sort of convention, or policy exogeneity, discussed above.

## 4 Conclusion

In the foregoing I have only been able to outline some of the main themes and debates in a large and complex literature. In conclusion,

<sup>25</sup>Without, apparently, noticing the lineage of his position. Earlier in his (1988) book, Moore has dismissed Wicksell with the claim (taken from Rogers, 1989) that his theories rest on an aggregative conception of capital that is undercut by the Cambridge capital critique. I say ‘toying with’ a Wicksellian position, because Moore says more than once that the argument rests on the ‘unrealistic’ assumptions of price flexibility and competitive markets; nonetheless, he seems to think its implications are of practical importance (as for instance on p. 348).

ing, let me do two things: indicate some of the strands of post Keynesian monetary economics that have not readily found a place in my main expository scheme; and offer a brief assessment of the strengths and problematic areas of this literature as a whole.

Among the topics which I have been unable to examine at length here, three in particular come to mind. First, there is the post Keynesian critique of the Fisher effect (whereby nominal interest rates are supposed to adjust in line with inflation so as to preserve an underlying equilibrium real rate). Building on Keynes’s brief remarks in *The General Theory* (1936, pp. 142–143), Davidson (1981), Kaldor (1982, pp. 56, 96–97) and Rogers (1989, pp. 223–229) have argued that the theoretical basis for the Fisher effect is undercut by Keynes’s monetary analysis. This critique raises some intriguing issues that I think are not fully resolved and may repay further examination. Second, there is the discussion of Keynes’s (1937, 1937A) ‘finance motive’ for money demand, to which I have made a brief allusion above. Keynes saw this as completing his liquidity preference theory of interest, and as enabling him to accept some of the points made by critics such as D.H. Robertson and Bertil Ohlin while holding fast to his own conception of the interest rate as equilibrating the (stock) demand and supply of money. Davidson (1965) has emphasized the finance motive, and argued that it bridges the real and monetary sectors, hence undermining their separation in the IS and LM schedules of neoclassical synthesis Keynesianism. On the other hand, the finance motive has not found much favour with proponents of endogenous money, who have tended to argue that Keynes’s analysis is confused, and that finance is best analysed as a flow of credit rather than a stock of money (Lavoie, 1985: Moore, 1988, p. 199 ff.; Rousseas, 1986). More neutral discussions of the topic may be found in Chick (1983, pp. 198–200) and Asimakopulos (1991, pp. 109–115). Again, there are some interesting unresolved issues in this area. Third, there is the discussion of international monetary arrangements and exchange rates from a post Keynesian perspective. Paul Davidson (1982, 1991B part III) has done some interesting work in this area, updating and extending the concerns of Keynes at the time of Bretton Woods, as has Jan Kregel (1987; see

also Davidson and Kregel, 1991).

As for assessing post Keynesian monetary economics as a whole, I do not presume to pass judgement on such a broad-ranging and diverse set of arguments, but nonetheless some general points can be made. It should be apparent that this literature has the notable strength of confronting in a serious and sustained manner the difficult questions of Monetary Analysis, i.e. the theoretical problems that arise when one moves beyond the notion of money as mere *numeraire*. The post Keynesians are not alone in this—for instance, the work collected in Clower (1984) strikes me as a noteworthy contribution, despite the rather dismissive attitude taken by some post Keynesians (e.g. Rogers, 1989, pp. 65–66)—but they have kept it in the forefront of their concerns. Despite the reservations expressed above concerning the radical form of the endogeneity of money argument, it is also to the credit of the post Keynesians that they have undertaken a serious examination of the actual money supply process in modern economies, rather than simply assuming exogenous money (or, in the case of Real Business Cycle theory, endogenous money!) as a matter of analytical convenience.

On the problematic side, I have already indicated two concerns. Insofar as some post Keynesians are in quest for the Holy Grail of a perfect monetary proof of unemployment equilibrium, I think they are bound to be disappointed. And the readiness of some proponents of the endogenous money thesis to ditch so much of the monetary analysis of the *General Theory* may be read as indicating a damaging disarray among the challengers of monetary orthodoxy<sup>26</sup>—although, as we have seen, some post Keynesians have begun to show how these elements can co-exist, provided that the limits of each are properly defined.

In addition to these points, there is the ticklish question of the form and tone of post Keynesian monetary work. As the guardians

<sup>26</sup>More generally, it is ironic that those post Keynesians and neo-Ricardian Keynesians who argue that Keynes's *conclusions* can't be sustained without endogenous money and/or the Cambridge capital critique and/or the overthrow of the 'first classical postulate' are essentially agreeing with Frank Hahn, who—holding to a neoclassical viewpoint on what constitutes proper theory—has said that while Keynes had some vital insights, he was basically a lousy theorist.

of certain insights of Keynes's that have been neglected in mainstream economics, the post Keynesians have, I think, to beware of the dangers of turning these insights into slogans, and of giving a sectarian impression. I would second Bruce Littleboy's (1990) argument that post Keynesians might profit from a more sympathetic engagement with some other strands of Keynes-inspired monetary analysis, such as that of Clower and Leijonhufvud.

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