Recently, several self-consciously formal attempts have been made to settle the proper definition of money by theoretical considerations. Pesek and Saving approach the problem in the course of an examination of the role of wealth in economic theory. They distinguish between “money” as a separate item of net wealth, and “debt,” an asset to some, a liability to others (Section 1). Newlyn, whose approach is adopted and elaborated by Yeager, regards the key issue as being whether a payment is “neutral” in its effect on the asset and interest rate structure (Section 2). Gramley and Chase discuss the effect of monetary changes on interest rates, thereby implementing the analyses of Newlyn and Yeager (Section 3).

1. Pesek-Saving Net Wealth

Pesek and Saving start with three entirely correct propositions:¹ (1) Commodity money and fiat money are assets to their holders, but in no meaningful sense debts to anyone. Hence, they should be included in the consolidated net wealth of the community without any offsetting entries. They are “money” without simultaneously being debt. (2) The granting of charters to commercial banks to offer deposits convertible into “dominant money” on demand and transferable by check is a valuable privilege if the number of charters is restricted by considerations other than the demand for such charters. This privilege increases the net worth of a bank beyond any sums invested in setting up the bank. In the special case in which it costs nothing to set up a bank and nothing to run a bank (in particular, if banks are prohibited from paying interest on demand deposits and the prohibition is fully effective), the net worth so created would be precisely equal to the volume of deposits outstanding. An inventory of the wealth of the community will include this net worth as an item of wealth, which can be done, in the special case cited, by including either the quantity of deposits or the value of the equity in the bank. (3) The services rendered by money do not depend on its “resource content” (p. 170), i.e., on the number of physical units, but on the existence of a stock (plus other variables). “[I]f the quantity of the money resource (the nominal quantity of money) is constant, demand for the service of money will create its own supply at no expenditure of resources but merely through the change in the price of money” (p. 250).

Pesek and Saving argue that these propositions imply that: (a) there is a sharp distinction in theory between the activity of banks as “producers” (their term) of deposits transferable by check, which pay no interest, and as financial intermediaries borrowing at one rate of interest and lending at another; (b) the non-interest-bearing deposits transferable by check are, like specie and fiat money, an asset to their holders but a liability to no one, while the interest-bearing time deposits are a debt, like a bond; (c) the payment of interest on deposits transferable by check converts them into money-debt, which has the property of losing its moneyness (its capacity to serve as a medium of exchange) as the interest rate paid tends to approach the market interest rate. At the limit it is entirely debt and in no part money; (d) hence, theory provides a sharp line of demarcation between “money” and “debt,” money consisting of items used as a medium of exchange which are best regarded as an asset to their holders but a liability to no one.
This analysis differs from that of earlier writers primarily by giving greater weight to the net wealth criterion instead of the medium of exchange criterion, and by being much more self-consciously formal. Unfortunately, while Pesek and Saving have many valid and important things to say on topics other than the definition of money, on this issue their analysis seems to us clearly wrong. Like other writers, they beg a basic question by taking it for granted implicitly, though in a rather subtle way, that the medium of exchange function is the essential function of “money.” More important, their conclusions (a) to (d) are not valid inferences from their propositions (1) to (3).

Consider conclusions (a) and (b), which they believe to be an implication of propositions (1) and (2). Suppose that financial intermediation by some institutions that do not have demand liabilities transferable by check, such as insurance companies or savings and loan associations, may be conducted only by chartered enterprises, as is in fact the case, and that the number of charters issued is restricted by considerations other than the demand for such charters. These financial enterprises will, like Pesek’s and Saving’s “producers” of money, have a net worth in excess of the sums required to establish the enterprise. This net worth will be the capitalized value of the part of the difference between interest received and interest paid that is not required to pay operating expenses. Or to go farther afield, radio and television stations have a net worth in excess of the sums required to establish them because licenses are limited and granted without charge. The value of these licenses is properly included in the wealth of the community.

In all these cases, the community might be better off if free or freer entry were permitted, even though net wealth as measured might be lower. This is simply an example of a point recognized in a footnote by Pesek and Saving (footnote 2, p. 43) but thereafter almost completely disregarded. We value items by market price, which corresponds to marginal utility, not average utility; hence, a reduction in scarcity may reduce the total value (in terms of a numeraire or other goods) that we attach to the total quantity; in the extreme, a free good will have an aggregate value of zero, yet it clearly contributes more to total utility than a lesser amount of it would. This is the classical diamond-water paradox.

In the absence of free entry, a bank issuing deposits transferable by check can be regarded as having a net worth equal, in the special case of proposition (2), to the amount of deposits outstanding. It does not follow, however, that these deposits are not a liability of the bank. It simply means that the bank has a valuable charter. And this would be equally true for bank notes issued under similar conditions. Fiduciary currency is not the same as fiat currency. Banks are engaged in financial intermediation when they issue promises to pay dominant money, bearing no interest, in excess of the amount of dominant money they hold in their vaults. These promises to pay are properly regarded as debts of the banks.

Let there be free entry, and, in the spirit of the Pesek-Saving special assumption, let there be no resource cost involved in setting up or running a bank, but let banks be permitted to pay interest on deposits transferable by check. Competition will then eliminate completely the net worth so far considered. Banks will be driven to pay depositors interest that differs from the interest they earn only because they find it prudent to hold reserves of non-interest-bearing dominant money. Interest paid will differ from interest received by a fraction equal to the ratio of such reserves to total deposits. The deposits may still be available on demand and transferable by check but, since the privilege of issuing deposits is no longer restricted, the privilege will be worth nothing.
Pesek and Saving explicitly discuss this case but conclude that the result would be that, if interest payments continue, “demand deposits will cease serving as money” (p. 109).

The source of this remarkable conclusion is the failure of Pesek and Saving to distinguish, on a rather subtle level, between price and quantity, or alternatively, between marginal and average—a confusion that is greatly fostered for money by the use of “dollar” (or similar unit) to describe both price and quantity. They maintain, that “if the interest rate paid on private money-debt is equal to the market rate of interest, then the value of this money-debt as a medium of exchange must have fallen to zero if we are to be in equilibrium on the demand side” (p. 118). This is entirely correct if “value” is interpreted as marginal nonpecuniary services rendered by the money-debt over and above any marginal nonpecuniary services rendered by assets paying the market rate of interest, or, equivalently, as the price in terms of sacrificed interest that must be paid to acquire such services. If deposits transferable by check pay interest equal to the market rate, people will indeed be induced to hold an amount such that, at the margin, an additional dollar will render no additional services in facilitating transactions. The transactions services rendered by demand deposits have become a free good, available without cost to the holders of demand deposits. At this point, Pesek and Saving make an invalid leap, concluding that, “As a result, private money-debt has become entirely a bond, and the money supply is once again equal to the supply of dominant money alone so that the price of this dominant money will rise; the general price level will fall” (p. 118). This is a nonsequitur. A zero price for the transactions services of demand deposits does not mean that the quantity of money in the form of demand deposits is zero. Alternatively, a marginal yield of transactions services of zero does not mean that the average yield is zero.

The actual effect on the general price level will be the opposite of that which Pesek and Saving assert. Compared with restricted entry and no interest paid on deposits transferable by check, free entry and the payment of interest on such deposits would make dominant money a less attractive asset, would lead to a smaller real quantity being desired, and hence would lead to a rise in the general price level for a given nominal amount of dominant money—provided only that the deposits are in fact convertible into dominant money on demand. In the hypothetical world in which there are no costs of setting up a bank and running a bank, and in which deposits transferable by check provide precisely the same services as dominant money, there would be no limit to this process short of a price level of infinity in terms of dominant money. In fact, a limit would be set by the differential usefulness of deposits and dominant money for different purposes, as Pesek and Saving recognize (p. 117).

Another manifestation of their confusion of price and quantity occurs in their discussion of money-debt as a joint product. Suppose that a dollar of deposits pays interest. It is entirely valid to view this dollar as they do, as providing the joint products, say, of “moneyness” and “interest-payingness,” just as a rented house may provide the joint products, say, of protection against the elements and a view. It is entirely valid to regard the cost of holding a dollar of deposits as equal to the “market interest rate.” and to divide this cost into two parts, one paid for “interest-payingness” (equal to the interest received on the deposit), the other paid for “moneyness” (equal to the difference between the market interest rate and the interest received). This is comparable to dividing the rent paid for the house into two parts, one paid for protection (the rent that would have to be paid for a house identical except for the view) and the other paid for the view (the excess of rent paid over the hypothetical alternative rent).
So far so good. But Pesek and Saving go a step further. Suppose the interest received on the deposit is 80 per cent of the market interest rate. They then say that the dollar of money debt is 20 cents of money and 80 cents of debt. If the rate received is equal to the market rate, they say that the money debt has zero cents of money and one dollar of debt. This is like saying, in the case of the house, that if the rent of a house with a view happens to be the same as that of a house without a view, then there is no view! For a house, it is obvious that the two products (“protection” and a “view”) do not have a common unit of quantity whose total can be fixed in advance, so that the more there is of the one, the less there is of the other. Hence it is easy to see the distinction between measures of quantity (how much protection and how much of a view) and the price paid for these quantities. It is easy to see that the fraction of the rental price paid for protection can vary without the quantities varying because the relative price of the two products varies. The price of the view can be zero, and no part of the rent can be attributed to it, yet there can be a view. The view can be a “free” good, yet be a good.

The money-debt case is in principle identical, yet it is far less obvious because the same unit—"dollar"—is used to describe the price paid for the services of the asset (the rent), the price paid for the asset (capital value), the quantity of “debt,” and the quantity of “money.” A “dollar” of deposits can perfectly well contain a “dollar” of interest-payingness yet simultaneously contain a “dollar” of moneyness, provided only the rental price of a “dollar” of moneyness is zero. Just as the view and protection are two economic dimensions of the house that cannot be added directly together, though the values attributable to them can be, so the “dollar” of moneyness and the “dollar” of interest-payingness can be two dimensions of the “dollar” of deposits that cannot be added directly together, though the values attributed to them can be. And just as the view may not be capable of being enjoyed continuously without a house to live in, yet have a price of zero, so the “moneyness” may not be capable of being available in this form without being combined with “interest-payingness,” yet also have a price of zero.

This very fruitful notion of actual assets as joint products is one we shall return to [in part of the chapter not included in this excerpt]. For the present, the distinction between the prices paid for the separate services of an asset and the quantities of the different dimensions of the asset, explains why Pesek and Saving’s conclusion (c) does not follow from their propositions (1), (2), and (3). It suggests also that if interest-paying deposits transferable by check can have a “dollar” of moneyness, then commercial bank time deposits or mutual savings bank deposits, and so on, can have moneyness as one of their components. That is a question of how we choose to define moneyness, not something to be decided a priori.9

The tortured analysis of Pesek and Saving reflects their attempt to keep two balls in the air at once. Money is to be simultaneously a “medium of exchange” and an item of “net wealth,” and these two categories are to be wholly coincident. To categorize money as a “medium of exchange,” they understandably feel driven to include all demand deposits transferable by check. But if the demand deposits paid interest, they would have to be regarded, at least in part, as a liability of the bank that issued them, and hence could not be regarded as wholly an item of “net wealth.” Pesek and Saving are therefore driven to insist that the nonpayment of interest on demand deposits transferable by check in fact—and not merely in form10—is a necessary condition for demand deposits to be usable as a medium of exchange.
If Pesek and Saving were to carry their “net worth” criterion to its logical conclusion, regarding use as a medium of exchange as a necessary but not sufficient condition for an item to be regarded as “money,” they would be led to define money as equal to “high-powered money.” This would include, for the United States, currency in the hands of the public (though not travelers’ checks) and the assets of banks held in the form of vault cash or deposits at Federal Reserve Banks. This total consists now, and has consisted for at least a century, of commodity money plus fiat money, i.e., governmentally issued money which has no “backing” except the “faith and credit” of the sovereign, though at times the fiat money has borne the promise to pay a fixed weight of a commodity (gold or silver) on presentation. Total high-powered money can all properly be regarded as an asset of the individuals who hold it and the liability of no other individuals.

Proceeding along this line, Pesek and Saving would include the value of bank franchises as an item of net worth along with the value of franchises for life insurance companies, savings and loan associations, and radio and TV stations. But this item of net worth would not be “money” because it is not used as a medium of exchange. This would make their treatment logically consistent—and, incidentally, align them with the early writers who treated only specie plus government note issues as money, excluding both the bank notes that then circulated and bank deposits.

2. Newlyn and Yeager Neutrality

W. T. Newlyn, in a book on the Theory of Money, offers an analytical basis for defining money that we find more attractive than Pesek’s and Saving’s, yet still unsatisfactory. We discuss his analysis in this section on a priori approaches because it can be so considered, even though Newlyn himself, and Leland Yeager, who builds on Newlyn’s analysis, both take the same view as we do, that the definition of money is “an analytic convention, and as such, should be made on the basis on analytic efficiency” rather than something that can be settled on wholly a priori grounds.

Newlyn starts out with the usual textbook statement that “anything is money which functions as a medium of exchange” but then proceeds to distinguish in an original way between “the status of assets as determined by law or convention” and the “way in which they actually function.” By status, he asserts, only demand deposits at commercial banks in the United Kingdom (called “current accounts”) are used as means of payment. Time deposits (called “deposit accounts”) must be converted into demand deposits or currency to serve as a medium of exchange. He designates as quasi-money by status “those assets which, although indistinguishable from money as assets, do not function generally as a medium of exchange.”

However, “the significant [functional] characteristic of a means of payment is that ownership of it by an individual automatically increases or decreases as a result of any difference between the individual’s payments and receipts, without altering its aggregate and without having any effect in the market for loans.” By this criterion, he says, the total of deposits in the United Kingdom, demand deposits and time deposits, must be classified as money because “the banks in the United Kingdom do not make any significant distinction between the two types of deposits, with the result that time deposits can be drawn upon to make a payment without either altering the total of deposits or having any effect in the market for loans.”
In his subsequent article, Newlyn discusses these distinctions at greater length, and states the definition to which he is led somewhat more formally: “We classify as money those assets which can be drawn upon by their owners so as to produce an increase in aggregate expenditure without causing either a decrease in their aggregate or an increase in demand relative to supply in the market for loans. Mutatis mutandis for a decrease in expenditure.” He describes the second characteristic—not affecting the loan market—as “neutrality.”

Newlyn cites currency as the most obvious case of an asset satisfying his functional criterion: “currency … changes hands physically in making a payment, and this involves no repercussion in the economy whatever.” As noted, he asserts that this is true also of total commercial bank deposits. He adds, “it is satisfied by no other asset.”

To illustrate why it is not satisfied by other assets, Newlyn considers a “withdrawal of deposits from institutions such as building societies” (comparable in the United Kingdom to savings and loan associations in the United States). Such a withdrawal “will be effected by cheques drawn by these institutions on their banks in favor of their depositors. The latter will draw on the proceeds of these cheques to make payment to their creditors. As a result of these transactions bank deposits will have been redistributed but will be unaltered in total; on the other hand, quasi-money will have been reduced so that the total of quasi-money and deposits will also have been reduced. This combination of assets does not therefore satisfy the requirement that its total should be unaffected by a payment made in any of its components. Moreover, the building societies or finance houses will need to replenish their bank balances. This they may do by curtailing their lending or by selling securities; in either case the effect will be to add to the demand pressure in the market for loans.”

Unfortunately for this extremely appealing approach, the distinction Newlyn draws between savings and loan deposits and other quasi-money, on the one hand, and deposits and currency, on the other, is not a logical implication of his criterion but rather a reflection of different unstated assumptions for payments effected by drawing on the different categories of assets. For currency and for deposits, Newlyn implicitly assumes that the recipient wishes to hold the sum transferred in the same kind of asset as that on which the payer drew: that if the payment was made by drawing on currency, the recipient wishes to hold currency; if made by drawing on deposits, the recipient wishes to hold deposits. Make the same assumption for savings and loan deposits, and they too will satisfy Newlyn’s criterion: let the purchaser transfer to the seller the building society’s check on a commercial bank and the seller redeposit the check in a building society and both the total of quasi-money and deposits and the loan market will be unaffected.

On the other hand, suppose that the purchaser pays the seller by a check drawn on his own demand deposit at a commercial bank but that the seller chooses to hold the proceeds in currency and so “cashes” rather than “deposits” the check. The transaction is then non-neutral in precisely the same sense as the withdrawal from the building society: to use Newlyn’s words, the bank on which the check is drawn, and banks as a whole, “will need to replenish their [reserve] balances. This they may do by curtailing their lending or by selling securities; in either case the effect will be to add to the demand pressure in the market for loans.” Whether the total of currency and deposits is affected depends on the point at which the analysis is stopped. If it is stopped before banks have started adjusting to their depleted reserves, the total will be unaffected. If, as seems
more consistent with Newlyn’s approach, it is stopped only after the full repercussions on the financial sector of the particular payment, then this total will be reduced.

Leland Yeager, in his expansion of Newlyn’s analysis, recognizes this problem. Indeed, on these grounds he excludes from his definition of money for the United States both time deposits at commercial banks—because, in contrast with the United Kingdom, reserve requirements are different for time and demand deposits and hence banks do not regard the two classes as the same—and travelers’ checks—because the issuer of travelers’ checks does not hold 100 per cent cash reserves.23

He notes that “when demand deposits are cashed in for currency, the drain on reserve limits banks’ assets and deposits.” But he regards this qualification as “minor” because “if the authorities that create ‘high-powered dollars’ and the banks, taken together, want to expand the money supply, they can do so. … By providing enough reserves to support them, the monetary authorities can maintain any desired amount of demand deposits in existence.”24 He therefore defines money for the United States as currency and demand deposits.

But this lets the cat out of the bag. Clearly, the monetary authorities and the banks, taken together, can as readily “maintain any desired amount of” total commercial bank deposits “in existence” as of demand deposits alone. If they wish to, they can render the conversion of savings and loan shares into currency or demand deposits “neutral,” by absorbing the assets that are the counterpart of the savings and loan liability and creating the currency desired or the reserves required to support the demand deposits desired. Once we permit this escape valve, the “neutrality” criterion loses both its appeal and its definiteness. Strictly speaking, only high-powered money has the characteristic that it “can be drawn upon … to produce an increase in aggregate expenditure without … a decrease in [the] aggregate of that sort of asset in existence.” Similarly, high-powered money is “neutral” in Newlyn’s sense, though it requires a somewhat strained interpretation of some ordinary transactions to be able to interpret it as “neutral.”

To illustrate, let someone make an expenditure by drawing on a demand deposit. If we are trying out Newlyn’s criterion on high-powered money only, we shall have to interpret this as a joint drawing on two assets: the now quasi-money consisting of the excess of the deposit over its pro-rata share of bank-held high-powered money, and high-powered money itself. The part of the payment financed by the quasi-money will not be neutral unless the recipient happens to wish to hold it in the same form, which he can do only by re-depositing it, along with the high-powered money part, in a bank. For the purchaser to pay in full in high-powered money, he will have to transfer currency. To get the currency by simply drawing down his demand deposit will be a non-neutral transaction (like withdrawing a savings and loan account in Newlyn’s example). The only way he could get the cash in a “neutral” way would be by a joint transaction in which he (a) drew down his deposits by an amount such that the high-powered money part was sufficient to make the desired payment, (b) received this part in currency, and (c) used the balance to purchase an asset from the banking system (which could mean repaying a loan). This would provide him with high-powered money without affecting the loan market, since the reserve position of the banking system would not be disturbed by his transactions. If the recipient holds the proceeds in currency, that is clearly “neutral” in Newlyn’s sense. If he chooses to hold the proceeds in deposits, that is not simply a money-changing transaction (with high-powered money as the definition of money); it is partly the purchase of a quasi-money asset (non-high-powered
part of his deposits) and so should not be neutral. In order for him to convert the whole of his
currency receipt into a corresponding high-powered money asset at a bank, he would have to
deposit a sum such that the high-powered money part corresponded to the currency deposited
and finance the rest of his deposit by borrowing from, or selling an asset to, a bank.

We therefore conclude that, consistently applied, Newlyn’s criterion will reduce to regarding as
money that part of the medium of exchange the nominal amount of which is outside the control
of the actions of the public, and thus to the same total of high-powered money to which Pesek
and Saving’s net worth criterion leads. 25

3. Gramley-Chase Market Equilibrium

Gramley and Chase, in a highly formal analysis of monetary adjustments in the shortest of short
periods (Marshall’s market equilibrium as contrasted with his short-run and long-run equilibria),
only incidentally discuss the definition of money. 26 Yet their analysis qualifies for consideration
along with the analyses of Pesek and Saving and of Newlyn and Yeager because, like the others,
Gramley and Chase believe that far-reaching substantive conclusions about monetary analysis
can be derived from rather simple abstract considerations, and like Newlyn and Yeager, 27 they
put great stress on whether the decisions of the public can or do affect monetary totals. 28 They
regard as one of the “time-honored doctrines of traditional monetary analysis” that “the stock of
money” is “an exogenous variable set by central bank policy.” They contrast this “more
conventional view” with the “new view” that “open market operations alter the stock of money
balances if, and only if, they alter the quantity of money demanded by the public.” 29

In their model—and also in the “more conventional view”—only high-powered money is a
strictly exogenous variable in the sense that the amount outstanding cannot be altered by
transactions among the public or between the public and banks other than the central bank (or
monetary authority). The “more conventional view,” nonetheless (and correctly), treats the
quantity of money (defined more broadly than high-powered money) as for all practical purposes
“an exogenous variable set by central bank policy” because it accepts the empirical hypothesis
that a change in high-powered money will produce private reactions that will rapidly alter the
quantity of money demanded by the public in a predictable way. Far from incorporating a “new
view” in any substantial sense, the Gramley-Chase analysis involves the elaborate spelling-out of
one minor component of the adjustment process envisaged by the “more conventional view”—
the component that consists of the initial readjustment of portfolios abstracting both from
subsequent portfolio readjustments and from any effects of the initial and subsequent
readjustments on spending on current services or on the production of capital goods, or on
incomes and prices. As in any Marshallian market equilibrium which holds constant quantities
(other than a quantity change that has initiated the adjustment), prices (in this case, interest rates)
take the brunt of the adjustment, moving much more than the amount required to clear markets in
the short run, let alone the long run.

If Gramley and Chase were to let more items out of the pound of ceteris paribus, they would find
that the adjustments to open market operations would spread in such a way as to reduce the
direct impact on interest rates and increase the effect on the quantity of money. They would
accordingly find less reason to distinguish between the alleged “new view” and the “more
conventional view.” Even on the level of portfolio adjustment alone, still abstracting from effects
on spending, income, and prices, the particular securities initially affected by an open market operation (the securities purchased and sold by the central bank plus, under their assumptions, bank assets) are only part of the whole structure of assets.

Let the central bank make an open market purchase of a particular category of securities. To induce holders of these securities to sell, it will have to raise the price (i.e., lower the yield). This will induce some holders to part with securities, accepting money in return. Gramley and Chase stop their analysis at this point, treating the seller of securities as in equilibrium with respect to his asset structure. But this is only the first reaction. The seller of the securities accepted money not as a permanent abode of his wealth to replace the securities sold but as a temporary abode—as for all other purchases and sales in a money economy—pending the opportunity to buy alternative assets. As he attempts to buy other assets, he raises their prices, spreading the effect on interest rates but at the same time moderating the effect on the initial assets considered.

As the prices of existing assets are bid up, it becomes more advantageous to produce rather than to buy such assets, to rent service flows rather than buy existing sources of services. This spreads the effect to spending, income, and prices, further moderating initial interest rate effects.

It is instructive to have the initial component of this adjustment process spelled out in detail, as Gramley and Chase have done. But it is highly misleading, to say the least, to leap as they do from the wholly abstract analysis of this minor component to substantive conclusions about the process as a whole—to express judgments, as it were, about a man’s physiognomy, character, and familial relations on the basis of a microscopic examination of his finger tips.  

Notes


2 They take it for granted that use as a medium of exchange is the sole nonpecuniary service rendered by liquid assets and is the only service to which proposition (3) applies. This is not the case. Liquid assets may also render nonpecuniary services in the form of pride of possession, a feeling of security, a reserve for the future. Such nonpecuniary services must obviously be introduced to explain differences in interest rates on assets that they and we alike would regard it as undesirable to call “money.” They must also be rendered by assets we do call money. The volume of such services, too, need not depend on the resource content of the assets. For a fuller discussion of these issues, see Milton Friedman, *The Optimum Quantity of Money and Other Essays*, (Chicago: Aldine Publishing Co., 1969), chap. i.

3 Strictly speaking, two qualifications are necessary: We must suppose that (1) the granting of a charter cannot be affected by the amount of money spent to persuade the authorities to grant one, otherwise competition will lead to expenditures in this direction equal to the net value of the charter (or we must exclude such sums from consideration); (2) there exist diseconomies of scale beyond some point, else expansion of size of the individual enterprise could substitute completely for increase in the number of enterprises.

4 In terms of one of the T accounts (Table 6-1D, p. 143) Pesek and Saving present, their Bank account should be as follows:

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt of Private Sector</td>
<td>1,000</td>
</tr>
<tr>
<td>Charter</td>
<td>1,000</td>
</tr>
<tr>
<td>Debt to Private Sector</td>
<td>1,000</td>
</tr>
<tr>
<td>Net Worth</td>
<td>1,000</td>
</tr>
</tbody>
</table>
Of course, more generally, the two items on each side will not be equal, as they recognize, because of costs. Pesek and Saving recognize, of course, that in practice there are costs of setting up and running a bank, and that these should be allowed for in a full analysis. However, we agree with them that ignoring these costs is useful in isolating the basic characteristic of money-debt. They discuss explicitly the resource costs and correctly conclude that these convert part of the money-debt into commodity money. The capital facilities required (building, machinery, etc.) will enter the bank’s balance sheet as assets, balanced on the liability side by either debt or net worth (stockholders’ equity), which will enter into the net wealth of the community in the same way as the net worth of other enterprises.

As noted above, in footnote 2, they take the service of providing a medium of exchange as the only source of nonpecuniary services, and in their frame of reference would omit the qualification “over and above … interest.” This is what Pesek and Saving call the instant repurchase clause. In the context of the quotations cited above, they do not refer to this clause, although they put great stress on it elsewhere. The reason they do not consider it in these quotations is that they are under the impression that either permitting the payment of interest or not requiring convertibility is sufficient to destroy the moneyness of money-debt.

They argue that unless the instant repurchase clause is legally enforced, bank money will necessarily depreciate, citing wildcat banking as proof (p. 116). It is certainly true that there is an incentive to adulterate the product of banks, as there is to adulterate any other product, and also that it may be easier to get away with adulteration of bank money than that of many other products for reasons spelled out elsewhere (e.g., see Milton Friedman, A Program for Monetary Stability, New York: Fordham University Press, 1959, pp. 6–8). But competitive forces will tend to prevent the adulteration of bank money as they do the adulteration of other products—by destroying the repute of firms engaged in the practice and denying them custom, though these competitive forces may operate less rapidly or uniformly on bank money than on other products. In the absence of any legal requirement or legal enforcement of an instant repurchase clause (except for general legal penalties for fraud), the market will nonetheless tend to the widespread use of such a clause. At the level of abstraction on which Pesek and Saving reason, therefore, they have no need for a legally imposed instant repurchase clause. Incidentally, by implication they exaggerate grossly the depreciation of bank money that occurred in the era of wildcat banking. As always, it is the departures from the rule that are headline news. The overwhelming bulk of bank money at the time circulated at par or differed from par only by costs of shipment (comparable to gold points).

At the level of abstraction of Pesek and Saving, equal simultaneously to the rate of interest that could be earned on a dollar invested in other assets and the rate that would have to be paid to borrow a dollar in order to hold a dollar as deposits.

On an entirely different level, the implicit assumption that the only nonpecuniary service obtained from assets is the facilitation of transactions leads Pesek and Saving to use a model that does not seem to us fruitful for their or our purposes. The wide range of “market” interest rates and the common observation that an individual may borrow at a far higher rate than he receives on assets he owns suggest that it is useful to regard assets as yielding a wide range of nonpecuniary services. For example, it might be that the “market interest rate” which corresponds to zero nonpecuniary services is, say, 10 per cent, not the 5 per cent yielded currently by long-term government securities. A long-term government bond would then be regarded as producing a joint product with 5 cents per dollar of such a government bond being paid for the nonpecuniary services it yields.

With such a model, even treating a dollar of deposits as decomposable into money and debt with quantities necessarily adding to a dollar, as Pesek and Saving do, would lead them to the conclusion that a dollar of interest-paying deposits transferable by check has much moneyness and so may a dollar of interest-paying time deposits. Even with their model, they are led to recognize that the nonpecuniary services of facilitating transactions are not homogeneous but can be of different kinds (see p. 117), so that in principle there are different kinds of “moneyness.”

Though the payment of explicit interest on demand deposits is currently prohibited by law, it is widely recognized that there are numerous indirect devices by which implicit interest is paid on demand deposits. Benjamin Klein, in an unpublished Ph.D. dissertation at the University of Chicago is investigating the hypothesis that these devices are sufficiently effective to render the legal prohibition essentially nugatory.

Pesek’s and Saving’s treatment of American Express travelers’ checks is illustrative of their ambivalence. Because these seem obviously a medium of exchange, they treat them as money, though as “money-goods,” like demand deposits, not “entirely money,” like currency (p. 190). Yet, so far as we know, there is no restriction on entry into the business of issuing travelers’ checks and no legal prohibition on the payment of interest on them. In practice, of course, American Express charges rather than pays, so interest is negative, but this does not alter the principle.
In order for this definition to have the empirical content Newlyn associates with it, some qualifying phrase like “on any of a wide variety of goods and services” must be understood to follow “aggregate expenditure.” Otherwise, used cars traded-in in purchasing other cars fully satisfy these conditions—the total of used cars is unchanged, only the ownership shifting, and there is no necessary effect on the loan market. The same would be true for other durable goods for which it is customary to trade in used items of the same kind. This is not intended as a criticism, only an amplification. In the spirit of Newlyn’s analysis, he would describe such transactions, we suspect, as a residuum of barter, and note that he is implicitly referring to a “money” economy in which such transactions can be neglected.

Yeager also argues that “asset preferences work asymmetrically. Because of them, a constant supply of actual money can restrain the expansion of near-moneys. But no such restraint works the other way around: not even some sort of ceiling on near-moneys could keep the monetary authorities from creating as much money as they wished. In the absence of a ceiling, near-moneys tend to gear themselves to the money supply” (Ibid., p. 53). There is no such asymmetry. In the absence of a ceiling, let the monetary authorities choose a given quantity of specified near-moneys as their objective. To attain this objective, they would have to let money “gear itself” to the supply of near-moneys (i.e., they would have to let the quantity of high-powered money be whatever is necessary for the quantity of money to be the amount desired, given the specified quantity of near-moneys), so that a constant supply of near-moneys “can restrain the expansion of” money.

Yeager goes on, “To dramatize the asymmetry, … let us suppose that some official ban on the expansion of near-moneys thwarts this gearing. As the quantity of money expanded beyond what people initially wanted to hold, competition for the fixed supply of near moneys would drive their yields low enough to keep people indifferent at the margin between them and money. But nothing would keep prices or incomes from rising until people desired to hold all the new money” (pp. 53–54). Equally, however, let us suppose an “official ban on the expansion” of the nominal quantity of money, but an official desire to expand the quantity of near-moneys beyond the level initially consistent with the quantity of money. To achieve this desire the authorities would raise the yields offered on near-moneys to whatever extent is necessary to induce the public to hold additional near-moneys. This would lower the nominal quantity of money desired at prior prices. But nothing would keep prices or nominal incomes from rising to keep people “indifferent at the margin between” money and near-moneys.

The real asymmetry, if there be any, is on the side of supply, which again means that Yeager’s analysis leads to a distinction between high-powered money and other assets but not between any broader total and other assets. Unlike Gramley and Chase, Tobin explicitly eschews drawing any far-reaching conclusions for policy and analysis from his qualitative analysis.
To illustrate: they state correctly that “central bank actions do not affect the actual money stock except as they lead to a change in desired money balances. The effect of these actions on money income occurs not because the money stock has been altered, but because financial variables through which the central bank alters the desired stock of money also affect the public’s decisions to purchase goods and services” (p. 1403). (Translation: The rabbit was killed not because the hunter pressed the trigger but because the bullet hit him.)

From this correct statement they conclude, “Whether financial markets ever behaved in such a way as to permit … changes in the money stock [to be interpreted as an appropriate indicator of monetary policy conducted through conventional means] is debatable, but there is little doubt that such a simple rule for appraisal of central bank operations is no longer appropriate” (p. 1403).

This conclusion may or may not be true, but it cannot be inferred from a theoretical analysis alone, let alone from one that omits what many analysts would consider the most important parts of the adjustment process. It requires some empirical evidence, none of which is present or even adverted to by Gramley and Chase.