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President, April 1980 to December 1984

Solomon held the office of president during a period of notably successful anti-inflationary monetary policy as well as rapid financial innovation and deregulation. In this speech, he discusses monetary strategy—in particular the targeting of monetary aggregates, interest rates, and nominal GNP—in light of trends in inflation and the uncertainties introduced by changing financial markets.

Unresolved Issues in Monetary Policy by Anthony M. Solomon

It is an honor and a pleasure to join the distinguished list of speakers who have appeared here in the George Eccles lecture series. The pleasure has to be especially pointed for a Federal Reserve official since George's brother, Marriner, was, of course, one of the great figures in our central banking history.

I want to talk today on the interrelated topics of inflation and the strategy of monetary policy in dealing with it. By the beginning of this decade, inflation had reached its highest peacetime level in American experience. This represented the culmination of an irregular upward movement of some 15 years' standing. The main task of monetary policy over the past four years or so has been to bring this inflation under control. Monetary policy has had no significant help from other types of policy in this fight. The climate has not been right for any type of incomes policy. And fiscal policy has not, to say the least, been of much help either!

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We have nevertheless had a major success on the inflation front. As of 1983, most measures of prices and wages suggested that 15 years of acceleration have been reversed. Inflation last year was pushed back to the lowest levels since the mid-1960s. There has of course been some step-up from the extremely low rates prevailing right around the trough of the recession. This was inevitable. And some further acceleration is likely this year. Nevertheless, the basic situation is far better than it has been for a long time.

To be sure, the cost of this success, in the form of a deep recession, has been heavy. But that price has been paid and is behind us. We are obviously having a very good economic expansion and I think the prospects for its continuation are also good. Indeed, the principal worry at this point is that it may not have settled down yet to a sustainable rate.

In the meanwhile, the highly volatile interest rate environment that prevailed while inflation was being brought down seems to have disappeared over the last

year and a half. Interest rates have of course fluctuated, rising most recently. But the range of variation day to day, week to week, and quarter to quarter has been much narrower in the past year and a half than it was from late 1979 to late 1982.

Of course people worry as much about the average level of interest rates as about their volatility. And there is no denying that interest rates remain high in longer historical perspective. There are still some people, probably a minority by now, who lay the blame for high interest rates at the door of monetary policy. This complaint is unjustified. For one thing, despite the progress on inflation, the inflation premium in long-term rates remains exceptionally high. Some of the available evidence suggests that the long-term inflation expectations of financial market participants may be still as high as 6³/₄ percent as they look out over the next several years. These kinds of inflationary expectations are of course reflected in the yields on long-term debt instruments.

The skepticism that markets show about the future prospects for price stability reflects mainly two things. The first is our whole checkered history on inflation. The markets wonder if the inflationary experience we have had doesn't point to a basic weakness of modern industrial democracies in coping with this problem. But skepticism about our ability to deal with inflation has been greatly intensified by our problems with the federal budget. The level of anxiety about the deficit and its longer run implications for inflation has clearly heated up again in the markets this year. The fears of future inflation that are holding up interest rates will only come down, I am convinced, in the face of protracted experience with actual low inflation and with clear signs that the budget has come under control.

Obviously everybody would prefer a world with lower federal deficits and lower interest rates. But some seem to be suggesting that we can get the lower interest rates and their attendant blessings without progress on the fiscal front. The "solution" they seem to be proposing is much faster growth in money engineered by a more expansionary monetary policy. In my view, such an approach would be nothing short of calamitous. Such a policy would represent precisely the combination of budgetary disorder and monetary complicity that has produced most of the world's classic examples of runaway inflation. Instead, the solution to high interest rates has to come from the fiscal side. For monetary policy to abandon the approach that has made possible our progress on inflation would be a very sad mistake after all we have been through in the last few years.

Monetary targets and financial change

But while we can take satisfaction in the results of pol-

icy in calming inflation, the conceptual and strategic underpinnings of monetary policy have to some degree become less clear over the past two or three years. By the mid- to late 1970s, protracted experience with inflation had convinced the Federal Reserve and other central banks that we needed to find a way to refocus attention on the primary, indeed the only possible, longer run objective of central banks: stability in the value of money.

The result of the search for a new approach here and abroad was something new in central banking practice: annual growth rate targets for monetary and credit aggregates. The reasons for turning to this approach are straightforward. Thus it was clear when monetary targeting was first introduced — as it remains clear now — that control of inflation requires, as a necessary condition, slowing in money growth. There may be, and certainly are, many underlying causes for inflation. And there are many kinds of policies that may help in its control. But restoration of money growth rates to levels consistent with the economy's longer run capacity to produce is the essential monetary condition for reasonable price stability. Moreover, when the monetary targeting approach was adopted, there was a general belief that a reasonably stable relationship existed, at least over the intermediate to longer run, between money growth and nominal aggregate demand. So the long-run strategy was framed in terms of seeking steady but fairly gradual reduction in money growth rates to bring nominal demand into line with our real capacity to produce.

While inflation has indeed been brought down, the events of the last two or three years have somewhat undermined confidence in this formulation of monetary strategy. And indeed, actual monetary behavior has not been altogether consistent with it. The year-to-year path of monetary growth has not always followed the script of steady but gradual decline.

Implementation problems aside, the basic reasons for deliberate departure from this strategy are well-known. At root, they basically reflect the wave of financial innovation and deregulation affecting the markets for money and near money instruments we have been experiencing. Innovation and deregulation have been significantly changing the character of the money measures. The narrow money measure (M1) has been affected by the spread of NOW accounts, by the introduction of Super NOWs, and by other developments. The broad money measures, M2 and M3, have been radically transformed by the spread of the money market funds and by the virtually complete deregulation of time deposit interest rates that has proceeded in stages over the last several years.

The result of these developments has been changed

relationships between the money measures and the economy. One obvious sign of this change was the unusual weakness of velocity, especially of M1 velocity, during the recession and early recovery periods. The velocity of M1 showed an unusually sharp decline during the recession and a delayed and unusually weak rise during the early quarters of recovery.

Another sign of change is the much weakened response of the broader money measures to changes in interest rates. Over much of the postwar period, the cyclical performance of these measures was deeply affected by the rise and fall of interest rates above and below regulation-imposed ceilings on time deposit rates. Growth in the broader aggregates would be slowed sharply when market rates rose above the ceiling rates and would accelerate sharply when rates once again fell below these ceilings. These so-called "disintermediation" and "reintermediation" phenomena, once such a dominant feature of broad money growth patterns, have largely disappeared. Consequently, the recent behavior of these money measures has been far different from what would have been expected in the past under similar interest rate conditions.

Now it is possible that the departures from past norms in the behavior of the various money measures are purely transitional. In that case, we might expect a return to past patterns once the recent institutional changes have been fully absorbed. I think this is hardly likely in the case of the broader money measures, and I am skeptical even in the case of M1. But even if only a transition period is involved, it may be a long one. For one thing, further interest rate deregulation is due — under current law for regular NOW and savings accounts, and under proposed regulation, even for demand deposits. And just as important, it may take substantial experience with the new money measures as they evolve to get a firm sense of what has become "normal" once the transition has been completed.

So in continuing to use the framework of monetary targeting, we in the Federal Reserve have labored — and are laboring — under some difficulty. At the level of monetary strategy we have responded to these problems over the past year and one-half with some modifications in the settings of our target ranges, with some adjustments in the base periods to which the growth rate targets refer, and with some shifts in the relative importance attached to the various money measures. Moreover, in 1983 we added a monitoring range for a broad credit measure to the ranges for the money measures we target.

At the level of tactics, we have also made some modifications in our operating procedures. Thus the procedures adopted in October 1979 provided for some automatic response of interest rates to short-run move-

ments in the money measures, especially in M1, when these measures seemed to be deviating from their target paths. Under this approach, above-path money growth would automatically result in upward pressures on short-term rates. Similarly, below-path growth would tend to result in some easing of rates. The aim was of course to quickly set countervailing pressures in motion whenever money growth strayed from path. Not surprisingly, this approach added to short-run interest rate volatility. And with the apparent loosening of the relationship between the money measures and the economy in 1982, automatic responses to short-run movements in these measures no longer seemed appropriate. Consequently, since late 1982 we have been using a day-to-day approach that neither targets interest rates directly — as we did before October 1979 — nor causes them to respond automatically to short-run movements in money.

Alternative monetary policy frameworks

But despite the various modifications we have made, both in the targets themselves and in our tactical approach to hitting them, we have retained the basic framework of monetary target ranges in formulating our monetary strategy. The basic appeal of this approach remains. It is just as true now as it was when this approach was introduced that we need a procedure for focusing attention — both our own and the public's — on the long-run objective of reasonable price stability. And it is just as true now as before that price stability in the long run requires slowing money growth to rates compatible with our real growth potential. The problem is that the recent changes in the character of the money measures have increased the difficulties of translating this approach into concrete numerical ranges. The increased uncertainty about the economic results that can be expected from any given rate of money growth means that we shall continue to have to respond flexibly to emerging changes in the behavior of the money measures. And as we gain further experience, we may want to change the menu of measures we target or further adjust the weight we give to the different measures.

In particular, some have advocated that we give major weight not to any of the money measures, but to a broad measure of credit. The broad credit measures clearly have some advantages. They are pretty much immune to the recent innovation and deregulation problems that have affected the money measures. And their statistical relationship to GNP seems to be not demonstrably inferior to that of the money measures. Moreover, movements in the growth of the broad credit measures appear to be less volatile than that of the money measures. So this is a proposal that deserves

further consideration.

But the drawback of the broad credit measures is that they are little more directly controllable by the main instruments of monetary policy than is GNP itself. Indeed, they can be thought of as basically a somewhat imperfect proxy for nominal aggregate demand. So perhaps we need to confront the issue of nominal GNP targets for monetary policy head on. This is a concept that has been attracting increasing attention lately, and not just in this country. Interestingly, it is an idea that gets a lot of support from academics and from some journalists and congressmen. But in my experience, the response of central bankers, both here and abroad, tends to be less than enthusiastic.

The conceptual case for nominal GNP targets is easy enough to state. Monetary policy seeks over the longer run to provide reasonably stable nominal values. And nominal GNP, as a measure of nominal aggregate demand, has a more powerful and direct impact on nominal values generally than any of the intermediate financial measures, whether of money or credit. You don't have to worry about the velocity problem with nominal GNP targets, or about such related matters as innovation and deregulation in financial markets. And at least at a conceptual level, you could frame a long-run anti-inflationary strategy in terms of gradually declining growth in nominal GNP, ultimately to a rate in line with long-run real growth trends.

But the problems with nominal GNP are just as clear. The first is that the central bank cannot deliver on a GNP target. To be sure, it cannot deliver in any very direct way on some of the money and credit measures either — especially the broader ones. But the order of magnitude and nature of the control problem is different with respect to GNP. The financial magnitudes are at least determined in markets where central bank instruments impinge directly. GNP outcomes of course depend on policy levers not under the control of the central bank — most notably on fiscal policy — as well as on many things outside of policy control. Central bankers, understandably, do not want to be held to objectives on which they can't deliver.

But perhaps even more fundamentally, under our system of central bank independence, it is simply not appropriate for the Federal Reserve to set broad economic goals. That is the task of elected officials. The anomaly involved in the Federal Reserve setting broad goals for the economy would become even more painfully obvious if GNP targeting were to further evolve toward setting separate objectives for the price and real output components of GNP — and I am afraid such an evolution would be hard to resist.

However this latter problem were resolved, the tendency to set GNP goals chronically too high would be

very strong. Nobody would want to set forth a set of figures as a target that said, in effect: "If we don't get restraint on inflation, we're going to aim for subnormal or even negative real growth." And yet history suggests there may well be times when this kind of tough stance will be needed.

Finally, I think GNP targeting would risk the loss of longer run objectives in a futile chasing of short-term goals. We have to remember that monetary policy operates on GNP only with a lag. And these lags may be, as Milton Friedman has argued, "long and variable." If this quarter's GNP growth is below its target path, the temptation would be to push on the gas pedal hard enough to get quick and visible results. In fact, the outcome is likely to be overshooting and instability.

So to me, it is far better for our central bank to seek a general financial environment compatible with long-run objectives for financial and monetary stability than to be loaded down with the impossible task of seeking to hit specific economic outcomes on a year-by-year basis.

Of course this doesn't mean we don't have to keep an eye on the actual performance of the economy as we go about our business. The need for explicit attention to ongoing developments in the economy is exactly the lesson taught by our recent problems with velocity. But I believe formal GNP targets — whether determined by the Federal Reserve itself or imposed on it by the Congress — could ultimately undermine the institutional conditions in which an overall climate of monetary stability is possible.

Let me be a bit more specific about what I think we have to do in the circumstances in which we find ourselves. First, we should continue to set and use money and credit target ranges, but only with a willingness to make adjustments in them whenever we see our expectations about their "normal" behavior going awry. Obviously I am no fan of making the policy levers respond automatically to short-run developments in the aggregates. But longer run deviations from target, when the targets themselves continue to seem valid, clearly do require a response.

Second, interest rates are obviously very important, both operationally and in the way we think about our impact on the economy. But even granting the problems with the monetary aggregates, interest rate objectives are just no way to structure monetary policy. We simply don't know at all what interest rates will prove to be appropriate under given circumstances. The recent ability of the economy to rebound vigorously while rates have remained historically high is clear evidence of this.

Third, the one place where interest rates may help us in formulating long-run monetary strategy is, I think, in

the valid general rule that short-term interest rates should normally be above the current inflation rate. In other words, real short-term rates should be positive. When they are not, as was often the case in the 1970s, the result is almost certainly going to be inflationary since credit demands are sure to explode. On the other side, however, I do not think we can state an appropriate upper bound for real interest rates. In normal times, with a budget that is in rough balance, historical experience may be a reasonably good guide. But under present conditions, it almost certainly is not.

Fourth, as I have already said, I do not think formal GNP targets are helpful, but I do think we have to keep our eyes on the economy. Indeed, under current conditions, the performance of the economy has to be a matter of first-rank importance. Experience has shown us that we can't have enough confidence in the aggregates to focus on them alone, blind to all other considerations.

Finally—and on this I may depart from some of my colleagues—I think we have to pay more attention to the international implications of domestic monetary policy. We are only beginning to grasp in this country the implications of the foreign sector—of the trade and exchange rates—for our domestic real growth, our financial markets, and our inflation performance. In other countries, the trade and exchange rate implications of any and all monetary policy decisions are likely to get prime attention. In this country, international considerations have most of the time been put in a separate compartment labeled "exchange market intervention." We can't afford this kind of thinking anymore. Domestic monetary policy has a far more powerful influence on exchange rates and the international economy generally than does exchange rate intervention when its potential money supply effects are sterilized. This is certainly true at the present highly restricted scale of intervention, and it may well be true at any practical level of intervention.

Inflation prospects and anti-inflation policies

Overall, the approach to monetary strategy we take should provide the needed degree of longer run discipline. Money and credit targets can continue to fill that role, as long as appropriate allowance is made for their changing characteristics when and as these emerge. More generally, I think there is an increasing and unfortunate tendency to think that the problem of creating a reasonably noninflationary world is mainly a problem of devising the right kind of monetary strategy. The proponents of monetary rules—whether of strict monetary targeting or of some mechanical response to changes in the price of gold or of some commodity price index—seem to think our problems with inflation

are mainly technical. They are not. They are rooted in major structural features of our modern world, both economic and political. These features tend to make policies that will ultimately prove inflationary attractive in the short run. On the other side, inflation, once begun, is very expensive to bring under control—as we have certainly seen.

A basic feature of our economy is that most prices and wages respond only sluggishly to changing demand conditions. So when monetary policy is used to slow aggregate demand, the main initial response is not slower prices and wages, but reduced output and employment. The improvement on prices comes only later, and only after real activity has been slowed. Under these conditions, slowing inflation always imposes a cost, temporary but sometimes heavy. Much of the public discussion of the inflation problem, at least until fairly recently, gave proper emphasis to ways of changing the economic structure to reduce the cost of using aggregate demand policies to contain inflation.

Some ideas on how to do this have been around for a long time—and are no less valid for that reason. Some involve removing government impediments to the ability of prices to respond promptly to restraint on aggregate demand. Others seek to improve the functioning of the labor market so that wages also respond more flexibly and so that we can operate the economy at lower unemployment rates without risking inflationary pressures. We have made a little progress on some of these things. Rate deregulation in some industries is an example. But there would have to be a large number of such changes to produce a really significant improvement in the performance of our pricing mechanism. And implementation of these changes often involves disturbing vested interests. So it is sometimes easy to get discouraged about the feasibility of implementing enough of these ideas to have a significant impact.

Other ideas for reducing the cost of keeping inflation under control are newer: One such idea is the suggestion that wage inflation could be made less impervious to demand restraint if multiyear wage contracts that lock in past high inflation rates were eliminated. Another idea would tie wage increases more directly to demand conditions by having some part of them take the form of profit sharing. These ideas definitely deserve a hearing. They offer the prospect that aggregate demand policy could slow wage inflation with much less impact on employment than it has now. A number of recent wage agreements have in fact incorporated some element of profit sharing. But at the level of public policy, the climate doesn't seem at all conducive at the moment to a major reexamination of our wage and price practices. Perhaps that will continue to be the

case as long as inflation remains under reasonably good control.

As I suggested earlier, some acceleration of inflation during economic recovery from recession lows is inevitable. The problem during the late 1960s and 1970s was that each inflation peak was higher than the one before it. Our task is to reverse that overall trend. When we do take the longer view, there is clearly one large negative in the prospects for further progress on inflation over the next few years; the federal deficit. And make no mistake about it, this is going to be a very serious negative indeed if the problem is not addressed vigorously and promptly.

But the deficit aside, there may also be some good things going for us on the longer run inflation outlook. Demographics, plus the fact that much of the absorption of women into the labor force is behind us, means that we will have a more experienced workforce. This means, in turn, that the unemployment rate at which inflation tends to accelerate is likely to drop from the levels that have proved to cause problems in the past decade or so.

Moreover, partly because of these changes in the characteristics of the workforce and partly for other reasons, we seem likely to get an improvement on the very slow productivity growth we suffered in the 1970s. Indeed, at least some students of this problem think we could approach the rapid growth we enjoyed for substantial stretches earlier in the postwar period. Any improvement on productivity would help the inflation

problem. It would permit us to run the economy at higher operating rates without risks of overheating. It would also help to satisfy workers' desires for rising living standards without the need to press for inflationary wage increases.

Finally, it is clear that some significant fraction of the inflation of the 1970s reflected the two oil shocks, one triggered in 1973 by a realignment of power within the oil industry, the second by the Iranian Revolution in 1979. A little luck in avoiding repeats of such shocks would be a major help on the inflation front in the years ahead.

With luck—and it will take some of that plus a resolution of the deficit problem—inflation, nominal GNP growth, and interest rates could settle down to much lower average levels and narrower ranges of variation than we have seen in recent years. If this does happen, the technical issues and problems of monetary policy that have so bedeviled us recently will seem less pressing. After all, earlier in the postwar period, monetary policy was a relatively simple business of “leaning against the wind,” and money and credit growth rates were in fact a lot lower and more stable than they have been in the past 10 or 15 years.

Not that the risks of resurging inflation will ever entirely disappear. Like so many problems of the modern world, the risk of reigniting inflation is something we will have to learn to live with on a year-by-year basis. But I am optimistic that our prospects are brighter than they have been for some time, and that is perhaps reason enough for satisfaction.