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Political Pressures on Monetary Policy During the US Great Inflation†

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Drawing on an analysis of Federal Open Market Committee (FOMC) documents, this paper argues that political pressures on the Federal Reserve were an important contributor to the rise in inflation in the United States in the 1970s. Members of the FOMC understood that a serious attempt to tackle inflation would generate opposition from Congress and the executive branch. Political considerations contributed to delays in monetary tightening, insufficiently aggressive anti-inflation policies, and the premature abandonment of attempts at disinflation. Empirical analysis verifies that references to the political environment at FOMC meetings are correlated with the stance of monetary policy during this period. (*JEL* D72, E32, E52, E58, N12)

What accounts for the Federal Reserve's failure to control inflation in the United States in the 1970s? One important set of factors has been highlighted in recent research by Romer and Romer (2002), Nelson (2005), Orphanides (2002, 2003, 2004), and others. The argument set forth by these authors, which Romer (2005) calls the "ideas" hypothesis, is that the Federal Reserve's errors were rooted in the beliefs that policymakers held about the structure of the economy. These beliefs included an unrealistically low estimate of the natural rate of unemployment, the belief that observed inflation had little to do with monetary policy and that monetary policy could do little to combat it, and an overly pessimistic estimate of the costs of disinflation. The Fed's erroneous beliefs led it to pursue a monetary policy that was consistently over expansionary, resulting in a steadily increasing rate of inflation. According to this view, inflation only came under control in the early 1980s when policymakers' beliefs about the economy began to change. In particular, in this period, policymakers had more realistic estimates of the natural rate of unemployment, were convinced that monetary policy was at the root of the inflation problem, and believed that the costs of disinflation could be contained if the Fed was successful in changing the public's expectations of inflation.

This paper argues that political pressures on the Federal Reserve were an important additional factor for the Fed's failure to control inflation in the 1970s. Drawing

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from an exhaustive study of Minutes and Transcripts of FOMC meetings, I argue that the Federal Reserve faced resistance to efforts to control inflation from a political environment that was unsupportive of high interest rates, slow growth, and high unemployment. Political pressures, sometimes interacting with the Fed's misguided beliefs about the economy, caused the Fed to adopt anti-inflation policies that were too weak to offer a reasonable hope of success and to prematurely abandon anti-inflation policies at the first sign of recession. Changes in the political environment, which made it easier for the Fed to undertake costly measures to reduce inflation, helped bring about an end to the era of high inflation after 1979.[1]

The next section of this paper describes the "political pressures hypothesis" for the US Great Inflation. Section II constructs a history of monetary policy from 1969 to 1982 describing how the political environment in which the Fed operated constrained its monetary policy choices. It also discusses the events that led to the policy changes under Paul Volcker's chairmanship. Section III presents a number of statistical tests of the political pressures hypothesis using data generated from the FOMC Minutes and Transcripts. Section IV concludes.

I. The Political Pressures Hypothesis

In a speech given after his term as Fed Chairman had ended, Burns (1979) described the political pressures on the Federal Reserve during the period of the Great Inflation. He argued that during the 1970s the Fed had been unwilling to frustrate "the will of Congress to which it was responsible" by declining to accommodate inflationary fiscal and social policies. When the Fed did contract monetary policy, the criticism its actions provoked caused it to back off before success was achieved. Faced with these political pressures, the Fed's policy consisted of "testing and probing the limits of its freedom to undernourish the inflation" while warding off hostile legislation. The result, according to Burns, was periods of overly expansionary monetary policy punctuated by abandoned efforts at disinflation and a ratcheting up of inflation throughout the decade. Burns' story captures what I mean by the political pressures hypothesis. Though Romer (2005) argues that Burns' account contains "a substantial amount of wishful revisionism," I find considerable support for it in the Minutes and Transcripts from FOMC meetings.

The political pressures on the Federal Reserve revealed by the FOMC documents fall into three categories. The first consists of direct threats from Congress or the administration. On several occasions members of the FOMC appear to have shied away from anti-inflationary policies, in part, because of concerns that Congress or the administration would retaliate by taking actions that would reduce the Federal Reserve's independence. Second, members of the FOMC sometimes referred to a general understanding that the Federal Reserve had a duty to support the policy priorities of the president and Congress. Adopting anti-inflationary policies that worked against the expansionary thrust of government policy would violate this understanding and

[1] Other authors who have argued that political considerations bear some responsibility for the Fed's inability to sustain an anti-inflation policy include Kettl (1986), Havrilesky (1993), Wells (1994), DeLong (1997), Matusow (1998), Mayer (1998), Meltzer (2005, 2009), Hetzel (2008), and Levin and Taylor (2010).

damage the Fed's relationship with the government. The third type of pressure was indirect. Members of the FOMC frequently argued that if the Fed were to take action against inflation, the administration and Congress would respond to the resulting slowdown in the economy with expansionary fiscal policy, exacerbating the inflation problem in the long run. Of course, in principle, the Federal Reserve could have simply tightened further in response. During the 1970s, however, members of the FOMC did not seem to think that this was a practical possibility either because they feared retaliation or because of a belief that the Fed needed to follow the policy priorities of the government. Members of the FOMC were sometimes explicit about how things might play out—a decision to raise interest rates would cause the economy to slow down, Congress and the president would respond by increasing spending, and the Fed would then face pressure to reverse course.

At times the FOMC documents provide straightforward evidence that political pressures of the types described above affected policy by pushing the Fed to choose policies that were inconsistent with its judgment of what was appropriate on economic grounds. More often, the documents indicate that policy was influenced simultaneously by economic and political considerations, and it is impossible to determine which if either was paramount. Nevertheless, the political pressures hypothesis helps explain some of the key features of monetary policy during the period of the Great Inflation: delays in tightening during periods of intensifying inflationary pressure, the adoption of "gradualism" as the chief method of containing inflation, the premature abandonment of disinflation programs, the Fed's enthusiasm for macroeconomic policy coordination, and the turn in policy after 1979.

In 1972 and 1977, the Fed erred by delaying its move toward a tighter policy. In each case the delay was influenced by the Fed's misunderstandings of the source of inflation and its overoptimism about the potential for noninflationary growth. At the same time, the Minutes and Transcripts demonstrate that the Federal Reserve was also concerned about the political repercussions that would result from a decision to tighten at a time of elevated unemployment. Political considerations help explain why the Fed failed to act even as its own forecasts showed rising inflationary pressures. When inflation became a serious problem, the Fed sought to control it using the policy of "gradualism." Gradualism was introduced by the (Richard) Nixon Administration in 1969 and reappeared in 1973, 1974, and 1977. The gradualist approach to reducing inflation involved contracting monetary policy enough to reduce GDP growth below its potential level, but not enough to cause GDP to fall or unemployment to rise to intolerable levels. The record shows that policymakers chose gradualist policies, in part, because they judged that the political system was unwilling to tolerate more aggressive action. They understood that these policies were unlikely to result in a substantial reduction in inflation. The Fed's belief that the natural rate of unemployment was very low compounded the problem by causing it to view as mildly disinflationary policies that in fact were quite expansionary. The combination of these two factors virtually guaranteed that the Fed's anti-inflation policies would fail.

The Fed embarked on disinflation programs in 1970, 1973, and 1974, only to abandon them before success had been achieved. The political pressures hypothesis helps explain these policy reversals. As long as the unemployment rate was relatively low and inflation was rising, the Fed was able to take advantage of political support for restraining inflation by raising interest rates. But as soon as the unemployment rate threatened to rise to politically unacceptable levels that support evaporated and the Fed came under pressure to lower rates. The result was the "stop-go" phenomenon that characterized monetary policy during the decade. Misperceptions and misguided beliefs helped persuade the Fed to reverse course by causing it to underestimate the inflationary consequences of its reversals. At the same time it is evident from the Minutes and Transcripts that the Fed was fully aware that in loosening policy it was giving up on its goal of reducing the inflation rate. On some occasions the Fed moved toward ease despite projections by the staff economists that doing so would worsen the inflation problem relative to more restrictive policies under consideration. In each case the Fed's forecast of inflation was higher when the Fed abandoned its disinflation effort than when the disinflation began.

Political pressures on the Fed also help explain its enthusiasm for macroeconomic policy coordination with other arms of government. Nelson (2005) and DiCeccio and Nelson (2009) attribute this enthusiasm to the Fed's belief that inflation was caused by nonmonetary phenomena. But coordination also served the Fed's political interests by shifting responsibility for any economic slowdown brought on by disinflationary policies to the administration or Congress. One piece of evidence in support of the view that political motivations were important is the fact that the Fed was willing to tighten policy when the president adopted policies to fight inflation in 1975–1976 and 1978.

Finally, the political pressures hypothesis provides an alternative explanation for the dramatic change in monetary policy after 1979. In 1979, inflation reached a crisis level and a public mandate formed to take painful measures to reduce it. President (Jimmy) Carter and later President (Ronald) Reagan backed the Fed's anti-inflation efforts. Opposition to the Fed's policies grew as the economy sank deeper into recession, but this time political support lasted long enough to allow the Fed to bring its disinflation policies to a successful conclusion.

II. Monetary Policy During the Great Inflation

This study is based on an analysis of FOMC documents from 1969 to 1982. From 1969 to 1975, the main source of information is the Memoranda of Discussion ("Minutes"). These are the most complete summaries of the discussions at each FOMC meeting produced for this period. From 1976 to 1982, the main source is FOMC meeting Transcripts ("Transcripts"). These are verbatim records of the proceedings for each meeting. Another useful source of information is the Records of Policy Actions ("RPA") published in the Federal Reserve Bulletin. These are official statements summarizing decisions made at committee meetings and are generally less detailed than Memoranda of Discussion. Data on the Fed's internal forecasts is drawn from the "Current Economic and Financial Conditions" report (the "Greenbook") presented by the staff economists at each FOMC meeting. Throughout the paper, the terms growth, inflation, and unemployment forecasts refer to Greenbook forecasts for real GNP, the GNP deflator, and the civilian unemployment rate. Data on federal funds and monetary targets are taken from the

Federal Reserve Bank of New York's website and RPAs. All of the key data series are displayed in graphical form in an online Appendix 1. Finally, the Minutes and Transcripts are the sources of statements by members of the FOMC referring to political constraints that form the basis of the empirical work in Section IV.[2]

A. *The First Disinflation Attempt, 1969–1970*

The origins of the Great Inflation in the mid-1960s have been discussed at length elsewhere (Kettl 1986, DeLong 1997, Meltzer 2005, and others). Under William McChesney Martin, the Fed had allowed the inflation rate to creep up during the late 1960s. The first attempt to deal with inflation in 1965–1966 was quickly abandoned. But with inflationary pressures building, the Fed finally committed to a sustained monetary contraction in December 1968.

We know in retrospect that ending the Great Inflation would require the Fed to maintain a tight monetary policy through a period of high unemployment. The Fed's unwillingness to do so during the 1970s (except to a modest extent in 1975–1976) was its main policy failure during this period. By contrast, the Minutes of FOMC meetings in 1969 suggest that the Fed then had a greater willingness to pay the necessary price for ending inflation than it would have at any time during the 1970s. While members of the FOMC repeatedly expressed their hope that the economy would avoid recession, Martin argued that the Fed needed to sustain its policy, even at the risk of higher unemployment, until inflation expectations were broken. In July, for example, Martin responded to concerns about the weakening economy by arguing that "inflationary psychology remained the main economic problem … It would be a mistake … to take any action that might reinforce inflationary expectations just at the time when some weakening in those expectations might be developing" (FOMC meeting *Minutes* 7/15/1969, 80). In August he argued against easing on the grounds that "it was important for the System not to get into a position of validating the expectations of numerous skeptics who believed the System would ease its policy as soon as it heard the words 'recession' or 'overkill'" (*Minutes* 8/2/1969, 77–78). The staff economists began warning of the strong possibility of a recession in the October 1969 meeting. By December the chief economist, J. Charles Partee, was warning that the economy might already be in a "mini-recession" (*Minutes* 12/16/1969, 24). Martin acknowledged that the economy was slowing significantly but pushed for continued monetary restraint because "there are real grounds for doubt whether the slowing will be big enough or long-lasting enough to bring a significant braking of inflation" (*Minutes* 12/16/1969, 33).

It was recognized that the Fed's tight policy conflicted with the desires of the new Nixon Administration. In the meeting of April 1969, Governor Sherman Maisel noted that administration officials "had made clear that they wanted to attempt a gradualist approach to the ultimate goal of price stability," and that "they had

[2] Minutes were provided by the Board of Governors. *Transcript*s for the years 1978 to 1982 were obtained from the Board of Governors website. These are verbatim *Transcript*s edited by Board staff. *Transcript*s for 1976 to 1977 were obtained from the Gerald Ford Presidential Library. These are the raw, unedited *Transcript*s. Where necessary, I made minor changes marked in brackets to clarify what I took to be the speaker's meaning.

repeatedly stated their hope that the Federal Reserve would cooperate in such an approach" (*Minutes* 4/1/1969, 66–69). For this reason, Maisel urged the FOMC to ease policy to avoid recession. In the August meeting, Hank Morris, President of the Federal Reserve Bank of Boston, argued that "the policy of gradualism had been abandoned so far as monetary policy was concerned." He accused the Committee of following a policy "designed to produce a faster response in the price level in 1969 at the risk of producing a modest recession in 1970" (*Minutes* 8/12/1969, 34–36). Nixon Administration officials and Nixon himself directly challenged Martin on the direction of monetary policy in a meeting in October, but the tight policy stance remained in place (Matusow 1998, 30–31).

By January 1970, GNP data for 1969:IV showed that the economy had stopped growing entirely, and the staff argued that an outright recession was a strong possibility. At this meeting, his last as chairman, Martin gave some ground. But while adopting a policy directive that signalled a slight relaxation of the degree of restraint, the Committee at Martin's behest rejected an outright expansionary move. The Fed's determination to maintain a degree of restraint despite the possibility of recession is evidenced by the path of the federal funds rate. The federal funds rate had risen from 6 percent at the end of 1968 to over 8 percent in June, where it stayed through the end of 1969. The federal funds rate rose to over 9 percent in January and remained at that level until the February meeting chaired by Arthur Burns. Thus, Martin's term ended with the Fed still committed to a contractionary course despite opposition from the Nixon Administration and the Committee's understanding that the economy was on the brink of recession.

Burns' appointment as Chair of the Board of Governors set in motion a turn toward a more expansionary monetary policy. Wells (1994, 55) describes Burns' first meeting as chair in February 1970 as "one of the most raucus in the institution's history." Burns steered the Committee toward the more expansionary of two alternatives under consideration, finally achieving the adoption of a policy directive that called for a move toward "somewhat less firm conditions in the money market" with four dissenting votes. Within a month following the meeting, the federal funds rate had fallen from 9 percent to under 8 percent, and by summer it was below 7 percent and falling steadily.

As recessionary forces intensified in 1970, the Committee's dilemma was to prevent an unacceptable increase in the unemployment rate while continuing to maintain downward pressure on inflation. At a time when the government's estimates of potential output were based on an unemployment rate under 4 percent, 5–6 percent unemployment was considered indicative of a significant recession.[3] Members of the Committee were aware of the political consequences of unemployment at that level. In March, Hugh Galusha, President of the Federal Reserve Bank of Minneapolis, noted that the Fed's projected level of unemployment for the end of 1970, 5.1 percent, was "by current political standards, rather a high average rate" (*Minutes* 3/10/1970, 66). In June, Aubrey N. Heflin of the Richmond Bank observed that unemployment in the range of 5.5 to 6 percent "would very likely create social and

[3] During this period estimates of potential output were reported regularly in the *Economic Report* of the President. See e.g., *Economic Report* (1970, 79), which uses an unemployment rate of 3.8 percent as the basis for its estimate of potential output.

political pressures that might well make it impossible for the Committee to stick to any path of moderate expansion" (*Minutes* 6/23/1970, 23). Similar arguments were made by Galusha (*Minutes* 7/21/1970, 46–47) and Philip E. Coldwell, president of the Federal Reserve Bank of Dallas (*Minutes* 12/15/1970, 37–38).

Thus, the Committee's policy of moderate easing during 1970 was motivated by both economic and political considerations, and it is difficult to say with certainty which had a greater practical effect. It is clear, however, that political considerations arising from the unwillingness of the Nixon Administration and Congress to sacrifice economic growth for control of inflation played a role. As noted by many authors (e.g., Wells 1994, 42), the Nixon Administration expected Burns to push the Fed to adopt a more expansionary monetary policy in support of the administration's gradualist approach to reducing inflation. Burns is widely credited with resisting pressures for ease, and the administration did not get as expansionary a policy as it desired. But it was clear to members of the FOMC that there was no political support for a continuation of the contractionary policy of 1969.

One of Burns' arguments for easing, which was shared by several others on the Committee, was that a recession would cause the administration and Congress to adopt more expansionary fiscal policies to stimulate growth (*Minutes* 3/10/1970, 61). On one occasion the feared consequences of an overly restrictive policy took a harder edge. In the April meeting, Burns urged the Committee to focus its attention on the unemployment problem, arguing that if it failed to do so Congress was poised to pass legislation that would reduce the Fed's independence by requiring the Fed to make low interest housing loans to qualified borrowers. In this case, Burns argued, "it would be only a matter of time before the Federal Reserve would find itself in the position of some Latin American central banks." (*Minutes* 4/7/1970, 52–53).

For most of 1970, the Committee had set a target for growth in M1 near 5 percent, a level that was felt to be consistent with its goal of stabilizing the unemployment rate. But by fall money supply growth was falling short of the Committee's target and the unemployment rate continued to drift upward toward 6 percent. The Nixon Administration was concerned and pushed the Fed to raise money supply growth to as high as 9 percent (Wells 1994, 9 61). Burns brought the shortfall of M1 growth to the Committee's attention on several occasions in the fall. At the meeting of January 12, 1971, Burns made a plea for the Committee to take further aggressive actions to fight recession. The issue for Burns was "credibility" with the administration; by this he seems to have meant that if the Fed was not perceived to be pursuing a strong growth policy, the administration would resort to an expansionary fiscal policy. "The credibility of the Federal Reserve," he argued, "would be greatly strengthened if it became apparent that the Committee was seeking to make up the recent shortfalls [in money growth]" (*Minutes* 1/12/1971, 37). Though the FOMC stopped short of the Administration's goal of 9 percent money supply growth, by February the money supply growth rate had risen sharply and the federal funds rate was below 4 percent. At the April 6 meeting, Burns indicated that the measures the Fed had taken since January had satisfied the administration.

> Chairman Burns said it was now recognized within the Administration to a much greater degree than earlier that the monetary authorities had done

> their job well, and that if any further stimulation was needed it would have to be provided by fiscal policy. (*Minutes* 4/6/1971, 22).

In making a definitive step toward ease in the winter of 1970–1971, the Committee was aware that it was compromising its goal of containing inflation. Staff economists began making the case for further ease in November 1970 as the economy weakened. The staff presented estimates that a higher rate of money supply growth would reduce unemployment by about half a percentage point relative to what it would be under more conservative policies, at the cost of an inflation rate about 0.2 percentage points higher. Partee argued that "this would be a price worth paying to halt the rise in the unemployment rate and to turn it down before next year is out." (*Minutes* 11/17/1970, 35). Overestimation of the amount of slack in the economy at 6 percent unemployment probably caused the Fed to underestimate the inflationary consequences of the turn toward ease and helped convince it to reverse policy. In any case, the Fed had given up on its goal of reducing inflation. The Fed's 1–2 quarter ahead inflation forecast, which stood at 3.6 percent in December 1968 when the Fed began to tighten, was 4.4 percent by December 1970. Despite clear indication that progress had not been made on reducing inflation, the Fed was now firmly committed to an expansionary policy.

B. *The Expansion of 1971–1973*

Monetary policy remained expansionary in 1971 as the economy struggled through a period of high unemployment and slow growth in real GNP. By 1972, however, economic growth was running at annual rates exceeding 5 percent and unemployment was falling rapidly. Nevertheless, the Fed put off tightening until inflationary pressures burst out in early 1973, by which time it was too late to avoid a dramatic rise in inflation.

Political pressure from the president and Congress during this period was an important factor pushing monetary policy in the direction of greater ease. The Administration initiated a heavy-handed campaign to pressure the Fed to continue its expansionary policies in order to avoid recession before the 1972 election, while members of Congress repeatedly sought a commitment from the Fed to maintain an expansionary policy.[4] DiCecio and Nelson (2009) attribute the Fed's low interest rate policy to a mistaken belief that price controls introduced in August 1971, as part of the Nixon Administration's New Economic Policy (NEP), had reduced inflation expectations. The Minutes from FOMC meetings, however, show that the Fed's understanding of the political forces arrayed against an aggressive anti-inflation policy played a role as well.

The Nixon Administration sold the NEP as a plan to maintain growth while restraining inflation. In the fall of 1971, Committee members debated whether monetary policy ought to be geared toward supporting the anti-inflation objective or

[4] The administration's actions, including attempts to stack the Board of Governors with inflationists and leaks to the press falsely accusing Burns of demanding a pay raise, are well documented, as are the efforts of Congress (see Ehrlichman 1982; Kettl 1986; Wells 1994; DeLong 1997; Meltzer 2009).

the growth objective of the NEP. By the end of 1971 a consensus emerged that monetary policy should support growth. One factor that was frequently mentioned was the concern that the administration would respond negatively if interest rates were allowed to rise above their mid-August levels (Vice Chairman Hayes and Bruce K. MacLaury, President of the Federal Reserve Bank of Minneapolis, *Minutes* 9/21/1971, 58, 61). Burns emphasized the Fed's political responsibilities in the meeting of December 1971. He called the Committee's attention to the slow growth in monetary aggregates at the end of the year. Reminding the Committee that the president's program was intended "not only to stabilize the price level but also to stimulate growth in the economy," he warned that because of the slow monetary growth rates "some people were now asking whether the Federal Reserve was deliberately moving to a restraining policy so as to nullify what the Administration, with the support of Congress, was attempting to accomplish" (*Minutes* 12/14/1971, 48–51). Burns reiterated these political concerns in the January 1972 meeting. He stressed that the program adopted in 1971 emphasized economic growth and had the support of the President and both parties in Congress, concluding that

> … unless the aggregates now began to grow at adequate rates he would become fearful about the future of the economy, and he would also feel that there might be some validity in a charge that the System was not supporting the policies of the Administration and Congress. (*Minutes* 1/11/1972, 62).

As early as February, the economic staff were warning that "continued economic expansion at the pace envisioned would gradually generate demand pressures on the structure of wages and prices, and could encourage the kind of expectations that would intensify our longer run inflationary problems" (*Minutes* 2/23/1972, 22). Committee members expressed concerns about inflationary pressures on numerous occasions during this period.[5] But the FOMC's decision to gear monetary policy toward supporting the administration's growth objectives rather than controlling inflation meant that for the rest of 1972 the Committee essentially ceded responsibility for inflation to the administration and its incomes policy. The attitude is epitomized in a statement by Maisel (endorsed by Burns) in April:

> In his judgment, Mr. Maisel continued, to accommodate GNP growth in the second half at the projected rate [10 to 10½ percent] would be consistent with the nation's goals. The Administration had indicated that GNP should grow by at least that much, if not more, and Congress would view such a rate as low. If a problem of excessive expansion developed in 1973, it would not have been created by the Federal Reserve … (*Minutes* 4/18/1972, 53–54).

An additional barrier to any impulse the Committee may have had to tighten monetary policy in 1972 came from the Committee on Interest and Dividends (CID). In the face of rising aggregate demand, the public was chafing at the administration's wage

[5] See for example Kimbrel, *Minutes* (4/18/1972, 60); Hayes, *Minutes* (5/23/1972, 32); Winn, *Minutes* (6/20/1972, 79); Robertson, *Minutes* (8/15/72, 54).

and price controls. Controls on interest rates and dividends through the CID were seen as a signal that the burden of price controls would be shared equally across income classes. Members of the FOMC understood that were the Fed to tighten enough to increase interest rates, the price controls would come under attack. In that event, the Nixon Administration would push back against the Fed, with uncertain consequences for the Fed as an institution. These concerns were discussed on several occasions in the fall of 1972 (see Burns, *Minutes* 8/15/1972, 74–75; Hayes, *Minutes*, 9/19/1972, 47). In September, two members of the Committee suggested that the Fed raise its target for the federal funds rate despite the constraints posed by the CID. Burns spoke in opposition, warning that a decision by the Fed to raise interest rates might cause the CID to set guidelines for interest rates. "If guidelines were established," Burns argued, "the result would be a confontation between the Federal Reserve and the Executive establishment—a prospect that was extremely disturbing" (*Minutes* 9/19/1972, 70).

By January 1973, inflation was accelerating visibly and the Fed finally moved to a more restrictive policy. The Fed's decision to do so was made easier by the fact that the unemployment rate had fallen to a level (around 5 percent) that the public, Congress, and the administration would accept as close to full employment, so the Fed could not be accused of strangling the recovery prematurely.

C. *The 1973 Disinflation*

The Fed's approach to dealing with the inflation problem was laid out by the staff economist, Charles Partee, in the meeting of March 1973. At this meeting the economic staff weighed the pros and cons of a marked tightening versus a continuation of loose policy. Partee, acknowledging that the more contractionary strategy was politically unfeasible, advocated a middle ground.

> To adopt a substantially more restrictive policy that carries with it the danger of stagnation or recession would seem unreasonable and counterproductive. As unemployment rose, there would be strong social and political pressure for expansive actions so that the policy would very likely have to be reversed before it succeeded in tempering either the rate of inflation or the underlying sources of inflation … The best solution in the present difficult situation, I believe would entail a slowing in the economic expansion to the minimum sustainable rate which would appear to be in the 3 to 4 percent range. The unemployment rate would tend to drift upward once this slower growth rate had been sustained for a while. Even so, progress in reducing inflation would probably be modest—all that can be expected in today's environment from aggregate demand management measures. (*Minutes* 3/19–20/1973, 16–17).

This statement and the staff's estimates of the consequences of alternative monetary policy strategies (*Minutes* 3/19/1973, table 8) reveal the Fed's misperceptions of the economy's productive capacity. The Fed regarded 3–4 percent growth in real GDP to be the "minimum sustainable rate." At that rate of growth, the unemployment rate would remain at about 5 percent, and the inflation rate would stabilize in the range of 4–4.5 percent. None of these estimates seems realistic.

Equally important, however, is the fact that in adopting the middle course the Fed acknowledged that it would not be able to make progress toward lowering inflation in the near future. The more aggressive policy was estimated to reduce the inflation rate to 3.5 percent by the end of 1974 at the cost of pushing growth to zero and the unemployment rate up to 6.2 percent. This was rejected on the grounds that it would be politically unsustainable. Committee members shared Partee's judgment of the political consequences of high unemployment:

> [Morris] was afraid that if a 6 percent unemployment rate were to be generated, the consensus between the Administration and the Congress calling for restraint in Federal expenditures might well be destroyed. A 5 per cent unemployment rate might be tolerated for an extended period of time but not a 6 percent rate. Chairman Burns agreed that a 6 percent unemployment rate could well lead to a massive Federal budget deficit and also to a marked easing in monetary policy, thereby laying the foundation for further inflation in the future. (*Minutes* 6/18/1973, 33–34).[6]

Political pressures and misperceptions thus doomed the Fed's effort at inflation control in 1973 from the start. Understanding that in the prevailing political environment an outright recession—negative growth or an unemployment rate in excess of 6 percent—was politically unacceptable and therefore unsustainable, the Fed backed off from policies that it thought would make a meaningful impact on inflation. It selected the course that gave it maximum restraint of inflation given the political environment. But this course gave the Fed no room for error. When, as a result of its overestimation of the amount of slack in the economy, inflation rose more than predicted, the Fed proved unwilling to tighten further. When the economy weakened at the end of the year, the Fed abandoned its effort to control inflation.

As the Fed pursued Partee's gradualist policy, the federal funds rate target was increased gradually from 6 percent in January to 10.5 percent in August. As the Fed raised rates, Committee members repeatedly gauged the degree of support the policy was attracting from Congress and the administration. At the June meeting, with the unemployment rate still only 5 percent, Burns cited the absence of a "sharp attack in the press and in Congress" as evidence that the Fed appeared to be operating within politically acceptable bounds (*Minutes* 6/19/1973, 110).

The inflation rate crept up throughout 1973. But in the second half of the year there were indications that economic growth was slowing. As the economy slowed, growth in the money supply fell below announced target ranges. In the eyes of Congress, the money growth targets represented the Fed's commitment to maintaining economic expansion. As Burns argued in a conference call on October 10, slow growth in the aggregates would be seen as a violation of this commitment as well as ill-advised economically:

> System officials had repeatedly stated to Congress and the public that the Federal Reserve intended to pursue a monetary policy that would permit moderate growth of the monetary aggregates. If the System were to allow

[6] Similar statements were made by other Committee members on numerous occasions throughout the year (see for example Partee, *Minutes* (3/19–20/1973, 16–17); Sheehan, *Minutes* (7/17/1973, 43); Gramley, *Minutes* (9/18/1973, 13); Eastburn, *Minutes* (9/18/1973, 48)).

> the period of very low or negative growth in the money stock to continue much longer, it would not only be damaging its credibility; it would be failing to meet its responsibilities to the economy and to the nation. (Minutes 10/10/1973, 4–5).

In the meeting of October 16, Morris called for increasing growth in the monetary aggregates, arguing that "Market participants and the public at large had been assured, through statements by the Chairman and in other ways, that the Federal Reserve would not permit the monetary aggregates to contract for a prolonged period, and he was concerned about the possible reactions to a failure to make good on that commitment (*Minutes* 10/16/1973, 47–48).

Morris advocated again in November for increased money supply growth, arguing that "if a recession did develop by next spring, he would want the record to show that the Committee had recognized the problems generated by the energy crisis and had moved promptly toward ease" (*Minutes* 11 /20/1973, 91). Burns expressed his sympathy with this statement. And in December, MacLaury warned of the political consequences of failing to act against the coming economic slowdown:

> … Mr. MacLaury said it was his impression that the Committee had been concerned last winter about possible reactions in the Congress if interest rates had been allowed to rise rapidly at that time. It seemed to him that there would be even greater grounds for concern about reactions if the Committee should fail to evidence in some way its recognition of the change in the economic outlook. The directors of the Minneapolis Reserve Bank did not believe that discount rate action would be appropriate at this time, but they did feel that – to use the words of Chairman Burns—a modest and cautious easing of monetary policy would be desirable. (*Minutes* 12/18/1973, 81).

The Fed eased slightly in October. By December, with the oil crisis threatening to accelerate the slowdown in growth, the Fed moved to a cautiously expansionary policy. The federal funds rate fell from 10.8 percent in the last week of September to 9.9 percent by the end of the year and 9 percent by February. In moving toward ease, members of the FOMC were well aware that they were abandoning the effort to control inflation. Partee acknowledged as much in the November meeting:

> A reduction in money growth to a 4 percent rate could be expected to slow the rate of inflation significantly by 1975, but at the cost of a protracted decline in real output and a sharp rise in the unemployment rate. Alternatively, if money growth is raised to around a 6½ per cent rate, the consequent strengthening in economic expansion would be likely to hold the unemployment rate at 5 per cent or below until very late in 1975, but at the cost of an acceleration in the pace of inflation … Given the present state of the economy, monetary policy must make its tradeoff between very unsatisfactory choices as to employment and price objectives. I believe that the only feasible course is the middle one. (*Minutes* 11/19/1973, 18).

Burns was also frank in acknowledging that it was time for the Fed to abandon its effort to reduce inflation. In the December meeting, he acknowledged that "however painful it might sound, the System had no choice but to validate price increases that stemmed from supply shortages, because a failure to do so would probably result in unacceptable declines in production, income, and employment" (*Minutes* 12/18/1973, 84).

The inflation rate, which was 4.9 percent when the Fed switched to tight policy in the first quarter of 1973, was 8.2 percent in the fourth quarter, with policy now geared firmly toward supporting real activity rather than fighting inflation.

D. *The 1974 Disinflation*

In the early months of 1974 the inflation rate began to rise dramatically. In March, after a period of hesitation due to concern about the weakening economy, monetary policy was tightened. But by the end of the year this attempt at disinflation also would be abandoned before any progress had been made in reducing inflationary pressures.

As in 1973, failure was built into the Fed's strategy from the start. The Fed adopted a gradualist approach, in part to avoid triggering a political backlash. This approach turned out to be more inflationary than the Fed had anticipated because of its misperceptions of the natural rate of unemployment. The Fed's strategy was described by Governor Henry Wallich in the March meeting in terms similar to those used a year earlier:

> … the objective should be to pursue a path of monetary growth such that economic activity continued to expand, but at a rate not necessarily much faster than its potential and perhaps even below. Although that might lead to political problems, real GNP would be rising and the economy would not be going into recession. At the same time, excess capacity would be increasing somewhat, providing some possibility of a gradual reduction in the rate of inflation. He would reject as both substantively and politically unsound a policy of so tight a rein that economic activity failed to recover at all and excess capacity built up rapidly. (*Minutes* 3/19/1974, 134–135).

Similarly, in laying out the monetary policy alternatives in the April meeting, Partee rejected a "substantially more restrictive" policy that might "curb inflationary expectations, with desirable longer run moderation in the actual rate of price increase" on the grounds that it would require markedly lower growth and higher unemployment (*Minutes* 4/16/1974, 50). Thus, a serious attempt to permanently reduce inflation was ruled out from the beginning.

The inflation rate rose from around 8 percent at the beginning of the year to almost 10 percent by the summer. Because of the severity of the inflation problem, the public, Congress, and the president seemed to have a greater tolerance for tight policy than they had had in 1973. This perception was a factor in the FOMC's willingness to raise interest rates in spring and summer. In the March meeting, Burns remarked that "at the present time neither the Administration nor the Congress was urging the Federal Reserve to pursue a more expansionary course," and that, in fact, one of the "distinguished liberal members of the Congress" had told him that the Fed was not doing as much as it could to fight inflation (*Minutes* 3/19/1974, 139). In April, Morris and Burns noted the lack of complaints from Congress about the interest rate increases that had taken place over the previous two months (*Minutes* 4/16/1974, 72). In June, Balles, President of the Federal Reserve Bank of San Francisco, reported that "Congressman Ullman, ranking majority member of the House Ways and Means Committee, had expressed his consent to a tight policy in a recent speech and that he thought that a majority of the Congress would concur in the System's efforts not only to slow the actual rate of price advance but also to dampen inflationary expectations." Burns concurred that support for the Fed's policy remained strong (*Minutes* 6/18/1974, 61–62).

As the economy weakened that summer, Committee members debated how much slack in the economy the public and political system would tolerate. In June, Wallich argued that the public would support a reduction in growth to the 2–3 percent range, but would not tolerate an outright recession (*Minutes* 6/18/1974, 68). In July, several Committee members argued that support for the Fed's efforts in fighting inflation was strong enough that Congress and the public would tolerate growth rates as low as 1 percent (Chicago Fed President Robert P. Mayo, *Minutes* 7/16/1974, 25; Hayes, *Minutes* 1974, 32–33; St. Louis Fed President Francis, *Minutes* 7/16/1974, 32–33). In September, Morris repeated the notion expressed in earlier meetings that an unemployment rate of 6 percent was the maximum that was politically sustainable. A higher rate, he argued, "would run the risk of generating political forces in favor of efforts to reduce the level of unemployment," which would force the abandonment of the Fed's restrictive policy (*Minutes* 9/10/1974, 83). Wallich and Governor Frederick J. Sheehan concurred with Wallich arguing for a policy that would keep real GNP growth at around 2 percent per year and Sheehan expressing a willingness to see the unemployment rate rise to 6.5–7 percent (*Minutes* 9/10/1974, 68–70). Burns summarized his view of the Fed's political room for maneuver in the July meeting:

> … in his appearance before the House Ways and Means Committee yesterday... he had expressed his view that little or no economic growth could be expected for some months, and that that outlook should be accepted as a matter of policy under present circumstances. None of the members of the Ways and Means Committee, not even the more liberal members, expressed any shock or criticism. More generally, in his many recent conversations with Congressmen he had found widespread acceptance of the need for slow economic growth; they reported that their constituents were more anxious about inflation than about unemployment. (*Minutes* 7/16/1974, 34).

The Fed maintained interest rates above 11 percent through September. Inflation continued to rise, topping 12 percent, but by October the costs of high interest rates appeared likely to exceed what the public and political system were willing to bear. In October, the unemployment rate rose above the 6 percent threshold for the first time and was forecasted to rise to 7.5 percent by the end of 1975. GDP growth was estimated to be strongly negative for the first time as well. Morris and Partee argued for easing on the grounds that the coming recession would erode public support for the

Fed's anti-inflation policy. Furthermore, the administration could be expected to adopt policies that would counter the Fed's efforts and, in the long run, lead to more inflation (*Minutes* 10/15/1974, 31). Sheehan also advocated a substantial easing, noting that "the System was particularly vulnerable because of the way in which members of Congress perceived current monetary policy" (*Minutes* 10/15/1974, 73).

With the October meeting, then, the Fed switched to a cautiously expansionary policy despite the fact that the inflation rate was 4 percentage points higher than it was at the beginning of the year. As the economy slipped deeper into recession in early 1975, the Fed eased again. The federal funds rate fell from 10.1 percent in October 1974 and to 5.2 percent by May 1975. Political pressures reinforced the economic case for easing. Burns opened the February meeting with an acknowledgement that Congress was placing considerable pressure on the Federal Reserve. He pointed in particular to a concurrent resolution proposed by Senators William Proxmire and Hubert Humphrey instructing the Fed to increase the growth rate of the monetary aggregates. Stronger growth in the money supply, which Burns argued had been the Fed's policy in any case, would help him make the case against this piece of legislation (*Minutes* 2/19/1975, 7–9). Balles argued that a reduction in the federal funds rate was dictated by "both the economics of the situation and Congressional concern" (*Minutes* 2/19/1975, 61). Political concerns were mentioned so prominently at this meeting that Burns felt compelled to warn the Committee not to cave in to political pressures (*Minutes* 2/19/1975, 61–62). But this statement brought a rebuttal from David Eastburn, President of the Federal Reserve Bank of Philadelphia:

> Finally, while the Federal Reserve System was an independent entity, its actions were being closely observed. He [Mr. Eastburn] was concerned that there would be critical public reaction to continuation of a monetary policy that had produced very little growth in the narrow money stock over the past 6 months, a period in which the economy was moving into the worst recession since the 1930's. Continued pursuit of such a policy and failure to stimulate the desired rates of monetary growth promptly could have some undesirable long-run implications. With those thoughts in mind, Mr, Eastburn said, he … would press to achieve more rapid monetary growth as quickly as possible. (*Minutes* 2/19/1975, 68).

Leading Democrats in Congress urged a more aggressive pro-growth policy from 1975 to 1976, going so far as to pass a resolution calling on the Fed to lower long-term interest rates (Meltzer 2009, 890). While Congress pressured the Fed to adopt a more expansionary policy, however, the (Gerald R.) Ford Administration strongly supported the thrust of the Fed's policy and respected its independence. With the administration's support, the Fed maintained a monetary policy stance that was mildly expansionary without being so aggressive as to cause inflationary pressures to re-emerge.[7] The Fed's "undernourishment" of the economic recovery during this period resulted in some progress against inflation, which fell to under 5 percent by early 1976.

[7] Kettl (1986, 131–134) and Wells (1994, 145–146) describe the close relationship between Arthur Burns and President Ford. Wells (186, 193) recounts instances in which Burns enlisted the Ford Administration in lobbying campaigns against Congressional legislation that would infringe upon the Fed's independence.

E. *The Expansion of 1976–1979*

From 1976 to 1979, the US economy experienced strong growth, falling unemployment, and relentlessly increasing inflation. The Fed allowed interest rates to drift up in 1977 but did not tighten significantly until August 1978. Even then the Fed stopped short of the measures needed to effect a meaningful reduction in inflation, waiting until October 1979 to take the dramatic actions that would prove necessary to reduce inflation permanently. The Minutes and Transcripts from the period portray a Federal Reserve that focused almost exclusively on maintaining strong economic growth in the face of evidence of accelerating inflation. This change in emphasis relative to the 1975–1976 period came about, in part, as a result of a change in the political environment.

The political environment changed with Jimmy Carter's victory in the 1976 presidential election. Carter had criticized the Fed during the campaign for being overly cautious, a signal that once in office he was unlikely to provide the Fed with the political cover against pressure from Congress that President Ford had provided. Furthermore, Carter had proposed a fiscal stimulus package in the campaign that was bound to work against the Fed's anti-inflation policies. The Fed's position was complicated further by the fact that Burns' term of office would end in January 1978, and by all accounts he had a strong desire to be reappointed.[8]

The first sign that the new administration's desire for economic expansion would weaken the Fed's commitment to reducing inflation came in the FOMC's discussion of its long-run monetary targets in January 1977. The Committee had been gradually reducing the target ranges for the monetary aggregates and another reduction was on the table again at this meeting. Burns, however, argued that such a move would bring the Fed into conflict with the new administration:

> [T]he new administration has proposed a fiscal plan for reducing unemployment and any lowering of monetary growth rates at this time would I'm quite sure be very widely interpreted … as an attempt on the part of the Federal Reserve to frustrate the efforts of a newly elected President, newly elected Congress, to get our economy, to use a popular phrase, "moving once again." (Transcipt 1/18/1977, tape 7, 1–4).

To avoid the perception that the Fed's policies were in conflict with those of the new administration, Burns recommended that the Fed maintain the current target ranges for M1. Since Congress and the public paid less attention to M2 and M3, he argued, the Fed would make a small reduction in the lower bound of the target range for those variables. The result would be that the midpoints of the M2 and M3 range were precisely what they were six months earlier, and "this would be duly noted in our statement to the Congress." The Committee adopted Burns' proposal despite the reservations of several members of the Committee that the reduction in the M2 and M3 targets was purely cosmetic (*Transcript* 1/18/1977, tape 7, 17; tape 8, 5, 9). When the Committee reviewed the long-range targets again in April and July, there were more

[8] Burns told the *Wall Street Journal* ("Burns Would Welcome Reappointment as Fed Chairman; May Keep Board Seat," *Wall Street Journal*, November 30, 1977, 4), "I almost certainly would accept [another term] … I'm not in a hurry to leave the Federal Reserve. The work we do is much too important." Quoted in Wells (1994, 223).

calls for tightening. Burns again proposed superficial reductions that the Committee accepted. In the April meeting, Vice Chairman Paul Volcker concurred with Burns' minimalist approach. He backed away from a reduction in the targets for M1 growth that would be appropriate "if we were living really in an apolitical climate" in favor of small reductions in the targets for M2 and M3 (*Transcript* 4/19/1977, tape 5, 11).

In July, Burns defended his approach on the grounds that a serious reduction in target ranges would increase the likelihood that Congress would pass legislation unfavorable to the Fed (the bills that became the Federal Reserve Reform Act of 1977):

> Gentlemen, we're faced with a very hard decision. Speaking personally for a moment, I wish I could join my colleagues who would—were inclined to move towards somewhat lower growth rates. I have to—I wish I could. Tempermentally, yes. That's what I would prefer to do. But I do have an obligation to this Committee and to the System, as well as to the country. I'll have to testify before the [Congressional] Committee, I will have to defend whatever this Committee decides … I don't mind being attacked, but I want to be in a position, really, to answer the attacks in an effective manner. And I find it very difficult to do that at the present time … and I am concerned about the legislation that we have before the Congress. (*Transcript* 7/19/1977, tape F, 1–3).

As a result of the changed political environment, therefore, the Fed slowed the pace at which it was reducing its target ranges for monetary growth. By late 1977, the Fed had effectively abandoned its commitment to maintaining downward pressure on inflation. While members frequently expressed concern about rising inflation, fears of pushing the economy into recession dissuaded the Fed from raising interest rates sufficiently to reverse the trend, and money supply growth frequently exceeded the Fed's targets. In September 1977, Lawrence K. Roos, president of the Federal Reserve Bank of St. Louis, called the Committee to task for abandoning its fight against inflation, asking whether it was

> … not possible by the adroit conduct of monetary policy for this Committee really to have a very real effect on the trend of M1 and M2, instead of explaining afterwards why they did expand beyond what we wanted—what were our targets … [I]f our stated, and I assume understood objective is to gradually inch down the rate of inflation, and this has been often repeated, don't we have some commitment to that goal even if it means some temporary dislocations of interest rate levels and things like that. I mean, in other words, isn't that part of our mission too? (*Transcript* 9/20/1977, tape 6, 1).

Burns and Partee defended the Committee's actions, arguing that the Fed needed to avoid "dislocations" in the economy even if it meant abandoning strict adherence to monetary targets. In their response inflation appears to be an afterthought:

> Burns: … [T]here is a question as to how much dislocation … you'd be willing to cause and at what time.
> Partee: Well, it's just not interest rate levels either. It's output and demand and employment and profits and the whole fabric of the economy, that has

> to be taken into account.
> Roos: And inflation.
> Partee: Yes, in dealing with the inflation problem which was your question. (*Transcript* 9/20/1977, tape 6, 2–3).

Later in the meeting Burns defended the Fed against a suggestion that failure to adhere to monetary aggregates weakened its credibility:

> To maintain our credibility, what does that mean? There is equally essential to be alive to what is happening in the real economy; to the extent that you have elements of weakness in the economy, if we ignore those there will be no gain in credibility for the System. That people, responsible people across the country will scratch their heads and say don't these people know what is happening in the real economy. Don't they care. So it's not a one way street. Credibility requires that we work on both dimensions and achieve as wise a compromise if that be the right term, take into account both factors as we just have. (*Transcript* 9/20/1977, tape 7, 15).

> In the meeting of December 1977, Chairman Burns responded to Mr. Balles' suggestion that the Fed move to reserves targeting in order to get a firmer handle on money supply growth by raising concerns about an adverse reaction from Congress: You know I follow everything you [Mr. Balles] say with a great deal of sympathy until you get into the political part of the argument. We had a reserve target and if in the process of applying interest rates moved up believe me the Congress would respond in just the way it has been doing. And it may well be great advantage in what you suggest but as for the politics of it, I think you're off base. (*Transcript* 12/19/1977, tape 3, 9).

In September 1978, Roos again expressed frustration with the Committee's acquiescence to high money supply growth rates, this time with G. William Miller as chair:

> Roos: … As we went around the table, we all seemed to recognize that we do face a 7½ to 8 percent rate of inflation now. Do we as a group feel that this is preordained because of circumstances that we can't control? I'm concerned that we seem to feel well, it may be 8 percent, and if it's 8 percent we've done our job well. I'm really not trying to be critical, but is our monetary policy responsibility such that we should maybe discuss whether we're satisfied to see the economy drift into an 8 percent inflation rate? And if not, are there things that we can do to affect this? … Are we in any way the masters of what happens, or are we merely observers on the sidelines? I'm lost.
> Miller: I take the fifth.
> Partee: I don't want to comment. (*Transcript* 9/19/1978, 17–18).

During 1977 and 1978, Burns and Miller looked to the Administration to take the lead in controlling inflation. On several occasions Miller expressed dread at the thought that the administration would fail to act and the Fed would be forced to take on inflation by itself. In March 1978, for example, he worried that "time is very short for them [the administration] to take some more believable steps in fighting inflation and if it's not done, inflation is going to be left to the Federal Reserve and that's going to be bad news" (*Transcript* 3/21/1978, 33). Rather than have the Fed move aggressively against inflation itself, Miller lobbied for a comprehensive inflation control package focused on fiscal, regulatory, and energy policy, and was able to claim some success on that front (e.g., *Transcript* 9/19/1978, 17).

Nelson interprets the Fed's advocacy of action from the administration as evidence that he held a "non-monetary" view of inflation. But it may also have been a response to the Fed's belief that it lacked political support for moving against inflation on its own. This would explain the Fed's increased willingness to raise interest rates in 1978 when the Carter Administration unveiled a series of anti-inflation packages. In April, following the president's announcement of an anti-inflation package, the staff economist Stephen Axilrod argued (and Miller concurred) that a reduction in the target range for M1 would add credibility to the administration's inflation targets, while an increase in ranges "would not appear supportive" of the program (*Transcript* 4/18/1978, 27). Robert P. Black, president of the Federal Reserve Bank of Richmond, urged the Committee to keep its focus on inflation to take advantage of the fact that "everybody thinks that the administration, Congress, and the Federal Reserve are all committed to fighting inflation as a primary target" (*Transcript* 5/16/1978, 19). The Fed did indeed begin to tighten in the summer of 1978. Romer and Romer (1989) identify August 1978 as the beginning of a contractionary period in monetary policy. While the transcripts around that time do not indicate that the Fed saw itself as making a dramatic policy change, the federal funds rate began to rise at a rate faster than the increase in inflation for the first time since the 1974 disinflation attempt.[9]

In October, the Carter Administration introduced another program designed to control inflation and support the value of the dollar. Prior to the plan's announcement in the meeting of October 17, Committee members discussed the opportunities and perils the plan posed for the Fed. The Fed might be able to use the plan to support a further tightening, but at the same time there was concern that the administration would claim that its efforts freed the Fed to reduce interest rates in order to foster growth (*Transcript* 10/17/1978, 54–56). Motivated largely by a decline in the value of the dollar, the Committee decided to continue increasing the federal funds target range in October and November. By December the target range for the federal funds rate was 9.75 to 10.5 percent, compared to 7.75 to 8.25 in August. But as signs emerged in early 1979 that the economy might be weakening, the FOMC stopped tightening. From December 1978 to August 1979, the Greenbook forecasts of two-quarter ahead inflation rose from 7.5 to 10.0 percent, but the Committee left the federal funds target range unchanged.

F. *The 1979–1982 Disinflation*

By the summer of 1979 the rise in inflation was regarded as a real crisis. In June and July, a number of members of the Committee began to argue that the Fed needed to take action even if it meant a greater risk of recession (see e.g., George Rankin, First

[9] The federal funds rate rose by just over 200 basis points from August 1978 to January 1979, counteracting a 140 basis point increase in inflation from January 1978 to January 1979.

Vice President of the Richmond Fed, *Transcript* 6/27/1979, 6; Wallich, *Transcript* 7/11/1979, 15; Coldwell, *Transcript* 7/11/1979, 17). Volcker was appointed chairman in August, a clear signal that the Carter Administration expected the Fed to take action. In October, the Fed initiated the contraction that would finally bring an end to the Great Inflation.

From the first meeting at which Volcker was chair he and other Committee members recognized the importance of public support for any serious attempt at controlling inflation. Volcker spoke at length about the challenges facing the Fed. He laid out a strategy in which the Fed would make a small move toward tightening immediately, but "we ought to keep our ammunition reserved as much as possible for more of a crisis situation where we have a rather clear public backing for whatever drastic action we take" (*Transcript*, 8/14/1979, 22–23). An important consideration for Committee members as they geared up for an attack on inflation was their perception that the president, Congress, and the public would support such a move. Mayo, for example, argued that the Fed should take advantage of the opportunity provided by a growing consensus that inflation was the country's most serious problem (*Transcript*, 8/14/79, p. 31). In the September meeting, Volcker noted that the Fed had support for tightening from sources not ordinarily expected to be hawkish on inflation such as the Congressional Black Caucus (*Transcript*, 9/18/79, 34).

When the decision to tighten dramatically was made in the October meeting, Volcker made a point of informing the Committee that there was strong support for a policy shift from the administration (*Transcript*, 10/6/79, 9). Following the meeting, Volcker made a number of public appearances at which he emphasized the political support for the Fed's actions. Three days after the meeting, for example, Volcker spoke with the press following an address to the American Bankers' Association:

> Restrictive monetary policies are never calculated to win popularity contests; yet there has been acceptance of the need of restraint even at rates of interest that are almost outside the range of our historical experience. Indeed, the Congressional committees responsible for oversight of the Federal Reserve have been among the strongest voices urging that we set forth and adhere to monetary targets, reducing them over the years ahead as an essential part of the effort to restore price stability … I would note too that the "National Accord" recently reached between the Administration and American labor leadership plainly recognized the threat to full employment, incomes, investment, and growth inherent in the inflationary process, and for those reasons gave "top priority" to the "war on inflation." (Volcker 1979, 5–6).

Maintaining political support for the program remained a priority and concern once the new policy was in place. In March 1980, further signs that the economy was headed for a recession prompted a discussion about whether it might be prudent to pull back on the degree of restraint. Volcker argued that with the political support the Fed had for its current policies, such a move would be disastrous:

> The worst thing we could do is to indicate some backing-off at this point when we have announced anti-inflation program. We have political support and understanding for what we have been doing. People don't expect it to

> be too easy. There is an understanding that a lot of burden has been placed on credit policy, and there's a willingness to be supportive for the moment in that connection. I would not give all that much weight to the degree of support we're going to get if this is dragged out indefinitely and we have to go through this process once again. (*Transcript*, 3/18/80, 36).

In the winter of 1980–1981, gloomy economic statistics again prompted a discussion as to whether it was time for the Fed to reverse course. As the economy slipped into recession there were signs of growing public opposition to the high interest rate policy. But Volcker urged Committee members to stay the course, assuring them that there was still sufficient support for a reduction in monetary targets in Congress and in the administration (*Transcript*, 2/2–3/81, 129). The meeting of July 1981 also saw a vigorous discussion of how long the Fed could hold out in its fight against inflation. Schultz argued that the public was growing impatient with the lack of success against inflation, and that the Committee needed to make a major push over the next four quarters to reduce inflation or see support for its program fall apart (*Transcript*, 7/6–7/81, 45). Kansas City Fed President Roger Guffey argued that at this point, given support from the administration, the Committee should not make the type of mistake it had always made in the past:

> Historically, the Federal Reserve has always come up to the hitching post and then backed off simply because the Administration and the Congress have thrown bricks at us or have not been supportive of a policy of restraint. Through the course of recent history at least, we've backed off and we've made a mistake each time. I think we have an opportunity this time to carry forward what we should have done before because for the first time ever we do have, for whatever length of time, the support of the Administration at least. So, we ought to take advantage of that opportunity. (*Transcript*, 7/6–7/81, 55).

There were signs in 1982 of a weakening in political support for the Fed's policies. In February, the Committee discussed with some concern news reports that administration officials were calling for a meeting between the president and the chair of the Federal Reserve to discuss monetary policy (*Transcript*, 2/2/82, 83, 97). In the same meeting Volcker noted that during his testimony to the Joint Economic Committee of Congress the chair of the committee had urged him not to reduce the money supply growth rate targets. E. Gerald Corrigan, president of the Federal Reserve Bank of Minneapolis, viewed this as part of a troubling pattern of increased pressure being brought on the Fed by Congress and the Reagan Administration (*Transcript*, 2/2/82, 41). By May, Congressional concerns had coalesced into a resolution that passed the Senate Budget Committee calling on the Federal Reserve to increase its target range for monetary aggregates if Congress acted to reduce the budget deficit (*Transcript*, 5/18/82, 42–43).

Committee members struggled with how to respond to the political pressure. Governor Nancy Teeters was the most forthright in arguing for a policy reversal, not just on economic grounds, but also in recognition of the political difficulties that the Fed was getting itself into (see e.g., *Transcript* 2/2/82, 83; *Transcript* 11/16/82, 24).

But for several Committee members, the political pressure made it more difficult for them to advocate a change in policy. Anthony Solomon, for example, argued that a move toward ease might be seen as "politically suspect," thereby damaging the Fed's hard-earned credibility and leading to higher long-term interest rates (*Transcript*, 6/30–7/1/82, 52). We cannot know whether the Fed ultimately would have succumbed to political pressures as it did in its earlier failed attempts at disinflation. By the late summer of 1982, the weak economy, financial stress, and a marked decline in inflationary pressures provided ample reason for the Fed to ease policy on economic grounds. The Committee took steps to ease in August, reducing the midpoint of the federal funds rate target from 12.5 to 9. By October, the language of the policy directive indicates a decisive change in policy stance in the direction of easing. Inflation had stood at 10.8 percent in the first quarter of 1981, but by the third quarter of 1982 it was down to 5.8 percent. The two-quarter-ahead Greenbook forecast of inflation was 5.5 percent, down from 9.7 percent at the beginning of 1981. This time, in contrast to the earlier disinflation episodes, the Fed had held off on easing until inflation was on a clear downward trajectory.

III. Empirical Evidence

In this section I test whether there is a correlation between political pressures and monetary policy actions. My measure of political pressures is based on statements by members of the FOMC recorded in the Minutes and Transcripts of FOMC meetings over the period 1969–1982. I collected statements by participants that refer to political implications of expansionary or contractionary monetary policy. I included statements referring to reactions on the part of the executive branch, Congress, or the public to FOMC policy choices as well as references to the priority these groups placed on unemployment versus inflation reduction. Statements were included whether the speaker indicated that the Fed should accommodate or resist the external pressures.

I found 140 statements that are collected in online Appendix 3. I created dummy variables equaling one in months when at least one statement of a particular type was made by a member of the FOMC and zero otherwise. The variable *LOOSE_CHAIR* represents months in which the Fed Chair made statements referring to pressures in favor of expansionary policy or in opposition to contractionary policy; *TIGHT_CHAIR* represents months in which the Chair referenced pressures in favor of tight policy or opposed to loose policy; and *LOOSE_OTHERS* and *TIGHT_OTHERS* represent months in which analogous statements were made by other members of the FOMC.

Similar variables have been used in previous research testing whether the banking industry, Congress, and the executive branch (Havrilesky 1993; Froyen, Havrilesky, and Waud 1997) or nonfinancial private sector groups (Weise 2008) influence monetary policy decisions. In those papers, dummy variables constructed from public statements by these groups are interpreted as signals of political pressure. The variables used in this paper represent signals received or perceived by members of the FOMC rather than all signals sent by the groups seeking to influence monetary policy. I interpret the statements as evidence that members of the FOMC were aware of external political pressures in one direction or the other during a given month.

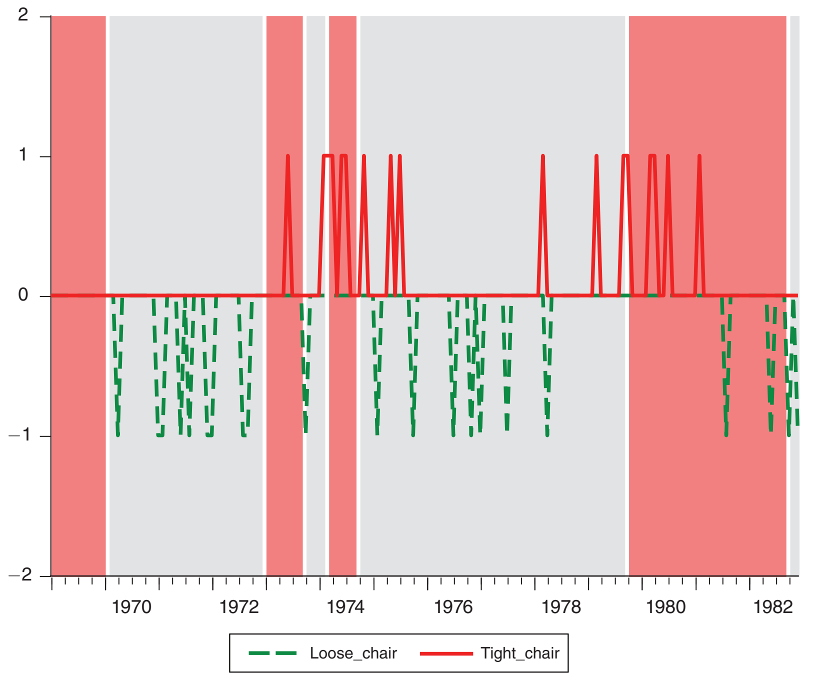

Figure 1. Statements of Political Pressure from Chair

Note: Shaded areas: dark grey = tightening periods, grey = easing periods.

Figures 1 and 2 plot the statements made by the chair and other members of the Committee. Loose statements are coded as -1, and tight statements are coded as $+1$. Shaded areas in the graphs represent periods of loose and tight policy as indicated in online Appendix 2. As shown in Figure 1, "loose" signals reported by the chair occur more frequently in periods of loose policy, while "tight" signals are somewhat more frequent during periods of tight policy. The correlation between the policy stance and signals reported by other committee members, shown in Figure 2, is weaker. On close examination of both figures, it seems that loose signals appear more frequently toward the end of contractionary periods and tight signals appear more frequently toward the end of expansionary periods. Such a pattern would be consistent with the hypothesis that major policy changes were driven, in part, by political pressures.

Table 1 quantifies the correlation between signals and the stance of monetary policy using monthly data for 1969–1982. In each panel, the columns refer to the actual policy regime (loose versus tight policy regimes in panels A and B; the beginning of periods of loose policy versus the last three months of loose policy in panels C and D; the beginning of periods of tight policy versus the last three months of tight policy in panels E and F). The rows refer to the presence or absence of statements regarding political pressures in the FOMC Minutes and Transcripts. The entries in each panel are the number of months in each policy regime during which statements do or do not occur. Below each panel is the Pearson's χ^2 statistic and associated p-value, which tests for independence between the appearance of statements and the monetary policy

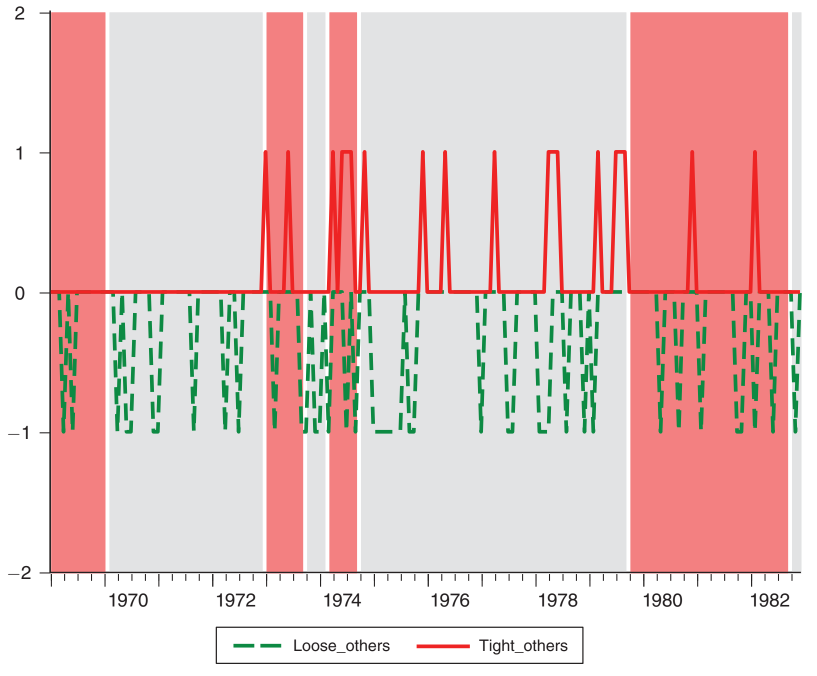

Figure 2. Statements of Political Pressure from other Committee Members

Note: Shaded areas: dark grey = tightening periods, grey = easing periods.

regime; and the Z-statistic and associated p-value, which is a test of the hypothesis that the probability of observing a signal is the same in the two policy regimes. See Agresti (1990) for a discussion of contingency tables and these test statistics.

Panel A shows that statements by the chair indicating pressure for loose policy occur more frequently in periods of loose policy, while statements indicating pressure for tight policy are more likely to occur during periods of tight policy. The test statistics reject independence of statements from policy regime and equal probability of statements occuring across policy regimes at conventional significance levels for both types of signals. Panel B repeats these tests for statements made by FOMC members other than the chair. While loose statements are more likely to occur during tight periods and tight statements are more likely to occur during tight periods, the differences are not statistically significant.

Panels C and D examine the frequency of statements during loose periods. They ask whether statements referring to political pressure in favor of loose policy become less frequent, and statements referring to pressure for tight policy become more frequent, in the months leading up to the switch to tight policy. The answer is yes on both counts. As in panels A and B, the statistical evidence is stronger for statements by the chair than for other Committee members.

Finally, panels E and F conduct a similar analysis for periods of contractionary monetary policy. The small sample size makes these results less compelling than those above. Panel E shows that loose statements by the chair are proportionately less frequent and tight statements more frequent in the three months leading up to

TABLE 1—CONTINGENCY TABLE FOR POLITICAL STATEMENTS AND POLICY STANCE

Panel A

	Policy stance				Policy stance		
	Loose	Tight	Total		Loose	Tight	Total
No statement	84	63	147	No statement	96	55	151
Chair (loose)	19	2	21	Chair (tight)	7	10	17
Total	103	65	168	Total	103	65	168
Pearson $\chi^2(1)$	8.61	(0.00)		Pearson χ^2 (1)	3.23	(0.07)	
Z-statistic	−3.51	(0.00)		*Z*-statistic	1.68	(0.09)	

Panel B

	Policy stance				Policy stance		
	Loose	Tight	Total		Loose	Tight	Total
No statement	73	51	124	No statement	92	57	149
Other (loose)	30	14	44	Other (tight)	11	8	19
Total	103	65	168	Total	103	65	168
Pearson χ^2 (1)	1.19	(0.28)		Pearson χ^2 (1)	0.11	(0.75)	
Z-statistic	−1.12	(0.26)		*Z*-statistic	0.32	(0.75)	

Panel C

	Policy stance				Policy stance		
	Loose	Last 3 mos.	Total		Loose	Last 3 mos.	Total
No statement	77	9	86	No statement	89	5	94
Chair (loose)	17	0	17	Chair (tight)	5	4	9
Total	94	9	103	Total	94	9	103
Pearson χ^2 (1)	1.95	(0.16)		Pearson χ^2 (1)	15.77	(0.00)	
Z-statistic	−4.56	(0.00)		*Z*-statistic	2.34	(0.02)	

Panel D

	Policy stance				Policy stance		
	Loose	Last 3 mos.	Total		Loose	Last 3 mos.	Total
No statement	66	7	73	No statement	85	6	91
Other (loose)	28	2	30	Other (tight)	9	3	12
Total	94	9	103	Total	94	9	103
Pearson χ^2 (1)	0.23	(0.63)		Pearson χ^2 (1)	4.50	(0.03)	
Z-statistic	−0.52	(0.60)		*Z*-statistic	1.48	(0.14)	

(*Continued*)

a decision to switch to expansionary policy. Panel F shows that the same pattern exists for statements by other members of the Committee, but the differences are not statistically significant.

The lesson from Table 1 is that periods of loose (tight) policy tend to coincide with periods in which the FOMC was aware of pressure for loose (tight) policy. Transitions from one policy regime to another tend to occur shortly after the FOMC receives signals of political pressure for such a switch. These differences are generally statistically significant for signals received by the chair, but not for signals received by other Committee members.

TABLE 1—CONTINGENCY TABLE FOR POLITICAL STATEMENTS AND POLICY STANCE (*Continued*)

Panel E

	Policy stance				Policy stance		
	Tight	Last 3 mos.	Total		Tight	Last 3 mos.	Total
No statement	55	10	65	No statement	47	12	59
Chair (loose)	2	2	4	Chair (tight)	10	0	10
Total	57	12	69	Total	57	12	69
Pearson $\chi^2(1)$	3.14	(0.08)		Pearson $\chi^2(1)$	2.46	(0.12)	
Z-statistic	1.19	(0.23)		*Z*-statistic	−3.48	(0.00)	

Panel F

	Policy stance				Policy stance		
	Tight	Last 3 mos.	Total		Tight	Last 3 mos.	Total
No statement	45	9	54	No statement	50	11	61
Other (loose)	12	3	15	Other (tight)	7	1	8
Total	57	12	69	Total	57	12	69
Pearson $\chi^2(1)$	0.09	(0.76)		Pearson $\chi^2(1)$	0.15	(0.70)	
Z-statistic	0.29	(0.77)		*Z*-statistic	−0.43	(0.67)	

Notes: Sample is 1969:1–1982:12. For 1C and 1D, loose periods only. For 1E and 1F, tight periods only.

Pearson χ^2: Test of independence between the appearance of a statement and the policy regime (*p*-value in parentheses). Test statistic distributed χ^2 with one degree of freedom.

Z-statistic: Test of H_0: frequency of statement|regime 1 = frequency of statement|regime 2 (*p*-value in parentheses). Test statistic asymptotically distributed standard normal.

See Agresti, Alan, 1990, Categorical Data Analysis, NY: John Wiley and Sons, 47–48, 55.

The correlations shown in Table 1 may arise merely because the Fed and political actors respond in the same way to economic conditions. A stronger test of the political pressures hypothesis would be to see if the correlation between signals and actions remains after controlling for the state of the economy. Unfortunately the Fed and political actors likely respond to a wide range of economic variables, many of which may be difficult to measure. I follow standard practice and model the economic component of the Fed's monetary policy reaction function using a Taylor rule, and augment this equation using FOMC statement dummy variables. This model is likely to leave out some important economic variables, and therefore is potentially subject to misspecification error. To the extent that political actors and the Fed share a desired policy response to economic variables that are not reflected in the Greenbook forecasts of inflation and unemployment, these shared preferences may show up as an "effect" of political pressures on monetary policy. The results presented below must therefore be interpreted with caution.

The empirical model is similar to that in Orphanides (2004). The frequency of the data is FOMC meetings (so period t is the current FOMC meeting and $t - 1$ is the previous meeting). The Fed adjusts the federal funds rate target gradually toward its desired level so that

$$(1)\quad f_t^T = \rho_1 f_{t-1}^T + \rho_2 f_{t-2}^T + (1 - \rho_1 - \rho_2)[\alpha + \beta \pi_{t,h}^e - \gamma \hat{u}_{t,k}^e] + \delta \mathbf{X}_t + \varepsilon_t.$$

The dependent variable f_t^T is the midpoint of the target range for the federal funds rate. I use Greenbook forecasts as proxies for the Fed's projections of future inflation and unemployment. $\pi_{t,h}^e$ and $u_{t,k}^e$ are the average Greenbook inflation and unemployment gap forecasts from period t to $t + k$ (for inflation) or $t + h$ (for the unemployment gap) available at the time t meeting. The unemployment gap is the Greenbook forecast of the unemployment rate minus the target rate of unemployment. I assume that the Fed's target for unemployment is 4 percent until January 1970, rises linearly from that date, reaches 6 percent in September 1979, and stays at that level through 1982. This progression reflects the conventional wisdom (documented in various issues of the Economic Report of the President and FOMC Minutes and Transcripts as well as in research by Orphanides and Williams 2005) that during the 1970s policymakers gradually became aware that the 4 percent unemployment target established in the 1960s was too low. The parameter α is the long-run average federal funds rate target, incorporating the Fed's estimate of the natural real rate of interest and the target for inflation. Finally, $\mathbf{X}_t$ is a vector of dummy variables for statements about political pressures made during the period t FOMC meeting.

I estimate equation (1) using nonlinear least squares for $h = 1$, $k = 0$. Estimates are reported in Table 2. The first column shows the estimated regression excluding the statement dummies for the period January 1969–September 1979. All coefficients have the expected signs and are precisely estimated. As in Orphanides (2004), the Fed is estimated to have followed a very activist policy as evidenced by the strength of the response to the unemployment gap. The results in Table 2 show that the Fed followed a destabilizing monetary policy rule in that it raised the federal funds rate less than one-for-one in response to changes in expected inflation. This result is consistent with that in Clarida, Gali, and Gertler (2000) but contrary to Orphanides' findings.

The second column reports regression results for the same sample range with political statement dummy variables added. There is a strong correlation between political statements made by the Fed chair and monetary policy decisions. On average, controlling for the expected inflation rate and output gap, the federal funds rate target is set a quarter of a point lower when the chair references political pressures toward loose policy in the FOMC meeting and a quarter of a point higher when he mentions pressures for tight policy. Both of these effects are statistically significant at standard significance levels. Statements by other committee members referencing pressure for tight policy are associated with a federal funds target 18 basis points higher on average. This effect is statistically significant at the 10 percent level. References by other committee members to pressures for loose policy are essentially unrelated to movements in the federal funds rate. These results are consistent with the unconditional correlations discussed above.[10]

The last three columns of Table 2 report results for alternate sample periods. Adding data after 1979 increases the estimate of the response to inflation, consistent with Clarida, Gali, and Gertler's (2005) finding that under Volcker, the Fed adopted

[10] Results are similar when the inflation forecast horizon is extended to four quarters, when a measure of the output gap is used in place of the unemployment gap, and when quarterly data is used. Further empirical results are reported in online Appendix 4.

Table 2—Augmented Taylor Rule Regressions

Sample:	1/13/69–9/17/79	1/13/69–9/17/79	1/13/69–12/15/80	1/13/69–12/21/81	1/13/69–12/20/82
$\rho 1$	1.27	1.22	1.18	1.04	1.01
	(11.24)	(11.53)	(6.06)	(8.73)	(9.69)
$\rho 2$	−0.41	−0.38	−0.33	−0.17	−0.12
	(4.15)	(3.93)	(2.29)	(1.38)	(1.14)
α	4.99	5.98	4.10	4.24	4.25
	(5.62)	(6.93)	(2.21)	(1.77)	(1.36)
β	0.66	0.44	0.89	0.99	0.94
	(3.96)	(2.46)	(2.30)	(2.09)	(1.54)
γ	−1.56	−1.44	−1.33	−1.60	−1.53
	(5.15)	(5.68)	(4.18)	(3.45)	(2.59)
δ*LOOSE_CHAIR*	—	−0.26	−0.19	−0.10	−0.01
	—	(2.47)	(1.65)	(0.69)	(0.06)
δ*TIGHT_CHAIR*	—	0.24	0.54	0.50	0.41
	—	(2.09)	(1.62)	(1.65)	(1.33)
δ*LOOSE_OTHERS*	—	0.04	-0.27	−0.40	−0.28
	—	(0.47)	(1.58)	(2.07)	(1.46)
δ*TIGHT_OTHERS*	—	0.18	−0.04	−0.03	0.24
	—	(1.87)	(0.26)	(0.19)	(0.91)
Observations	131	131	144	152	160
R^2	0.96	0.97	0.95	0.95	0.94
Breusch-Godfrey LM	1.19	0.59	1.01	0.33	0.15
(p-value)	(0.31)	(0.55)	(0.37)	(0.72)	(0.86)

Notes: Dependent variable is midpoint of federal funds target. Newey-West t-statistics in parentheses. Breusch-Godfrey LM test is F test of hypothesis of no second-order autocorrelation.

a stabilizing monetary policy rule. The evidence for political influence over the Fed's policy decisions also weakens when we add data from the Volcker disinflation. One explanation for the weaker effects of political statements in the extended sample is that while there was a great deal of opposition to high interest rates during the disinflation, members of the FOMC believed that at a fundamental level and for a limited period of time the Fed had political support for continuing its tight policy. This explanation is consistent with the story told in the previous section.

Figure 3 gives a sense of the quantitative impact of political pressures using the results above. The graph plots the predicted value of the federal funds rate target based on the estimates in the second column of Table 2, including and excluding the effects of the political pressure variables, for the period 1969–1979. The federal funds rate target in the last two meetings of 1968 are used as starting values. The graph also shows the actual federal funds rate target for this period.

The midpoint of the FOMC's federal funds rate target was substantially below the level predicted by the "economic variables only" model for much of the periods of loose monetary policy (marked as shaded areas), and considerably above the predicted value during periods of tight policy. The model explains much of the difference as the effect of the political pressure variables. From February 1970 to December 1972 the federal funds rate averaged 60 basis points below the level predicted by the "economic variables only" model. The political pressure variables account for 31 basis points of this difference. The political pressure variables accounted for a 71 basis point lower

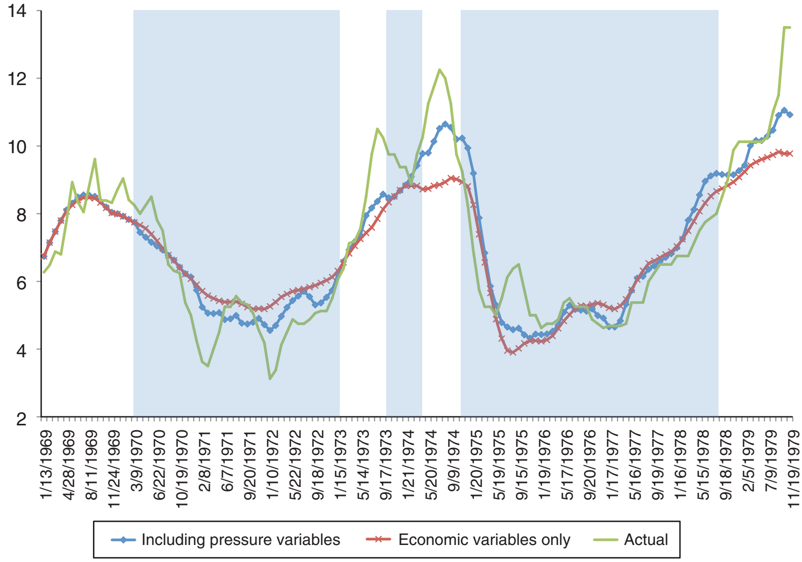

Figure 3. Predicted Federal Funds Rate Target with and without Political Variables

Notes: Shaded areas are periods of ease: February 1970—January 1973, October 1973—March 1974, and October 1974—August 1978.

fed funds target at the date of maximum impact in January 1972. From April 1974 to November 1976, a period of relatively tight policy generally coinciding with the years of the Ford Administration, the fed funds target averaged 80 basis points above the "economic variables only" model with the political pressure variables accounting for 58 basis points of this difference. During the period of relative ease following the election in 1976 to the tightening in August 1978 the federal funds rate was 54 basis points below the "economic variables only" level. Political pressure variables reduce the predicted fed funds rate by as much as 56 basis points in the early part of this period but are estimated to have had little impact after late 1977.[11]

As a final test of the effect of political constraints on monetary policy I test whether statements referring to political constraints are correlated with monetary policy shocks identified from a vector autoregression. Specifically, I estimate a VAR including monthly data on CPI inflation, the percent change in industrial production, and the federal funds rate for the period January 1969–September 1979. Standard lag length criteria suggest a low-order VAR is appropriate, so four lags are used. Monetary shocks are identified using a Cholesky decomposition with the federal funds rate ordered last. Figure 4 shows the estimated monetary policy shocks along with chairs' statements about political pressures. For the sake of clarity both series are smoothed using a three-month centered moving average. The figure shows that periods of negative monetary policy shocks (that is, periods of expansionary monetary policy) coincide

[11] The period October 1974 to July 1978 is coded as "loose" policy in the empirical work, consistent with Romer and Romer (1989) and Boschen and Mills (1995). As discussed in the text, however, while generally accommodative monetary policy was somewhat tighter during the Ford administration than early in the Carter administration.

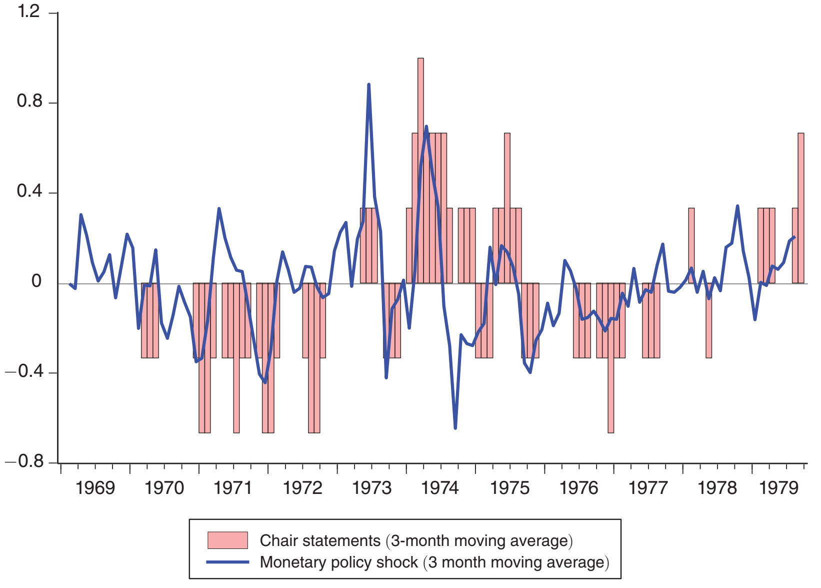

Figure 4. Statements of Political Pressure and Monetary Policy Shocks From a VAR

with periods in which the chair made statements referring to pressures for monetary ease, while periods during which shocks were positive coincide with statements referring to pressures for tightening. A regression of the smoothed monetary shocks on the smoothed statement variables yields coefficients of −0.27 (0.09) on easing statements and 0.32 (0.09) on tightening statements (standard errors in parentheses). This confirms the statistical significance of the correlations shown in the figure.[12] The VARs are subject to the same potential specification errors as the Taylor rule regressions, however, so these results should be interpreted cautiously.

IV. Conclusion

This paper has presented narrative and econometric evidence that political pressures played an important role in shaping the Federal Reserve's monetary policy during the 1970s. Some important issues, however, remain unresolved. First, to the extent that the Federal Reserve acquiesced to the policy priorities of the administration and Congress during the 1970s, it is important to understand where the priorities of these actors came from. Nelson (2005) and Romer and Romer (2002) provide evidence that mistaken beliefs about the macroeconomy were widespread outside the Federal Reserve. If pressure on the Fed from the president and Congress was motivated by mistaken beliefs, then one could argue for dual causes of the Great Inflation: mistaken ideas at the level of the administration and Congress and political pressure at the level of the Fed. Second, the Great Inflation was a global

[12] The general correlation pattern is robust across different choices of lag length. I also found similar results using the unemployment rate in place of industrial production. The correlations were of the same sign but not statistically signficant when statements by members other than the chair were included. See online Appendix 4.

phenomenon. Romer (2005) argues that the misunderstandings hypothesis provides a better explanation for the global nature of inflation than explanations focused on political dynamics within any one country. On the other hand Germany and Japan disinflated in the mid-1970s, several years before the United States. Was this because they adopted the "monetary" view of inflation earlier, as Nelson (2007) argues, or was it because a different political dynamic was at work in those countries? Finally, it would be interesting to know whether political considerations continued to influence monetary policy in the decades since 1979 or whether the Fed has become more insulated from political influence since the Volcker disinflation.

REFERENCES

Agresti, Alan. 1990. *Categorical Data Analysis*. New York: Wiley.

Boschen, John F., and Leonard O. Mills. 1995. "The Relation between Narrative and Money Market Indicators of Monetary Policy." *Economic Inquiry* 33 (1): 24–44.

Burns, Arthur F. 1979. "The Anguish of Central Banking." In *The 1979 Per Jacobsson Lecture*, 6–26. Belgrade, Yugoslavia: Per Jacobsson Foundation.

Clarida, Richard, Jordi Gali, and Mark Gertler. 2000. "Monetary Policy Rules and Macroeconomic Stability: Evidence and Some Theory." *Quarterly Journal of Economics* 115 (1): 147–80.

DeLong, J. Bradford. 1997. "America's Peacetime Inflation: The 1970s." In *Reducing Inflation: Motivation and Strategy*, edited by Christina D. Romer and David H. Romer, 247–80. Chicago: University of Chicago Press.

DiCecio, Riccardo, and Edward Nelson. 2009. "The Great Inflation in the United States and the United Kingdom: Reconciling Policy Decisions and Data Outcomes." Federal Reserve Bank of St. Louis Working Paper 2009-15.

Economic Report of the President. 1970. Washington: Government Printing Office.

Ehrlichman, John. 1982. *Witness to Power: The Nixon Years*. New York: Simon and Schuster.

Federal Open Market Committee. 1969–1975. Memoranda of Discussion. Board of Governors of the Federal Reserve System. http://www.federalreserve.gov/monetarypolicy/fomc_historical.htm.

Federal Open Market Committee. 1976–1977. Transcript. Board of Governors of the Federal Reserve System. Gerald R. Ford Presidential Library and Museum.

Federal Open Market Committee. 1978–1982. Transcript. Board of Governors of the Federal Reserve System. http://www.federalreserve.gov/monetarypolicy/fomc_historical.htm.

Froyen, Richard T., Thomas Havrilesky, and Roger N. Waud. 1997. "The Asymmetric Effects of Political Pressures on U.S. Monetary Policy." *Journal of Macroeconomics* 19 (3): 471–93.

Havrilesky, Thomas. 1993. *The Pressures on American Monetary Policy*. Norwell, MA: Kluwer Academic Publishers.

Hetzel, Robert L. 2008. *The Monetary Policy of the Federal Reserve: A History*. New York: Cambridge University Press.

Kettl, Donald F. 1986. *Leadership at the Fed*. New Haven: Yale University Press.

Levin, Andrew, and John B. Taylor. 2010. "Falling Behind the Curve: A Positive Analysis of Stop-Start Monetary Policies and the Great Inflation." National Bureau of Economic Research Working Paper 15630.

Matusow, Allen J. 1998. *Nixon's Economy: Booms, Busts, Dollars, and Votes*. Lawrence, KS: University Press of Kansas.

Mayer, Thomas. 1998. *Monetary Policy and the Great Inflation in the United States.* Northampton, MA: Edward Elgar.

Meltzer, Allan H. 2005. "Origins of the Great Inflation." *Federal Reserve Bank of St. Louis Review* 87 (2): 145–75.

Meltzer, Allan H. 2009. *A History of the Federal Reserve*: *Volume 2, Book 2, 1970–1986*. Chicago: University of Chicago Press.

Nelson, Edward. 2005. "The Great Inflation of the Seventies: What Really Happened?" *B.E. Journal of Macroeconomics: Advances in Macroeconomics* 5 (1): 1–48.

Nelson, Edward. 2007. "The Great Inflation and Early Disinflation in Japan and Germany." *International Journal of Central Banking* 3 (4): 23–76.

Orphanides, Athanasios. 2002. "Monetary-Policy Rules and the Great Inflation." *American Economic Review* 92 (2): 115–20.

Orphanides, Athanasios. 2003. "Historical Monetary Policy Analysis and the Taylor Rule." *Journal of Monetary Economics* 50 (5): 983–1022.

Orphanides, Athanasios. 2004. "Monetary Policy Rules, Macroeconomic Stability, and Inflation: A View from the Trenches." *Journal of Money, Credit, and Banking* 36 (2): 151–75.

Orphanides, Athanasios, and John C. Williams. 2005. "The Decline of Activist Stabilization Policy: Natural Rate Misperceptions, Learning, and Expectations." *Journal of Economic Dynamics and Control* 29 (11): 1927–50.

Romer, Christina D. 2005. "Origins of the Great Inflation: Commentary." *Federal Reserve Bank of St. Louis Review* 87 (2): 177–85.

Romer, Christina D., and David H. Romer. 1989. "Does Monetary Policy Matter? A New Twist in the Spirit of Friedman and Schwartz." *NBER Macroeconomics Annual*, 4: 121–170.

Romer, Christina D., and David H. Romer. 2002. "The Evolution of Economic Understanding and Postwar Stabilization Policy Perspective." In *Rethinking Stabilization Policy, A Symposium Sponsored by the Federal Reserve Bank of Kansas City*, 11–78. Jackson Hole, Wyoming: Federal Reserve Bank of Kansas City.

Volcker, Paul A. 1979. "Transcript of Press Conference with Paul A. Volcker." American Bankers Association Annual Convention, New Orleans, October 9, 1979. http://fraser.stlouisfed.org/historicaldocs/787/download/27895/Volcker_19791009b.pdf.

Weise, Charles L. 2008. "Private Sector Influences on Monetary Policy in the United States." *Journal of Money, Credit, and Banking* 40 (2–3): 449–62.

Weise, Charles L. 2012. "Political Pressures on Monetary Policy During the US Great Inflation; Dataset." *American Economic Journal: Macroeconomics*. http://dx.doi.org/10.1257/mac.4.2.33.

Wells, Wyatt C. 1994. *Economist in an Uncertain World: Arthur F. Burns and the Federal Reserve, 1970–1978*. New York: Columbia University Press.