
FRBSF WEEKLY LETTER

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Monetary Policy in the 1990s

The following is adapted from a speech given by Robert T. Parry, President and Chief Executive Officer of the Federal Reserve Bank of San Francisco, on January 14, 1994, to the Los Angeles chapter of the National Association of Business Economists.

This *Letter* discusses challenges in conducting monetary policy in the 1990s—now that the monetary aggregates have proved unreliable. The source of these challenges is financial change—that is, the sweeping financial deregulation and innovation that began 20 years ago. As these developments spread through the financial markets, they undermined the reliability of the monetary aggregates. As a result, the aggregates were no longer reliable indicators of monetary policy. Moreover, they have been confusing to the public who may watch them to figure out the stance of monetary policy. M1, which used to be our main indicator, has been soaring for three years. But the growth of M2, which replaced M1 as our prime indicator, has been feeble. And contrary to *either* indicator, we've had moderate growth and well-behaved inflation. My focus will be on how the Fed has handled policy without reliable aggregates, and on a couple of options under discussion as indicators or targets—real interest rates and nominal GDP.

The economic setting in the U.S. and abroad

Not surprisingly, a good deal of attention has been focused on the rapid real GDP growth in the latter half of last year, and especially on the nearly 6 percent growth rate registered in the fourth quarter. But a longer-term perspective shows the current expansion so far has been moderate by postwar standards. Over the 11 quarters since the business cycle trough in early 1991, real GDP has risen at an average annual rate of 2¾ percent—well below the 5 percent average growth rate in previous expansions that have lasted at least this long.

Why did the economy “creep” out of the recession, rather than “boom” back, as it usually does? Basically because the U.S., as well as many of our major trading partners, are in a stage of transition—a stage marked by disinflation and

fiscal restraint. In the U.S. defense cuts and other deficit-reducing measures in the U.S. are important factors that have restrained aggregate demand and slowed economic growth. And for the last few years, economic activity in our major trading partners has been lackluster, or worse. In the other G-7 countries—Canada, France, Germany, Italy, the U.K., and Japan—output grew on average by only 1¾ percent in 1991, not at all in 1992, and (based on incomplete data) probably by less than 1 percent last year. Although there are a variety of special factors operating in individual countries, one common reason behind these developments is policies designed to cut rates of inflation. All of these countries have made significant progress in reducing inflation in recent years.

The Fed's role in countering these forces was to lower interest rates—down to about a third what they were in 1989. But we lowered them gradually and cautiously because of our concerns about inflation. Like many other central banks, we want to bring inflation down and keep it close to zero where it will not distort economic decisionmaking. Thus, in February, we raised the funds rate by 25 basis points against a background of a sharp acceleration in the pace of economic activity and declines in the amount of slack in labor and product markets.

Although a policy of lowering inflation has its costs in the short run, I believe it *is* worth it, because, *in the long run*, inflation reduces economic well-being (see Motley 1993). For one thing, inflation often is associated with uncertainty about future inflation, which fosters higher long-term real interest rates. Uncertainty also complicates the planning and contracting businesses do that are so essential to capital formation, and it drives people to wasteful hedging activities. Finally, inflation heightens the distortionary effects of our tax system.

Monetary aggregates

Now comes the problem of *implementing* a low-inflation policy without relying on the monetary aggregates. The beauty of the aggregates was that they helped us solve the “lag problem”—that is,

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the classic “long and variable lag” between policy actions and inflation—probably 1½ to 2 years. The aggregates were easily measured, we could control them reasonably well in the short run, and they had a fairly stable relationship to long-run inflation.

What happened to them? To summarize some 20 years in a single phrase, deregulation and innovation swept through financial markets. Interest rate ceilings on deposits were eliminated, new substitutes for deposits in M1 and M2 cropped up, and shifting funds from one instrument to another got a lot less expensive. Of course, this innovation and deregulation has been great for the overall economy: It has brought us more choices than ever to manage our financial affairs, and it has made financial markets far more dynamic and efficient.

But it has created problems for monetary policy. Growth rates of M1 and M2 no longer give us dependable information about future inflation—they often just reflect portfolio substitutions. For example, over the past two years, M2 growth has slowed dramatically—to an average of only 1½ percent; if M2 were a reliable indicator of future inflation, it would imply outright *deflation* in 1994. With inflation currently a little below 3 percent, that’s clearly wide of the mark. Why did M2 growth slow so dramatically? One important reason is the steep yield curve of the last few years. Households switched *out of* short-term, low-yielding M2 holdings and *into* long-term, higher-yielding stock and bond mutual funds.

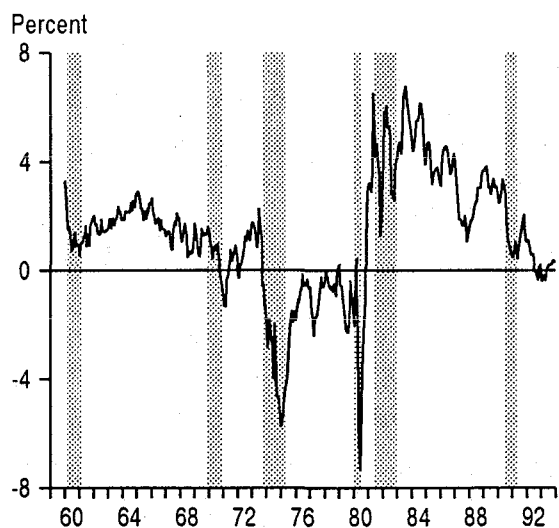
Now, I do not mean to imply that because we have lost the aggregates as reliable indicators, we are helpless. We have *always* looked at a number of real and financial variables and have based our decisions on a good deal of judgment. And I think we have done fairly well. Real GDP growth has been respectable, and inflation has come down. The core inflation rate is now only a little above 3 percent—better than the 4 to 4½ percent rates we saw around the turn of the decade. And I think we are in a good position to make further gradual progress on inflation. But I would certainly be more comfortable about it if I could look at a reliable leading indicator of inflation. Several indicators or targets to replace the aggregates have been suggested in recent years. I will focus on two: real interest rates and nominal income targeting.

Real interest rates

The real interest rate is appealing because it has a direct effect on business and household spending decisions. But it also has problems. Real interest rates are hard to measure because they depend on unobservable expectations of future inflation. And the Fed cannot target real interest rates beyond the short run because they are determined by market forces. Finally, real interest rates are meaningful indicators only compared with a benchmark—an equilibrium real rate—that would be consistent with full employment. That equilibrium rate is not directly observable, and it is difficult to estimate, because it is affected by factors like productivity, government spending, and income tax rates. So the real interest rate does not appear to be a good candidate for the Fed’s main inflation indicator (Cogley 1993, and Trehan 1993).

But that is not to say that real interest rates are *never* useful. If real rates stay very high or very low, that can be a warning sign. Look at the 1970s, for instance. Real rates were persistently *negative*, and that meant significant inflationary pressures were building up. More recently, in the past year or so, short-term real rates have been close to zero (Figure 1). The recent rise in the funds rate has raised real short-term rates somewhat, but they still are at fairly low levels. Is this an early warning? Well, I would say this situation *does* bear watching.

Figure 1
Real 3-Month T-Bill Rate*



* 3-Month T-bill rate less CPI inflation over prior 12 months.

Nominal GDP

The second approach uses targets for aggregate demand, or nominal GDP. Nominal GDP is appealing as a monetary policy target because its long-run relationship with inflation is relatively stable. Furthermore, it will *remain* stable unless there's a sudden dramatic change in the trend growth of real GDP. So it is clearly immune to the effects of financial change that have undermined the monetary aggregates.

The *problem* with nominal GDP is that it does not respond to policy actions as quickly as money did, though the lag *is* shorter than the inflation lag. Some recent research on so-called "feedback rules" for nominal GDP suggests a way around this lag problem (McCallum 1990, Judd and Motley 1993, and Taylor 1993). Feedback rules provide "recommendations" for policy in the short run that are designed to control nominal GDP—and therefore inflation—in the long run. The policymaker sets a target for nominal GDP that is consistent with the inflation goal. Then, if the latest quarter's *actual* data are outside the target, the formula indicates by how much the funds rate should be raised or lowered.

Consider an example of an inflationary episode using one version of the rule the staff at the San Francisco Fed has explored. Suppose the inflation target is 1 percent. To allow for trend growth in real GDP of about 3 percent, a nominal GDP growth target would be set at 3½ percent. Now suppose *actual* nominal GDP growth in one quarter comes in at 4½ percent. That feedback rule would call for raising the funds rate by 20 basis points. If nominal GDP continued to exceed its target, the rule would likewise call for further increases until nominal GDP hit its target.

So with this approach, policymakers would have a guide for responding to actual *recent* data on aggregate demand and have more confidence that they would hit their inflation target in the long run. Of course, this approach is still in the research stage. And, I personally wouldn't be comfortable with *strictly* following any formula. But I think this approach merits consideration. The policy recommendations it generates might

be a useful input that provides a benchmark in making judgmental policy decisions.

Conclusion

This *Letter* addressed some of the issues involved in conducting monetary policy in the 1990s—a time of worldwide disinflation, fiscal restraint, and continuing dynamism in financial markets. Replacing the monetary aggregates as targets for policy is not going to be easy. They not only served as a guide for monetary policymakers, but they also gave useful signals to everyone else about the future effects of policy. Even without useful guidance from the aggregates, though, we have managed to lower inflation. So let me conclude by assuring you that the erosion of the aggregates as reliable inflation indicators has *not* eroded our commitment to moving gradually toward zero inflation, which I believe is the best way the Fed can help the U.S. economy achieve its maximum growth potential.

Robert. T. Parry
President and Chief Executive Officer

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Index to Recent Issues of FRBSF Weekly Letter

DATE	NUMBER	TITLE	AUTHOR
9/10	93-30	Summer Special Edition: Touring the West	Cromwell
9/17	93-31	The Federal Budget Deficit, Saving and Investment, and Growth	Throop
9/24	93-32	Adequate's not Good Enough	Furlong
10/1	93-33	Have Recessions Become Shorter?	Huh
10/8	93-34	California's Neighbors	Cromwell
10/15	93-35	Inflation, Interest Rates and Seasonality	Biehl/Judd
10/22	93-36	Difficult Times for Japanese Agencies and Branches	Zimmerman
10/29	93-37	Regional Comparative Advantage	Schmidt
11/5	93-38	Real Interest Rates	Trehan
11/12	93-39	A Pacific Economic Bloc: Is There Such an Animal?	Frankel/Wei
11/19	93-40	NAFTA and the Western Economy	Schmidt/Sherwood-Call
11/26	93-41	Are World Incomes Converging?	Moreno
12/3	93-42	Monetary Policy and Long-Term Real Interest Rates	Cogley
12/17	93-43	Banks and Mutual Funds	Laderman
12/31	93-44	Inflation and Growth	Motley
1/7	94-01	Market Risk and Bank Capital: Part 1	Levonian
1/14	94-02	Market Risk and Bank Capital: Part 2	Levonian
1/21	94-03	The Real Effects of Exchange Rates	Throop
1/28	94-04	Banking Market Structure in the West	Laderman
2/4	94-05	Is There a Cost to Having an Independent Central Bank?	Walsh
2/11	94-06	Stock Prices and Bank Lending Behavior in Japan	Kim/Moreno
2/18	94-07	Taiwan at the Crossroads	Cheng
2/25	94-08	1994 District Agricultural Outlook	Dean

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