



Friedman on the Lag in Effect of Monetary Policy

Author(s): J. M. Culbertson

Source: *Journal of Political Economy*, Vol. 68, No. 6 (Dec., 1960), pp. 617-621

Published by: [The University of Chicago Press](#)

Stable URL: <http://www.jstor.org/stable/1829948>

Accessed: 27-02-2015 17:27 UTC

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



The University of Chicago Press is collaborating with JSTOR to digitize, preserve and extend access to *Journal of Political Economy*.

<http://www.jstor.org>

FRIEDMAN ON THE LAG IN EFFECT OF MONETARY POLICY

J. M. CULBERTSON
University of Wisconsin

VIRTUALLY all modern discussion postulates that the lag in effect of government fiscal, monetary, and debt-management policies is short enough that they can be used in some active manner to dampen economic fluctuations or to offset factors tending to cause them. Milton Friedman challenges this view, arguing that monetary policy acts with so long and variable a lag that an attempt to use it actively may aggravate, rather than ameliorate, economic fluctuations. Friedman uses this allegation to support his prescription for a constant growth in the money supply in preference to any actively anticyclical monetary policy. This note points out some troublesome implications of the long-lag hypothesis and examines the evidence that Friedman offers in support of it.

THE FRIEDMAN LAG DOCTRINE

Friedman's argument on the policy lag has been only briefly stated and can be simply summarized:

There is much evidence that monetary changes have their effect only after a considerable lag and over a long period and that the lag is rather variable. In the National Bureau study on which I have been collaborating with Mrs. Schwartz, we have found that, on the average of 18 cycles, peaks in the rate of change in the stock of money tend to precede peaks in general business by about 16 months and troughs in the rate of change in the stock of money to precede troughs in general business by about 12 months. . . . For individual cycles, the recorded lead has varied between 6 and 29 months at peaks and between 4 and 22 months at troughs.¹

It seems quite clear that Friedman views the lag between, for example, the *peak rate of increase in the money supply* and the *abso-*

lute peak in economic activity as a measure of the delay in effect of monetary changes or as the lag that would apply between a change in monetary policy and its effects. As he has put it in testimony before Congress:

Monetary and fiscal policy is rather like a water tap that you turn on now and that then only starts to run 6, 9, 12, 16 months from now. It is because of this long lag in the reaction to policy that you have this tendency for policy in fact to have an effect opposite to that intended.

Or, again:

Thus, you have a situation such that, when the Federal Reserve System takes action today, the effect of that action may on some occasions be felt 5 months from now and on other occasions 10 months from now, on other occasions 2 years from now. That is the major reason why it is so difficult as a technical matter in the present state of our knowledge to know what measures one ought to take at any given time.²

Friedman asserts that this defect is not peculiar to monetary policy:

It should be emphasized that this conclusion about short-run changes is valid not only [for] monetary policy but also for fiscal or other policies. All these policies operate with a long lag and with a lag that varies widely from time to time.³

A fair statement of the author's view of the policy implication seems to be this:

In the present state of our knowledge we cannot hope to use monetary policy as a precision instrument to offset other short-run forces making for instability. The attempt to do so is likely merely to introduce additional instability into the economy, to make the economy less rather than more stable.⁴

¹ U.S. Congress, Joint Economic Committee, *Hearings, Employment, Growth, and Price Levels*, Part 4 (86th Cong., 1st sess., 1959), pp. 615-16.

² *Ibid.*, p. 611.

³ *Ibid.*

⁴ *A Program for Monetary Stability* (New York: Fordham University Press, 1960), p. 87.

SOME IMPLICATIONS OF THE LAG DOCTRINE

Three points regarding the lag doctrine are useful to have in mind before considering the evidence offered in its behalf.

1. The policy implication of the long and variable lag is that government monetary, debt-management, and fiscal policies should not attempt to be actively anticyclical but should behave in a manner that is cyclically neutral. However, it may be interesting to note that there would be considerable disagreement as to what constitutes "neutrality" in this connection.

Friedman's emphasis is on the behavior of the money supply, and he thus defines his cyclically neutral monetary policy as one involving a constant rate of money growth. However, some economists evidently would associate "neutrality" of monetary policy with stability of interest rates or of bank reserve positions. For debt-management policy some would define "neutrality" in terms of the behavior of the maturity structure of federal debt, while others would use an interest-rate criterion.

With regard to fiscal policy, matters become yet more difficult.⁵ It would seem naïve to consider as a neutral fiscal policy one that simply avoided changes in tax or expenditure programs in response to cyclical changes. For if no such program changes occur, the effective fiscal policy is the one that has been built into the tax and expenditure systems—in the definition of tax bases, progressivity of rate schedules, content of expenditure programs. These provisions are as much matters of human choice as are *ad hoc* changes in them. Assume agreement that, because of the lag in effect, too large a

⁵ I might mention here, since the evidence considered below does not really bear on this, that the long-lag doctrine seems especially difficult to swallow in the case of some fiscal policy actions. If the government, for example, speeds up its public works outlays, at least a part of the effect (some might be temporarily offset by inventory liquidation) must show up in gross national product immediately and not hang about to go off like a time bomb a year or two later. It is not the decision lag, of course, but a lag between policy action and its effect that is in question here.

deficit in recession—whether resulting from discretionary changes or built-in provisions of the fiscal system—would aggravate the succeeding boom. But then how big a deficit represents "neutrality"? I am not really concerned over this problem, since I do not accept the lag doctrine that gives rise to it, but it is perhaps an interesting puzzle for those who do accept that doctrine.

2. Friedman seems to me guilty of an inconsistency in reaffirming in connection with his enunciation of the lag doctrine the automatic system he prescribed earlier for stabilization policy. In that system, changes in the government fiscal position resulting from the impact of cyclical income changes on fixed tax and expenditure systems would have a dollar-for-dollar effect upon the money supply. He still argues that this would "provide a stable monetary background which would render major fluctuations well-nigh impossible, would not exacerbate minor fluctuations, and might even alleviate them."⁶ His position seems to be that the new prescription—constant growth in the money supply—is not superior to the earlier one except in that it would promote understanding by the public and would be simpler to institute.

It seems to me that acceptance of the long and variable lag requires rejection of the earlier Friedman policy plan. The lag doctrine does not imply that it is *discretionary policy*, as such, that is bad (although Friedman believes that it is bad and can argue this on other grounds); rather, its message is that *actively anticyclical policy* is bad. But a distinctive characteristic of the earlier Friedman proposal is that it is an extravagantly anticyclical monetary policy. Who else proposes an anticyclical variation in money supply at the rate of \$10 billion a year or more?⁷ If the effect of such action were not

⁶ *Op. cit.*, p. 90.

⁷ The change in federal cash deficit from calendar 1957 to 1958 was \$8.5 billion. On a quarterly basis, using seasonally adjusted deficit data, the annual rate of variation in money growth would have run close to \$20 billion. Incidentally, with the lags involved in our existing tax system and with the tardy

felt until a year or two later, it would seem that the program could be shatteringly destabilizing.

3. It also appears inconsistent for Friedman to argue that all government stabilization policies operate with a long and variable lag such as to rule out their active use, while maintaining that the economy is effectively self-stabilizing and will achieve a tolerable record in the absence of government action. It is reasonable to have confidence in the self-stabilizing powers of the economy only if we can see that there are natural stabilizing forces that work quickly and effectively. Or, to put things the other way around, if the economy does seem to contribute effectively to stabilizing itself, then it must embody some such prompt-acting stabilizing forces which tend to offset or limit the destabilizing forces to which the economy obviously is subject. But the rub here is that the major automatic stabilizing forces to which one can point operate through quite the same channels as do the government policies that Friedman says work with such a lag.

I am willing to argue that the economy embodies some natural stabilizing forces that have been insufficiently taken account of in much of recent discussion. But I should identify these mainly as financial adjustments affecting liquidity positions, interest rates and asset prices, and availability of

increase in expenditures that occurred, the maximum rate of money growth (seasonally adjusted) in the 1958 recession under the Friedman formula would not have occurred until the first quarter of 1959, a year after the low quarter in gross national product.

Note that the lag doctrine prevents Friedman from arguing that a quick effectiveness of the automatic increase in money supply under his formula would limit the size of the deficit in recession. He might want to argue that the removal of uncertainties over policy by adoption of an automatic formula would limit the recession, but this puts great weight upon psychological as against other effects of policy. And, in point of fact, confidence in discretionary monetary policy—in this connection it is irrelevant that the confidence may be ill founded—seems to have contributed powerfully to limiting recent recessions.

credit and would argue that the channels through which they operate are the same ones that the government can use.⁸ If recession tends to be limited by the fact that the business that stops buying for inventory and the consumer who decides against that new car make their marginal funds available to the debt markets and help finance spending elsewhere (e.g., residential construction), then the recession must tend to be limited in quite a similar way when the Federal Reserve induces the commercial banks to create some additional funds and make them available in debt markets. If the latter acts so slowly as to have perverse effects, so must the former. Thus the burden of a thoroughgoing application of the lag doctrine should perhaps be taken to be that natural as well as government-induced financial adjustments must be prevented—that the “stabilize-the-interest-rate” school is right after all.

One way out of the difficulty that Friedman here faces would be to discover that there are natural stabilizing tendencies in the economy of a nature hitherto unsuspected that suffice to achieve tolerable stability, even though, in doing so, they must offset the destabilizing force of natural financial adjustments, which operate with a long lag.⁹ If this is, indeed, the story, it is important that we discover it, for then our view of the economy must be grotesquely

⁸ I should emphasize also that the fabric of expectations and planning assumptions ordinarily is basically stabilizing, in that it foresees early reversal of income declines and other adverse developments visualized as temporary.

⁹ Friedman has emphasized price flexibility as an essential ingredient in his ideal system, but this does not seem sufficient to meet his need here. Price flexibility as the economy's major short-run stabilizing device is subject to such objections as these: (1) prices have not in fact declined in recent recessions; (2) that price adjustments have a stabilizing effect upon income in short-run economic fluctuations (in view of adverse expectational effects) is quite uncertain; and (3) the lag in people's recognizing that price change has affected the real value of dollar assets—plus subsequent lags prior to income effects—would seem to make this one of the more slowly operating adjustments.

inadequate. But a more probable way out of the dilemma is to find that, after all, financial adjustments in the economy do not affect income only after a long and variable lag and that government financial policies are thus available to assist natural stabilizing forces.

THE EVIDENCE FOR THE LAG

The evidence that Friedman offered in support of his testimony on this subject is that described above—the fact that there is a long and variable lag between the peak rate of increase (decrease) in the money supply and the downturn (upturn) in business. This seems so unconvincing that I wonder whether Friedman does not have something else up his sleeve. However, if he does, we should have it, so let me point out some flaws in his case as it stands.

1. The evidence offered in support of the lag doctrine seems to depend on a misleading comparison of time series. Friedman compares, for example, the *maximum rate of increase* in money supply with the upper turning point in business, i.e., with the *absolute maximum* in output. Now, of course, in any smooth cyclical series the maximum rate of increase occurs before the absolute maximum, and if the series is at all irregular in its period or time shape, the “lag” will be a variable one. For example, there undoubtedly is a long and variable lag between the maximum rate of increase in industrial production and the peak in industrial production. What does that prove?

In other words, even though there were a precise conformity of the cyclical curves of money supply and economic activity, Friedman would find a long and variable lag because of the particular comparison that he has made. I submit that this consideration suffices to invalidate his use of his data as evidence for the existence of such a lag.¹⁰

2. Friedman’s interpretation of the lag as the time between a policy action and the succeeding cyclical turning point is objectionable. If a losing football team changed quarterbacks, should we judge this to have no effect until, or unless, the team took the

lead or won the game? The lag is the time between the action and the point at which things begin to go differently than they would have in the absence of the action. If many other forces are varying also, and in a manner that is not random, this may be very difficult to judge, as it usually is.

In other words, we deal here with the common analytical problem of isolating the effect of one variable among many that are entangled in complex interrelations. For Friedman’s interpretation to be fully acceptable, the change in money would have to be the only significant factor affecting economic activity. Otherwise the “lag” may reflect not a lag between a money change and its effect but simply the fact that its effect is for a time overcome by other forces. These other forces may operate in a systematic way to present an appearance of lag. Especially is this true of the momentum of the business cycle. A restriction of money growth early in a cyclical expansion when the economy has a strong upward momentum could scarcely be expected immediately to produce a downturn, whereas monetary restriction late in the prosperity when the economy is ripe for a downturn could do so. This difference in outcome could not properly be interpreted as a difference in the “lag in the effect of monetary policy.”

3. The Friedman analysis implies that monetary change has been an exogenous variable and that causation runs only from

¹⁰ The chart that Friedman offers in evidence (*Hearings*, p. 639) suggests that on a more proper basis of comparison the “lag” might largely disappear (although I should not use this to argue that *in fact* there is no lag). The variation in individual cycles and the erratic behavior of the money supply series raises questions as to the worth of such a comparison, but the maximum rates of increase in the money supply and in economic activity seem commonly to have about coincided. Indeed, if it is this comparison between the two series that we make and we use Friedman’s implicit assumption that it is the change in the money supply that *causes* the change in economic activity, we come upon a new embarrassment. The maximum rate of increase in economic activity seems sometimes to have *preceded* the maximum rate of increase in the money supply. Does not a negative lag raise some entertaining difficulties for policy?

monetary change to economic developments. In fact, the interpretation of past data is complicated by the fact that causation also has run in the other direction. Not only has money growth caused business expansion, but business expansion has caused money growth. This means that a simple reading of lag on the assumption of one-directional causation will not do. This is a part of the picture of intercorrelation among variables that makes it difficult to gain reliable knowledge about lags.

The combined burden of these objections seems to be that the facts that Friedman has offered in support of his lag argument do not justify any conclusion whatever about the lag in the effect of monetary policy. So far as I can see, they leave the question quite as open as it ever was.

CONCLUSION

The most promising approach to estimating the lag in effect of government stabilization policies seems to be an analysis of the channels through which they affect the economy and an appraisal on the basis of experience of the time that it takes for effects to pass through each channel. Undoubtedly, there are lags before the direct effects of policy upon income are felt, lags that vary with the chains of reaction and the surrounding circumstances. The lag until income is affected is perhaps not the only matter of interest. If a policy change checks a cumulating deterioration in the state of psychology, this may be more surely helpful than an appraisal in income-lag terms would suggest.

In recent experience, favorable financial adjustments occurring in recession—which it is the task of government financial policy to insure and perhaps accentuate—have begun to show substantial effects within six

months or less and seem surely to have contributed to limiting economic fluctuations. Residential construction, which because of institutional factors has most obviously shown the effects of changes in financial conditions, has not been subject to a long lag. Its variations have been anticyclical. The most reasonable presumption is that this is equally true of effects of policy acting through the state of psychology and through prices of investment assets, as well as those acting through current loan-fund flows.

The general character of recent economic fluctuations does not seem to support the long-lag theory. When has an expansion movement run away with us because of the belated effects of antirecession policies? When was a recession evidently extended because of the delayed effects of earlier anti-inflation policies (except those erroneously continued into the recession period itself)? If we assume that both government stabilization policies and natural financial adjustments act with a long and variable lag, how do we set about explaining the surprising moderateness of the economic fluctuations that we have suffered in the past decade?

The broad record of experience seems to me to support the view that anticyclical monetary, debt-management, and fiscal adjustments can be counted on to have their predominant direct effects within three to six months, soon enough that if they are undertaken moderately early in a cyclical phase they will not be destabilizing. This is only a permissive conclusion—it does not indicate what stabilization policy should be. But it is a permissive conclusion upon which all building must depend. The lag doctrine would destroy any foundation for an active stabilization policy and would seem to raise serious questions as to the viability of a market economy.