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Hyman P. Minsky Ph.D.

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## An "Economics of Keynes" Perspective on Money\*

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HYMAN P. MINSKY

### Introduction

Through the 1960s, and into the early 1970s, a monetarist counter-revolution swept through macroeconomic theory in the United States. Monetarism is a version of the quantity theory of money, an adaptation which differs from the older forms in that it explicitly substitutes the stability of a demand function for money for the stability of the velocity parameter implicit in the older formulations of the quantity theory.<sup>1</sup> In truth, monetarism is based upon errors of understanding as to what neoclassical theory proves and on errors of specification about the institutional characteristics of the economy in which we happen to live.<sup>2</sup> The transitory success that monetarism achieved among politi-

\*The title, distinguishing between the "Economics of Keynes" and "Keynesian economics," is due to Axel Leijonhufvud. Despite differences I owe much to my colleagues in dissent from conventional wisdom: Paul Davidson, Sidney Weintraub, Victoria Chick, Jan Kregel, Robert Clower, and Axel Leijonhufvud, among Americans, and Joan Robinson, Lord Kahn, and Lord Kaldor in England.

<sup>1</sup>Milton Friedman, "The Quantity Theory of Money—A Restatement," in *Studies in the Quantity Theory of Money*, ed. M. Friedman (Chicago: University of Chicago Press, 1956).

<sup>2</sup>Frank Hahn, in his review [*Economica* 38, no. 149 (February 1971): 62-80] of Milton Friedman's book *The Optimum Quantity of Money and Other Essays* (Chicago: Aldine Publishing, 1969) is quite explicit on the lack of understanding of general equilibrium theory that permeates Friedman's work.

cians, pundits, and central bankers was mainly because the standard macroeconomic monetary analysis was superficial and error-ridden, not because of the logical or empirical case made for monetarism.

The standard macroeconomic theory of the 1950s and 1960s, which monetarism attacked, was an integration of an interest rate determination mechanism that was derived from the Hicks-Hansen special interpretation of Keynes with elements of neoclassical theory.<sup>3</sup> The specification of monetary relations in the standard "Keynesian" models and in the large-scale econometric models which are now the concrete statements of the standard theory, ignored the problem of capital-asset valuation that is central to Keynes' argument in *The General Theory*: what monetarism attacked was Keynesianism rather than the economics of Keynes, to use Leijonhufvud's apt characterization.<sup>4</sup>

A major concern of Keynes in *The General Theory* was how the structure of capital-asset prices, and thus the pace of investment, depends upon monetary and financial variables. This problem, as set by Keynes, is central to an understanding of an economy which is capital-using, capitalist, and financially sophisticated. In our economy all that is meant by money cannot be encompassed within a demand curve for a generalized "marker" that is designed to facilitate the exchange of commodities at a Village Fair. In our type of economy, the monetary mechanism is most directly relevant to the generation and allocation of the surplus, i.e., to the determination and financing of investment. Keynes' insight of genius in *The General Theory* was the identification of the relation between the pricing of the stock of capital-assets and the flow of investment output as the key to an understanding of the behavior of a capitalist economy. By the time the monetarist attack was launched this insight of Keynes had been lost, and what passed for Keynesian monetary theory was merely an appendage to a neoclassical model: the liquidity preference function of Hicks-Hansen is not substantially different from the money demand

<sup>3</sup>J. R. Hicks, "Mr. Keynes and the 'Classics': A Suggested Interpretation," *Econometrica* 5 (1937): 147-59; A. H. Hansen, *Monetary Theory and Fiscal Policy* (New York: McGraw-Hill, 1949).

<sup>4</sup>The argument that capital-asset valuation in a capitalist economy is central to Keynes is detailed in Hyman P. Minsky, *John Maynard Keynes* (New York: Columbia University Press, 1975). Capital-assets are real physical things, collected in plants and owned by firms, which are valued by the attachment of a price (explicit or implicit): the price in turn is determined by capitalizing future expected quasi-rents. See John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (New York: Harcourt Brace, 1936); and Axel Leijonhufvud, *Keynesian Economics and the Economics of Keynes*. (New York: Oxford University Press, 1968)

equation of Friedman.<sup>5</sup> When Friedman first propounded the monetarist dogma, a conventional Keynesian in the Hicks-Hansen mode could wonder what the shouting was about.

To recapture lost ground, it is necessary to resurrect the monetary theory of Keynes in *The General Theory* and to contrast it with the omissions and errors of standard Keynesianism and contemporary monetarism.

## Systemic Instability

Even as the monetarist version of neoclassical theory scored points against the standard Keynesian version of neoclassical theory, the validity and relevance of neoclassical theory was being subjected to searching scrutiny. On one side, the Cambridge (England) school made some devastating hits on the concepts of capital as used in neoclassical theory and thus on the use of the marginal productivity of inputs as determining the choice of technique and income distribution.<sup>6</sup> As a result the production function, a construct basic for neoclassical theory, is now a concept whose validity is at issue.

On another side, from the middle of the 1960s, the American economy, as well as other advanced capitalist economies, behaved in a way that is inconsistent with both the monetarist and standard Keynesian Theory. Quite suddenly, the explanation of systemic instability, rather than of a tendency towards a stable equilibrium, became a key problem for economic analysis.

Monetarism rests on the construct of adding money onto an inherently and strongly stable Walrasian model. As a result, observed instability, especially endogenously generated instability, is inconsistent with the monetarist position. The standard Keynesian view, as embodied in elaborate econometric models, rests upon production function postulates. Strong exogenous shocks are needed to generate instability. Endogenous instability is thus alien to both the monetarist and the standard Keynesian view—although it is not foreign to Keynes' view in *The General Theory*. Furthermore, the production

<sup>5</sup>In his review of *The General Theory* [*Quarterly Journal of Economics* 51 (November 1936)] Professor Viner identified Keynes' liquidity preference relation as a treatment of velocity or the Cambridge *K* which made velocity a function of the interest rate. In his rebuttal to Viner's review [*Quarterly Journal of Economics* 51 (February 1937)], Keynes explicitly repudiated this interpretation.

<sup>6</sup>G. C. Harcourt, in *Some Cambridge Controversies in the Theory of Capital* (Cambridge: Cambridge University Press: 1972), summarizes this debate.

function, which is central to both the monetarist and standard Keynesian view, is superfluous to the economic theory of Keynes. In 1976, if monetary theory does not have to go back to square zero, it does have to return to square 1937: Hicks must be discarded and Keynes' rebuttal to Viner's great review must become our point of departure.<sup>7</sup>

## The Monetarist Perception

Perhaps the clearest single statement of the perception of reality underlying the monetarist revival of the quantity theory is captured by the following passage.

Despite the importance of enterprises and money in our actual economy, and despite the numerous and complex problems they raise, the central characteristic of the market technique of achieving co-ordination is fully displayed in the simple exchange economy that contains neither enterprises nor money.<sup>8</sup>

In this view, "money has been introduced as a means of facilitating exchange, and of enabling the acts of purchase and sale to be separated into two parts."<sup>9</sup> The simple exchange model that economic theorists constructed as they endeavored to demonstrate that it is possible, albeit under restrictive circumstances, for markets without overt control to achieve a coherent result does not contain capital-assets of the kind that we can point to as existing in our economy. The pervasiveness of capital-assets within a capitalist financial framework is the major institutional oversight of both the monetarists and the standard Keynesians.

Introducing money into a simple exchange (or Village Fair) parable, where capital-assets do not exist and where the sole function of money is to enable trade to take place without the double coincidence of wants required by barter, is not the only misspecification that takes place in the basic theoretical underpinnings of the flawed views. The artifact of the Walrasian auctioneer, or of recontracting, vital to the determination of equilibrium within neoclassical economics, means

<sup>7</sup>Viner, "Review of *The General Theory*," set out what would now be called the "neoclassical synthesis" interpretation of the *General Theory*. Keynes insisted that Viner had the economic theory of *The General Theory* wrong.

<sup>8</sup>Milton Friedman, *Capitalism and Freedom* (Chicago: University of Chicago Press, 1962), p. 14.

<sup>9</sup>Ibid.

(1) that trading only takes place at market clearing prices; and (2) that everything occurs at one moment of time. Both time and the uncertainty of false trading are eliminated by the parables of the price theory that underlies both standard Keynesian and monetarist theory. Because of the way in which the theory starts its Village Fair trading game, money is introduced to make "barter" easier. Monetarists can assert that money does not matter because in the world of (Walrasian) "real" theory, money does not really exist. In the trading game with recontracting, each trading unit acquires as much money of account during the action at the Fair as it spends. All that a Village Fair requires in the way of a money mechanism is a set of books (or memories) and market processes that guarantee that each spends what he gets (which is what the auctioneer assures). As a result, every account will hold zero money at the beginning and at the end of the trading day. But the effective trading "day" is the barely perceptible minisecond in which the equilibrium prices are announced. Almost always, in Friedman's simple exchange economy (as well as in the standard Keynesian models) money "really" does not exist.

In a model of an exchange economy, production takes place offstage. A Village Fair is a meeting place of peasants and artisans. Although capital-assets may exist, they are simple and closely related to the workers—the peasants and artisans own their own simple tools. Financial instruments of the kind that pervade our economy do not exist. There is no problem of pricing capital-assets that are valuable only because they yield inherently uncertain future incomes.

Not much can be done to construct a serious theory of money starting from the model of simple trade. Whenever monetarists (and standard Keynesians) confront the problems of our economy, they begin by assuming an "existing" quantity of money—presumably exogenously determined—and investigate the price-output-employment consequences of imposed changes in the quantity of money, without ever specifying the economic behavior that induces the change and the financial relations affected by the change. A key element in the neo-classical (monetarist and standard Keynesian) theory is the treatment of money as a commodity just like any other commodity. As a result, in a world where equilibrium is achieved so that excess supplies must simultaneously equal zero over all markets, an "excess supply" of money in the hands of any agent yields an "excess demand" for other commodities. In this way a determinate money price level of commodities that are traded is obtained. The "real-balance" effect, identified with Patinkin, becomes the full content of contemporary neo-

classical monetary theory.<sup>10</sup> But with money determining the price level of current output, the price level of capital-assets is left unexplained.

## The Capitalist Economy

In truth, in our economy there are capital-assets. Because our economy is capitalist, these capital-assets need to be priced, and control over these capital-assets by various enterprises has to be financed. The existence of capital-assets, of the kind that exist in modern economies, effectively changes the functions of the pricing process in capitalist economies from that specified in both the simple trading game of the Village Fair and the simple production processes incorporated into standard theory. In a world with capital-assets, two sets of prices must be determined: the prices of current output and the prices of capital-assets. Classical quantity theory, the oversimplification of Keynesian theory based upon Hicks-Hansen, and modern monetarism only consider one set of prices that needs be determined, namely that of current output. The classical quantity theory, standard Keynesianism, and monetarism use the monetary mechanism to determine the price level of output.

Keynes, on the other hand, used the monetary mechanism to determine capital-asset prices, leaving the determination of output prices to the money wage determination process and the mechanisms that determine profit mark-ups.<sup>11</sup> Only in a highly unusual and transitory state of the economy, in which investment is such that full employment rules even as the price of inherited items in the stock of capital-assets equals the price of like current investment output, are the two price levels the same. This congruence of the two price levels is fragile and depends upon financial and labor market processes. In particular, in a world with a cyclical past and with external financing of positions in capital-assets and current investment, the successful maintenance (for a time) of a full employment level of income will lead to an increase of capital-asset prices relative to the price of money (always equal to \$1) and the supply price of investment output. This takes place because the successful maintenance of full employment

<sup>10</sup>Don Patinkin, *Money, Interest and Prices*, 2d ed. (New York: Harper and Row, 1966). Paul Samuelson, "What Classical and Neo-classical Monetary Theory Really Was," in *Canadian Journal of Economics* 1 (February 1968): 1-15. Milton Friedman, *A Theoretical Framework for Monetary Analysis*. National Bureau of Economic Analysis Occasional Paper no. 112. (New York, 1971).

<sup>11</sup>C.f. Weintraub, chapter 3.

attenuates the value of the liquidity premiums embodied in money and some financial assets.

Neoclassical theory, whether monetarist or standard Keynesian, fails on the logical ground that it cannot explain the prices of capital-assets unless it assumes that equilibrium not only now exists, but that it has existed since the creation and will continue to exist until the final holocaust.

### Capital-Using Production

The capital-assets that are used during any period are an inheritance from the past. Of the total revenues that accrue to a firm from a period's sales, part is used to pay for labor and purchased materials: this is out-of-pocket or "running" costs. The remainder becomes the *gross* income of capital, part of which is used to meet the commitments on various financial contracts, such as bank loans, bonds, etc.; part is used to pay dividends (if the firm is a corporation); and a third part is retained as an increase in equity. In Keynes' theory, once a capital-asset exists it is valuable—aside perhaps from some value as scrap—only as it is able to generate capital-income. Capital-income results from the scarcity rather than the productivity of capital-assets.<sup>12</sup> The historic cost of production of the capital-asset and its current reproduction costs are irrelevant to the determination of the worth of any capital-asset, unless like capital-assets are in fact being produced or are expected to be produced.

The economic theory relevant for a capital-using capitalist economy has to explain how the set of prices of capital-assets is determined and how, if at all, these capital-asset prices affect system behavior—in particular, how these prices affect investment, i.e., the production of like capital-assets. In a capital-using economy there are two sets of prices and two price levels. One set consists of the prices of current output: this set presumably leads up to a price level measure such as the consumer price index or the gross national product deflator. The second set consists of the prices of inherited capital-assets and financial instruments: this set presumably leads up to a price-level measure such as the market valuation of total private indebtedness and equities, or the Dow-Jones (or Standard and Poors) index of stock prices.

Current output prices reflect wage rates, other out-of-pocket costs,

<sup>12</sup>Keynes, *General Theory*, p. 213.



and profit margins. Profit margins, in the aggregate, depend upon the overall level of demand. On the other hand, capital-asset prices reflect the capitalized value of current and future capital-incomes (current and future total revenues minus out-of-pocket costs in a world without taxes). Investment will take place only as the capitalized value of particular future capital incomes reaches (or exceeds) some standard that depends upon the current price of like capital-assets as investment output.

Future capital incomes have a quantity and a time dimension. The ratio of capital incomes to current out-of-pocket production costs, with the time path of future capital incomes needed for the price of a particular capital-asset to be high enough so that current production of like capital-assets takes place, measures the capital-intensity of production.<sup>13</sup> Telephone networks and power plants, whose current operating costs are a small portion of the cash flow required to sustain the value of capital-assets, and which are expected to provide such capital-incomes over a long period of time, are examples of capital-intensive production facilities. As an institutional fact, in a capitalist economy such capital-intensive modes of production are usually financed by means of bonds and other debt forms as well as common or equity shares. In a capitalist economy for such capital-intensive productions the price mechanism has to yield a large enough cash flow (current revenues over out-of-pocket costs) to validate inherited debts and to raise equity share prices high enough so that new investment can be financed by some combination of retained earnings, new issues of equities, and debt. A major portion of such product prices can be best conceived of as a tax, rather than as a device for drawing currently allocable resources, which enter out-of-pocket costs, into this particular endeavor.<sup>14</sup>

## Keynesian Monetary Theory

In contrast to the view exemplified in the quotation from Friedman, that money really does not affect anything essential, Keynes' view was that we cannot explain what happens in our economy by first ignoring and then tacking on money and finance. Money, to Keynes, was a

<sup>13</sup>This definition of capital-intensity has nothing to do with production functions. It has to do with the cash flows that are needed: (1) to validate debts used to finance positions in capital-assets, and (2) to determine a high enough price of capital-assets so that investment in like capital-assets takes place.

<sup>14</sup>Turnover and value-added taxes are ways of generating mark-ups over current out-of-pocket costs and are equivalent to profits in assuring that wages are not sufficient to buy back output. This is the basis of the Kalecki formulation: See Michal Kalecki, *Theory of Economic Dynamics* (London: Allen and Unwin, 1965).

special type of bond. It came into being as banks financed the acquisition of capital-assets by firms:

There is a multitude of real assets in the world which constitute our capital wealth—buildings, stocks of commodities, goods in the course of manufacture and of transport, and so forth. The nominal owners of these assets, however, have not infrequently borrowed *money* in order to become possessed of them. To a corresponding extent the actual owners of wealth have claims, not on real assets, but on money. A considerable part of this 'financing' takes place through the banking system which interposes its guarantee between its depositors who lend it money, and its borrowing customers to whom it loans money wherewith to finance the purchase of real assets. The interposition of this veil of money between the real asset and the wealth owner is a specially marked characteristic of the modern world.<sup>15</sup>

Money, in Keynes' view, is created in the process of direct or indirect financing of investment and of positions in capital-assets. In the first instance, an increase in the quantity of money finances either an increase in the demand for investment output or an increase in the demand for items in the stock of capital-assets. Furthermore, as money is created, borrowers enter upon commitments to repay funds to the lending bank. Money is, in its origins in the banking process, part of a network of cash flow commitments, a network that for the capital-asset side of the economy rests ultimately upon the cash flows or quasi-rents (to use Keynes' terminology) that firms receive as capital-assets are used in production processes.

In our complex, sophisticated financial structure there is a multitude of capital-assets and financial instruments. Each capital-asset and financial instrument: (1) yields some cash flow or quasi-rent,  $q$ ; (2) entails some carrying costs,  $c$ ; and (3) yields an implicit cash flow in the form of an ability to gain command over cash quickly by sale,  $l$ . The  $q$ , the capital-income, and by extension the contractual interests payments stated in a debt instrument, and  $c$ , the carrying costs, whether they be the warehousing costs for inventories or the financing costs for positions in capital-assets and financial instruments, are obvious and need no explanation.<sup>16</sup>

<sup>15</sup>J. M. Keynes, *Essays in Persuasion, Collected Writings of John Maynard Keynes* (London and Basingstoke: Macmillan & Co., St. Martin's Press, for the Royal Economic Society, 1972), 9:151.

<sup>16</sup> Keynes identified capital-assets and financial instruments as yielding "annuities" to their owner. Chapter 17 of *The General Theory*—"The Essential Properties of Interest and Money"—is the key to Keynes' monetary theory as a theory of the determination of the price of capital-assets. For a detailed argument for this interpretation see H. P. Minsky, *John Maynard Keynes* (New York: Columbia University Press, 1975), chapter 6, "Capitalist Finance and the Pricing of Capital Assets."

We posit a world of uncertainty, one with a complex financial structure. This means that units of various kinds have debts outstanding, so that financial cash-payment commitments exist. Typically, the cash that firms and households need to fulfill these commitments will be forthcoming from income receipts—such as the gross profits, after taxes and before interest payments of corporations, or the wage income of households. However, errors in the payment process and deviations of actual from expected cash flows can occur. To allow for this contingency, units carry “cash-kickers”: they hold stocks of assets in a form acceptable to meet payment commitments. Money, of course, is just this asset, for the basic financial contract is an exchange of money now for money later. In Keynes’ view it is convenient to hold “assets in the same standard as that in which future liabilities may fall due.”<sup>17</sup> Thus a financial demand for money exists because debts exist. Furthermore, the greater the quantity of money in existence, the greater the amount of cash-kickers that exists and the greater the willingness of units to go into debt. But debts are entered into in order to finance positions in capital-assets or financial instruments. Thus the higher the quantity of money for given expected income streams from capital-assets, the greater the price of capital-assets and similarly, the higher the price of outstanding financial instruments, i.e., bonds.

Money affects the price of capital-assets in two ways: (1) the greater the quantity of money, for a given value placed upon the implicit cash flow,  $l$ , that holding money generates, the greater the price of capital-assets; and (2) the subjective value placed upon the implicit cash flow that money yields,  $l$ , depends upon the views of liability-emitters (who have payment commitments,  $c$ , on their debts) that the  $q$ 's generated by their assets will be large enough to meet contractual payments, and to sustain capital-asset prices. A period in which capital-asset income has been stable, if not generally rising, will lead to a downgrading of the value placed upon  $l$  and to a willingness to articulate  $c$ 's more closely to  $q$ 's. Such changes in subjective feelings can only be realized in market prices by a change in the relative prices of money, which yields only  $l$  and whose price per unit is \$1.00, and of capital-assets. Thus the price of capital-assets and nonmoney financial instruments will rise as the subjective valuation of  $l$  decreases and will fall as the subjective valuation of  $l$  increases. The relevant liquidity premium is on capital-asset prices, and not on Treasury bill rates.<sup>18</sup> The power of monetary policy to affect output and employ-

<sup>17</sup>Keynes, *General Theory*, p. 237.

<sup>18</sup>The vast literature, summarized in David Laidler, *The Demand for Money: Theories and Evidence* (Scranton, Pa.: The International Textbook Company, 1969) is irrelevant for the measure of “liquidity preference.”

ment depends upon its ability to raise—or lower—capital-asset prices, rather than its effect upon the prices of default-free near-monies, such as Treasury bills.

## Speculation

Central to the notion of the financing of positions in  $q$ , yielding capital-assets by means of debts which require future payments  $c$ , is the concept of how funds for the repayment of debts are going to be obtained. In the simplest financial markets—where debts are used mainly to finance working capital—the completion, in the near term, of a set of transactions will yield sufficient cash to fulfill financial obligations. This is the principle underlying the commercial loan theory of banking, which properly should be interpreted as a normative guide to bankers and to their clients, rather than as a positive rule for monetary policy.

In our economy debts can be, and are, used to finance positions in capital-assets whose values are determined by cash flows that are expected at dates further in the future than allowed for in the term of the debts. We have, as Henry C. Simons noted, a pervasive system of short-term financing of long-term assets.<sup>19</sup> Whenever such financing exists, the borrower and the lender on these contracts expect that the funds to repay debt when it is due will be obtained by the issuance of new debt. If we call the type of financing in which the cash flows expected from capital-asset ownership are sufficient to fulfill debt contracts "hedge finance," and the type of financing in which refinancing is necessary to fulfill debt contracts "speculative finance," it is clear that the greater the capital intensity of production, in the sense that we have defined it above, the greater the potential for speculative financing.<sup>20</sup>

A unit which engages in speculative finance, as well as the unit which lends to one engaged in speculative finance, relies upon the normal or appropriate functioning of financial markets for the fulfillment of contracts. If the interest rates used in determining the

<sup>19</sup>Henry C. Simons, "Rules versus Authorities in Monetary Policy," in *Economic Policy for a Free Society* (Chicago: University of Chicago Press, 1948), chapter 7. Although he was a professor at the University of Chicago, Simons was much closer to the views about the monetary-financial process put forward by Keynes than he was to the current "Chicago School," which sometimes invokes his authority, or to monetarism.

<sup>20</sup>Hyman P. Minsky, "The Modelling of Financial Instability: An Introduction," *Modelling and Simulation, Proceeding of the Fifth Annual Pittsburgh Conference*, Vol. 5 (Pittsburgh, Pa.: Instrument Society of America, 1974), pp. 267-72. Also, "Financial Instability Revisited: The Economics of Disaster," in Board of Governors of Federal Reserve System, *Fundamental Reappraisal of the Federal Reserve Discount Mechanism* (Washington, D.C.: Federal Reserve System, 1972).

capitalization of short-term and long-term cash flows move together, the impact upon present values of changes in financial market conditions is much greater for long-term cash flows than for short-term cash flows. A rise in market interest rates can transform an excess of present value of asset cash flows over that of debts into a shortfall. Thus with speculative financing, refinancing can be available at one set of financing terms and not at another set. Under these circumstances, attempts to acquire cash by selling out positions can lead to a marked fall in capital-asset values below their past price—and below the current production costs of like investments. Such developments can, and will, bring investment to a halt, and they will bring about a decline in income and employment.<sup>21</sup>

In our economy, speculative finance as defined above is pervasive. Keynes' speculative motive for holding money can best be interpreted as an initial "speculation" to get out of money and into short-term debt, followed by a reversal of this speculation as refinancing becomes expensive. The impact of swings in speculative financing is upon the ratio of capital-investment to income and employment. Instability of asset values, financial relations, income, prices, and employment are inherent properties of a capital-using capitalist economy.

## Conclusion

The monetary theory of Keynes, but not the monetary theory of Keynesians as derived from the Hicks-Hansen-Patinkin formulations, is much richer than the quantity theory of money in either its traditional or its monetarist dress. One dimension of this richness is that it enables economists to deal with capital-assets and financial interrelations of the type we know exists. Another dimension of its richness is that it allows for various modes of behavior of the economic system—and the existence of various modes of behavior of the economy means that no simple policy rule will suffice for all times. Economists, because of this diversity of system states, really have to know what is going on before they can prescribe. Universal, global, cure-all, fixed rule remedies should be foreign to economists' pharmacopoeia.

<sup>21</sup>Hyman P. Minsky, "Financial Crises, Financial Systems, and the Performance of the Economy," in The Commission on Money and Credit, *Private Capital Markets*. (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1964), pp. 173-381; also Minsky, *John Maynard Keynes*.

Inasmuch as money arises out of the financing of investment and of positions in capital-assets and financial instruments, new forms of money and new financial instruments will develop as financing needs change. Money—and banking, for that matter—are ubiquitous elements in a capitalist economy. No rule for the desired behavior of any particular concept of money can be set once and for all in an effort to compel the economy to meet some objective.<sup>22</sup>

Because of speculation and the endogenous evolution of monetary and financial practices, a capital-using capitalist economy exhibits a diversity of behavioral patterns. In particular, financial instability—both upward into a euphoric boom and downward into a deep debt-deflation depression—is an endogenous phenomena. It is not possible to fine-tune a capital-using capitalist economy. What is possible is to undertake policy, recognizing that a number of different modes of operation of an economy within our institutions is possible and that a flexible approach to policy is needed. The result will not be a state of bliss, but rather a closer approximation to full employment and price stability than we have hitherto achieved.

But such a result will only be possible over the longer haul if some constraints on speculative finance are introduced, and if policymakers recognize that an inherent tendency to strong instability follows from the nature of the pricing process for capital-assets in our type of economy.

*Washington University*

<sup>22</sup>“Simons, “Rules versus Authorities in Monetary Policy,” p. 172.

