THE MYSTERY OF THE MONEY SUPPLY DEFINITION

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According to mainstream economics, the validity of various definitions of money can be ascertained by means of a statistical test. What determines whether money M1, M2, and the other Ms are valid definitions is how well they correlate with national income. Most economists hold that, since the early 1980s, correlations between various definitions of money and national income have broken down. The reason for this breakdown, it is held, is that financial deregulation has made the demand for money unstable. In short, the nature of financial markets has changed; consequently, past definitions of money no longer hold.

WHY THE MAINSTREAM APPROACH IS FLAWED

Observe that, for the mainstream, the definition of money is established through an arbitrary mixing of various liquid assets and then correlating this mixture with another dubious statistic labeled national income. In other words, any mixture of liquid assets will be classified as money as long as this mixture passes the correlation test. Now, if any mixture of liquidity is accepted, why not include retail good inventories? After all, these inventories might be as liquid as stocks or bonds. Yet, no one would consider these inventories as part of the money supply (Rothbard 1978, p. 149).

But no definition can be established by means of a correlation. The purpose of a definition is to present the essence, the distinguishing characteristic of the subject we are trying to identify. A definition is to tell us what the fundamentals of a particular entity are. No statistical correlation could ever provide this. According to Salerno,

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> Measures of the U.S. money stock in current use in economic and business forecasting and in applied economics and historical research are flawed precisely because they are not based on an explicit and coherent theoretical conception of the essential nature of money. Given the all-pervasive role of money in the modern market economy, existing money-supply measures therefore tend to impede, rather than to facilitate, a clear understanding of the past or future development of actual economic events. (1987, p. 1)

To establish the definition of money we have to ascertain how the money economy came about. Money emerged because barter could not support the market economy. A butcher who wanted to exchange his meat for fruit might not have been able to find a fruit farmer who wanted his meat, while the fruit farmer who wanted to exchange his fruit for shoes might not have been able to find a shoemaker who wanted his fruit.

The distinguishing characteristic of money is that it is the general medium of exchange. It has evolved from the most marketable commodity. On this Mises wrote,

> There would be an inevitable tendency for the less marketable of the series of goods used as media of exchange to be one by one rejected until at last only a single commodity remained, which was universally employed as a medium of exchange; in a word, money. (1980, p. 45)

Similarly, Rothbard wrote that,

> Just as in nature there is a great variety of skills and resources, so there is a variety in the marketability of goods. Some goods are more widely demanded than others, some are more divisible into smaller units without loss of value, some more durable over long periods of time, some more transportable over large distances. All of these advantages make for greater marketability. It is clear that in every society, the most marketable goods will be gradually selected as the media for exchange. As they are more and more selected as media, the demand for them increases because of this use, and so they become even more *marketable*. The result is a reinforcing spiral: more marketability causes wider use as a medium which causes more marketability, etc. Eventually, one or two commodities are used as general *media*—in almost all exchanges—and these are called money. (1981, p. 3)

Since the general medium of exchange was emerged from a wide range of commodities, money must be such a commodity. According to Rothbard, “Money is not an abstract unit of account, divorceable from a concrete good; it is not a useless token only good for exchanging; it is not a ‘claim on society’; it is not a guarantee of a fixed price level. It is simply a commodity” (ibid., p. 4).

Moreover, "an object cannot be used as money unless, at the moment when its use as money begins, it already possesses an objective exchange value based on some other use" (Mises 1980, p. 131).

Why?

> In contrast to directly used consumers' or producers' goods, money must have pre-existing prices on which to ground a demand. But the only way this can happen is by beginning with a useful commodity under barter, and then adding demand for a medium to the previous demand for direct use (e.g., for ornaments, in the case of gold). (Rothbard 1981, pp. 3–4)

In short, money is that for which all other goods and services are traded. This fundamental characteristic of money must be contrasted with those of other goods. For instance, food supplies the necessary energy to human beings, while capital goods permit the expansion of infrastructure that in turn permits the production of a larger quantity of goods and services.

Contrary to mainstream thinking, the essence of money has nothing to do with financial deregulation—the essence of money will remain intact in even the most deregulated of markets.

Some commentators maintain that money's main function is to act as a means of savings. Others argue that its main role is to provide services of a unit of account and to function as a store of value. While these roles are important, they are not fundamental. The fundamental role, the essence of money, is that of a general medium of exchange. Because of this, all other functions emerge. The fact that an entity becomes the medium of exchange gives rise to these other functions.

THE DEFINITION OF MONEY

Through an ongoing selection process over thousands of years, people have settled on gold as money. In other words, gold served as the standard money. In today's monetary system, the core of the money supply is no longer gold but coins and notes issued by the government and the central bank.[1] Consequently, coins and notes constitute the standard money, known as cash, that is employed in transactions. In other words, goods and services are sold for cash.

At any point in time part of the stock of cash is stored, that is, deposited in banks. Once an individual places his money in a bank's warehouse he is in fact engaging in a claim transaction. In depositing his money, he never relinquishes his ownership. No one else is expected to make use of it. When Joe stores his

[1] It is not the intent of this article to discuss how paper money displaced gold.

money with a bank, he continues to have an unlimited claim against it and is entitled to take charge of it at any time. Consequently, these deposits, labeled demand deposits, are part of money.

Thus, if in an economy people hold $10,000 in cash, we would say that the money supply of this economy is $10,000. But, if some individuals have stored $2,000 in demand deposits, the total money supply will remain $10,000: $8,000 cash and $2,000 in demand deposits—that is, $2,000 cash is stored in bank warehouses. Finally, if individuals deposit their entire stock of cash, the total money supply will remain $10,000, all of it in demand deposits.

This must be contrasted with a credit transaction, in which the lender of money relinquishes his claim over the money for the duration of the loan. Credit always involves a creditor's purchase of a future good in exchange for a present good. As a result, in a credit transaction, money is transferred from a lender to a borrower.

The distinction between a credit and a claim transaction serves as an important means of identifying the amount of money in an economy. Following this approach, one could easily note that, notwithstanding popular practice, money invested with money market mutual funds (MMMF) must be excluded from the money supply definition. Investment in a money market mutual fund is in fact an investment in various money-market instruments. The quantity of money is not altered as a result of this investment; only the ownership of money has temporarily changed. Including investment in MMMFs in the money definition will only lead to a double-counting thereof. If Joe invests $1,000 with an MMMF, the overall amount of money in the economy will not change as a result of this transaction. To incorporate the $1,000 invested with the MMMF into the definition of money would therefore amount to double-counting.

The fact that mutual funds offer their clients check facilities has prompted some analysts to suggest that deposits with mutual funds are similar to bank demand deposits. According to Haymond,

> If Joe sees an asset he wants to purchase, say a new car, he will not be the least concerned with whether his original money is loaned out somewhere else: he will simply open his MMMF checkbook and write the check. (2000, p.60)

However, when an individual writes a check against his account with the money market fund, he in fact instructs them to sell some of his money market certificates for cash. The buyer of these certificates parts with his money, which is then transferred to the holder of the check; money changes hands, but no new money is created.

Furthermore, the fact that MMMF checks are employed in payments does not mean that they are money. Checks are a particular way of employing existing money in transactions.

The crux in identifying what must be included in the money supply definition is to adhere to the distinction between a claim transaction and a credit transaction. Following this principle, it is questionable whether savings deposits should be part of the money supply.

According to popular thinking, the inclusion of savings deposits into the money supply definition is justified on the grounds that money deposited in saving accounts can always be withdrawn on demand. But the same logic should also be applied to money placed with an MMMF. The nub, however, is that savings deposits do not confer an unlimited claim. The bank could always insist on a waiting period of thirty days during which the deposited money could not be withdrawn. Savings deposits should therefore be considered credit transactions with depositors relinquishing ownership for at least thirty days. This fact is not altered just because the depositor could withdraw his money on demand. When the bank accommodates this demand, it sells other assets for cash. Buyers of assets part with their cash, which in turn is transferred to the holder of the savings deposit. The same logic is applicable to fixed-term deposits like CDs, which are credit transactions.

Recently, mainstream economists have introduced a new definition of money—labeled money of zero maturity (MZM). This definition comprises all monetary instruments that have zero maturity and that are therefore redeemable at par on demand. Included in MZM are currency, demand deposits, traveler's checks, savings deposits, and deposits with MMMFs. This definition, however, suffers from the fact that it fails to distinguish between a claim and a credit transaction.

Though traveler's checks are considered an integral part of the money supply, they should not be. Traveler's checks are receipts for investment in the companies that issue them. As such, they result from a credit transaction, and therefore are not part of the money definition. Cashing a traveler's check means that AMEX or VISA will transfer money from their deposits to the holder of the check, which will not change the amount of money in the economy.

Mainstream thinking currently excludes from the money supply government deposits held in banks and the central bank. Consequently, if the government taxes people by one billion dollars, money is transferred from their deposits to the government's deposit. This is viewed just as if the money supply fell by one billion dollars. In reality, however, the money is now available for government expenditure, meaning that money held in government deposits should be part of the definition of money.

Incorporating all the above arguments, the money supply is defined as follows:

Cash+demand deposits with commercial banks and thrift institutions+government deposits with banks and the central bank.

This definition shows clearly that any expansion in money supply results solely from central bank injections of cash and commercial banks' fractional reserve banking.

SHOULD DEMAND DEPOSITS BE PART OF MONEY?

Although demand deposits result from claim transactions, banks are legally permitted to regard them as the outcome of credit transactions. The legal precedent for this was set in 1811 in England with *Carr v. Carr*. The court had to decide whether the term "debts," mentioned in a will, included a cash balance in a bank deposit account. The judge, Sir William Grant, ruled that it did. Grant ruled that since the money had been paid generally into the bank and was not earmarked in a sealed bag, it had become a loan to the bank (Rothbard 1983, p. 93). So, if demand deposits are legally considered credit, how can we regard them as part of the money supply?

On this, Mises wrote,

> It is usual to reckon the acceptance of a deposit which can be drawn upon at any time by means of notes or checks as a type of credit transaction and juristically this view is, of course, justified; but economically, the case is not one of a credit transaction. If *credit* in the economic sense means the exchange of a present good or a present service against a future good or a future service, then it is hardly possible to include the transactions in question under the conception of credit. A depositor of a sum of money who acquires in exchange for it a claim convertible into money at any time which will perform exactly the same service for him as the sum it refers to, has exchanged no present good for a future good. The claim that he has acquired by his deposit is also a present good for him. The depositing of money in no way means that he has renounced immediate disposal over the utility that it commands. (1980, pp. 300–01)

Similarly, Rothbard argued,

> In this sense, a demand deposit, while legally designated as credit, is actually a present good—a warehouse claim to a present good that is similar to a bailment transaction, in which the warehouse pledges to redeem the ticket at any time on demand. (1978, p. 148)

In short, when a depositor places his money in a savings or fixed-term deposit, he temporarily relinquishes his ownership. This, however, is not the case with demand deposits. As long as the bank does not use the money in demand deposits, it is backed one-hundred-percent by the deposited cash. Whenever banks lend part of the deposited money, they create new demand deposits that do not have any cash backing. Since the created deposits can masquerade as proper representatives of cash, they should be included as part of the money supply.

A case, could be made, however, that people who place their money in demand deposits do not mind banks using their money—which would mean that we are dealing with a credit transaction. How, then, are we to decide what money is? As long as people trade, there will always be a demand for money, which will be held either in cash or in bank deposits. Consequently, regardless of people's attitudes, once banks use deposited money, an expansion of money that is not backed by money proper is set in motion.

But one could also argue that the acceptance of checks written against demand deposits as money is conditioned upon the perceived solvency of the bank that issued them. It is true that, once the public becomes suspicious about a particular bank, bankruptcy could occur because of a "run" on the bank. This does not alter the fact that demand deposits are part of money though. All that would happen in such a case of bankruptcy is that deposits not backed by cash would disappear. Deposited cash, however, cannot disappear as long as the physical stock of money is not destroyed.

ELECTRONIC MONEY, SWEEP TRANSACTIONS, AND THEIR EFFECT ON THE DEFINITION OF MONEY

The recent introduction of electronic money seems to cast doubt on our definition of money. It would appear that deregulated financial markets create various forms of new money. Notwithstanding, various forms of electronic money, or e-money, like digital currency, are effectively claims against banks. They don't have a "life of their own." Similar to demand deposits, digital currency can function as long as individuals know that they can obtain cash on demand. According to Mises's regression theorem, the historical link between paper currency and gold is what holds the present monetary system together. Various financial innovations do not create new forms of money, but rather new ways of employing existing money in transactions (White 1996). Regardless of these financial innovations, the nature of money will never change. It will always be the thing that all other goods and services are traded for.

Since January 1994, banks and other depository financial institutions have initiated sweep programs to lower statutory reserve requirements on demand deposits. In a sweep program, banks "sweep" funds from demand deposits into money market deposit accounts (MMDA), personal savings deposits under the Federal Reserve's Regulation D, that have a zero statutory reserve requirement ratio. By means of a sweep, banks reduce the required reserves they hold against demand deposits. As a result of the sweep program one could argue that the money definition outlined above will not cover the total money supply. This criticism, however, is misplaced, for it has nothing to do with the definition as such, but with the difficulties of measuring money, which was transferred out of demand deposits by banks without the depositors' consent. (The Federal Reserve of St. Louis provides a monthly estimate of the amount of money swept.)

CONCLUSION

As we have shown, the validity of various definitions of money cannot be ascertained by means of a statistical correlation with national income. A valid definition can be established by following the essentialist approach—that is, by focusing on the distinguishing characteristics of an entity. Contrary to mainstream thinking, we have shown that the money supply definition remains intact, notwithstanding the deregulation of financial markets and the introduction of electronic means of payments.

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