

NBER WORKING PAPER SERIES

A REHABILITATION OF MONETARY POLICY IN THE 1950S

Christina D. Romer  
David H. Romer

Working Paper 8800  
<http://www.nber.org/papers/w8800>

NATIONAL BUREAU OF ECONOMIC RESEARCH  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
February 2002

We are grateful to the National Science Foundation for financial support, to Patrick McCabe for research assistance, and to Anna Schwartz for comments and suggestions. The views expressed herein are those of the authors and not necessarily those of the National Bureau of Economic Research.

© 2002 by Christina D. Romer and David H. Romer. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

A Rehabilitation of Monetary Policy in the 1950s  
Christina D. Romer and David H. Romer  
NBER Working Paper No. 8800  
February 2002  
JEL No. E50, N12, E40

### ABSTRACT

Monetary policy in the United States in the 1950s was remarkably modern. Analysis of Federal Reserve records shows that policymakers had an overarching aversion to inflation and were willing to accept significant costs to prevent it from rising to even moderate levels. This aversion to inflation was the result of policymakers' beliefs that higher inflation could not raise output in the long run, that the level of output that would trigger increases in inflation was only moderate, and that inflation had large real costs in the medium and long runs. Furthermore, both narrative and empirical analysis indicates that policymakers were not wedded to free reserves or other faulty indicators in their implementation of policy. Empirical estimates of a forward-looking Taylor rule show that policymakers in the 1950s raised nominal interest rates more than one-for-one with increases in expected inflation, and suggests that monetary policy in the 1950s was more similar to policy in the 1980s and 1990s than to that in the late 1960s and 1970s. One implication of these findings is that the inflation of the late 1960s and 1970s must have been the result of a change in the conduct of policy.

Christina D. Romer  
Department of Economics  
University of California, Berkeley  
Berkeley, CA 94720-3880  
and NBER  
cromer@econ.berkeley.edu

David H. Romer  
Department of Economics  
University of California, Berkeley  
Berkeley, CA 94720-3880  
and NBER  
dromer@econ.berkeley.edu

## **I. INTRODUCTION**

American monetary policy in the 1950s has typically been either criticized or ignored. In the 1960s and 1970s, economists tended to portray monetary policy in the 1950s as inept and unsophisticated. Monetarists, such as Brunner and Meltzer (1964), argued that a mistaken focus on free reserves led the Federal Reserve to misjudge the stance of policy and hence to make policy mistakes. Friedman (1960) emphasized the stop-go nature of policy in the 1950s, which in his opinion led to volatile output and bouts of inflation. Keynesian economists, such as Blinder and Goldfeld (1976), argued that the Federal Reserve of the 1950s targeted output below the natural rate and therefore unnecessarily restrained output growth.

More recent studies of postwar monetary policy have tended to ignore developments in the 1950s. While the inflationary policy of the 1960s and 1970s has received detailed study, the possible continuity and change from the 1950s has received scant attention. One exception to this pattern is a study by Calomiris and Wheelock (1998), which endorsed the Brunner and Meltzer view that policy in the 1950s is best characterized as a continuation of the 1930s' misguided policy of targeting free reserves.

The tendency of researchers to criticize or ignore monetary policy in the 1950s seems strangely at odds with economic performance in this decade. Inflation, measured using the GDP deflator, averaged less than 2.0% per year between 1952 and 1960, and never went above 3.3% in a single year. Real GDP over the same eight-year period grew at an average rate of 2.9% per year and the unemployment rate averaged 4.7%. While there two recessions during this decade, that in 1954 was exceedingly mild and that in 1958 was sharp, but very brief. And, even in the worst year of the decade, 1958, the unemployment rate was just 6.8%. While this unquestionably good economic performance is not proof that monetary policy was similarly good in the 1950s, it is certainly suggestive. At the very least, it implies that those who would criticize or ignore monetary policy in this decade are left with a mystery: why was performance so good if monetary policy was poor or

inept?

This paper suggests an alternative view of monetary policy in the 1950s, and hence a possible solution to the mystery of the 1950s' outstanding economic performance. We show that monetary policy in the 1950s was actually quite sophisticated. Narrative evidence on the motivation of monetary policymakers and their understanding of the economy shows that the Federal Reserve of the 1950s was remarkably similar to the Federal Reserve of the 1990s. In particular, the Federal Reserve in the early postwar era showed the same overarching concern about inflation that is the hallmark of post-Volcker monetary policy orthodoxy. We also find that the Federal Reserve of the 1950s was not wedded to faulty indicators in its implementation of policy.<sup>1</sup>

Empirical analysis of the behavior of the federal funds rate confirms the view that the Federal Reserve of the 1950s was in many ways more modern and successful than is usually portrayed. Estimation of a forward-looking Taylor rule suggests that monetary policymakers in the 1950s responded much more aggressively to expectations of inflation than did policymakers in the 1960s and 1970s.

## II. NARRATIVE EVIDENCE

Given that the time period is short, it is likely to be hard to test statistically whether the Federal Reserve of the 1950s was blessed with good sense or good luck. For this reason, it is most useful to analyze narrative evidence. The records of the Federal Reserve, specifically the Minutes of the Federal Open Market Committee and the testimony of Federal Reserve Chairman William McChesney Martin, can reveal both the motivation behind policy actions and the prevailing

---

<sup>1</sup> Friedman and Schwartz (1963, Chapter 11) endorse the view that monetary policy was admirable in the 1950s, but they suggest that the steady growth of the money supply was due more to good luck and political pressures than to an improved understanding of the economy and a clear sense of the appropriate goals of monetary policy.

framework used to understand the macroeconomy. The narrative record can also provide evidence on the role that particular indicators, such as free reserves and nominal interest rates, played in policymaking.

#### **A. An Overarching Concern About Inflation**

The most obvious and significant belief revealed by the Minutes is a fundamental abhorrence of inflation by virtually all members of the FOMC. Indeed, in reading the FOMC Minutes for the mid- and late 1950s, one periodically has to double-check the data on inflation. The discussion was often so fervent and the predictions so dire that it is hard to believe that inflation was actually very low. The overarching concern about inflation is revealed most clearly in the statements the members made and the actions they endorsed during the times when inflation began to accelerate, if only modestly, in the mid- and late 1950s. For example, in mid-1955 the economy was quite well recovered from the recession of 1953-54 and there were fears that prices were about to rise. Many members of the FOMC spoke eloquently about the need to act decisively to prevent inflation. In August, Chairman Martin said in one of his rare prepared statements to the FOMC: "Inflation is a thief in the night and if we don't act promptly and decisively we will always be behind" (Minutes, 8/2/55, p. 13). In November, Mr. Robertson said, "I feel that there are inflationary pressures present which should be checked now by a firmer monetary policy -- one firm enough to curtail spending and thus dampen price pressures" (11/16/55, p. 20, emphasis in the original). In response to these concerns about inflationary pressures, the discount rate was raised by a full percentage point between April and November, and other contractionary measures were taken.

The dislike of inflation and the desire to fight it were even more obvious in 1958. The economy suffered a recession beginning in the fall of 1957. Almost as soon as the trough was reached in the spring of 1958, the FOMC began to worry about inflation. The members felt that they had not reacted soon enough in 1955, and they were willing to risk another slowdown and Congressional anger to keep inflation from rising. Chairman Martin said: "he did not think that the

System had faced in recent years anything like the present problem, whether it be called an inflationary psychosis or inflationary psychology. He did not know how to deal with the specifics of the problem except by moving in the right direction within the System" (8/19/58, p. 59). In doing so, however, the System would have "to have courage to assume the risks that were involved" (8/19/58, p. 58). As in 1955, this concern over inflation led the FOMC to tighten significantly. Indeed by September 1958, interest rates had risen back to their 1957 peak level and Vice Chairman Hayes expressed concern that further action "could lead to interest-rate levels so high as to be harmful to the economy and so high as to place the System in political jeopardy" (9/9/58, p. 12). His concern, however, was not shared by most other governors. Chairman Martin responded that "If the System should lose its independence in the process of fighting for sound money, that would indeed be a great feather in its cap and ultimately its success would be great" (9/9/58, p. 53). Governor Vardaman also expressed the view that fighting inflation was of paramount importance. He said: "the country was going to have inflation and . . . there must be serious shock treatment" (9/9/58, p. 27).

The concern over inflation and the desire for tight policy continued for most of 1959. In February Mr. Leedy summarized his view of the role of monetary policy: "The System, of course, wanted growth as well as stability, but if temporarily there had to be a choice between growth and arresting inflationary psychology he would favor the latter course" (2/10/59, p. 22). In late May, Vice Chairman Hayes announced that: "In the light of these threats to our economy, I am convinced that the time has come for a decisive signal of the Federal Reserve System's determination to do its part to check inflationary trends" (5/26/59, p. 17). In June, Governor Szymczak said simply that the System "must not provide reserves to such an extent as to lead to inflation" (6/16/59, p. 30).

While concern over inflation was clearly a key motivating force among monetary policymakers in the 1950s, it was not the only concern. The FOMC also expressed concern over unemployment and output growth on many occasions. As the evidence presented above makes clear, the FOMC was often willing to overlook this concern about unemployment and growth if

inflation was high or rising. This sense that the output goal was subservient to the goal of controlling inflation is also evident from a statement by Vice Chairman Hayes, who was one of the more pro-growth members of the FOMC. In January 1959 Hayes summarized his view of monetary policy as follows: "as long as unemployment remains a problem, economic policy must aim at expansion, provided additional employment does not produce an inflationary situation by pressing against limited capacity of facilities and inelastic supplies of materials" (1/6/59, p. 7).<sup>2</sup>

### **B. Model of the Economy**

The narrative record also provides crucial evidence about why monetary policymakers in the 1950s disliked inflation so. Their model of how the macroeconomy operated contained both a remarkably modern view of the causes of inflation and a firm belief that the output costs of inflation were large and imminent. As a result, they firmly believed that in fighting inflation they were encouraging both short-run stability and long-run growth.

A central characteristic of the model of many members of the FOMC was a sensible view of capacity or full employment. Most policymakers appeared to believe that inflation began to rise when there was still significant unemployment. For example, in July 1955, when the unemployment rate was 4.0%, Vice Chairman Sproul said that the economy was "nearer than we have been since early 1953 to full utilization of plant, equipment, and manpower; prices which have been stable, in the aggregate, for two years may be about to get a push on the up-side due to pressure from costs and from anticipation of price rises by businessmen, purchasing agents, and consumers" (7/12/55, pp. 26-27). At the next meeting, Mr. Bryan said that "the apparent present trends in the economy simply extend themselves to over-reach comfortable capacity and that, accordingly, an inflation is inevitable" (8/2/55, p. 23). Mr. Irons clearly subscribed to the same view a few months later, saying: "The economy was moving nearer capacity in many respects, and

---

<sup>2</sup> In addition to these two goals about overall economic performance, the FOMC was also quite concerned with generally maintaining stability in the bond market and especially with avoiding tightening around times of large Treasury refinancing operations.

as this point approached less efficient means of production would be utilized and prices would tend to rise" (10/4/55, p. 8). Again in 1959 when the unemployment rate was 5.0%, Mr. Thomas, the chief economist, said: "The economy is approaching the limits of resource utilization" (6/16/59, p. 6).

The members of the FOMC and the Board staff were certainly aware that there was a short-run trade-off between inflation and output. However, they were united in believing adamantly that there was not a positive long-run trade-off. Indeed, by far the most common view was that if excessive demand resulted in inflation, output would actually fall in the long run. This view is similar to those of many current monetary policymakers, such as Alan Greenspan (see, for example, Greenspan, 1997).

This was clearly Chairman Martin's view. Martin said in 1958: "If inflation should begin to develop again, it might be that the number of unemployed would be temporarily reduced to four million [from the current level of 5 million], or some figure in that range, but there would be a larger amount of unemployment for a long time to come. If inflation should really get a head of steam up, unemployment might rise to ten million or fifteen million" (8/19/58, p. 57). Martin repeated this view in Congressional testimony in 1959, saying: "If total demands tend to run ahead of the output potential, the general price level will begin to rise and this, in turn, will have an adverse impact both on growth of demands and on means of financing increased and improved capacity. It will also have adverse effects on the efficiency with which resources are utilized" (Martin, 1959a, p. 118).

Two features of this framework are noteworthy. The first is that the level of inflation at which Martin and others felt these negative effects were likely was very low. No one was contemplating rates of inflation of more than 5 percent when making the dire predictions of long-run consequences. Second, the negative effects of inflation were thought to occur quite quickly. Indeed, inflation could actually cause a recession. Martin expressed this view very clearly in Congressional testimony in 1959. He stated: "I happen to believe, Mr. Patman, that the 1957-58 recession was a direct result of letting inflation get substantially ahead of us" (Martin, 1959b, p.

1285). Mr. Thomas, the chief economist, expressed a similar view and described the mechanism in some of his presentations at the start of each FOMC meeting. In September 1959, Thomas said: "Increasing demands after mid-1955 resulted in relatively small increases in output but marked advances in prices. . . . Distortions such as undue inventory accumulation, too hasty capital expansion in some areas, too rapid a rise in debt burden, and consumer resistance to price increases undermined the prevailing high activity and led to the recession of 1957-58" (9/22/59, p. 8).

While the view that low inflation has rapid negative effects on output is not widely held today, the belief in the absence of a long-run (positive) trade-off is certainly much more modern than the simplistic Keynesian model that held sway in the 1960s and 1970s. Indeed, many of the statements made by FOMC members in the 1950s could be inserted into the narrative record for the 1980s and 1990s without notice. That the Federal Reserve had this model in the 1950s suggests that the passionate statements about the dangers of inflation were not mere window-dressing. Rather, they were part of a coherent view that placed predominant emphasis on keeping inflation in check.

### **C. Implementation of Policy**

Brunner and Meltzer (1964), Calomiris and Wheelock (1998), and other authors argue that an important source of monetary policy mistakes in the 1950s and 1960s was a focus on free reserves (total reserves less required reserves less borrowed reserves). And there is no doubt that free reserves played an important role in monetary policy in the 1950s. For example, most FOMC meetings ended with some discussion of a target for free reserves.

However, we find no evidence that this focus on free reserves was predominant or led to persistent mistakes. Most FOMC members and the Board staff seemed to view free reserves targets not as ends in themselves, but as merely the form in which instructions to the open-market manager were couched. Following one of the frequent discussions of the deficiencies of this measure as a target, Chairman Martin said in 1958: "these comments pointed up the problem of using free reserve target figures at all. However, they had to be used as an indication, for that was the

framework within which the Account Management had to work" (5/6/58, p. 52). Mr. Leedy expressed a similar view at the next meeting, saying: "He was not too happy about using the free reserve position as a benchmark but in the absence of something better it seemed to him that it must continue to be used" (5/27/58, p. 23).

Furthermore, the FOMC also paid close attention to interest rates and goals for key interest rates were often used as a supplement to instructions about free reserves. A very common instruction was that the Account Manager should pay close attention to the "color, feel, and tone of the market" (9/30/58, p. 46). To a large degree, this instruction meant that he was to watch short-term interest rates. And often the role of interest rates was more explicit. For example, in January 1955, when Vice Chairman Sproul gave a detailed summary of what various terms such as "active ease" or "restraint" meant, the behavior of interest rates was central (1/11/55, pp. 10-12). In March of the same year, "Mr. Earhart said that he found it difficult to think of credit policy merely in terms of the amount of reserves taken from the banks or furnished to them, or of the amount of excess reserves or free reserves; to him, it was more definite to think also in terms of money rates" (3/2/55, pp. 18-19). Toward the end of the decade, Mr. Bopp expressed exactly the same sentiment, saying: "He would give more consideration to sensitive rates, such as the Federal funds and bill rates, and to other indicators of the tone of the market than to the level of net borrowed reserve figures" (5/5/59, p. 20).

There is also evidence that the Account Manager often followed the interest rate guidelines over the free reserve targets. In June 1958, Mr. Irons said: "by de-emphasizing the statistic of free reserves and being concerned more with the feel of the market and short-term rates, it [the Account Management] had brought about a better situation" (6/17/58, p. 33). Again three months later Mr. Irons commented: "Disregarding the volume of free reserves but watching rate movements, particularly rates in the short-term market, he felt that the results of open market operations were not too much out of line with what the Committee has anticipated" (9/9/58, p. 41).

Finally, the FOMC almost always discussed the implications of its free reserve target for interest rates, and often chose the target for free reserves to try to attain a particular interest rate

outcome. In January 1955, for example, Martin asked the Account Manager what "operations . . . might be followed for the System account to provide a minimum disturbance to the market during the immediate future [that is, to keep interest rates steady]" (1/25/55, p. 9). The Account Manager responded by suggesting a range for free reserves that would be consistent with that goal, and the FOMC adopted a target within that range. And when the Committee expected a shift in the relationship between free reserves and interest rates, it typically changed the reserves target. In March 1955, for example, the FOMC expected that without open market operations, temporary factors would cause a large fall in free reserves with only slight upward pressure on rates. Since the Committee felt that some rise in rates was desirable, it decided to allow the large decline (3/29/55, pp. 5-9).

These considerations suggest that while targets for free reserves were important in the short-run implementation of policy, nominal interest rates were predominant over longer horizons. And, since inflation varied little in the 1950s, a focus on short-term nominal interest rates provided a good indication of tightness in credit markets. Furthermore, many FOMC members showed a clear understanding of the distinction between real and nominal interest rates. Mr. Bryan, for example, said in July 1958: "There has been continuous, pervasive, and increasingly convincing propaganda to the effect that inflation is inevitable. That propaganda now carries almost universal conviction. Such an almost universal conviction means that the increase of yields on fixed income obligations is destined to be greater than would be likely as an uncomplicated response to economic recovery" (7/29/58, pp. 17-18). In 1959 Mr. Bopp said simply: "One reason for the present level of interest rates is the anticipation of further inflation" (10/13/59, p. 15).

The FOMC was also acutely aware that the lags associated with monetary policy necessitated a focus on future rather than current inflation. The members of the FOMC often worried that inflation, while currently low, was about to take off. For example, in September 1958, Mr. Leedy said, "the System should not postpone the matter of looking at the possibility of inflation ahead of it. There were signs of recovery on every hand, and if the System should wait until there was recovery beyond any shadow of a doubt it seemed to him that the System would have lost its

opportunity to do the kind of a job that it was supposed to be doing" (9/9/58, p. 32). Similarly, in September 1959, Governor Robertson "expressed the view that the System ought to adopt an affirmative position of restrictiveness in order to keep on top of the potential inflationary situation ahead. Otherwise, the System would get behind the game and might never catch up -- repeating the mistakes of a few years ago" (9/1/59, p. 21). Perhaps the best evidence that many FOMC members put great store in forecasts of inflation can be seen by the criticism levied against them by a member who did not. Governor Mills said in November 1959: "The most active proponents of this theory lay greatest emphasis on the importance of formulating a monetary and credit policy that will act as a backfire against an anticipated outburst of inflationary pressures, and in practice are apparently prepared to take the risk that the policy actions which they support may miscalculate the future and induce deflationary pressures" (11/4/59, p. 46).

### **III. STATISTICAL EVIDENCE**

The narrative analysis indicates that the FOMC of the 1950s certainly talked much like the FOMC of the 1980s and 1990s. To see if policymakers in the 1950s backed up their words with actions, as the FOMC has in recent decades, one needs to supplement the narrative analysis with statistical evidence. To this end, we look at how the federal funds rate responded to developments in the macroeconomy in the 1950s and compare those responses with the responses in other periods.<sup>3</sup> Because the 1950s sample period is inherently limited and the variation in inflation in this decade is small, this empirical analysis must be viewed as a suggestive check on the narrative analysis rather than as a conclusive test.

---

<sup>3</sup> Taylor (1999) shows that the response of the federal funds rate to economic variables provides a sensible description of policy even in eras when the Federal Reserve was more directly targeting some other variable.

### A. Specification and Data

The particular specification that we consider is a forward-looking Taylor rule (see, for example, Clarida, Gali, and Gertler, 2000). In its simplest, descriptive form, a Taylor rule shows how the Federal Reserve chooses the federal funds rate in response to inflation and the deviations of output from trend. A forward-looking Taylor rule takes into account the fact that the monetary authority typically responds to expectations of these variables. As discussed above, this forward-looking behavior was an important feature of monetary policymaking even in the 1950s.

The forward-looking Taylor rule that we consider is simply:

$$i_t = \alpha + \beta E_t \pi_{t+1} + \gamma E_t (Y - \bar{Y})_{t+1}, \quad (1)$$

where  $i$  is the federal funds rate,  $\pi$  is inflation, and  $Y - \bar{Y}$  is the deviation of output from trend. Time is measured in quarters. To implement this specification, we regress the federal funds rate on the leads of actual inflation and the deviation of output from trend, instrumenting with information known at time  $t$ . For instruments, we use (in addition to the constant) the contemporaneous and two lagged values of inflation and the contemporaneous deviation of output from trend. We use multiple lags of inflation because the quarterly series tends to fluctuate substantially. The deviation of output from trend, in contrast, is quite smooth, so the contemporaneous value is an excellent predictor of next period's value.

Data on the quarterly average of the federal funds rate for 1954:1 to 2000:4 are taken from Citibase. We extend this series back to 1950:1 using data from Martens (1958).<sup>4</sup> We measure inflation as the quarter-to-quarter change in the log of the GDP deflator (at an annual rate). The deviation of output from trend is calculated as the difference between the log of real GDP and a log trend. The trend series is estimated using the Hodrick-Prescott filter applied to the period 1952:4-

---

<sup>4</sup> The data in Martens (1958) are reported only in graphical form. After deducing the numbers from the graph, we checked and calibrated our deductions in a period of overlap between the series in Martens and that from Citibase.

2000:4.

We estimate the rule over four samples. The 1950s sample is 1952:1 to 1958:4. We start two years into the decade because the Federal Reserve was unable to pursue independent monetary policy until the Treasury-Federal Reserve Accord, which took place in 1951. We stop at the end of 1958 for reasons discussed below. The second sample corresponds roughly to the late 1960s and the 1970s; it runs from 1964:1 to 1979:3. The third and fourth samples are the Volcker and Greenspan eras: 1979:4 to 1987:3 and 1987:4 to 2000:4, respectively.

## **B. Results**

The coefficient estimates are given in Table 1.<sup>5</sup> The most important result is that the weight put on expected inflation in the policy rule in the 1950s is quite similar to that in the Volcker and Greenspan eras and noticeably larger than that for the 1960s and 1970s. In both the 1950s and the last two decades of the twentieth century the point estimate is greater than 1, indicating that in response to a rise in inflation the Federal Reserve raised the nominal funds rate by enough to also raise the real funds rate. In the late 1960s and 1970s the coefficient is below 1, indicating that the Federal Reserve reduced the real funds rate when inflation rose.

The weight on expected inflation is estimated less precisely in the 1950s than in other decades. However, the point estimate and the narrative evidence presented in Section II tell a very similar story. The Federal Reserve of the 1950s was deeply concerned about inflation and acted aggressively to control it on several occasions. This can be seen in Figure 1, which shows the federal funds rate and expected inflation (measured as the fitted values of the regression of the lead of actual inflation on the instruments) during the 1950s. This figure shows that there is a close and strong relationship between the two series for much of the decade.

---

<sup>5</sup> We also run the regressions using the 3-month Treasury bill rate as the indicator of policy stance and the deviation of quarterly industrial production from trend as the measure of the output gap. Neither of these changes affects the results appreciably.

Part of the imprecision of the estimation is the result of the Federal Reserve being particularly concerned about expected inflation in the late 1950s. Figure 1 shows that while expected inflation derived from the first stage regression rose slightly in 1958, its rise was small relative to the response of the Federal Reserve. As a result, this looks like a time when the Federal Reserve was not responding to expected inflation. (Furthermore, because expected inflation derived from the first-stage regression falls in 1959, if one continues the estimation through the end of 1959 the coefficient estimate on inflation in the Taylor rule falls considerably and is measured even more imprecisely.) But, as described in Section II, the main reason for the tightening by the Federal Reserve was its conviction that inflation was about to rise. In this context, it is useful to note that the Federal Reserve was not alone in fearing inflation at the end of the 1950s. The Livingston survey of expectations for the CPI six months ahead rose steadily from mid-1958 through the end of 1959.<sup>6</sup> Thus, the Federal Reserve was acting out of concern about inflation, even if that concern is not captured by our regression estimates.

The coefficient estimates reported in Table 1 show that the weight put on the expected output gap varied substantially from era to era. Both in the 1960s and 1970s and in the Greenspan era, the weight is positive and significant, indicating that the Federal Reserve acted in a countercyclical fashion. In both the 1950s and the Volcker era, the coefficient is essentially zero and very imprecisely estimated.

For the 1950s this apparent lack of concern about output may be part of the general imprecision of the estimates. Figure 2 graphs the expected output gap (that is, the fitted values from the regression of the output gap at  $t+1$  on the instruments) and the federal funds rate in the 1950s. The obvious positive correlation between the two series does not show up in the multiple regression because of correlation between expected inflation and the output gap.

---

<sup>6</sup> The Livingston survey data are from the Federal Reserve Bank of Philadelphia website (<http://www.phil.frb.org/econ/liv>).

### C. Policy Implementation

Data on key policy indicators can be used to supplement the narrative evidence on the implementation of policy. Figure 3 shows monthly averages of the federal funds rate and free reserves for the 1950s.<sup>7</sup> One obvious characteristic of the free reserves series is that it is extremely volatile. This is consistent with the narrative evidence that the FOMC often adjusted the target for free reserves substantially to achieve a desired behavior in nominal interest rates. It is also consistent with the discussions cited above that suggest that the Account Manager sometimes chose to follow the interest rate goals and allow large swings in free reserves.

Figure 3 also makes clear that there is a strong negative correlation between free reserves and the funds rate at longer horizons. That is, while there is much short-run noise in the relationship, over quarters and especially over years the two series consistently move in opposite directions. This same relationship holds just as strongly if one uses data on the real funds rate (calculated by subtracting off the measure of expected inflation graphed in Figure 1). This suggests that in the 1950s a focus on free reserves did not lead to systematic misjudging of credit market conditions and hence is unlikely to have been an important source of sustained policy mistakes.

The only prolonged period when the funds rate and free reserves are positively correlated was 1956. During this year both the funds rate and free reserves rose substantially. This episode is important for what it reveals about the relative importance that the FOMC attached to interest rates versus free reserves. There is no evidence that the Federal Reserve thought it was easing over this period. Throughout the year, the "Record of Policy Actions" describes the System's overall stance as "a policy of restraint" or "restrictive" (Board of Governors, 1956, pp. 18-46). Indeed, the Federal Reserve felt that it was increasing the degree of restraint over the course of the year. While there is some variation in the strength of the stated commitment to restraint, overt decisions to tighten further were considerably more common than overt decisions to loosen. The meetings in late March, April, and August, which were followed by large increases in interest rates with little

---

<sup>7</sup> The data on free reserves are from Meigs (1962, Appendix D, pp. 103-109).

change in free reserves, are particularly clear in this regard. The "Record of Policy Actions" for the March 27th meeting states that the Committee felt that "the System would be derelict in its duty if it did not exercise additional restraint." On April 17th, the Committee "agreed that there should be no relaxation of pressures." At the August 7th meeting, it moved "to strengthen credit restraint." And on August 21st, "The Committee felt that credit policy should be made somewhat more restrictive" (Board of Governors, 1956, pp. 26, 28, 36, and 37). The rise in free reserves, therefore, was evidently an accommodative move taken to achieve a desired behavior of interest rates in the face of shifts in the normal behavior of reserves.

#### **IV. CONCLUSION**

Like central bankers of the 1990s, monetary policymakers of the 1950s had a deep-seated dislike of inflation and acted to control it. Their dislike of inflation was rooted in a model of the economy that emphasized the costs of inflation and the absence of a positive long-run trade-off between output and inflation.

These findings may provide important insights into the performance of the economy in the 1950s. One key reason that inflation was low and steady in this decade was almost surely that the Federal Reserve was working to achieve those goals. And one likely reason that recessions were brief and mild is that inflation never got seriously out of hand. As a result, the Federal Reserve never had to undertake a disinflation of the magnitude of those of the 1970s and 1980s.

This rehabilitation of monetary policy in the 1950s may also provide insight into the policy mistakes in the late 1960s and 1970s. If monetary policymakers in the 1950s had figured out the essence of sensible policy, the mistakes of the 1960s and 1970s cannot just have been the result of continuing ineptitude or misunderstanding. Rather, something must have changed. One obvious candidate for what changed is the model of the economy. De Long (1997), Mayer (1999), and Taylor (1999) all suggest that a naive Keynesian model with an exploitable trade-off between

output and inflation, and later a natural rate hypothesis with an unrealistically low estimate of the natural rate, was the key source of the inflation of the late 1960s and the 1970s. Our finding that these models are so different from that in the low-inflation 1950s and post-Volcker 1980s and 1990s adds credence to this view.

## REFERENCES

- Blinder, Alan S., and Stephen M. Goldfeld. "New Measures of Fiscal and Monetary Policy, 1958-73." American Economic Review 66 (December 1976): 780-796.
- Board of Governors of the Federal Reserve System. 43rd Annual Report. 1956.
- Board of Governors of the Federal Reserve System. Minutes of the Federal Open Market Committee. Various years.
- Brunner, Karl, and Allan H. Meltzer. The Federal Reserve's Attachment to the Free Reserve Concept. House Committee on Banking and Currency, 88th Congress, 2d Session. Washington, DC: U.S. Government Printing Office, 1964.
- Calomiris, Charles W., and David C. Wheelock. "Was the Great Depression a Watershed for American Monetary Policy?" In The Defining Moment: The Great Depression and the American Economy in the Twentieth Century edited by Michael D. Bordo, Claudia Goldin, and Eugene N. White (Chicago: University of Chicago Press for NBER, 1998), pp. 23-65.
- Clarida, Richard, Jordi Gali, and Mark Gertler. "Monetary Policy Rules and Macroeconomic Stability: Evidence and Some Theory." Quarterly Journal of Economics 115 (February 2000): 147-180.
- De Long, J. Bradford. "America's Peacetime Inflation: The 1970s." In Reducing Inflation: Motivation and Strategy edited by Christina D. Romer and David H. Romer (Chicago: University of Chicago Press for NBER, 1997), pp. 247-276.
- Friedman, Milton. A Program for Monetary Stability (New York: Fordham University Press, 1960).
- Friedman, Milton, and Anna J. Schwartz. A Monetary History of the United States, 1867-1960 (Princeton: Princeton University Press for NBER, 1963).
- Greenspan, Alan. "Current Monetary Policy." Speech at the Stern School of Business, New York University, May 8, 1997.
- Martens, Edward J. Federal Funds: A Money Market Device. Unpublished manuscript, Pacific Coast Banking School, April 1958.
- Martin, William McChesney. "A Year of Recession and Recovery." Statement before the Joint Economic Committee, February 6, 1959. Reprinted in the Federal Reserve Bulletin 45 (February 1959a): 110-119.
- Martin, William McChesney. In Hearings before the Joint Economic Committee, 86th Congress, 1st Session, July 27, 1959. Washington, DC: U.S. Government Printing Office, 1959b, pp. 1231-1504.

Mayer, Thomas. Monetary Policy and the Great Inflation in the United States: The Federal Reserve and the Failure of Macroeconomic Policy, 1965-79 (Cheltenham, UK: Edward Elgar, 1998).

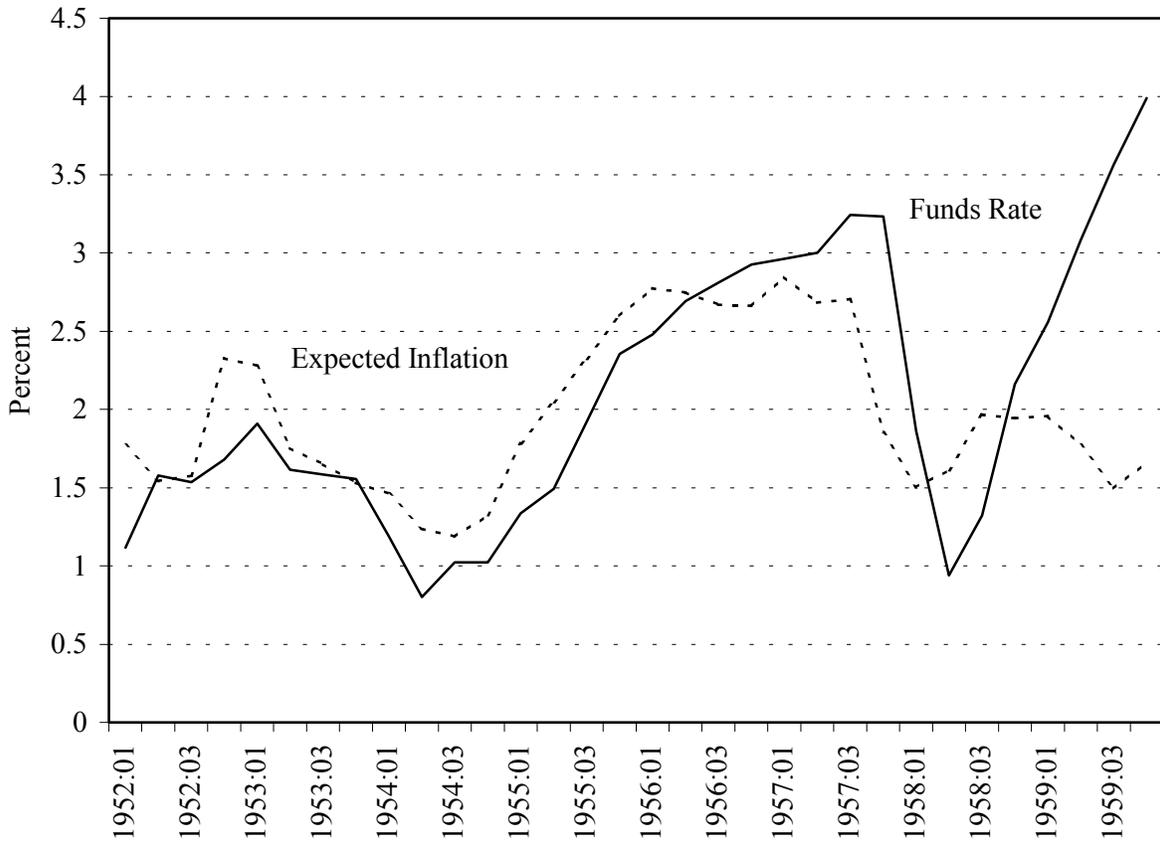
Meigs, A. James. Free Reserves and the Money Supply (Chicago: University of Chicago Press, 1962).

Taylor, John B. "A Historical Analysis of Monetary Policy Rules." In Monetary Policy Rules edited by John B. Taylor (Chicago: University of Chicago Press for NBER, 1999), pp. 319-341.

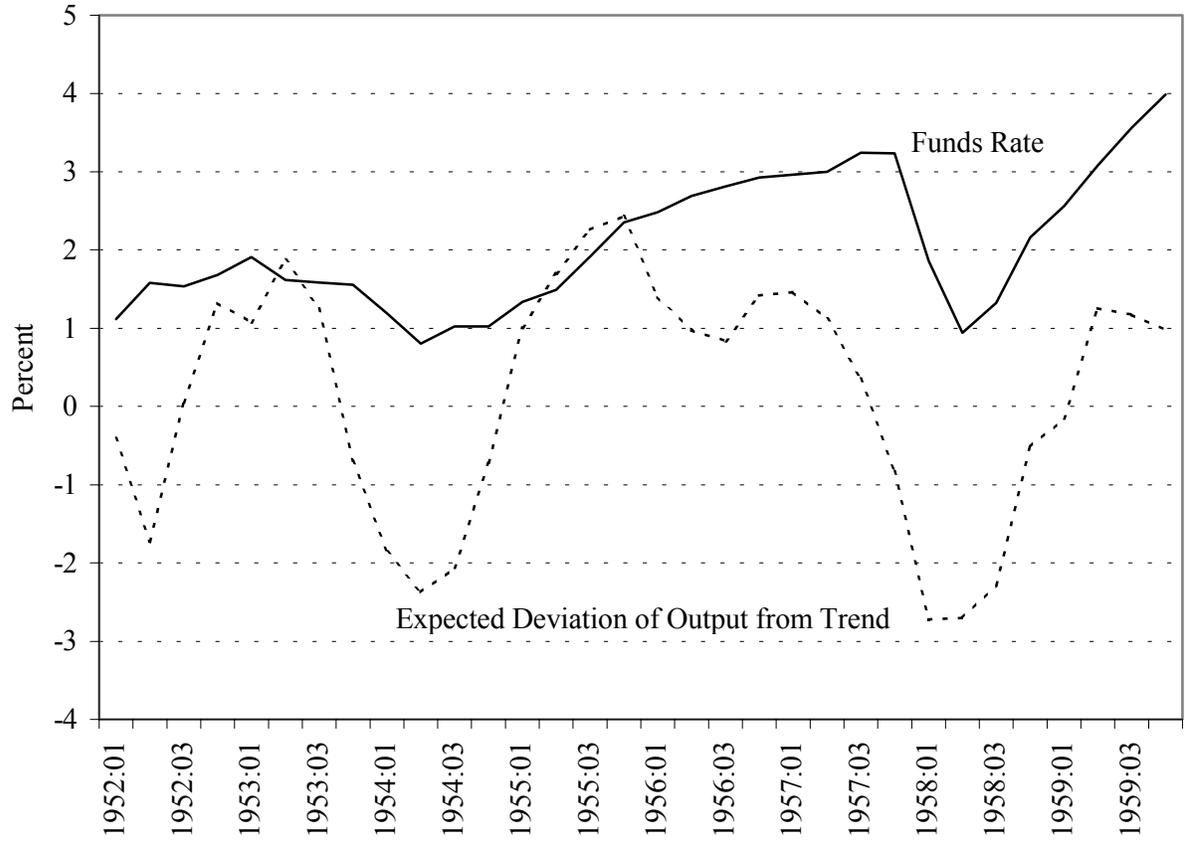
**TABLE 1**  
**Estimated Forward-Looking Monetary Policy Rule**

| Sample        | Inflation<br>(1 Q Ahead) | Deviation of Output<br>from Trend (1 Q Ahead) | Constant          |
|---------------|--------------------------|---|-------------------|
| 1952:1-1958:4 | 1.178<br>(0.876)         | -0.040<br>(0.295)                             | -0.562<br>(1.874) |
| 1964:1-1979:3 | 0.891<br>(0.090)         | 0.269<br>(0.112)                              | 1.410<br>(0.517)  |
| 1979:4-1987:3 | 1.263<br>(0.187)         | -0.056<br>(0.287)                             | 4.614<br>(0.992)  |
| 1987:4-2000:4 | 1.390<br>(0.305)         | 0.672<br>(0.315)                              | 2.311<br>(0.760)  |

**FIGURE 1**  
**Federal Funds Rate and Expected Inflation**



**FIGURE 2**  
**Federal Funds Rate and Expected Output Deviation**



**FIGURE 3**  
**Federal Funds Rate and Free Reserves**

