Rejoinder to Curott

In this rejoinder to Curott we have decided to adopt the approach utilized by Hazlitt (1983) in his refutation of Keynes (1936)—a page by page, sometimes paragraph by paragraph, and even line by line refutation—although we have not been nearly as thorough as was Hazlitt.

States Curott:

Barnett and Block (2010) prove beyond any reasonable doubt that money trades in every market and therefore, strictly speaking, has no market price of its own. And so every time I used the phrase “objective exchange price” in my comment (Curott, 2010a) I should have used the phrase “purchasing power” instead (Curott, 2010b, 12).

About which, a few comments. “Strictly speaking” is the way of science and avoids ambiguity. Let us take an example from a different context. “Hot” has no scientific meaning. Although many (most?) physicists would agree that it is hot outside in New Orleans today (August 3, 2010), they would not be speaking qua physicists. No, in their roles as scientists they would measure the thermodynamic temperature in the IS base unit kelvin (K) or, perhaps, in the IS derived quantity, Celsius temperature (°C). More important for our purpose, the use of “purchasing power,” like “hot,” does not solve the problem. It, too, is non-scientific. No one knows what the purchasing power of any money is. It is, presumably, some (subjectively) weighted average of a (subjectively) chosen basket of goods. But which goods? The ones utilized by the CPI, CPE, PPI, etc? Does this include newly produced goods only? What of financial assets and pre-existing real goods such as office buildings and machinery, etc.? For two individuals in a Wal-Mart the (asking) price of the various goods is an identical and objective amount of money; but for different such individuals, with different values, each with $200 in cash, the purchasing power of that $200 will be different. That is, unlike money prices that are objective, purchasing power is subjective.

In his first footnote, our author states as follows: “The correct choice of words is important for clearly expressing ideas. The conventional notion of a market price is an exchange ratio of a good in terms of money. Barnett and Block (2010) want to reserve the word ‘price’ solely for money prices.” Well, yes we do, we see nothing improper in that, as Curott implies. In fact, in a monetary economy the only prices that matter save for a tiny number of barter transactions are money prices (Mises, 1998, Chap. 11; Rothbard, 2004, Chap. 4). Curott continues: “And since there obviously cannot be a price for any particular money enumerated in the same money, the phrase ‘objective exchange price’ of money is a poor choice of words to denote the purchasing power of money because it seems to imply that the objec-
tive exchange price is a money price. However, it is important to note that supply and demand analysis is amenable to prices that are not money prices.” This is undoubtedly true in a barter economy, and Curott earns kudos for making this discernment. However, it is not at all the case in a monetary economy. Thus, the phrase “objective exchange price” is not “a poor choice of words.” Rather, it is an incorrect one.

Curott now launches into an analysis of the business cycle. He says: “The fact that money is traded in all markets is of central importance in macroeconomics, as I discuss below, because it suggests that monetary disequilibrium can cause general unemployment” (p. 12).1 Again, he earns points for his insight: monetary disequilibrium can indeed bring about the (Austrian) business cycle. But that claim is subject to three caveats. The disequilibrium must consist of excess supplies, not excess demands; the excess supplies must arise from increases in the supplies of, not decreases in the demands for, money; and, the new money must be injected into the credit markets—it must be lent, not spent, into existence (Hayek, 1931; Mises, 1912).

Curott’s next attempt at setting us straight is as follows: “Barnett and Block’s (2009, 2010) primary conclusion, that it is illegitimate to speak of a single market for money, is derived from the premise that money has a price expressed in different units for each market that it is traded in. While the premise is true, the conclusion they draw from it does not follow. Just because money has no market price of its own does not mean that it has no market purchasing power of its own” (p. 12). Were Curott to word his critique more appropriately he might have said, “Just because money has no one market price of its own does not mean that it has no one market purchasing power of its own.” But of course it does mean precisely that. Indeed, we did not at all assert that money has no purchasing power. Very much to the contrary, if an item has no purchasing power, it can hardly constitute a money in the first place.

Curott’s Note 2 furnishes us with more ammunition, and we quote from it:

Barnett and Block’s conclusion that there is no aggregate supply and demand for money is based on a confusion of the two meanings of the word “market.” Sometimes the word market is used in an ordinary language sense to denote a particular sector of the economy, such as the market for pork bellies or the market for haircuts. Other times the word market is used in a technical economics sense to denote the operation of supply and demand among an aggregate of individuals. While money trades in all sectors of the economy, it has a single aggregate supply and demand.

But if money has a single aggregate supply and demand, it must have a single “purchasing power.” We ask, and not at all for the first time, what is it? Our papers were an attempt to move economics along in a more scientific direction. Curott, unfortunately, appears as if he wants to move us backward. Keynes (1936) also used the concept of aggregate demand and supply, though his meaning was somewhat different. Curott’s type of analysis mimics the Keynesian type of supply and demand for money where “the

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1Hereafter all page references, unless otherwise specified, are to Curott (2010b).

2If there was one question we asked Curott to answer in Barnett and Block (2010) it was precisely this one.
price of money” is, similarly to Curott’s, yet another unscientific concept, i.e., “the interest rate.” Curott continues: “Thus there is no single market for money in the first sense of the word, but there is a single market for money in the second, technical economics sense” (p. 12, Note 2). Again, we ask, if there is a “second, technical economics sense” of “a single market for money,” what is the price of money therein, or, if Curott prefers, what is “the purchasing power of money” in that market? We do not at all go so far as to characterize this as “unscientific nonsense.” On the other hand, we are exceedingly disappointed that Curott has not seen fit to respond to the question we posed to him a number of times in Barnett and Block (2010).

In Curott’s next sally, he relies on the concept of the demand for money in the aggregate. Unfortunately the concept is unscientific because of, inter alia, its ambiguity. Nothing daunted, our author defines this aggregate demand as “the market summation of individual demands to hold a given quantity of money at different levels of the purchasing power of money, ceteris paribus” (p. 13). We hate to throw cold water on this concept, but our dissatisfaction with it is expressed as a query: How is it measured? Sometimes, the “devil is in the details,” and here in the present case, unfortunately, no answer to this crucial question is forthcoming. Whereupon Curott mentions “the market purchasing power of money” without explaining it, and certainly not indicating how much can be purchased with a given amount of money. Our author, unfortunately, is a creative scholar, in that he is continually inventing new phrases without deigning to explain them. To wit, in this case he says: “For the reasons explained in my comment (Curott, 2010a), as long as money has an anchored value that isn’t circular, the market purchasing power of money is determined by supply and demand” (p. 13). But what, pray tell, is that anchored value? And to what is it anchored? Economics would be better off if people stated precisely what they mean without the use of such undefined and uncertain metaphors.

This also leaves open the question of supply and demand for what? Of course, we know that Curott means money; but isn’t one of the biggest “markets for money” the one where labor is traded for money? Don’t most people purchase most of the money they acquire by selling their labor? So, because, as Curott says, this aggregate demand is “the market summation of individual demands to hold a given quantity of money at different levels of the purchasing power of money,” shouldn’t this summation include the individuals’ demands for money in the labor markets (i.e., their supplies of labor)? Perhaps more important, the demands for money in financial markets of all types exceed that of the demands for money in non-financial markets of all types, if for no other reason than because of the immense volume of such transactions. And yet, the weighted-average prices of labor and of financial transactions are not to our knowledge included in any calculations of the demands for, or supplies of, money. That is, should not these demands for and supplies of money be included in the “market summation” to arrive at “the aggregate demand for money” and “the aggregate supply of money?” Moreover, if these demands and supplies are to be summed “at different levels of purchasing power,” how are these different levels arrived at in the first place? Standard economic analysis concludes that it is the interaction of the supply of, and demand for, a good that determines its price. When considering “the
demand for, and the supply of, money,” the purchasing power of money (PPM) is the analog of the price in other markets. Since this is the case, should not there be a definite meaning and measurement of the PPM in order that we be able to sum the individual demands for, and supplies of money in order to arrive at “the aggregate demand and supply of money”? This leads to circular reasoning because “the aggregate demand and supply of money” are themselves necessities if we are to be able to determine from their interaction the specific PPM at any point in time. Curott wants to sum, at various PPMs, the individual demands and supplies of money in order to obtain the aggregate supply and demand of and for money. However, the PPM is determined by the very same aggregate supply and demand of and for money. This is, of course, circular reasoning. That is, Curott must first know the aggregate supply and demand of and for money in order to reach the PPM. But to get there he must first be able to sum the individual demands and supplies for money at various PPMs. Alternatively, Curott needs the PPMs to get from the individual demands and supplies for money to the aggregate demands and supplies for money, but the aggregate demands and supplies for money determine the PPM.

Next, Curott opines: “In a static equilibrium, or, if one prefers, in the ‘evenly rotating economy,’ the purchasing power of the money commodity is subject to the law of one price” (p. 13). We note that in an ERE there is no uncertainty in the Knightian sense of the word, i.e., in an uncertain world the future is not only unknown, it is unknowable (Lachmann, 1976, 1986). And people know that they don’t know. Moreover, there is no risk in the probability calculus sense of the word. Absent uncertainty and risk, money serves no purpose that some other asset does not better serve, and therefore there would be no money. So Curott’s point about the purchasing power of money in the ERE is meaningless as there would be no money under that assumption. (And so, a fortiori, money would not be subject to the law of one price or of one purchasing power or of one anything else, except nonexistence.)

In his Note 4 Curott states: “Perhaps the ‘law of one price’ should instead be called the ‘law of one purchasing power’ in order to avoid confusion when it comes to money. Money has many prices, but only one purchasing power, meaning the ratios of all these other prices are fixed by supply and demand.” We cannot see our way clear to agreeing with Curott on this point. For money has many purchasing powers, as we have taken great pains to point out, in Barnett and Block (2009, 2010), and now, again, in the present paper.

But Curott is having none of this. He states: “All of the different price ratios for a unit of money in terms of how much of each other good it can buy must have the same purchasing power because inequalities are arbitrag ed away” (p. 13). Let us see if we understand him correctly. He mentions “all of the different price ratios for a unit of money in terms of how much of each other good it can buy ….” Thus if there are two goods X and Y, the price ratios thereof are so many units of X and Y, respectively, per dollar, e.g., 2X/$1 and 3Y/$1. Then he says that these ratios “… must have the same purchasing power because inequalities are arbitrag ed away.” That may be true re relatively large stocks of homogeneous goods, but it is certainly not true insofar as very limited stocks of heterogeneous goods are concerned. Let us ignore all of the other
problems involved in the application of the law-of-one-price (e.g., that whether different units of a physically homogeneous good are in fact homogeneous from the perspective of economics is a subjective, not an objective, matter), and that other seemingly objective, but economically subjective, factors also play roles (e.g., transaction costs and local taxes^3). But we must still conclude that the law-of-one-price only applies to situations in which arbitrage is relevant. These conditions are so stringent as to apply virtually nowhere save some financial markets and some other organized exchanges. Thus to hang one’s hat on the PPM, which trades in all markets, on the law-of-one-price is to hang it on a slim reed, indeed.

Curott next launches into a general equilibrium analysis: “By virtue of Walras’s Law, equilibrium in \(n-1\) markets implies equilibrium in the \(n^{th}\) market. Money appears in \(n-1\) markets but not in its own market. As an equilibrium condition, this doesn’t matter because Walras’s Law makes it reasonable to speak of a market for money as a residuum” (p. 13). However, such general equilibrium modeling leads to problems. In utilizing the concept of (general) equilibrium Curott makes mention neither of the Walrasian auctioneer nor of the tatonnement process, both of which are necessary for his equilibrium and neither of which has any relevance if it is the real world with which we are concerned. It is more than passing curious, moreover, that Curott, presumably a member of the Austrian School of economics, should resort to a general equilibrium model, anathema, surely, to this school of thought, though most certainly the most important model of mainstream economics. But, then, happily, our author returns to the real world, the traditional focus of the praxeological school of thought. He states:

Unlike in the imaginary construction of general equilibrium, in the real world money does not have the same purchasing power in all markets. Therefore it makes sense to speak of various supplies of and demands for money, but not because this is somehow implied by the nature of money as suggested by Barnett and Block (2009, 2010). Rather, money has different purchasing powers in different markets because uncertainty and dynamic change mean that there are false trades and the law of one price does not apply. There are multiple purchasing powers of money, just as there are multiple prices of cell phones and baked beans (p. 13).

If we understand him correctly, Curott now admits that there are multiple purchasing powers of money in different markets, but refuses to acknowledge that this is so because it trades against different goods in those different markets. Rather, he wants to assign the different PPMs to “uncertainty and false trades.” But the concept of “false trades” is inherently an equilibrium construct: it refers to trades that take place at “non-equilibrium prices.” But in a world of (purposeful) human action (i.e., the real world) there are no equilibrium prices. There are only actual, historical amounts of money that have been exchanged for specific goods that we call prices. The same analysis is relevant, mutatis mutandis, for such “prices” as offer, bid, and expected.

Next on Curott’s agenda is this little gem: “Most macroeconomists do not consider disequilibrium in these other non-money markets to be particularly

^3Note the current attempt to amend federal income tax law to adjust effective tax rates to account for differences in the “cost of living” in different areas of the United States.
noteworthy because they cannot cause general unemployment or a fall in aggregate output” (pp. 13-14). However, Keynesians, who surely constitute “most macroeconomists,” regard disequilibrium in the markets for new capital goods (because of a failure of the “animal spirits” of businessmen) as the primary cause of economic downturns. Let us speak carefully here. Keynesians identify the cause of a downturn as a failure of businessmen’s animal spirits: i.e., heightened uncertainty regarding the (expected) profitability of new investments causes a decrease in the (aggregate) marginal efficiency of capital schedule. The result is that they shift some of their demands for new capital to demands for much more liquid assets, including money. That is, it is not that businessmen willy-nilly increase their demands for liquidity thereby causing disequilibrium in “the market for money.” Rather the disequilibrium in “the market for money” is the consequence of the disequilibrium in “the market for capital goods.”

Curott now elaborates upon that position:

Overproduction in the cell phone market, for example, would represent errors of judgment by some producers that could cause firms to go out of business. Such discoordination results in structural unemployment that would surely affect the quality of life of certain individuals, so it is a relevant macroeconomic problem. But Say’s Law tells us that such overproduction in the cell phone industry must be matched by an equal amount of underproduction in other industries (Kates, 2003). Thus, while the cell phone market is depressed, markets for other goods would be booming. In other words, one entrepreneur’s loss is another entrepreneur’s gain. Disequilibrium in goods markets cannot cause a business cycle, which is characterized by a clustering of errors in many industries and by general underconsumption (p. 14).

Certainly Curott is correct that overproduction in the cell phone market, *ceteris paribus*, will not cause a business cycle. However, the clustering of errors he refers to can result from an excess supply of credit resulting in a boom, followed by a crisis and bust. The Austrian theory of the business cycle (ABCT) maintains precisely that. Credit expansions that do not arise from increases in saving cause clusters of errors because of their distorting effects on interest rates resulting in both malinvestment and overconsumption. Both the malinvestment and the overconsumption are features of the (unsustainable) boom. What does Curott think was going on in the construction industry because of the credit expansions during the last decade? Certainly, he must admit that there was disequilibrium in goods markets.

Curott maintains that “[t]hings are different with respect to money. The fact that money is traded in all markets suggests that monetary disequilibrium can have economy-wide effects. For this reason numerous explanations for recessions have been proposed that rely in some way on the concept of monetary disequilibrium” (p. 14). We certainly concur with Curott to the effect that “[t]he most influential has been the Monetarist interpretation of the quantity theory of money, which implies that a fall in prices caused by contractionary monetary policy results in insufficient effective aggregate demand and economic recession” (p. 14). But, we confess, we were more than just a little bit surprised that Curott would cite Yeager’s (1956) Keynesian support of an

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4There is a significant, important difference between credit and money.
The most striking characteristic of depression is not overproduction of some things and underproduction of others, but rather, a general “buyers’ market,” in which sellers have special trouble finding people willing to pay more for goods and labor. Even a slight depression shows itself in the price and output statistics of a wide range of consumer-goods and investment-goods industries. Clearly some very general imbalance must exist, involving the one thing—money—traded on all markets. In inflation, an opposite kind of monetary imbalance is even more obvious (Yeager, 1996 [1956], 5-6).

But, there are problems here. Unfortunately, Yeager (and Curott) are mistaken when the former states: “Clearly some very general imbalance must exist, involving the one thing—money—traded on all markets. In inflation, an opposite kind of monetary imbalance is even more obvious.” Although it cannot be denied that money is traded on all markets, credit is involved in a sufficiently large number of transactions, especially when we weight those transactions in terms of the amounts of credit involved, and realize that widespread imbalances in credit markets must also be considered as the cause of business cycles. That is, credit is the critical factor. A key problem with Yeager is that although he acknowledges injection effects, he minimizes their importance. Thus, for Yeager downturns are caused by monetary disequilibrium; specifically, an excess demand for money in an economy with downwardly rigid prices and wages. If we are to take this seriously, we must assume that there has been a shortage of money in the US and other major countries these last few years.

For a striking refutation of this perspective, see Rueff (1947).

A quick look at the M2 data should dispel the idea of a shortage of money.

Curott announces himself to be an advocate of ABCT, along with the present authors. However, he sees weaknesses in this perspective: “… articulating malinvestment theory persuasively enough to convince the broad economics profession constitutes a progressive research program that requires much more empirical and theoretical investigation” (pp. 14-15). He continues this point in his Note 6:

Most economists, for instance, do not think that structural shifts in the economy, such as the shift of employment from higher orders to lower orders emphasized in the Austrian theory, are capable of generating the rate of unemployment witnessed during large depressions. Nor do they think it has been satisfactorily explained how expectations factor into Austrian business cycle theory, or in which actual markets malinvestment will appear. Furthermore, the timing of the upper turning point predicted by Austrian theory is very poorly understood. My purpose in bringing up these issues is not to argue that satisfactory resolutions are lacking, but rather that they have not been presented with sufficient theoretical rigor or substantiating evidence. See Hummel (1979) and Wagner (1999), and the references they cite, for discussion of some of the weak areas in Austrian business cycle theory and for suggestions about how to fix them.

But why? We reject this analysis entirely. Their theories have been shredded by recent, not to mention earlier, history. Curott relies upon the writings of “Hummel (1979) and Wagner (1999), and the references they cite, for discussion of some of the weak areas in Austrian business cycle theory and for suggestions about how to fix them.” But this indicates that Curott has not done his homework.
Hummel (1979) has been exposed to a devastating attack by Barnett and Block (2008), as has been Wagner (1999) by Block (2001). Had Curott done his homework, he would have at least been aware of these two major rejoinders.  

Curott perhaps believes that the best defense is to go on the offense. Accordingly, he states:  

… the theoretical notion of the many markets for money that Barnett and Block should be exploring, but don’t, is the internal dynamic of various changes in money demand among the various members of a society, and how this plays out in real time …. [Barnett and Block] give no good reason for refusing to speak of a market for money because if one can speak of the \( n - 1 \) other markets in an economy it is impossible not to speak of the \( n^{th} \) market. So the demand for money …

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6Curiously, Curott failed to list Cowen (1997) as another expositor of the supposed weaknesses of ABCT. Had he done so, we could have pointed out that this publication, too, has been refuted by Barnett and Block (2006).

7Curott confounds mathematics and economics. Yes, Walras’s Law states that if we have \( n \) markets and \( n - 1 \) are in equilibrium, the remaining \( n^{th} \) one must also be in equilibrium. It begs the question, however, to declare that one of these markets—the \( n^{th} \), say—is “the” market for money. For Walras’s Law, which is nothing but an attempt to apply the simple mathematical theory of simultaneous equations to economics, cannot refute reality. That is, to apply Walras’s Law, suppose there to be one monetary good—in reality, there are multiple, imperfectly substitutable, monies (e.g., coins, paper money, and demand deposits)—and 1,000,000 other goods (an unrealistically small number for the U.S.), each with its own market. Then, if these 1,000,000 markets are in equilibrium necessarily there can be no excess supplies or demands of any type, including for money. If, however, only 999,999 of these markets are in equilibrium, then in each of them there is neither an excess demand or an excess supply of that specific good, nor an excess demand or an excess supply of money. (If there is an excess demand for [supply of] the non-money good traded in a specific market, then there is necessarily an excess supply of [demand for] money in that very same market.) Then the remaining market—the market for the 1,000,000th non-money good, say good X—is not in equilibrium; rather it is in disequilibrium. Necessarily there is either an excess demand for (supply of) that specific good, X, and an excess supply of (demand for) money in that particular market. Regardless of which of these cases it is, there is no one market for money, nor is there an excess demand or an excess supply of money, generally; rather, there is an excess demand for, or supply of, money in that one market, the market for X. One may write a series of simultaneous supply and demand equations (or excess demand equations, if one prefers), one for each good in an economy, including money. But it is another thing entirely to then declare that since the equation for each non-money good is the mathematical representation of the market for that good, therefore the equation written for the money good must be the mathematical representation of the market for money. This is to allow the mathematics of simultaneous equations to dictate the meaning of “market” in a monetary economy. This is a constant refrain in neoclassical economics. Another example of the mathematical tail wagging the economic dog is the usual assumption of continuous curves/functions, e.g., for costs, supply, demand, indifference, etc. Why this insistence? Only because continuity of functions, though not a sufficient condition, is a necessary condition to make them amenable to mathematical treatment such as differentiation. But real human action is not infinitely divisible.
for money and can reason about it (p. 15).

Again, a swing and a miss for Curott. We do speak to the issue of money trading in every market. To wit: when new money is lent, not spent, into existence, it sets off a portfolio adjustment process. This portfolio adjustment process must be understood in terms of the actions of individuals whether for themselves or as agents for others. It must also be understood in terms of the great number of both assets and liabilities, both real and financial, in all of their diversity; i.e., involving an immense number of markets in each of which such trade for money. It is not because there is some disequilibrium between “the aggregate demand for, and supply of, money” that the economy is put through an adjustment process. Rather, it is precisely because as new money is lent into existence it is lent into specific markets, causing disequilibria and consequent adjustments in those markets and then leading to further spending in other markets, again causing disequilibria and adjustments in those markets, and so on and on. That is, it is because money trades in all markets that we get the sequential adjustment process that we actually see.

Conclusion

We have been highly critical of Curott (2010b), as we were of Curott (2010a) in our first reply (Barnett and Block, 2010). Nevertheless, we are very grateful to this author for his wealth of criticism. His contribution has enabled us to see more deeply into our own viewpoints. We have learned much in the process of criticizing his contribution.

REFERENCES


Hummel, Jeffrey Rogers. 1979. “Problems
with Austrian Business Cycle Theory,” 


