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PART ONE

DEFINITION OF MONEY

Introduction

The four monetary totals in Table 1 are only a selection from a much larger number that could be constructed by: further subdividing the items in Table 1 (for example, currency into commodity and fiduciary currency, or commercial bank deposits into member and nonmember bank deposits); grouping the items differently (for example, combining currency and time deposits); or adding other items representing a claim expressed in nominal money value terms (for example, Series E government bonds, brokerage accounts, cash surrender value of life insurance policies, deposits of policyholders at life insurance companies, other federal government securities, local and municipal securities, corporate obligations).

Which of these items should be labeled "money," which "near-money," which "nonmonetary nominal value liquid assets," and which "nonliquid nominal value assets"?

This question has a long background in the literature (Chapter 2), and remains a live issue today, as the continuing discussion in articles and books testifies.[1]

Any answer is bound to be somewhat arbitrary. Hence, it is a tempting approach to try to avoid the question altogether by working only with individual assets. However, that is impossible. The separate items listed in Table 1 are themselves subtotals. Currency is of different kinds and so is each of the categories of deposits, and the differences among the various kinds have at times been of great importance. No subtotal should be used blindly without regard to the elements of which it is composed, but it is impossible to deal only with irreducible elements; there are simply too many of them.

Even if it were possible to work only with individual assets, it would

[1] H. A. Latané, "Cash Balances and the Interest Rate—A Pragmatic Approach," *Review of Economics and Statistics*, Nov. 1954, p. 457; J. G. Gurley and E. S. Shaw, "The Growth of Debt and Money in the United States, 1800–1950: A Suggested Interpretation," *Review of Economics and Statistics*, Aug. 1957, p. 250; H. G. Johnson, "Monetary Theory and Policy," *American Economic Review*, June 1962, pp. 351–352; W. T. Newlyn, *Theory of Money*, New York, 1962, Chap. 1, and "The Supply of Money," *Economic Journal*, June 1964, pp. 327–346; B. P. Pesek and T. R. Saving, *Money, Wealth, and Economic Theory*, New York, 1967, pp. 163–254; Leland B. Yeager, "Essential Properties of the Medium of Exchange," *Kyklos*, 1968, No. 1, pp. 45–68.

For an older discussion of the question, see A. P. Andrew, "What Ought to Be Called Money?," *Quarterly Journal of Economics*, Jan. 1899, pp. 219–227. Andrew approaches the question in much the same spirit as we do, though his choice of definition differs from ours.

be undesirable to do so. A distinction between "money" and "other assets" has been found extremely useful for a long time in many contexts. There is nothing that makes this inevitable. The continuum of assets might be so gradual and substitution among various types so easy and frequent that no subtotal would have any particular significance short of, let us say, total nonhuman wealth. It is an empirical generalization that this is not the case: there is a subtotal, labeled "money" for convenience, which it is useful to distinguish because it is related to other economic magnitudes in a fairly regular and stable way, though its particular content may be different from place to place or time to time. This empirical generalization underlies the distinction between price theory and monetary theory—a distinction that has been central in economic analysis for centuries.

Another tempting approach is to try to separate "money" from other assets on the basis of a priori considerations alone. One version, perhaps the most common, takes as the "essential" function of money its use as a "medium of exchange." It therefore tries to determine which assets are used to effect transactions and classifies these and only these as money. This version tends toward a rather narrow definition of money (Chapter 3, section 1). Another version, which has recently received much attention, goes to the opposite extreme. Its proponents regard "liquidity" as the essential feature of money and so see little point in stopping short of a total that includes almost all assets that are both expressed in nominal values and convertible into one another reasonably quickly and at relatively little financial cost (Chapter 3, section 2).

Both the a priori approach and these two specific versions of it seem to us misleading, though highly suggestive (Chapter 3, section 3). The approach is misleading because it puts the cart before the horse. Once we have a "good" definition, it may turn out that it can be described in terms of "medium of exchange" or "liquidity" or some similar general characteristic. The fact that we have a good definition will be evidence on what the "essential" characteristics of money are; we cannot start from the "essential" characteristics and proceed to the definition. The a priori approach is nonetheless suggestive because it implicitly records the tentative hypotheses derived from earlier studies. These studies suggest that it has been found useful to distinguish totals of items that have the characteristics of serving as a medium of exchange or of providing liquidity. These tentative hypotheses narrow the scope of our further in-

vestigation and limit the alternatives that it seems most fruitful to explore.

To put the matter differently, the economic theory accepted at any time is in part a systematic summary of the empirical generalizations that have been arrived at by students of economic phenomena. This theory implicitly contains a specification of the empirical counterparts to the concepts in terms of which it is expressed—otherwise it would be pure mathematics. But the specification may be more or less precise, more or less definite. As the theory is refined and improved, it will generally lead to more precise specifications and, conversely, as we find one counterpart or the other to be more useful, it will enable us to refine the theory. It is our judgment that economic theory does not, as yet, give a very precise indication of the appropriate counterpart of the term "money." It simply suggests some of the general characteristics of assets that are likely to be relevant (see Chapter 3, section 1).

As these comments imply, the selection of a specific empirical counterpart to the term money seems to us to be a matter of convenience for a particular purpose, not a matter of principle. Dogmatism is out of place. The selection is to be regarded as an empirical hypothesis asserting that a particular definition will be most convenient for a particular purpose because the magnitude based on that definition bears a more consistent and regular relation to other variables relevant for the purpose than do alternative magnitudes of the same general class (Chapter 3, section 4). It may well be that the specific meaning it is most convenient to attach to the term money differs for different periods, under different institutional arrangements, or for different purposes. It is certainly highly likely that, as our understanding of the relevant phenomena increases, we shall change our views about what definition is most convenient even for a given period and purpose.

The problem is one that is common in scientific work. A preliminary decision—in this case, on the definition of money—must be made. Yet the decision can be made properly only on the basis of the research in which the preliminary decision is to be used. Strictly speaking, the "best" way to define money depends on the conclusions that we reach about how various monetary assets are related to one another and to other economic variables; yet we need to define "money" to proceed with our research. The solution, also common in scientific work, is successive approximations.

Prior research and writing narrow down the choice to a limited number of alternatives if "money" is defined to correspond to a total like those in Table 1. The range of choice is much wider if a more sophisticated approach is adopted whereby different degrees of moneyness are attributed to different assets. We have not ourselves adopted this approach though we conjecture that it is probably the most promising for the future (Chapter 4, section 1).

After considering the alternatives in Table 1, we chose to designate as "money" the sum of currency held by the public plus adjusted deposits of commercial banks, both demand and time (Table 1, column 9). We chose this total in preference to a narrower total including only demand deposits largely on the basis of a historical examination of the meaning of commercial bank demand and time deposits in the United States and of the factors producing alterations in their relative magnitude (Chapter 4, section 2). The decision was reinforced by other evidence bearing on the comparison between the total we use and both narrower and broader totals (Chapter 4, section 3). Further evidence has since become available from our own work and also the work of others. The further evidence partly supports and partly argues against the choice we made (Chapter 4, section 4).

Though the definition we use seems to us clearly the best single choice for the period as a whole, its superiority to any of the other totals is slight, and for some specific periods one of the others may be preferable. We have tried to check many of our results to see whether they depend critically on the specific definition used. Almost always, the answer is that they do not, though some numerical statements would be altered in detail if we had chosen a different definition. In addition, we have analyzed the behavior not only of the total but also of the components of the total, plus the savings deposits and savings and loan shares not included in the definition. We believe, therefore, that the definition we have adopted has served mainly to organize our analysis rather than to determine its content in any important respect (Chapter 5).