

Overview: The Contribution of Monetary Policy

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Monetary policy and growth

Whoever investigates the contribution of monetary policy to economic growth—and what is invariably involved in this connection—are not short-term influences, but rather medium- to long-term developments—first of all asks the basic question: Does money matter?

For the central bank, this is translated into concrete problems: how do monetary conditions affect economic developments? What are the consequences of the level of and variations in the inflation rate for growth? What roles are played by credibility and, where appropriate, a change in the monetary policy regime?

Regarding the link between inflation and growth, there is an extensive empirical literature, the overall findings of which are highly unsatisfactory: high as well as low real rates of growth can be registered both in the event of monetary stability and in that of by no means insignificant rates of inflation.

There is broad agreement only about the fact that pronounced monetary instabilities—such as extremely high inflation rates, but also **sharp contractions** of the money supply¹—severely affect economic growth. Basically, however, it seems to me that unambiguous empirical analyses of the issue are very difficult to carry out, above all, because the influence of monetary conditions, or monetary policy, can

hardly be adequately isolated from the other factors, except in the case of extremes.

In answering the age-old controversy expressed in the question, "Does money matter?", economists currently appear to agree more widely than before on the basic issue of whether it does so. In something of a post-Keynesian-post-monetarist consensus, most economists now probably consider it highly likely, at least if there are unexpected changes in the monetary policy stance, that money has real effects in the short run, but that the long-term impact of monetary policy on employment and the gross national product (GNP) is actually relatively insignificant as a rule, or—to put it in other words—that the long-term Phillips curve is vertical.²

Money and growth--or: what can we learn from economic theory?

But should a monetary policy geared to the findings of economic theory not go deeper if, first of all, it wants to correctly understand its contribution to growth and finally to translate this knowledge into an adequate policy?

Anybody with this objective in mind who tries to work his way through the stack of literature available on the subject of "growth" will not repeat this for a long time. In many, probably most, of the approaches, money does not figure at all. But, to be sure, this alone does not permit the conclusion to be drawn that the specific stance of monetary policy is irrelevant for growth.

But even those models which explicitly introduce money prove to be of little practical help. Tobin's (1965) contribution, for instance, which is regarded as classical by many quarters in this respect, shows that a higher inflation rate will, in certain circumstances, lead to a higher real capital stock. This effect is ultimately due to the fact that higher inflation means less real demand for money. The corresponding losses in the form of a reduced exchange or production efficiency are not taken into account, however. Real income is then, at a given savings ratio and higher inflation, increasingly invested in real capital—the real demand for money has fallen accordingly. *Real capital*

formation rises; the real rate of interest declines. In the final analysis, however, this Tobin effect—the positive impact of inflation on capital formation—seems to be based on a trick. Money does not provide any explicit increase in efficiency or utility in the Tobin model. Money is neither included directly in the utility function nor does it lead indirectly, through an increase in the productivity of production or exchange processes, to a utility increase. In Tobin's model, economic agents demand—one is tempted to add incomprehensibly—this actually worthless paper—and act as though it yields a real rate of return, precisely as real capital does. In such a case it comes as no surprise, of course, that a higher rate of inflation, which reduces demand for this asset, money, can increase real capital formation and hence output. Here, inflation has the function, in the essence, of making money unattractive as an investment asset so that economic agents will no longer (foolishly) allocate such a large part of their stock of wealth to this actually useless asset.

This problem of Tobin's analysis was very soon recognized and solved insofar as money was considered to have an explicit function. The new generation of models explicitly takes into account the intertemporal maximization and the function of money. Ultimately, however, it proved impossible to provide a more precise answer to the question as to whether a higher (and rationally anticipated) inflation rate does, indeed, lastingly increase or reduce the capital stock and output.

The intertemporal models—be they either of the type based on infinitely living individuals or families, or the overlapping generations models—indicate very clearly that the impact of the (steady or rationally anticipated) inflation on capital formation and output ultimately depends, in particular, on two crucial factors in almost all approaches. Specifically, it depends, for one thing, on how money is substantiated and introduced into the model and, for another, on the question of how the seigniorage is used.

In this context, the distribution of seigniorage is of significance, in particular, when government debt is not neutral in the sense of Ricardo's theory.³ In this case, one can boost capital through the higher inflation tax all the more, the higher the share in the seigniorage

received by the young generation or the share used to reduce the government debt. The growth or even welfare effects of different rates of inflation, however, can hardly be evaluated on the basis of such models with the certainty or general validity that is necessary for practical purposes of monetary policy.

There are basically two solutions to the problem of how money is justified in the models. If money is written into the utility function of an overlapping generations model, a higher rate of inflation will enable the capital stock and output to be increased. In formal terms, this is once again due to the use of the seigniorage. The result is the same as the Tobin effect, but it is now also seen that a higher rate of inflation reduces the consumer's surplus to those demanding money. It is therefore doubtful whether the really relevant target variable, that is, welfare or utility, increases as a result of higher inflation. If, however, money is introduced in such a way that it increases production efficiency and hence the marginal efficiency of capital, a higher rate of inflation may well lead to a lower capital stock and lower level of output or, in an endogenous growth model, also to a lower rate of economic growth.⁴

As money undoubtedly helps reduce transaction costs, this approach probably has some foundations. The theoretical or macroeconomic justification for a high rate of inflation to promote growth is hence—to put it cautiously—built on sand. For practical purposes it is also decisive that monetary policy's contribution to the promotion of growth in these models—at the expense of monetary stability—will basically be the same as that of fiscal policy when the latter varies government expenditure and the path of indebtedness.

It is unlikely for anybody to read these approaches, and any others,⁵ as an instruction for the course of action to be taken by monetary policymakers. It would be fatal, however, if one were to take the theoretical literature in this connection to support the view that a little inflation (if necessary, also a little more?) could by no means harm growth. There is a temptation to observe that the gap between this model world of heroic assumptions and the central bank's concrete functions can be measured in light years only. At any rate, even an article on the subject "Why does money affect output?" contains the

warning that "all the models we have seen impose long-run neutrality as a maintained assumption. This is very much a matter of faith, based on theoretical considerations rather than on empirical evidence."⁶

Monetary policy and growth — institutions and political process

Lenin is said to have stated that "in order to destroy the bourgeois society, one must destroy its monetary system." Whether this quotation is right or wrong, it, at all events, addresses the fundamental importance to be attached to monetary stability in a free society. Confidence in the stability of the value of money is more than a purely economic phenomenon, it is an integral part of confidence in the stability of the political system as such.

The higher the rate of inflation, the greater the uncertainty about future monetary developments. An uncalculable monetary policy, in the wake of unexpected inflations, disinflations, or deflations, will more or less inevitably also trigger, or at least aggravate, serious financial crises with the danger of permanent adverse effects on the gross national product.⁷

Even if the tradeoff between inflation and employment cannot be expected to have any permanent positive effects, a possible indirect and permanent effect of an unexpected rise in inflation through capital formation on the gross national product in specific circumstances is not infrequently stressed in justification of a corresponding growth orientation of monetary policy. In theory, this opens up a wide field: if the "winners" of a redistribution of wealth caused by unexpected inflationary trends have a higher propensity to save than the "losers," overall capital formation will indeed increase, at least *ceteris paribus*.

But also in discussions of monetary policy, and even in recommendations to the central bank, there is sometimes the (implicit) motive of reducing the real debt burden of enterprises and the government by an unexpected sharp acceleration of inflation in order, on the one hand, to avoid insolvencies of firms and, on the other, to stabilize overall capital formation and economic activity.⁸

Is it thus, after all, possible to increase capital and growth by means

of an unexpected acceleration of inflation? Certainly not! The risk, the problems which would be associated with such a policy would basically be the same as those associated with a monetary policy aimed at short-term traditional demand effects or a higher inflation tax. In the long run, such a strategy, which ultimately is built on deception, would become stuck in the marshy ground of credibility crises and time consistency problems, of accelerating inflation, of rising capital market rates, and increasing uncertainty especially among investors. Eventually, monetary policymakers will be able to free themselves from this situation only at a very high cost in the shape of a painful process of disinflation to overcome the "legacy" of their previously wrong policy.

Deception is not a tested prescription for an economic policy geared to long-term objectives in a market system and can certainly not serve as a basis for a stability-oriented monetary policy. Of course, in the short term, such surprise effects can have a real positive impact. In the long term, however, a loss of credibility and the costs of inflation and disinflation weigh much more heavily. A policy which is aimed at promoting capital formation and growth must be highly credible, reliable, and predictable. Attempted deception and stop-and-go policies aimed at short-term demand effects are the best way of undermining investors' and savers' confidence in monetary policy, and hence also in economic policy as a whole. The capital which the central bank possesses in the form of a high credibility is thus thoughtlessly and, ultimately, uselessly put at risk. Less, rather than more, capital would be the long-run consequence in this case as well.

The indirect casual connection identified in some more recent publications, notably within the framework of overlapping generation models, according to which a more expansionary monetary policy can, through a higher seigniorage, reduce government debt? budget deficits (at a given level of government expenditure), or distorting taxes, and thus encourage capital formation, are interesting, but, from a practical point of view, largely useless, it might even be said dangerous, theoretical curiosities. The chief reason for this is that the indirect effects on growth and welfare that emanate from a change in the inflationary process and the associated amendment of the monetary policy regime are not, or only very inadequately, analyzed.¹⁰

Were the central bank to indicate that it intended to participate more actively in budget financing through the inflation tax—the purported boost to growth would surely be a welcome argument for some supporters—this would in many cases fling the door wide open for the growth of government expenditure and, in particular, also budget deficits. Eventually, the effect would be the complete reverse of that assumed by the seigniorage models, namely a lax, inflationary monetary policy—in fact even the rational anticipation of such a stance by politicians—which will lead to higher government debt, and thus to lower real growth.

The political process-distribution struggles, group egotism, rent seeking, to mention but a few of the current buzzwords—would take the announcement of a monetary policy which would in future be geared primarily to financing the government budget rather than to monetary stability and hence, ultimately, an inflationary monetary policy, to be the signal for a massive run on the public budgets, which politicians—even if they wanted to—would find difficult not to become caught up in.

Such a run is driven by the fear of being done out in the "negative sum game" of a distribution struggle financed by inflation and thus of being forced onto the losing side by more aggressive groups.

A crucial means available to the central bank to promote capital formation and growth hence consists of the disciplinary effect which a monetary policy geared strictly and credibly to price stability can exert directly and indirectly on fiscal policy and wage policymakers. The scope for bringing such influence to bear hinges on the reputation, and thus also on the independence of the central bank. Of course, this can hardly be verified empirically with an adequate degree of certainty. This may be why virtually no attention is given to this "transmission path" in most theoretical analyses of the impact of monetary policy on capital formation.

It is precisely a fiscal policy geared to long-term objectives and growth which must be interested in the "division of power" in economic policy as manifested by these two pillars of the central bank institution. If it is accepted that fiscal policy in a democracy, as driven

by the political process, has a tendency toward excessive government debt—a thesis which can hardly be contested in view of the trend of public debt in most industrial countries over the past two decades—there would appear to be a point in—indeed, even a need for—the central bank to provide some counterweight, that is, to seek directly or indirectly to contribute to a low and sustainable level of government debt as part of its stability mandate. Besides these two pillars, that is, independence and monetary stability as a priority objective, particular importance must be attached to corresponding public relations efforts by the central bank to inform the general public about the risks and dangers of government debt, as well as to a monetary policy geared to medium-term objectives and potential output.

Sooner or later, higher government debt, as measured as a percentage of the gross national product, will, broadly speaking, lead to higher taxation. This, and the demand effect of deficit spending, will have a positive impact on the level of prices and inflation. A central bank which is committed to monetary stability will therefore have to check the extent to which its policy stance is responding adequately and timely to these developments.

Hence, it is not an expansionary monetary policy that is needed so as to encourage overall capital formation and economic growth. Quite the contrary is true: a strictly anti-inflationary central bank policy is the best way of ensuring not only that monetary stability is largely maintained but also that distribution struggles and excessive budget policies will come up to the limits set by monetary policy. In the absence of a consensus among all those responsible, however, the central bank, too, will ultimately be able to achieve little.

Concluding remarks

Compared with the period of "cheap money," there has been an outright change of paradigms in the optimum allocation of roles to the central bank and fiscal policymakers. The quintessence of the research conducted in the past few decades is that a lastingly high rate of economic growth cannot be achieved through large budget deficits and a passive monetary policy which tries to keep central bank interest rates low. On the contrary, a disciplined fiscal policy which keeps

government debt within narrow limits and a counter-inflationary policy are the decisive cornerstones of a successful economic policy geared to long-term objectives.

Endnotes

The author wishes to thank Klaus Masuch for his active assistance in the preparation of this paper.

¹See, for instance, Milton Friedman's statement: "...the U.S. monetary authorities followed highly deflationary policies. The quantity of money in the United States fell by one-third in the course of the contraction... The Great Contraction is tragic testimony of the power of monetary policy..." Friedman (1968), p. 3.

²See, for instance, Gregory Mankiw: "The very phrase 'zero inflation unemployment rate' presumes the existence of a long-run tradeoff between inflation and unemployment. Most economists today doubt that such a tradeoff exists. On this issue, Milton Friedman (1968) has won the hearts and minds of my generation: in most new Keynesian models, the long-run Phillips curve is vertical." Mankiw (1992), p. 563.

³See, for instance, Alogoskoufis and Van der Ploeg (1991)

⁴See, for instance, De Gregorio.

⁵In this connection, one would have to think, above all, of models which incorporate hysteresis effects

⁶Blanchard (1990), p. 828.

⁷In his analysis of the great shocks experienced by the U.S. financial system in the 1980s, Martin Feldstein comes to the following conclusion: "My analysis of these problems also suggests that the major source of the increased risk in our economy has been a series of seemingly well-intentioned government policies. A primary culprit identified in each of the four cases has been the rising inflation rate that resulted from the monetary and fiscal policies of the late 1960s and the second half of the 1970s. Inflation distorted real interest rates, led to excessive borrowing by LDCs, caused thrift institutions with fixed rate mortgages to become insolvent, and created fundamental changes in the commercial banking sector. All too often during the period of rising inflation, economists misunderstood the serious and far-ranging adverse effects of inflation. A stable and low rate of inflation would have avoided many of the problems that have increased the risk of economic crisis." Feldstein (1991), p. 17.

⁸See, for instance, Benjamin Friedman: "In the absence of a response by the Federal Reserve, the risk of a debt crisis, as suggested by much of the recent discussion, might be a plausible outcome under any of several sets of circumstances. But there is no reason to presume that the

Federal Reserve would not respond to such a prospect, should those circumstances arise . . . Given the importance of monetary policy in either tolerating or arresting prior episodes of accelerating price inflation, the more likely end result of a continuation of current trends in business borrowing is therefore higher Inflation " Friedman. B. (1990), p. 1f.

⁹Here, and below, it is assumed that government debt shifts burdens into the future and reduces overall capital formation. Ricardo equivalence is thus not presumed.

¹⁰. In particular, the hypothetical experiment of changing the inflation rate while holding other effects on economic welfare unchanged is neither practically nor theoretically feasible." Grossman (1991), p. 334.

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