

## ECONOMIC CALCULATION AND MONETARY STABILITY

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**M**y thesis will be that monetarists, while their criticism of the Fed's expansionist history has been most welcome and has been instrumental in the struggle against inflation, do not go far enough. In particular I will stress two issues which most monetarists have ignored but which together suggest that putting Constitutional constraints on the Fed, even in the form of a rigid monetary rule, is not an adequate solution to our inflationary problems.

The first issue involves what standards we used to judge the stability of monetary policy; the second, the more fundamental question of whether *any* monetary policy, as it is generally conceived, is the best path to stability. But, first, I want to detour into another field of economics—the economic critique, from a microeconomic perspective, of socialism. This may seem rather far removed from the central concerns of this conference, since not only is monetary theory generally considered to be a macroeconomic question, but the form of socialism at which this microeconomic critique was directed actually called for the complete abolition of money, to be replaced by centralized planning. However, the view of how a market economy works that arises from that critique directly relates to each of the two issues I am going to discuss.

Each of these issues arises from a conception of the market system as a dynamic process in which “economic calculation,” i.e. the real-world, microeconomic activity known as profit-and-loss accounting in terms of money prices, functions as a discovery and coordinating procedure. It was in the classic debate over economic calculation under socialism that the positive role of economic calculation, with

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prices as an indispensable part of a knowledge-dispersal process, was most clearly elaborated by using the Marxian scheme of socialism, from which prices were to be completely absent, as a foil.<sup>1</sup> By focusing on a system which claimed not to require money at all, free-market critics of socialism such as Ludwig von Mises and Friedrich Hayek were able to clearly articulate just what the function of economic calculation in terms of prices is.<sup>2</sup> That function, they argued, is one of dispersing and using information which no individual participant in the market would otherwise possess. The point is not just that entrepreneurs are smarter individuals than bureaucrats,<sup>3</sup> but that persons embedded in a competitive process can, by virtue of their very rivalry with one another, impart information to the system of relative prices that in the absence of competition they would have no way of obtaining. Relative prices are, as Mises put it, "aids to the mind" which make possible an ever more complex network of production relations that extends far beyond what a central planning bureau can possibly coordinate deliberately. Competitive pressures generate and sustain discoveries of new ways of satisfying consumers, ways that without open competition would never have been thought of.

When, in response to this challenge, more moderate varieties of socialism were proposed by neoclassically trained economists like Abba Lerner and Oskar Lange, the nature of the critique was fundamentally misunderstood. These "market-socialist" models used the static equilibrium notion of perfect competition as their standard and showed how bureaucrats can calculate with prices just as well as capitalists can. Since the virtue of (perfect) competition is supposed to be that marginal cost equals price, socialist plant managers will simply be instructed to produce at that output where  $MC = P$ , taking the price told to them by the planning board as given. Instead of being indirectly led to this result by profit maximizing, they will

<sup>1</sup>For a demonstration that this is indeed a correct interpretation of Marx, see Paul Craig Roberts, *Alienation and the Soviet Economy* (Albuquerque: University of New Mexico Press, 1971).

<sup>2</sup>See Friedrich A. Hayek, ed., *Collectivist Economic Planning, Critical Studies on the Possibilities of Socialism* (London: Routledge, 1935), Hayek, *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948) and Ludwig von Mises, *Socialism: An Economic and Sociological Analysis*, J. Kahane, trans. (Indianapolis, Ind.: Liberty Classics, 1981).

<sup>3</sup>This was essentially the way Oskar Lange interpreted the argument as is suggested by his remark that, under the appropriate assumptions, "The administrators of a socialist economy will have exactly the same knowledge, or lack of knowledge, of the production functions as the capitalist entrepreneurs have." See Lange, *On the Economic Theory of Socialism*, B. E. Lippincott, ed. (New York: McGraw-Hill, 1964), p.61.

be told to deliberately aim at it. Meanwhile the planning board will see to it that prices are adjusted to their market-clearing levels by simple trial and error.

Hayek was able to clearly show that the fruits of competition cannot be obtained by such procedures but must arise from the rivalrous bidding efforts of separate owners in markets. Prices, if they are to genuinely reflect the underlying conditions of the market, cannot be arrived at by the decision of any single agent in the system. To serve their function as aids to the mind it is necessary that the decision-makers who use them do *not* take them as given but rather actively bid them in the directions consistent with their own specialized information. It is only as an outcome of the various "multidirectional tugs" of separate market participants bidding against one another in competitive struggles that prices can convey the information we need for rational economic calculation. The consequent allocation of resources is pulled in the direction of those who exercise the strongest "bidding power" over time. Competition is not to be viewed as an ideal state (as in perfect competition models) but as a process for the discovery of knowledge that we would otherwise have no way of obtaining. Thus the *indirect* procedure of competing for profit and getting a relatively efficient allocation of resources as an unplanned result cannot be replaced by any *direct* procedure of deliberately aiming at the result, precisely because nobody knows what the most efficient allocation of resources would be.<sup>4</sup>

These "multidirectional tugs" only impart information to prices to the extent that the participants in the process are free and open rivals. Bidding victories can then go to the best competitor, the one whose foresight and understanding of consumer desires and of technological relationships exceed those of his rivals. Those who earn profits are rewarded by getting improved bidding power. If all producers are "on the same team," as is the goal of Marxian socialism, then clearly this competitive discovery process could not even get off the ground. More to the point, if some rivalry is permitted but special government favors are bestowed on one competitor, then the discovery process cannot be expected to work as well as it would if all rivals were competing on equal terms. Some rivals would be able to enhance their bidding power without first earning profits in free competition.

It is this latter point that I think has direct bearing on monetary theory. The macroeconomic policy which is espoused by most monetarists, normally considered stalwart defenders of the free market,

<sup>4</sup>I have tried to elaborate on this view of the market process in Chapter III of my *National Economic Planning: What is Left?* (Washington, D.C.: Cato Institute, 1983).

would in fact bestow special favors on certain selected market participants in such a way as to reduce the ability of the competitive discovery process to disperse the knowledge needed for rational economic calculation.

It is no accident that prior to their participation in this "calculation debate" both Mises and Hayek had made seminal contributions to monetary theory, and in particular to the analysis of the important microeconomic effects money can have on the competitive process.<sup>5</sup> Both economists stressed that monetary theory should not be concerned only with determinants of the value of money and of its supply, or with the long run, or average price level; instead it should study the short-run effects changes "from the money side" can have on relative prices. Just as abolishing money prices would entirely destroy the competitive discovery process that accompanies economic calculation, so could inappropriate monetary policies introduce "noise" into this knowledge-dispersal system. Relative prices carry reliable information about the value of the priced goods and services only to the extent that they have not been distorted by changes that take place in the commodity in whose units prices are calculated. If socialism in its extreme versions would utterly destroy this information-dispersal process, monetary interventionism carries the potential of seriously sabotaging it.

It is important to recognize that there are at least two different sources of monetary disturbance of the operation of the market. Monetarists have generally focused on what could be called the *price-level source*: Excessive monetary expansion tends to bring about a rise (either anticipated or unanticipated) in the overall price level, which implies that the value of the monetary unit in terms of which prices are calculated changes.<sup>6</sup> This has obvious deleterious effects

<sup>5</sup>See Mises, *The Theory of Money and Credit*, H. E. Batson, trans. (Indianapolis, Ind.: Liberty Classics, 1980), Hayek, *Monetary Theory and the Trade Cycle*, N. Kaldor and H. M. Croome, trans. (New York: A. M. Kelley, 1966) and *Prices and Production* (New York: A. M. Kelley, 1931). For an excellent modern survey of this approach to monetary theory see chaps. 2–4 of Gerald P. O'Driscoll, Jr., *Economics as a Coordination Problem* (Menlo Park, Calif.: Institute for Humane Studies, 1977).

<sup>6</sup>For example, see Beryl W. Sprinkel's report to the Subcommittee on Domestic Monetary Policy of the Committee on Banking, Finance and Urban Affairs, March 3, 1982, where he concisely argues that the only two conditions that need to be met in order to conclude whether or not the Fed can effectively control the money supply are (1) that there be a stable relationship between the monetary base and the money stock, i.e., that the money multiplier is stable, and (2) that there be a stable relationship between the money stock and nominal GNP, i.e., that velocity is stable.

Professor Sprinkel's statement that "Money growth is important because it has a predictable impact on the growth of nominal GNP and the rate of inflation" is indicative of the position I am trying to criticize here. It seems to me that money growth is important for *any* of its consequences on the working of the economy, whether or not these effects show up in either the price level or gross national product statistics.

on intertemporal contracts, acts as a tax on money balances, and leads to various other misallocations of resources. The dangers from this source of monetary disturbance are real and have been analyzed at great length in the economics literature.

But there is another, quite different, source of damage to the market from the side of money which might be called the *injection source*: Any monetary expansion brings about a temporary rise in prices near the point of injection of new money relative to prices that are more remote from that point. This occurs so long as there is *any* lag between the insertion of new money and the consequent adjustment of prices to a higher level, and monetarists themselves have estimated this lag to be as long as one to two years. The injection source of market disturbance induces wealth effects which confer special benefits to those participants in the competitive process who happen to be “near” (in an economic rather than geographic sense) to the point of injection. Their input into the multidirectional tugs of the market process tends to pull the allocation of resources into particular avenues of investment which would not be sustainable by the direct and indirect influence of consumer expenditure, but which can only survive by virtue of further monetary injections. The strength or bidding power of these injection beneficiaries is not due to any superior foresight about consumer tastes or technological conditions, but rather reflects mere luck (or conceivably the political foresight of certain competitors concerning what precisely the Fed or the Treasury is about to *do next*, although this seems to have been rather unpredictable in the past). Because the economic system is undergoing continuous change, the pathways through which the injected money works its way through the latticework of market relationship will be forever changing, even if its entry points, say, the Federal Reserve banks, remain the same. But this implies that, unlike price level effects, injection effects are inherently impossible to anticipate (beyond the *first few exchanges in the process*).

Indeed, the central thesis of Mises’ and Hayek’s work in monetary theory has been that the serious periodic recessions that have plagued the world’s economies have been largely due to this injection source of monetary disturbance. Resources are temporarily drawn into capital investments which are inappropriate for the satisfaction of the consumers’ desires and are eventually rendered unprofitable as consumer expenditures reveal this fact. Thus in the earlier (*boom*) phase of a monetary expansion, before the price level has fully adjusted, entrepreneurs are catering to the demands of the early recipients of the newly injected money and ignoring the implications of consumer preferences. However, as we approach the later (*recession*) phase of

the expansion, and the money has had the chance to circulate fairly evenly throughout the system, the consumers can reexert their influence, causing the misdirected investments to fail. If this theory is correct, then of the two sources of monetary disturbance the one which is generally ignored may in fact be the more serious.<sup>7</sup>

It is clear that these two sources of monetary disturbance are fundamentally different and call for different policies in order to minimize their impact. The price-level source is symmetrical in the sense that most, if not all, of its deleterious effects would occur in reverse if monetary expansion were insufficient to keep the price level from falling. Just as unanticipated inflation benefits debtors at the expense of creditors, unanticipated deflation would benefit creditors at the expense of debtors. Economic calculation may be distorted by falling prices as well as by rising ones.

<sup>7</sup>There have been occasional attempts in the literature to analyze the relationship between inflation and relative prices, but these have not, in my view, addressed the injection effects I am stressing here. For example Richard W. Parks' "Inflation and Relative Price Variability" (*Journal of Political Economy* 86, February 1978) attempts to find a statistical correlation between the rate of change of the price level and degree of variance of relative price changes, and seems to consider Mises' analysis of injection effects to have been a precursor of this approach. But there is nothing in Mises' analysis that presumes either (a) that these effects need have anything to do with changes in the price level, or (b) that their impact on relative prices would show up as a greater variability of relative prices. The argument is that relative prices will be different from what they would be with a more neutral money, as a result of the injection of money, even if the average price level is unchanged. (The same point applies to the attempt by Daniel R. Vining, Jr. and Thomas C. Elwertowski in "The Relationship between Relative Prices and the General Price Level," *American Economic Review* 66, September 1976.)

Even where the issue is understood as a matter of the "income effects" of the insertion of new money, it is not clear that monetarists are on the same wavelength as Mises and Hayek on this point. For example Michael David Bordo's "The Income Effects of the Sources of Monetary Change: An Historical Approach" (*Economic Inquiry*, December 1975) presumes that by comparing income in periods of history when money was injected in different ways, the impact on the economy of the injection effects are being captured. He agrees with Milton Friedman's statement (in "Comments on the Critics," *Journal of Political Economy*, September 1972) that "the crucial issue is . . . whether knowledge of the sources of change in money permits an economically and statistically significant improvement in predictions of the future course of income" (p. 922).

But, again, it is no more clear that injection effects must lead to any changes in national income statistics than it is that they must be accompanied by changes in the overall price level. They can be expected to lead to a different configuration of wealth distribution among the populace than would have existed in their absence, and to diminish the standard of living from what it would have been by diverting resources from the directions of investment indicated by consumer preferences. Observable trends in national income measures are irrelevant to this point.

See, however, Bordo's "The Effects of Monetary Change on Relative Commodity Prices and the Role of Long-Term Contracts" (*Journal of Political Economy*, December 1980), which does seem to address the injection effects issue.

But the injection source of disturbance is not, practically speaking, symmetrical. Because we do not expect anyone in the economy to deliberately destroy significant quantities of money, the problem is purely one of minimizing the creation of new money. The optimal solution to problems that are caused by the injection source of disturbance *taken by itself* is simply zero growth of the money supply, whereas the optimal solution to the price-level source of disturbance taken by itself is a growth of the money supply that corresponds to the real growth rate of the economy.

Clearly the best solution to these two kinds of problems *taken together* depends on our estimates of the relative severity of the damage caused by each. My own judgment would be that the price-level effects are less damaging and easier to adjust to than the injection effects; thus the optimal policy for monetary stability would be as close to zero money growth as can be practically attained.<sup>8</sup> In my view the gradual deflation that this policy would permit would be preferable to the relative price distortion which would be caused by attempting to inject enough money into the economy to keep the price level constant.

I do not expect to convince my monetarist colleagues of the wisdom of my own position concerning the optimal trade-off between these two kinds of monetary disturbance, at least not in the span of this article. My immediate goal is merely to show that in fact two kinds of dangers exist and that the monetarists' optimal strategy (i.e., to maintain a stable price level) proceeds as if there were only one. If Mises and Hayek are right, even a Fed that strictly obeyed the dictates of the monetarist policy prescriptions would still be causing, with their moderate injections of money, a certain degree of misdirection of resources and unemployment. While these effects would certainly be less severe than what we have endured from the Keynesians' excessive monetary expansion, their existence should at least be acknowledged.

This brings me to my final point. The sheer difficulty of determining how to best balance these twin dangers of monetary policy should suggest to free-market economists that there is a second and more fundamental issue that is being ignored by current policymakers. Advocates of the virtues of free, competitive markets are accustomed to the general argument that government agencies lack sufficient information to solve problems to which freely competing agents are

<sup>8</sup>Even gold money would undergo gradual increases in its supply over time. Some have estimated that about a two percent increase per year would be likely. To me this appears to be the best we can do.

able to discover solutions. Is central banking not a form of central planning? Why should we have to trust a single, monopolized government body like the Fed to figure out what the best monetary policy is?

It seems to me that the *presumption* of free-market economists ought to be to try to find a mechanism whereby consumers are "free to choose" the monetary policy they like best. If the price-level effects are more serious and deflation is perceived as the worse danger, consumers could opt for a money supplier who maintains a stable price level in terms of this currency. If, as I suspect, deflation is seen as not so bad and the injection effects are the more damaging, consumers could give their business to money suppliers who minimize the growth of money, such as private minters of gold coins. In any case, we can surely expect the free market to prevent any return to the sort of irresponsible monetary expansion against which all of us are raising objections at this conference.