PROBLEMS WITH POST KEYNESIAN PRICE THEORY

A MARXIST PERSPECTIVE

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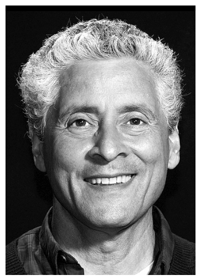

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Abstract: This article looks critically at the Post Keynesian theory of price. It is argued that underlying this theory is a view of the economy from the perspective of the entrepreneur, and it is this perspective that causes Post Keynesians to have a flawed understanding of prices. Specifically, it causes Post Keynesians to have an essentially circuitous and, in the final instance, vacuous explanation of prices. In a nutshell, Post Keynesians end up explaining prices by prices and, in the final instance, the value of money.

Key words: price; money; costs of production; credit; markup; profits; wage rate

1. Introduction

With criticisms of mainstream Neoclassical Economics growing, and policy makers at the highest levels in many countries opting for increasingly non-orthodox solutions in dealing with the fallout from the recent and ongoing global economic turmoil, Post Keynesian economics appears to be experiencing something of a (re-)revival, albeit mostly in academic circles.[1] Although the focus of most Post Keynesians remains squarely on explanations of the aforementioned global economic turmoil and policy implications thereof, it is quite likely that in the not too distant future, greater attention will once again be paid to certain of its core theoretical foundations. One of these will no doubt be the theory of price, and it is this that is the concern of the article.

As the title of this article suggests, my purpose in what follows is to critically review what I understand to be the Post Keynesian price theory, taking as my point of departure the work of Karl Marx, especially his theory of price in *Capital*. There have certainly been other reviews of Post Keynesian price theory, most notably by the highly respected Sraffian economist, Ian Steedman (1992), in his provocatively titled article "Questions for Kaleckians," but there have been relatively few, if any, from a Marxist perspective. Such a review is therefore long overdue, especially since it can also help clear up certain misconceptions regarding the supposed commonality of the Post Keynesian and Marxist price theories.

Of course, pivotally important to a review of this type is how one interprets the theory which is to be assessed. The obvious danger is one of setting up straw-persons. With this in mind, I will begin in the next section by delineating what I understand to be the Post Keynesian school of thought and follow this by outlining what I take to be the standard Post Keynesian exposition of price theory, identifying in the process its key elements. Thereafter, I will move to the core of this article, which is a discussion of what I consider to be the major problems with the Post Keynesian price theory from a Marxist perspective. I argue that these problems stem from the tendency of Post Keynesians to look at prices through the eyes of the individual entrepreneur.

2. Delineating Post Keynesians

In comparison with the dominant Neoclassical school of thought, Post Keynesianism is relatively new, emerging sometime in the mid-1970s according to several of its leading adherents. Today, it is seen as one of the major sub-groupings of the so-called Heterodox school of thought, a school whose sole unifying thread appears to be its opposition to mainstream Neoclassical economics.

Although Post Keynesians have always seen themselves as more than simply critics of mainstream Neoclassical Economics, it is unclear that the body of thought they adhere to can be said to constitute a coherent alternative to the latter—to Neoclassical economics. As is generally acknowledged, the major reason for doubting the coherence of Post Keynesian economics is that from its inception it has comprised three distinct strands of thought. These have been classified as fundamentalist Keynesian (i.e., those basing themselves on the works of John Maynard Keynes, and in particular his *General Theory*), Kaleckian (encompassing those who attach considerable importance to the writings of Michael Kalecki alongside those of Keynes), and Sraffian (encompassing those who take as their points of departure the writings of the great Italian economist, Piero Sraffa). A number of adherents of the Post Keynesian school have argued for the exclusion of Sraffians from their ranks because of what are perceived to be fundamental differences in focus and method. Thus, and notwithstanding the fact that they both focus on distributional issues, whereas Post Keynesians are seen as focusing on macroeconomic phenomena such as growth and employment, Sraffians are seen as more concerned with microeconomic issues such as the determination of relative price magnitudes. And, whereas Post Keynesians are seen as committed to an open system, historically informed, non-ergodic approach, Sraffians are perceived as adopting a closed system, a-historic, ergodic approach (see, e.g., Dunn 2000; 2008). Without getting into the merits or demerits of these arguments for excluding Sraffians from the ranks of Post Keynesians, and there are many who see themselves as Post Keynesians but oppose such an exclusion (see Hamouda and Harcourt 1988; Lavoie 2005; 2006; Mongiovi 2003), I will take the Post Keynesian and Sraffian price theories as separate because of what I, and many Post Keynesians and Sraffians, take to be fundamental differences between the two with respect to these theories (see, e.g., Steedman (1992) for the Sraffians, and Sawyer (1992) and Kriesler (1992) on the Post Keynesian side).[2]

It has to be said that even excluding Sraffians from the Post Keynesian fold does not make for an entirely agreed price theory within this fold. As many Post Keynesians have pointed out, there still remain a number of different strands of Post Keynesian price theory (see Lavoie 2006; Lee 1994). I would argue, however, that there are enough shared elements in the different strands to justify reference to a Post Keynesian theory of price. It is these shared elements that I will seek to identify in the following section, and largely focus on in my critical assessment of the Post Keynesian price theory in the ensuing section. I will of course pay attention to what I consider to be important differences between the various strands of Post Keynesian price theory in this critical assessment where and when I consider these to be relevant.

3. Key Elements of Post Keynesian Price Theory

Although Keynes himself left no formal analysis of price, the starting point for most Post Keynesian explanations of price, and concomitant explanations of money, is arguably Keynes' conception of the economy as a monetary or *entrepreneurial* economy. Following Keynes, Post Keynesians see such an economy as essentially one in which capitalist producers begin with a certain sum of money (M), acquire inputs, including labor, to produce a certain quantity of commodities (C), which they then sell for a larger sum of money (M′) with a view to appropriating a money profit (M′–M). The entrepreneurial economy is typically counterposed to a cooperative or barter economy, characterized by an exchange process in which goods are directly exchanged for each other (C–C′)—with C′ signifying a change in the use-value of the commodity—and a natural economy, where the exchange of commodities is mediated by money (i.e., C–M–C′).[3] For Post Keynesians, exchanges in both these latter types of economies are essentially spot transactions, whereas in the entrepreneurial economy, they are essentially forward looking. To quote Davidson (1980) "The existence of money contracts for forward delivery *and* payment is fundamental to the liquidity and money concepts" (302).

This view of the economy, and the exchange process in particular, causes Post Keynesians to implicitly, if not explicitly, see the pre-condition for commodities to possess prices as the appearance of money, and prices as assuming a money form from the outset.[4] Randall Wray puts it as follows, " . . . we cannot presume that markets come before money for the simple reason that until money exists there cannot be 'exchanges' (sales)" (Wray 2010, 3), and "Production is thoroughly monetary. It cannot begin with commodities, because the commodities must have been produced for sale for money. Analysis must also therefore begin with money" (Wray 2010, 5).

It also leads Post Keynesians to see prices as formed in the process of production by individual producers seeking to acquire the necessary money revenues to purchase inputs used up in the process of production, pay the wages of workers, and provide finance for investment (see, e.g., Lee 1994; Shapiro and Mott 1995).

A concomitant of how Post Keynesians see the emergence and formation of prices is how they see money, its nature, historical emergence, and functions. Thus, money is seen as a financial asset which allows the owner to purchase goods and settle debt obligations. Keynes himself saw money as a non-interest-bearing financial asset which is substitutable by interest-bearing financial assets.[5] Post Keynesians have extended Keynes' definition of money to include certain interest-bearing liabilities, notably commercial bank interest-bearing liabilities.[6] Most, but not all, Post Keynesians refer to this broader definition of money as "credit money" because it comes into existence with the contraction of debt both by the monetary authorities—in the case of cash—and the private banking system—in the case of bank liabilities. A few Post Keynesians, those belonging to the so-called Monetary Circuit approach, even see money as credit (see, e.g., Graziani 1996, 2003). Since most Post Keynesians conceive of the exchange process as one dominated by forward-looking contracts resulting in debt, they see money as emerging with the development of credit, even if they deny it to be credit as such. A few, the neo-Chartalists, see it emerging by state decree—when the state acquires the power to enforce payments of taxes in a unit of account of its choosing (see, e.g., Ingham 2004; Wray 2012). As to the functions of money, most Post Keynesians see the important and defining function of money in an entrepreneurial economy as that of store of value. It is this function that gives rise to fluctuations in effective demand in the economic system and explains its fundamental dynamic. While not denying the importance of the store of value function of money, neo-Chartalists argue for seeing money's unit of account function as its primary function since it is only once the state designates the unit of account and forces payment of taxes in this unit that money acquires value and can perform the other functions required of it.

When explaining the magnitudes of prices, Post Keynesians, following Michal Kalecki (and Gardiner Means), have traditionally made a fundamental distinction between prices formed in sectors using a high proportion of non-produced inputs, such as agricultural and raw materials goods production, and those formed in sectors using mostly produced inputs, such as manufacturing. It is argued that the former types of sectors are competitive environments where products and technologies are homogeneous, producers are price takers, and prices are flexible, while the latter types of sectors are necessarily non-competitive environments with differentiated products and technologies, in which producers set prices, and prices are relatively fixed for significant periods of time (see Kenyon 1979). Even though Post Keynesians nowadays pay less formal heed to the above-mentioned distinction between sectors, it remains implicit in, and integral to, the explanation of the magnitudes of commodity prices by at least one major sub-approach (see below).

At the same time, Post Keynesians deny that it is meaningful to conceive, even in the first instance, of the prices whose magnitudes need to be explained as relative, economy-wide equilibrium or reproduction prices (i.e., market clearing prices that facilitate the balanced reproduction of the system) in the manner of Classical Economics (see Shapiro and Mott 1995). Rather, Post Keynesians see the prices to be explained as sector specific, and, in the case of manufacturing, industry- or product-specific money prices. These latter prices are essentially disequilibrium prices formed in a non-competitive environment.

When explaining the magnitudes of prices of goods in the manufacturing sector, most Post Keynesians, also following Kalecki, adopt what could be referred to as a "cost plus mark-up" approach, with some measure or another of unit costs being seen as the major determinant of price (see Downward and Reynolds 1996; Eichner 1976; Kenyon 1979; Lavoie 2001). A significant minority differ from this majority view seeing prices as instead administratively or strategically determined. For this sub-group, the major determinant of price is the markup and not costs. Shapiro and Sawyer express this minority viewpoint in the following:

> Prices reflect the interests of firms rather than the conditions of their industries or markets. They are strategically determined rather than cost- or demand-determined, and it is that strategic determination of prices, and the conception of the firm that underlies it, that gives the Post Keynesian theory its realism and significance. (Shapiro and Sawyer 2003, 364)

Even among those subscribing to a cost plus mark-up approach, there are differences over what constitutes the costs on which the markup is based and how the markup is determined. The major division with respect to costs is between those who see them as "prime" costs and those who see them as "normal" costs.[7] The major division with respect to the markup is between those who see it as determined by the refinancing needs of corporations and those who see it as determined by some combination of the degree of concentration and power of an industry and the bargaining strength of labor vis-à-vis businesses.[8]

For those Post Keynesians who explicitly make a distinction between price formation in different sectors on the basis of the relative use of non-produced inputs, the magnitudes of prices in those sectors using proportionately more non-produced inputs, namely, agriculture and raw materials, are argued to be determined by supply and demand factors in a manner similar to that of Neoclassical Economics, and principally by demand in the context of supply rigidities in these sectors over the short-run.

Following logically from their analyses of the magnitudes of prices, Post Keynesians see *changes* in the magnitudes of prices as also differing between sectors depending on the extent to which they make use of non-produced inputs, with changes in manufacturing goods prices primarily attributable to changes in unit money wage costs[9] and changes in the prices of agricultural and raw material goods sectors largely due to changes in demand. With regard to the former, Post Keynesians place most emphasis on changes in the money wage rate, although some admit to the influence of productivity changes over the long run. Post Keynesians typically deny demand has any direct impact on changes in the money prices of manufactured commodities, certainly over the long run. This is because manufacturers are seen as usually operating with excess capacity; hence, any increase in demand will be met by an increase in output (resulting in an increase in the profit margin at given prices with a fall in the average cost). To the extent that demand can be seen as having some bearing on price changes, it is argued to be via its impact on unit costs as scale expands (see, e.g., Kaldor 1985).

Finally, Post Keynesians also locate the determination of the aggregate price level, and therefore the value of money, in the production process, and in particular the exchange ratio of money with labor, i.e., the money wage rate, at the commencement of production. Davidson expresses this as follows:

> What permits money to possess purchasing power is, ultimately, its intimate relationship to "offer contracts" in general and contracts involving labour offers specifically. Thus it is the money-wage rate, that is the number of units of the money-of-account which labour is willing to buy for a given unit of effort, which is the anchor upon which the price level of all producible goods is fastened. (Davidson 1972, 110)

The money wage rate is in turn seen as determined by a host of factors, including the struggle over aggregate net income between labor and businesses. Since commodities are deemed as entering circulation with pre-determined money prices and money with a given money value, it is denied that there can be an excess of money in circulation—with the logical corollary of this being that money stock is seen as being endogenous. That is, money is argued to enter circulation in response to the demand for it, with commercial banks seen as accommodating the demand for credit by the public and the central bank accommodating the demand for cash by commercial banks (to back the resulting credit-induced expansion of deposits).

4. Problems with Post Keynesian Price Theory

The basic problem with the general Post Keynesian approach to the analysis of price from a Marxist perspective is that it is founded on a myopic, if not to say distorted, view of how prices are formed. Specifically, Post Keynesians see prices as formed in, or even prior to, the process of production of the *individual* commodity, with money facilitating this process as money capital. What Post Keynesians are missing is that prices are in fact formed in the context of the reproduction of the individual commodity alongside all other commodities[10] in the context of an extensive division of labor, with money, not money as capital, facilitating this process. To amplify, what Post Keynesians overlook is (1) The process M–C–M′ is only one side of a two-sided, continuous process involving simultaneously the sale of commodities (C) for money (M) and the purchase of different commodities (C′)—either as direct inputs or for final consumption—i.e., C–M–C′; (2) the reproduction of the individual commodity is necessarily linked to, and takes place alongside, the reproduction of a multitude of other commodities; and (3) it is money that facilitates the reproduction of commodities, while it is money as capital that gives rise to the expansion in value of the commodities in the context of their reproduction.

As already argued above, from a Marxist perspective, this distorted view of how prices are formed stems from the fact that Post Keynesians adopt *the view of the entrepreneur* when analyzing prices. For some Post Keynesians, this is even a positive feature of their approach, and contrasts with the Neoclassical approach, which adopts the perspective of the individual consumer. A prominent Post Keynesian, Roy Rotheim (1981, 577) argues, e.g., that

> The *entrepreneur economy* is so named because it reflects the way entrepreneurs actually behave. . . . Keynes' attitude toward the classical *C–M–C′* model described above was that it "may be the standpoint of the private consumer, but it is not the attitude

> of business, which is a case of *M–C–M′*, i.e., of parting with money for commodity (or effort) in order to obtain more money." (Rotheim 1981, 81)

It is this distorted view of the formation of prices that has deleterious consequences for the entire Post Keynesian explanation of price and money.

4.1. Pre-condition, Nature, and Emergence of Price

One major consequence of this view of price formation is that it results in a failure of Post Keynesians to see commodities as possessing worth in relation to each other outside of, and prior to, their relation to money. That is to say, for Post Keynesians, although at the end of the production process commodities possess certain money prices bestowed on them by entrepreneurs, they are intrinsically valueless. Indeed, they are seen as only acquiring value or worth by exchanging with money, i.e., in the process of exchange.[11]

From a Marxist point of view what Post Keynesians overlook in this regard is that the acquisition of money, worth by commodities, presupposes commodities having worth in relation to one another in the first place. Commodities come to acquire worth or value in relation to each other when they are produced in the context of an extensive division of labor mediated by exchange (i.e., producers producing different products in isolation from one another for the purposes of exchange). In the early phases of commodity production, in barter, the bodily form of one commodity is the measure of the exchangeable worth of another. With the development of exchange, the measure assumes the bodily form of certain widely traded commodities such as hides, spices, and precious metals, and the exchangeable worth of traded commodities come to be depicted in terms of these widely traded commodities. That is to say, commodities acquire *a price form*—a form of exchangeable worth which is other than their own bodily form. When exchange becomes widespread, the measure of exchangeable worth becomes increasingly something which is accepted as having general exchangeability, i.e., it becomes money, and commodities indicate their own general exchangeability by acquiring the *money price form*. All of which suggests commodities acquire worth historically and logically before the appearance of money and their own acquisition of money price forms, and certainly before the appearance of credit.[12]

None of this should be taken as denying that commodities come into circulation with money prices, or that commodities which are not sold for money are valueless. Rather, what needs emphasizing is the fact that for commodities to acquire the form of exchangeable worth in relation to money (i.e., money prices), or even exchangeable worth in relation to each other (i.e., prices *per se*), they must have worth or value in relation to each other in the first place. A necessary condition for the latter is that they are produced in the context of a division of labor mediated by exchange.

Not surprisingly, their misunderstanding of how prices come to be formed causes Post Keynesians to also misunderstand the essential purpose of prices in market-based economic systems. It causes them to see prices as facilitating the expanded reproduction of the *individual* producer's commodities and not *all* commodities. This is because, as just argued, Post Keynesians do not see the exchange process as facilitating the reproduction of the individual commodity alongside all other commodities, as the glue that binds producers in a market system.

4.2. Money

A second major consequence of their view of how prices come to be formed is that it causes Post Keynesians to have a questionable view of money. Specifically, while it causes commodities to be seen as intrinsically valueless, it causes money to be seen by Post Keynesians as acquiring worth outside of its relation to commodities and prior to the acquisition of worth by commodities. From a Marxist perspective, what Post Keynesians overlook in this regard is that money, as the widely accepted representative of general exchangeable worth, can only appear once the exchange of products is somewhat widespread, and production for exchange is increasingly the norm.[13] It can only appear once commodities themselves begin to acquire a certain form, *the price form*, indicating they have exchangeable worth in relation to one another. With the appearance of money, the price form becomes the *money price form*—exchangeable worth measured by money. Money represents general exchangeability. When commodities acquire this form, it suggests they are commensurable with all other commodities and exchangeable for the representative of general exchangeability—money. Money certainly facilitates widespread commodity exchange, and the form of prices is necessarily the money form when exchange is widespread. However, money can only be understood with reference to the exchange process when the latter is seen as facilitating the reproduction of commodities in the context of an extensive division of labor. In other words, money cannot be understood as coming to represent general exchangeability independently of, and prior to, its role in facilitating the reproduction of commodities and the formation of their values, i.e., commodities acquiring worth in relation to one another.

This also means that money cannot be argued to emerge with the development of *credit*. Credit gives rise to the separation of the sale and purchase of commodities over time and, therefore, by definition, implies the prior existence of exchange relations. The denomination of debts and their settlement presupposes that something which represents general exchangeability already exists. It also means that money cannot be said to emerge by state decree, with its widespread adoption enforced through the necessity of payment of taxes. If this were the case, one might ask what sense is to be made of the historical use of precious metals and other symbols of general exchangeability before the advent of taxes.[14]

The Post Keynesian view of price formation also leads adherents of the approach to confuse money with both *capital* and *credit*. Money is seen as capital because the exchange process is posited as characterized by an expansion in value of a certain sum of money (viz., M–C–M′). However, while money can, and does, assume the form of capital, in the same way as a commodity too can and does assume the form of capital in capitalism, money is not capital per se, not even interest-bearing capital or a financial asset. Money represents general exchangeability while a financial asset does not. A financial asset is a claim on future income, while money is not. Incidentally, seeing money as essentially a financial asset also reinforces the notion that money acquires its worth outside the circulation of commodities, since the value of financial assets appears to grow without the intervention of the production of commodities.

One by-product of the Post Keynesian confusion of money with capital is that it causes many Post Keynesians to mistakenly see money's pre-eminent function as that of *store of value*. However, although money might well have been held as a store of value (or wealth) in pre-capitalist commodity production systems, and even the early stages of capitalism, this function of money virtually disappears in advanced capitalism since money only really preserves its value in this setting as capital (see Marx 1978, 261). That is to say, in advanced capitalism, it is money as capital which functions as a store of value, and not money as such. Post Keynesians confuse the two, and in the process confuse money's function as a means of purchasing financial assets (and even assets in general) with its function as a store of value.

Another by-product of the confusion of money with capital is that it causes Post Keynesians to see money as including close substitutes for it, particularly interest-bearing bank liabilities. However, interest-bearing bank liabilities do not represent money since they cannot be directly used to purchase something or settle a debt. Even non-interest-bearing bank liabilities are only close substitutes for money and not money in the final instance. This is because they are only accepted as performing the functions of money as long as there is confidence that they are readily convertible into cash should the necessity arise.[15] This, incidentally, is analogous to the case of state-issued notes backed by precious metals performing the functions of money in an international setting (i.e., as an international means of payment, settlement of debt, and store of value). As long as convertibility is assured, the paper money issued by the state of a particular nation can be taken to be substitutes of the precious metals backing them in their performance of the required functions of international money. However, once its convertibility is brought into question, state-issued money loses its luster as international money.

The confusion of money with credit by some Post Keynesians follows from their view of the exchange process in the money production economy as dominated by time-based contracts. However, while credit may replace money in the performance of certain of its functions, it is not money since it does not represent general exchangeability. One cannot always use credit to buy goods and/or settle debts. Rather, as even some Post Keynesians have noted, credit represents a more limited acceptability for these purposes (see Chick 2000). This is not to deny that money in an advanced capitalist setting is credit money, which emerges with the development of credit relations. Money, as state-issued paper money, is most certainly credit money in this setting because it represents intrinsically valueless drafts on all the goods and services of a nation. But state-issued credit money is not credit, at least not private credit. The latter does not have the backing of the resources of a nation, and therefore, as noted above, has a more limited acceptability as representing drafts on these resources.

Finally, the Post Keynesian view of price formation also causes adherents to confuse money's functions as a *unit of account* with that of *measure of the exchangeable worth* of commodities, or even to ignore the latter.[16] As a measure of the exchangeable worth of commodities, money converts this worth (i.e., the exchangeable worth of commodities in relation to each other) into a money magnitude thereby making the worth of different commodities in the process of exchange comparable. As a unit of account money serves to establish a standard for the money worth of commodities, i.e., dollars, euros, yen, etc. That is to say, the unit of account function of money presupposes its measure of exchangeable worth function. However, for money to be seen as measuring the exchangeable worth of commodities, commodities need to be seen as having *relative worth* in relation to one another independently of their relation to money. The problem is that for Post Keynesians, commodities only acquire notional and actual worth in their relation to money. Money is not seen as the measure of exchangeable value but as value *per se*. Hence, most Post Keynesians ignore money's function as measure and instead focus on its function as unit of account, sometimes giving the impression that they are referring to money's function as measure, when they are actually referring to its unit of account function.

4.3. Conceptualizing Prices

A third major consequence of the Post Keynesian view of price formation is that it leads adherents to deny that it is meaningful to abstract from market prices (actual money prices) in the first instance when explaining the magnitudes of these prices. For one thing, this means Post Keynesians deny that it is meaningful to draw an analytical distinction between *relative and money prices* and begin the explanation of the magnitudes of prices with an explanation of relative price magnitudes. This is because they do not see that money prices reflect, on the one hand, the worth of commodities in relation to one another, and on the other hand, the worth of all commodities in relation to money, i.e., the value of money. As a consequence, and as I will argue below, Post Keynesians conflate explanations of the worth of commodities with that of its measure, i.e., money. The source of the problem is that, as I have argued above, in effect, for Post Keynesians, commodities do not possess worth outside of their relation to money. To repeat, Post Keynesians fail to recognize that for commodities to have worth in relation to money, they should in the first place have worth in relation to each other, and independently of their relation to money.

Post Keynesians also deny that it is meaningful to conceive of the prices whose magnitudes need to be explained, as in the first instance, *economy-wide*, *equilibrium prices*, with equilibrium implying, in the tradition of Classical economics, a balance of supply and demand in all sectors and not, as for Neoclassicals, the absence of any "tendency for change" in prices. The fact that Post Keynesians do not see the prices to be explained as economy-wide prices follows from the fact that they do not see the essential purpose of prices as facilitating the reproduction of the economic system as a whole.[17] For Post Keynesians, it will be recalled, prices are set by individual producers to meet their individual goals—typically the expansion of production. Accordingly, there is no reason to suppose that such prices should facilitate the reproduction of the producer's own commodity alongside other commodities. To conceive of economy-wide prices as the starting point for the explanation of price magnitudes would require Post Keynesians to see the exchange process entirely differently, as other than from the perspective of the individual producer. It would require them to see the exchange process as fundamentally one mediating interconnected production (distribution and consumption) activities. To conceive of the prices to be explained in the first instance as also equilibrium prices would require Post Keynesians additionally to accept that the economic system must of necessity be in balance from time to time, however fleetingly, if it is argued to be continuing.[18]

4.4. Explaining the Magnitudes of Prices

The fourth and last major consequence of the Post Keynesian view of price formation, and one which builds on the preceding three noted above, is that it causes Post Keynesians to have a circuitous and essentially vacuous explanation of the *magnitudes* of prices. Post Keynesians can be said to have a circuitous explanation of prices in that for them the prices of *commodity outputs* are explained in terms of the prices of *commodity inputs* (which are also produced outputs), albeit alongside the prices of "factor" inputs and a markup on costs.[19] Most Post Keynesians, i.e., those adopting what was referred to above as a normal cost approach, appear oblivious to this circularity problem. A few, perhaps many who are also largely oblivious of this problem, adopt what was referred to above as a prime cost approach. Unlike the normal cost approach, this approach has the potential to circumvent the circularity problem because manufactured goods are excluded from those inputs which are seen as the cost basis for the markup, and overhead and depreciation charges are included in the markup. However, as even some Post Keynesians note (see, e.g., Lee 1994), it is unclear why (1) inputs of manufactured products (as inputs) used up in a given period are excluded from prime costs and (2) how and why overhead and depreciation charges can be taken as proportionate to prime costs and therefore included in the markup. More fundamentally, it is unclear what theoretical justification there is for reducing the basic costs of production to raw materials and wage costs, or even just wage costs, and seeing these as *antecedent* to and *independent* of the prices of manufactured products. To see raw material prices as antecedent to, and independent of, the prices of manufactured goods would require one to deny raw material production as an integral part of the reproduction of all commodities and, related to this, manufactures as inputs into raw material production.[20] Seeing wage costs as antecedent to, and independent of, the prices of manufactured commodities would require seeing these costs as primarily determined by the wage *rate* and the latter as not influenced by the prices of manufactures—to, once again, avoid the circularity argument. Seeing unit wage costs as primarily determined by the wage rate requires in turn a denial of the importance of labor productivity in the explanation of changes in these unit costs—something which Post Keynesians would admit is not supported by empirical evidence (see Lee 1994). And, seeing the wage rate as not influenced by the prices of manufactures requires seeing the money wage spent entirely on non-manufactures.

More problematically still, seeing unit money costs—even those taken as formed prior to, and independently of, prices—as determining the magnitudes of the money prices of commodities, requires seeing the magnitudes of these costs as simultaneously establishing the magnitude of the value of money. If not, it is unclear that changes in these costs can be said to give rise to corresponding changes in the *money* prices of commodities. I will return to this point below.

The Post Keynesian explanation of the magnitude of price also requires the money profits component to be seen as independent of, and antecedent to, price. This means seeing unit profits as fundamentally determined by the profit *rate*. As already alluded to, this in turn means having to deny the importance of labor productivity in the explanation of unit profits since changes in labor productivity will cause corresponding changes in both unit profits and unit labor costs (allowing for any distributional changes resulting from the changes in productivity), belying the argument that unit profits and unit costs are independent of and antecedent to price. Moreover, as with unit costs, so with unit profits, these can only be seen as determining the magnitudes of money prices if they, like unit costs, are seen as simultaneously determining the value of money.

As should by now be fairly apparent, the problematic nature of the Post Keynesian explanation of the magnitudes of prices becomes most manifest when it is extended to the explanation of *changes* in these magnitudes. Thus, for the explanation of changes in the prices of manufactured goods to be seen as more than a tautology (i.e., prices determining prices), the inputs into production cannot be seen as manufactures or related to manufactured goods prices. For changes in the prices of manufactured goods to be seen as due to prior changes in unit wage costs and the markup, these latter changes (i.e., in unit wage costs and the markup) cannot be seen as stemming from changes in productivity. Which means, changes in unit wage costs and unit profits need to be seen as due to changes in wage and profit *rates*. And, for changes in the money prices of manufactured goods to be seen as due to prior changes in the wage and profit rates as well as the prices of raw materials, all these prior changes need to be seen as implying corresponding changes in the value of money. The implication of this is that changes in the money prices of manufactured goods are in effect explained by changes in the value of money.

All of which brings me to the Post Keynesian explanation of the aggregate money price level and the value of money. It should also be apparent by now that this explanation is founded on the specific Post Keynesian understanding of the relation between money and commodities. It is an understanding that causes Post Keynesians to (1) implicitly, if not explicitly, see the value of money, and therefore money price level, as given by the quantitative relation of money to all inputs, especially labor, prior to the commencement of production, and (2) see the quantity of money facilitating the production of commodities as endogenous—in the sense of being determined by the money prices of commodities. To see the value of money as given by its exchange ratio with inputs requires Post Keynesians to see the exchange of money with inputs, especially labor, as independent of and prior to the exchange of money and commodities—the formation of the money prices of commodities. That is, it requires Post Keynesians to see the formation of the money prices of commodities as preceded by the formation of the money prices of inputs, including labor, and the money rate of profit. As noted above, this is a circuitous argument when inputs are taken to include manufactures. As also noted above, limiting produced inputs to raw materials gets around this problem but still requires Post Keynesians to see these as formed differently from, and prior to, the formation of the prices of manufactures. For those Post Keynesians who place particular emphasis on the money wage rate in the explanation of the aggregate price level, the challenge is to explain how the determination of the money wage rate can be seen as independent of, and antecedent to, the determination of the money prices of manufactures. This issue was already addressed above.

To see the quantity of money facilitating the circulation of commodities as endogenously determined requires Post Keynesians to see, among other things, money as anything and everything that performs the functions of money, including credit, and notwithstanding the objections to seeing credit as money by even certain Post Keynesians as noted above. It requires Post Keynesians to ignore the fact that some of what performs these functions of money, including credit, are in fact substitutes of it, albeit near-substitutes, and that there can be exceptionally high or low amounts of these substitutes at different junctures in the reproduction process such that the level of aggregate money prices and value of money are above or below their long-term levels. For Post Keynesians, however, there is no distinction to be made between long- and short-term levels of money prices and the value of money.

In the final instance, the source of the problem with the Post Keynesian approach to the explanation of the aggregate price level and value of money is that it fails to see money as acquiring its worth in relation to all commodities in the process of their reproduction.[21] And, it is because Post Keynesians confuse money with capital that they see its worth as stemming from its exchange relation with inputs, particularly labor. It is, after all, only when money functions as (productive) capital that it represents a command over labor services.

5. Concluding Remarks

This article has looked critically at the Post Keynesian price theory from a Marxist perspective and found it to be seriously flawed. The key problems identified are that commodities are essentially seen as intrinsically valueless and only acquiring worth when they exchange with money, money is seen as acquiring worth outside of its relation to commodities, and the money prices of commodities as outputs are circuitously explained by the money prices of commodities as inputs, albeit along with the money, wage and profit; to overcome this circuitous argument, the impact of labor productivity changes on unit wage costs and profit are, or needs to be, ignored, and changes in unit money costs and profit taken as implying corresponding changes in the value of money, and following from the preceding, the aggregate money price level and value of money are "explained" by the prior exchange relation of money and inputs into production, especially labor. It has been argued that most of these problems can be traced to how Post Keynesians look at the economy and the process of price formation. Specifically, they can be traced to the fact that Post Keynesians in effect adopt *the stance of the entrepreneur*.[22] It is this stance that causes them to see commodities as intrinsically valueless—only possessing worth in their relation with money—and money as possessing worth independently of the reproduction of commodities. It is this, in turn, that causes Post Keynesians to circuitously explain the prices of commodities as outputs by the prices of commodities as inputs and, in the final instance, by the value of money.

Notes

1. Several Post Keynesians have noted the "wildly optimistic" views of many of their colleagues in the mid-1970s regarding the possibility of their economics displacing Neoclassical Economics as the mainstream economics (see, e.g., Davidson 2003–4; Dunn 2000).
2. Although a founder member and editor of the *Journal of Post Keynesian Economics*, Paul Davidson, has called for a "small tent" definition of Post Keynesianism, which would also exclude Kaleckians to further increase the coherence of the school (see Davidson 2003–4; 2005), I see no analogous basis for the exclusion of Kaleckians from the Post Keynesian price theory fold as there is with Sraffians. Indeed, as will become clear below, it is the Kaleckians who provide the principal elements of what has come to be accepted as the Post Keynesian theory of price.
3. See Rotheim (1981).
4. The Post Keynesian view of the emergence of money being a pre-condition for the emergence of price is perhaps most closely identified with the so-called neo-Chartalists sub-school.
5. Kaldor makes the point that although Keynes often wrote as if he conceived of money as including interest-bearing assets, his liquidity preference theory only makes sense when money is conceived of as cash and non-interest-bearing financial assets (see Kaldor 1980, 294–96).
6. Most Post Keynesians, following Davidson (1978), have seen the important characteristics of money which make it money as zero elasticity of production and substitution. Zero elasticity of production means that money is not something that is producible through the exertion of labor, and zero elasticity of substitution means that money is not readily replaceable by something that is producible through the exertion of labor. However, a number of Post Keynesians have in more recent years been arguing for dropping these two characteristics of money in the context of the adoption of the endogenous money argument (see later) and the implied substitutability of money, even as bank interest-bearing liabilities, by an array of other financial assets (see Cottrell (1994) for summary of the arguments between Post Keynesians on this matter).
7. Prime costs are seen as those which change with changes in the level of output, and mostly comprise costs of intermediate physical inputs and wages. Normal costs are costs of production pertaining to a given level of output (productive capacity), and comprise prime as well as indirect and overhead costs—which do not change with the level of output.
8. Details of the divisions among Post Keynesians with respect to costs and the markup can be found in Lavoie (2001; 2006).
9. Post Keynesians adhering to the administered price approach see the major factor explaining changes in the magnitudes of prices as changes in the markup (see, e.g., Lee 1994; Shapiro and Sawyer 2003).
10. In his questions to Post Keynesians, Ian Steedman (1992) too notes their failure to consider price formation in any single industry in the context of price formation in all industries making up the economic system.
11. It is pertinent to note Marx's criticism of the Ricardian economist Samuel Bailey for similarly reducing value to money price and seeing the existence of value as contingent on the existence of money (see Marx 1972, 145–47).
12. See Nicholas (2011, Chapter 2) for an elaboration of this point.

13. This is not to say that money as a medium of exchange did not appear prior to widespread exchange and production for the market. It most certainly did. Rather, it is to make the point that these conditions are necessary for money to be widely accepted as general exchangeability.
14. In a critical review of the (Post Keynesian) neo-Chartalist interpretation of money, Rochon and Vernengo (2003, 64) point out that the Dutch guilder, British pound, and US dollar were not accepted in international commerce because of their international acceptability in the payment of taxes.
15. This is most starkly evidenced by the recent sudden and dramatic non-convertibility of many bank deposits in Cyprus.
16. This is particularly true of the neo-Chartalist approach that even sees money's unit of account function as its most important and defining function (see, e.g., Wray 2001).
17. See also Steedman (1992) on this point.
18. Claudio Sardoni (2008), citing the authority of Keynes, argues for the acceptance of the concept of equilibrium in Post Keynesian theory on the basis that the world we live in is fundamentally stable. However, he fails to explain how this concept would be consistent with the Post Keynesian view of the economy from the perspective of the individual entrepreneur, i.e., where prices are formed by individual producers setting prices in pursuit of individual goals.
19. Curiously, Steedman (1992) emphasizes this point in his questions for Kaleckians (Post Keynesians) arguing that Kaleckians should adopt a more general equilibrium framework to show the interdependence of output and input prices, but without any mention of the circuitous nature of such an explanation, i.e., prices explaining prices. The reason for this silence is, of course, because the Sraffian approach which Steedman subscribes to adopts a similarly circuitous explanation of price, albeit in a general equilibrium setting (see Nicholas 2011).
20. I have argued elsewhere (see Nicholas 2011, Chapter 7), in the traditions of Marx, Ricardo, and Sraffa, that there appears to be no real theoretical justification for seeing the formation of prices in the raw material sector as differing in any fundamental sense from the formation of prices in manufacturing.
21. Although the neo-Chartalist view of money diverges from the majority Post Keynesian view in the sense that money is seen as acquiring its value with the payment of taxes, it too sees money as acquiring worth independently of the reproduction of commodities.
22. It is pertinent to note here that many Post Keynesians defend themselves from certain of the criticisms advanced in this article by arguing that they are adopting "a theory of pricing" and not "a theory of prices" (see, e.g., Sawyer 1992) without any recognition that "a theory of pricing" is little more than looking at prices through the eyes of the entrepreneur.

References

Chick, V. 2000. "Money and Effective Demand." In *What Is Money?*, edited by J. N. Smithin, 124–38. London: Routledge.

Cottrell, A. 1994. "Critical Survey: Post-Keynesian Monetary Economics." *Cambridge Journal of Economics* 18: 587–605.

Davidson, P. 1972. "Money and the Real World." *Economic Journal* 82 (325): 101–15.

Davidson, P. 1978. "Why Money Matters: Lessons from a Half-Century of Monetary Theory." *Journal of Post Keynesian Economics* 1 (1): 46–70.

Davidson, P. 1980. "The Dual-Faceted Nature of the Keynesian Revolution: Money and Money Wages in Unemployment and Production Flow Prices." *Journal of Post Keynesian Economics* 2 (3): 291–307.

Davidson, P. 2003–4. "Setting the Record Straight on A History of Post Keynesian Economics." *Journal of Post Keynesian Economics* 26 (2): 245–72.

Davidson, P. 2005. "Responses to Lavoie, King, and Dow on What Post Keynesianism Is and Who Is a Post Keynesian." *Journal of Post Keynesian Economics* 27 (3): 393–408.

Downward, P., and P. Reynolds. 1996. "Alternative Perspectives on Post-Keynesian Price Theory." *Review of Political Economy* 8 (1): 67–78.
Dunn, S. P. 2000. "Wither Post Keynesianism?" *Journal of Post Keynesian Economics* 22 (3): 343–64.
Dunn, S. P. 2008. *The "Uncertain" Foundations of Post Keynesian Economics*. Abingdon: Routledge.
Eichner, A. S. 1976. *The Megacorp & Oligopoly: Micro Foundations of Macro Dynamics*. Cambridge: Cambridge University Press.
Graziani, A. 1996. "Money as Purchasing Power and Money as a Stock of Wealth in Keynesian Economic Thought." In *Money in Motion: The Post Keynesian and Circulation Approaches*, edited by G. Deleplace and E. J. Nell, 139–54. Basingstoke: Palgrave Macmillan.
Graziani, A. 2003. *The Monetary Theory of Production*. Cambridge: Cambridge University Press.
Hamouda, O. F., and G. C. Harcourt. 1988. "Post Keynesianism: From Criticism to Coherence?" *Bulletin of Economic Research* 40 (1): 1–33.
Ingham, G. K. 2004. *The Nature of Money*. Cambridge: Polity.
Kaldor, N. 1980. "Monetarism and UK Monetary Policy." *Cambridge Journal of Economics* 4: 293–318.
Kaldor, N. 1985. *Economics without Equilibrium*. Cardiff: University College Cardiff Press.
Kenyon, P. 1979. "Pricing." In *A Guide to Post-Keynesian Economics*, edited by A. S. Eichner, 34–45. London: Macmillan Press.
Kriesler, P. 1992. "Answers for Steedman." *Review of Political Economy* 4 (2): 163–70.
Lavoie, M. 2001. "Pricing." In *A New Guide to Post Keynesian Economics*, edited by R. P. F. Holt and S. Pressman, 21–31. London: Routledge.
Lavoie, M. 2005. "Changing Definitions: A Comment on Davidson's Critique of King's History of Post Keynesianism." *Journal of Post Keynesian Economics* 27: 371–76.
Lavoie, M. 2006. *Introduction to Post-Keynesian Economics*. Basingstoke: Palgrave Macmillan.
Lee, F. S. 1994. "From Post-Keynesian to Historical Price Theory, Part I: Facts, Theory and Empirically Grounded Pricing Model." *Review of Political Economy* 6 (3): 303–36.
Marx, K. 1972. *Theories of Surplus Value: Part III*. Translated from German by J. Cohen and S. W. Ryazanskaya. London: Lawrence & Wishart.
Marx, K. 1978. *Capital.* Vol. II. Translated by D. Fernbach. Harmondsworth: Penguin Books.
Mongiovi, G. 2003. "Sraffian Economics." In *The Elgar Companion to Post Keynesian Economics*, edited by J. E. King, 318–22. Cheltenham: Edward Elgar.
Nicholas, H. 2011. *Marx's Theory of Price and Its Modern Rivals*. Basingstoke: Palgrave Macmillan.
Rochon, L.-P., and M. Vernengo. 2003. "State Money and the Real World: Or Chartalism and Its Discontents." *Journal of Post Keynesian Economics* 26 (1): 57–67.
Rotheim, R. J. 1981. "Keynes' Monetary Theory of Value (1933)." *Journal of Post Keynesian Economics* 3 (4): 568–85.
Sardoni, C. 2008. "Some Considerations on Equilibrium and Realism." *Journal of Post Keynesian Economics* 30 (3): 485–90.
Sawyer, M. C. 1992. "Questions for Kaleckians: A Response." *Review of Political Economy* 4 (2): 152–62.
Shapiro, N., and T. Mott. 1995. "Firm-Determined Prices: The Post-Keynesian Conception." In *Post-Keynesian Economic Theory*, edited by P. Wells, 35–48. Boston: Kluwer Academic.
Shapiro, N., and M. Sawyer. 2003. "Post Keynesian Price Theory." *Journal of Post Keynesian Economics* 25 (3): 355–65.
Steedman, I. 1992. "Questions for Kaleckians." *Review of Political Economy* 4 (2): 125–51.
Wray, L. R. 2001. "Money and Inflation." In *A New Guide to Post Keynesian Economics*, edited by R. P. F. Holt and S. Pressman, 79–91. London: Routledge.
Wray, L. R. 2010. "Money." Working paper, no. 647, December, Levy Economics Institute of Bard College.
Wray, L. R. 2012. *Modern Money Theory: A Primer on Macroeconomics for Sovereign Monetary Systems*. Basingstoke: Palgrave Macmillan.