LESSONS FROM HISTORY FOR SUCCESSFUL DISINFLATION

ONLINE APPENDIX E:

NARRATIVE EVIDENCE ON THE ENDS OF DISINFLATIONARY EPISODES

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This appendix provides a description of the narrative evidence about when monetary policymakers moved away from active disinflationary policy in each episode. It also discusses whether monetary policymakers stopped because they had achieved their inflation goal. For cases where policymakers ended active disinflationary policy before inflation was reduced, we describe the reasons given for the premature end.

October 1947. Monetary policymakers did not stop pursuing active disinflationary policy until it became clear in early 1949 that the economy was weakening and there was no longer inflation. There continued to be clear statements of a willingness to accept output losses to reduce inflation, and of a desire to get the inflation down to zero, through late 1948. At the October FOMC meeting, despite thinking "that inflation was in the process of wearing itself out, that the prospect was for moving sidewise or even downward, [and] that a serious downturn was unlikely," the recommendation of Associate Economist John Williams was that "the present Federal Reserve policy directed toward the raising of short-term interest rates should be continued as vigorously as possible" (*Minutes*, 10/4/1948, p. 5).[1] The FOMC's Economist, Woodlief Thomas, recommended tight policy to decisively address inflation sooner rather than later: he "stated … that if present demands for credit were not met the inflation might be broken at this stage, and that the Federal Reserve System should use such restraints as it had to avoid a worse collapse later on" (p. 4).

But by the meeting of February 28 and March 1, 1949, monetary policymakers' outlook had changed sharply. Thomas "referred especially to recent declines in prices," and went on to say that "the outlook continued to offer the possibility of a resumption of inflationary developments as well as a possibility of a sharp deflationary development …. He expressed the view that the more likely development would be the intermediate stage [that is, between a resumption of inflation and sharp deflation] with no more than a moderate recession" (*Minutes*, 2/28/1949, p. 4). Federal Reserve Bank of New York President Allan Sproul referred to the "changing business and credit conditions," and, echoing Thomas, saw the most likely possibility path for the economy as intermediate between "a temporary hesitation with inflationary pressures being resumed later in the spring" and "the beginning of a downward spiral of deflation" (*Minutes*, 3/1/1949, p. 11). Governor Lawrence Clayton referred to "the cessation of credit expansion and the growing opinion that the economy might be facing a depression" (p. 15), and went on to say that the argument for "an increase in the short-term rate on the grounds that it would be an anti-inflationary measure … was not now applicable" (p. 16). Similarly, Sproul said that "a further increase in the discount rate … would be interpreted as an indication of an anti-inflationary policy which would be difficult to justify" (pp. 12–13). Thus, it is clear that monetary policymakers had ended their anti-inflationary policy by March 1949, and that they did so because they believed they had likely achieved their objective of ending inflation.

The records of monetary policy for this period are relatively thin. The full FOMC met infrequently, and the Executive Committee generally focused only on narrow tactics. It is therefore difficult to determine when exactly to date the policy shift. Three considerations lead us

[1] The narrative monetary policy records referenced in this appendix are available on the Federal Reserve website: https://www.federalreserve.gov/monetarypolicy/fomc_historical.htm. In 1967, the historical *Minutes* were replaced by a document called the *Memorandum of Discussion*, which contained virtually the same type of records of policy discussions. In what follows, the in-text references to both the historical *Minutes* and the *Memorandum of Discussion* are identified simply as *Minutes*. The transcripts of FOMC meetings are identified as *Transcripts*.

to date it at the end of the October 1948–March 1949 period—that is, in March 1949. The first and most important stems from the fact that the only meetings of the full FOMC between October 1948 and the February/March 1949 meeting were in November 1948. There was some anti-inflationary language at the November meetings, such as a reference by Federal Reserve Chairman Thomas McCabe to "continuing inflationary pressures which called for an increase in the [short-term interest] rate" (*Minutes*, 11/15/1948, p. 4). But more importantly, there was nothing close to any explicit indication of a shift in policy; this suggests that there was no large change, and leaves the February/March 1949 meeting as the next time when there plausibly could have been a significant shift. Second, and relatedly, the monthly average 3-month Treasury bill rate rose slightly from July 1948 through January 1949 and remained steady through March 1949 (although it did not actually decline until July). Third, we find the contrast between McCabe's testimony in February 1949 and his testimony at his next Congressional appearance in May instructive. In February, he expressed hope that "the inflation may have run its course" (McCabe testimony, 2/14/1949, p. 1).[2] But he said only that "[i]t is possible but it is by no means certain that … additional restraints for anti-inflation purposes will not have to be applied. … [N]o one can be sure that inflationary dangers are over rather than merely interrupted" (p. 3). Consistent with the focus of policy since 1947, the purpose of his testimony was to make the case for additional tools to combat inflation. But in May, it was clear that policy had changed sharply. He reported, "inflationary pressures have abruptly abated," and, "With the passing of the inflationary crest we acted promptly to relax credit restraints" (McCabe testimony, 5/11/1949, pp. 6 and 3).

August 1955. There was not a sharp or sudden shift away from the Federal Reserve's anti-inflationary policy in this episode. However, there was a substantial softening around April 1956. Starting roughly then, monetary policymakers saw even clearer evidence of actual inflation than they had seen before. For example, Associate Economist Ralph Young, reporting on the business situation, said in April: "At mid-April, the average [of industrial prices] was 5 per cent above the average for the first half of last year" (*Minutes*, 4/17/1956, p. 4). As another example, Federal Reserve Bank of New York President Alfred Hayes reported in August, "The sizeable increases in steel workers' wages and steel prices are likely to start a chain reaction in other industries. Already there is some evidence that this is taking place. … Prices in many areas seem to confirm a tendency for effective demand to outrun available resources. In June, the consumer price index rose to a new high record, and a further increase is probable" (*Minutes*, 8/7/1956, p. 9).

However, the FOMC did little in response to the evidence of inflation. There were still scattered indications of a desire to eliminate inflation. In June for example, FOMC Economist Woodlief Thomas "stated that he had come to the conclusion that the Committee's interest was primarily in the money supply and the projection of a supply that would not permit inflation" (*Minutes*, 6/5/1956, p. 8). But the Committee seemed to have little interest in taking significant steps to achieve this goal. A typical meeting ended with "no change should be made in the Committee's policy at this time" (*Minutes*, 4/17/ 1956, pp. 21–22), or at most with a decision to "tend to resolve doubts on the side of tightness" (*Minutes*, 8/7/1956, p. 34). Broadly consistent with this, the monthly average 3-month Treasury bill rate was essentially flat from December 1955 to August 1956. We therefore date the end of the disinflationary policy as occurring in April 1956.

The reason for this backing off from active disinflationary policies was not that monetary

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[2] Speeches and testimonies of Federal Reserve chairs are accessed from FRASER (Federal Reserve Bank of St. Louis, 1946–2016), https://fraser.stlouisfed.org. The materials are found by searching under the title: "Statements and Speeches of [Federal Reserve Chair name]."

policymakers viewed some inflation as unobjectionable. Any rise of prices above previous peaks was noteworthy and concerning (as with the statement above about "a new high record"). For example, Federal Reserve Bank of Kansas City President H. Gavin Leedy, after listing a series of problems in the economy, said that "most disturbing, ... the price level is increasing" (*Minutes*, 9/11/1956, p. 24). Monetary policymakers stopped pursuing active disinflationary policy despite not having achieved their objective.

Instead, the source of the FOMC's failure to continue its active disinflationary policy appears to have been that it viewed both its power and its responsibility as limited—consistent with the reasons we describe in Section II of the paper for concluding that commitment was only moderate at the start of this episode. The inability of monetary policy to address inflation without support from business and labor was a constant theme in this period. In a speech in May 1956 (echoing his "punch bowl" speech of the previous year), Federal Reserve Chairman William McChesney Martin said that the Federal Reserve "cannot do the whole job. ... If businessmen, bankers ... stay on the sidelines, concerned only with making profits, letting the Government bear all the responsibility and weight of guidance of the economy, we shall surely fail" (Martin speech, 5/4/1956, p. 16; see also Martin speech, 1/6/1956, p. 4, and testimony, 2/7/1956, pp. 7–8). As another example, New York Vice President William Treiber (serving as an alternative for Hayes) said, "People are questioning whether there will be enough self-restraint on the part of labor in pressing its demands, and on the part of management in raising prices, to avoid another turn in the cost-price spiral" (*Minutes*, 6/5/1956, p. 10). Such considerations led Hayes to say in August, "monetary measures at best are probably of only limited effectiveness against a cost inflation such as we now face" (*Minutes*, 8/21/1956. p. 12).

The result was considerable sentiment that monetary policy had done its part even though inflation was continuing. In June, Governor James Vardaman "felt that the System had accomplished to a large extent what it set out to accomplish: it had awakened the economy to the dangers of inflation. Now the System could afford to coast along and not make conditions any tighter" (*Minutes*, 6/5/1956, pp. 17–18). In August, St. Louis Federal Reserve Bank President Delos Johns cited "danger that the monetary authorities might attempt to do more than they can reasonably be expected to do and to assume more responsibility than really belongs to them" (*Minutes*, 8/7/1956, p. 11); and Hayes said that policy "has been successful in restricting the growth of the money supply," and that "while continuance of a general policy of restraint is justified, we are inclined to doubt whether the use of open market operations to effect appreciably greater restraint would be justified" (*Minutes*, 8/21/1957, p. 11). Martin, after saying in August that he "did not know how much the System could do to deal with these forces but that it should be doing whatever it could" (*Minutes*, 8/7/1956, p. 33), said in September that "[w]e must also constantly keep in mind the question of how much money and credit policy can do .... [M]onetary and credit policy can possibly not do more than wave a red flag at the dangers presented. The Committee should wave this red flag, ... but against the Juggernaut of Government spending, and against the Juggernaut of inflationary prices, it should not persuade itself that monetary and credit policy will be successful in halting what is occurring" (*Minutes*, 9/11/1956, p. 35).

September 1958. As in the 1947 episode, monetary policymakers did not switch away from their active disinflationary policies until they had considerable evidence they had achieved their objective. The FOMC continued to actively pursue disinflationary policy through the end of 1959. In September, Federal Reserve Bank of New York Vice President William Treiber (serving as an alternate for President Alfred Hayes), still considered it noteworthy that the most recent data showed that "consumer prices rose ... to an all-time high" (*Minutes*, 9/1/1959, p. 11),

suggesting that policymakers still viewed any positive inflation rate as undesirable. Committee Economist Woodlief Thomas continued to express the view that "price increases during boom periods … have been great enough, along with failure of prices to decline during recession, to lend support to the view that creeping inflation is inevitable," and said, "Acceptance of this view by many people in business, academic circles, and Government, lies at the heart of many of the difficult problems that face the System at this time" (*Minutes*, 9/22/1959, p. 8). And Associate Economist Ralph Young referred to the current "anti-inflationary monetary policy" (p. 7). Federal Reserve Chairman William McChesney Martin said in a speech, "The thing that concerns us all is that for almost 10 years the trend of prices has been generally upward even though we have not been engaged in any major conflict. This recent experience has led some people to the erroneous conclusion that inflation is inevitable" (Martin speech, 10/16/1959, p. 1). At the final FOMC meeting of the year, Martin said that "the System had maintained a consistent … course" over 1959 (*Minutes*, 12/15/1959, p. 43).

In early 1960, the FOMC gradually swung toward the view that it might have succeeded in defeating "inflationary psychology"—that is, the belief that inflation was normal. At the first meeting of the year, Associate Economist Guy Noyes reported, "in the forecasts for 1960 one finds much less assurance of the inevitability of inflation than in their counterparts of a year ago" (*Minutes*, 1/12/1960, p. 7). At the next meeting, Governor George King referred to the possibility "that the public was turning toward an expectation of less inflation" (*Minutes*, 1/26/1960, p. 27), and Federal Reserve Bank of Atlanta President Malcolm Bryan "said that he sensed a real shift in inflationary psychology" (pp. 31–32). In March, numerous participants expressed views along these lines (although there was not unanimity). Federal Reserve Bank of New York President Alfred Hayes said: "Price developments … have been rather satisfactory. The decline in the stock market may to some extent reflect the emergence of some less fatalistic views with respect to creeping inflation. Consumer and wholesale price indices have been generally stable, and sensitive prices have tended to decline" (*Minutes*, 3/1/1960, p. 31). Federal Reserve Bank of Dallas President Watrous Irons said that "businessmen and bankers in the district … were less inflation minded" (p. 37). King "suggested that the System might be entering a new era of monetary policy. … In the past, the System constantly had to be on guard against further expansion, but it would now have to become more sensitive to the other side of the problem as well" (pp. 56–57). Martin spoke about the issue at length, saying that "[i]n his view, the System had done a better job than it could have hoped for" (p. 67), going on to raise the possibility of "a long-run solution to the problem of inflation over the next few years" (p. 68), and reporting that "a leading student in the field … thought that inflationary psychology had diminished a great deal in the last three months" (p. 69) and, "Manufacturers who had subconsciously accepted [inflation] as part of the profit margin might now find themselves in the position of seeing their cost-price relationships changed" (p. 70).

With the exception of a decision for "'slight but not visible' easing" in February 1960 (*Minutes*, 2/9/1960, p. 59), the FOMC chose to keep policy unchanged until March. But in March, responding to the important shift they saw in the inflation situation (as well as, it should be noted, their perception of a weakening economy), the committee voted for what was described as by Martin as "moderately less restraint" or "slightly less restraint" (*Minutes*, 3/1/1960, p. 71). The FOMC also modified the policy directive to replace the phrase "restraining inflationary credit expansion in order to foster sustainable economic growth and expanding employment opportunities" (*Minutes*, 5/26/1959, p. 62), which had been in effect since the previous May, with "fostering sustainable growth in economic activity and employment while guarding against

excessive credit expansion" (*Minutes*, 3/1/1960, p. 74). Consistent with this, the monthly average Federal funds rate was virtually flat from October 1959 through February 1960 before beginning to fall in March.

This evidence points to March 1960 as the best choice for dating the shift away from anti-inflationary policy. There were some indications in January, but no explicit decision to ease; and in February, there was little clear discussion and only a decision to ease a tiny amount. In March, in contrast, the discussion of their seeming success in addressing inflation and inflationary expectations was extensive, the directive was changed, and there was an explicit decision to ease.

December 1968. The FOMC initiated a disinflationary policy in December 1968. In the fall of 1969, the Board staff began pushing for less restraint. For example, in early October, FOMC Economist Charles Partee told Committee members: "it seems to me that policy has now essentially accomplished its objective of cooling off the economy to a point where inflationary forces will face an increasingly hostile environment. Accordingly, I believe that the Committee should now consider taking the first steps toward a posture that will be more sustainable for the longer run, by which I mean a policy that would encourage a resumption of moderate monetary expansion" (*Minutes*, 10/7/1969, p. 33). But, the FOMC did not go along. In late October 1969, Vice Chairman Alfred Hayes expressed a common view that: "We are still a long way from achieving our objective of checking the inflationary spiral, and there is room for doubt as to whether a sufficient cooling of the economy is in the offing. Under these conditions I believe we should make no change in our policy of firm restraint" (*Minutes*, 10/28/69, pp. 52–53).

By the December 1969 FOMC meeting, a handful of members were pushing for less restraint. However, the majority continued to feel that continuing active disinflationary policy was still the appropriate course for policy. For example, Federal Reserve Bank of Dallas President Philip Coldwell said: "In his opinion, the Committee had to continue to accept the risks entailed in a severely restrictive monetary policy" (*Minutes*, 12/16/1969, pp. 59–60). Chairman Martin agreed, saying: "skepticism about the effectiveness of monetary restraint had almost disappeared. However, growing skepticism about fiscal policy was offsetting much of what had been achieved in the area of expectations. He thought the Committee had no real choice today except to maintain its present policy" (p. 67).

The first notable weakening of anti-inflationary policy occurred at the January 1970 FOMC meeting. Again, FOMC Economist Partee urged easing despite the fact that "[p]ressures on costs and prices remain intense," saying: "I continue to believe that the Committee should consider taking the first steps toward ... a careful and gradual easing up in the System's exceptionally restrictive open market policies" (*Minutes*, 1/15/1970, p. 34). Partee's view that inflation remained a significant problem was seconded by the Open Market Manager who said: "with unemployment continuing at a low level and prices continuing to rise, there were few in the market who seemed to feel that the anti-inflationary program was really beginning to bite" (p. 24). A number of FOMC members spoke in favor of easing. For example, Hugh Galusha, President of the Federal Reserve Bank of Minneapolis, said: "that there had been some slight progress in the fight against inflation and that the time had come for a modest change in Committee policy" (p. 66). Likewise, W. Braddock Hickman, President of the Federal Reserve Bank of Cleveland, said: "the System should move promptly towards moderately less restraint implemented by open market operations" (p. 91). Chairman Martin agreed, saying: "he thought the time had clearly come for some adjustment in monetary policy" (p. 101). The directive from this meeting called for modest growth in bank credit and money, but the Open Market Manager thought that might be

accomplished with no change in money market conditions (p. 108).

This weakening of the disinflationary policy became more overt at the February 1970 FOMC meeting, which was Arthur Burns's first as Chairman. At this meeting, the staff forecast for 1970 was "that we will be undergoing a period of substantial economic weakness during at least the first half of this year. Whether the adjustment now in process will ultimately be characterized as a recession is uncertain. … The progress we can realistically expect in getting inflation under control in 1970 is, in any case, distressingly small" (*Minutes*, 2/10/1970, p. 39). Burns began the meeting by saying: "that in his judgment economic developments had reached a point at which a rethinking of monetary policy was in order" (p. 3). Burns proposed a gradual but clear drop in interest rates (p. 84). Members split on whether his proposal was too aggressive or not aggressive enough. It passed with three dissents.

Because the change in policy was obvious at the January 1970 FOMC meeting, that is when we date the effective move away from active disinflationary policy in this episode. Data on the federal funds rate confirm a retreat from active restraint around this time. The monthly average funds rate held steady between January and February 1970, but then dropped more than a percentage point in March. Overall, the monthly funds rate declined from a peak of 9.2 percent in August 1969 to 4.9 percent in December 1970.

Because policymakers clearly perceived inflation as still above the desired level and unlikely to fall, the end of the 1968 disinflationary episode is a case of premature stopping. Thus, it is necessary to investigate the reason for the policy change.

One reason for the easing was a sense that the Federal Reserve had done all that it could do. Economist Partee told the Committee at the January 1970 FOMC meeting that: "we now have additional evidence that economic activity has ceased to rise in recent months," and "Pressures on costs and prices remain intense, but there is not much more that monetary policy can reasonably do about this once the excessive demand conditions aggravating the problem have been curtailed" (*Minutes*, 1/15/1970, pp. 31 and 34). This view was seconded by Federal Reserve Bank of Richmond President Aubrey Heflin, who said: "the degree of restraint the Committee had maintained in recent weeks might no longer be appropriate. That posture had been directed at forcing a significant slowdown in the rate of spending growth. If the economy had slowed as much as was now indicated, that objective had been achieved" (p. 76).

A more important motivation for the change in policy appears to have been concern about the relatively small output losses that were emerging. At the January FOMC meeting, Federal Reserve Bank of Boston President Frank Morris said: "the evidence seemed clear to him that the economy was moving into a contraction phase. Thus far, the figures suggested that the correction would be modest in amplitude—not of true recession proportions. Nonetheless, he thought it was important that the change in the economic climate be reflected promptly in at least a modest change in policy orientation" (*Minutes*, 1/15/1970, p. 50). Hugh Galusha, President of the Federal Reserve Bank of Minneapolis said that continuing with disinflationary policy would "be too risky" (p. 66). Chairman Martin, in his often somewhat inscrutable way, may have been agreeing with this motivation when he said that "he thought the time had clearly come for some adjustment in monetary policy. … On the theory that steel which bends is better than iron which breaks, he favored backing off slightly from the present posture" (p. 101).

At the February 1970 meeting, concern about a mild downturn again was a major motivation for loosening. For example, George Clay, President of the Federal Reserve Bank of

Kansas City, said: "In view of the current and projected slowdown in real economic growth but still reflecting concern over the price inflation outlook, it would seem appropriate to permit modest growth in the financial aggregates" (*Minutes*, 2/10/1970, p. 68). Chairman Burns also expressed that view, saying: "As he assessed the evidence, it was consistent with the hypothesis that the economy was now entering a recession, although it did not prove that to be the case. He thought the Committee could not afford to ignore that possibility, nor could it ignore the evidence assembled by its own staff" (p. 86.).

A fairly minor reason given for moving away from disinflationary policy in this episode was the political economy argument that if monetary policy did not ease, fiscal policymakers would counteract the effects of monetary contraction with fiscal stimulus. For example, Frank Morris, President of the Federal Reserve Bank of Boston, said: "He would expect budgetary control to be abandoned immediately if the Congress and the Administration were to decide that the country was in a recession. The only way to maintain any sort of budgetary discipline was to avoid a recession. It was for that reason that he believed a mildly restrictive monetary policy would contribute more to the creation of an environment for fiscal sobriety than the present severely restrictive policy" (*Minutes*, 1/15/1970, p. 51). Likewise, President Clay said: "Another serious handicap was the probable role of fiscal policy. Placing less reliance on monetary policy through a balanced monetary-fiscal approach would not only be more effective, but it would lessen some of the financial distortions and risks associated with the heavy reliance on monetary policy" (p. 72).

April 1974. Monetary policymakers remained actively focused on reducing inflation at least through August 1974. In July, for example, when FOMC Senior Economist Charles Partee described the projected path of real output as "an outcome which would appear to be unacceptable from a public policy point of view" and suggested "a temporary step-up in the target growth rate for M_1" (*Minutes*, 7/16/1974, pp. 22 and 31), the Committee disagreed emphatically. Numerous members, including Federal Reserve Chairman Arthur Burns and Federal Reserve Bank of New York President Alfred Hayes, said they viewed the projected output losses as acceptable to get inflation down and believed the public shared that view. Hayes "agreed with [an earlier speaker] that the public would be willing to accept slow growth in real output in order to achieve effective inflation control" (p. 27). He also "thought the battle against inflation might be entering a critical stage .... [A] monetary policy capable of bringing that fight to a successful conclusion would entail risks. It now appeared that it would be necessary to live with those risks for some time to come" (p. 55). Burns said that "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" (p. 34). And he agreed with the view of Hayes and others that there should be no change "in the degree of restraint at this time" (p. 59).

In August, the staff outlook implied that "the chances of avoiding a recession [had] become rather bleak" (*Minutes*, 8/20/1974, p. 17), with "negative real growth through much of the period" through the end of 1975 (p. 20). Similarly to his views in July, Partee "felt very strongly that the time had come to raise the longer-run targets for growth in the aggregates" (p. 54). The consensus of the Committee, however, was that it should "for the period until the next meeting continue its policy essentially without change" (p. 53). But there were beginning to be qualms. Federal Reserve Bank of Boston President Frank Morris was concerned that continuing with tight policy in the face of economic weakness would lead to "a wave of business failures next year larger than any witnessed since the 1930's" (p. 41), and thought "the projected real GNP probably represented the

maximum sacrifice that was socially acceptable in the fight against inflation" (p. 70). Federal Reserve Bank of Minneapolis President Bruce MacLaury argued that "the deterioration in the outlook for real GNP—even though accompanied by prospects for a more rapid increase in prices than had been projected earlier—argued against [not changing policy]. The System ought to provide some sort of a signal that it was taking account of the weaker projections of real activity" (p. 64).

In September, the qualms were greater. Governor John Sheehan "felt that the greatest hazard concerning the present stance of monetary policy was that the decline in economic activity would go too far" (*Minutes*, 9/10/1974, p. 70); Governor Jeffrey Bucher judged that "the staff projections were beginning to suggest that the price—in terms of foregone output and employment—that would be paid for not having a little more patience in dealing with inflation was too high" (p. 75); Associate Economist Lyle Gramley "believed that the time had come to make a rather significant move toward easing monetary policy" (p. 67); and MacLaury "agreed with Mr. Gramley's policy prescription and with his rationale for it in terms of economic prospects" (p. 78). However, a large majority of the members were clear that because of their desire to reduce inflation, they preferred no real growth for an extended period to a strong recovery. For example, Burns said that he "he would not wish to see a prompt recovery in economic activity. If recovery began promptly, economic activity would turn up at a time when inflation was continuing at a two-digit rate" (p. 65).

By October, however, the Committee's focus had clearly shifted to mitigating the downturn. The reason for the shift was *not* that monetary policymakers believed they were on track to deal with inflation. On the contrary, there was general agreement that inflation remained a severe problem. Partee's comments about inflation included, "labor costs and prices are expected to continue climbing at a fast pace," "we do not see the basis for expecting any quick reduction in the rate of inflation," and "the outlook for inflation also remains distressingly poor" (*Minutes*, 10/14–15/1974, pp. 25, 27, and 28). Burns commented that "inflation was continuing at a two-digit rate. It remained a serious worldwide problem that threatened not only the economic system but social and political institutions as well" (p. 61).

Nonetheless, the outlook for the real economy received much more attention, with only a handful of members arguing for continuing to make disinflation the primary focus. One reason for the shift was simply that monetary policymakers thought the projected output losses were too large. Federal Reserve Bank of Dallas President Philip Coldwell, who was typically a strong advocate of focusing on disinflation, said that "the problem in the period ahead was to halt the decline in activity before it became too deep" (*Minutes*, 10/14–15/1974, p. 43). MacLaury "remarked that the prospective slack in the economy was counter-productive in that the decline in activity would be excessive in relation to its effect in reducing the rate of increase in prices" (p. 78). Similarly, Partee said, "The outlook for real economic activity is weak—too weak to be sustained for long without serious economic dislocations and unacceptable material and social costs. … [T]he additional weakness that appears now to be developing in the economy is counter-productive. It … will serve little purpose in further dampening inflationary forces" (p. 28). And of the Board of Governors Vice Chairman George Mitchell "was concerned about the possibility of the recession becoming serious," and said that "it appeared critical to attempt to bring long-term interest rates down to levels that would improve the effectiveness of the longer term markets for funds" (p. 66).

The other main argument for concentrating on mitigating the downturn was that a

significant recession would produce an overreaction from fiscal policymakers. MacLaury cited the likelihood that the projected slack "would lead to a counteraction" as a second reason it would be counterproductive (*Minutes*, 10/14–15/1974, p. 78). Partee had the same view, saying that it "will create strong demands for remedial action" (p. 28). And Morris "said he believed that monetary policy had to be formulated on the assumption that the deeper the recession proved to be, the greater were the probabilities that Government policies adopted to combat it would produce too sharp a recovery" (p. 69).

Based on these considerations, Burns said that "a decision at this meeting to ease money market conditions somewhat further would be appropriate" (*Minutes*, 10/14–15/1974, p. 62), and the Committee adopted his suggested policy. The Committee did not entirely drop its concern about inflation, however. For example, Burns said that the continuing inflation meant that "monetary policy should remain moderately restrictive" (p. 62). Nonetheless, the decision drew a dissent from Federal Reserve Bank of Kansas City President George Clay, who was one of the few participants arguing for a continuing focus on inflation despite the output costs, saying that he "would like to get the full benefits of the policy course that the Committee had been following, even though he recognized that that course caused problems for some individuals and businesses" (p. 80). Consistent with the shift in focus, after many months when Burns had consistently cited inflation as the fundamental problem facing the economy in his public statements, in Congressional testimony in November he referred to "the twin economic problems plaguing us in 1974—namely, high rates of inflation and weakness in production" (Burns testimony, 11/27/1974, p. 2).

The behavior of the federal funds rate is also broadly consistent with our conclusion that the FOMC's focus shifted away from reducing inflation in roughly October 1974. The monthly average funds rate peaked at 12.92 percent in July 1974 and then fell steadily to 5.54 percent in March 1975. The fall from July through early September 1974 appears to have been a largely a tactical shift in response to a slowing economy and low growth of the money supply (and was in fact accompanied by a notable rise in the 3-month Treasury bill rate), with no backing off from the focus on bringing inflation down and being willing to accept output consequences to do so. The declines following the September and October FOMC meetings were still in considerable part responses to short-term developments, but they also reflected broader changes in the Committee's concerns. In September, despite not wanting a prompt recovery, Burns "believed that somewhat lower interest rates had become appropriate and truly desirable in view of the tensions existing in financial markets and of the dangerously depressed conditions in the stock exchanges" (*Minutes*, 9/10/1974, p. 65). And in October, he said that "a decision at this meeting to ease money market conditions somewhat further would be appropriate. Growth in the monetary aggregates had been sluggish in recent months; the home building industry was experiencing severe difficulties, … and security markets were not functioning as well as desired," though he added that "[i]t was important, however, that the Committee avoid easing policy too much" (*Minutes*, 10/14–15/1974, p. 62).

We therefore date the end of the anti-inflationary policy that began in April 1974 as occurring in October 1974.

August 1978. When policymakers shifted away from disinflationary policy in this episode is somewhat ambiguous because the federal funds rate never actually declined before the next disinflationary shock in October 1979. It did, however, clearly plateau. After rising sharply in the second half of 1978, the funds rate was roughly unchanged at 10 to 10¼ percent from roughly

December 1978 through June 1979. This plateau occurred at the same time that inflation was widely understood to be rising. That policymakers did not respond to rising inflation suggests at the very least a significant weakening of the disinflationary policy sometime in this six-month period.

The March 1979 FOMC meeting is when the failure to respond to worsening inflation became most obvious. James Kichline, an Associate Economist, told the Committee: "In the staff's judgment, economic activity has moderated this quarter and will continue to slow, and the boom scenario appears a very unlikely outcome. Even so, near-term inflation prospects are dismal and the Administration's wage-price restraint program is in a great deal of difficulty" (Presentation materials, 3/20/1979, Kichline, p. 1). The staff forecast was for inflation (as measured by the gross business product deflator) to rise 8.75 percent over 1979 (p. 4). At the meeting, Federal Reserve Chairman G. William Miller reported that the flash estimate of the GDP deflator for 1979Q1 was 10 percent (*Transcript*, 3/20/1979, p. 8). FOMC Vice Chairman Paul Volcker said: "One doesn't have to speculate to see that inflation is a lot worse. In my view we'll be lucky if that Commerce figure stays at 10 percent for the first quarter when the final number comes out" (p. 10). A number of FOMC members said the worsening inflation called for further tightening. For example, Volcker said: "this is the time for some firming rather than the reverse. I think we are at a critical point in the inflation program, with the tide against us. If we don't show any response at all, we are giving an unfortunate signal in my judgment. I believe those concerned about inflation would find no response during this period almost inexplicable in terms of what we say regarding our worries about inflation" (p. 10). Likewise Federal Reserve Bank of Dallas President Philip Coldwell said: "From a policy standpoint, I think we have to balance some of the risks. Are we willing to risk a further surge in inflation, carrying it up beyond the 10 percent the Commerce Department is talking about in the first quarter and perhaps even up to a figure in the 15 percent area? I would view that [development] as perhaps one of the most debilitating to our entire economy of anything [that could happen]" (p. 22, bracketed material in the original). Governor Henry Wallich said: "I think if we fail to do something that recognizes the threat of greater inflation, we will really add to that inflation. A demonstration [of our anti-inflationary resolve] is needed (p. 23, bracketed material in the original). Nevertheless, the Committee voted to maintain the funds rate at its prevailing level and to raise the M1 target range slightly. The decision drew four dissents in favor of tighter policy.

This inaction in the face of worsening inflation was also clearly evident at the April 1979 FOMC meeting. In his presentation, Kichline said: "On the inflation side the outlook has deteriorated and we have made further upward adjustments to the forecast" (Presentation materials, 4/17/1979, Kichline, p. 3). Once again, Volcker called for more action. He said: "We talk about gradually decelerating the rate of inflation over a series of years. In fact, it has been accelerating over a series of years and hasn't yet shown any signs of reversing;" and "I still am of the view that some greater degree of restriction would be more appropriate than the reverse [and] more appropriate than standing still" (*Transcript*, 4/17/1979, p. 16, bracketed material in the original). Coldwell concurred, saying: "I would point out to the Committee that we've had several months now of status quo and in that several months we've had at least a 3 percentage point increase in the inflation rate. And I can see some more if we don't act" (p. 17). Chairman Miller had a very difficult time getting a majority for any directive, but the majority finally agreed again on no change in the funds rate.

Monetary policymakers were clearly aware that holding the funds rate constant in the face of rising inflation was resulting in a fall in real interest rates. At the April 1979 FOMC meeting,

Volcker said: "My observation would be that the expected rate of inflation has increased somewhat in the last six months and the nominal rate of interest has not. Therefore, the real rate of interest has declined ..., so I think policy has probably gotten somewhat easier" (*Transcript*, 4/17/1979, p. 16). Likewise, in testimony to Congress at the end of February, Miller said: "Real interest rates—or market rates adjusted for inflation—still appear to remain low by historical standards and thus continue to facilitate an expansion of overall demands" (Miller testimony, 2/22/1979, p. 4). That policymakers understood that low and falling real interest rates were stimulating demand in this period is consistent with the view that policymakers had moved away from an active attempt to reduce inflation around this time.

Though a number of dates are plausible for the move away from active disinflationary policy, the most obvious month to date the switch is March 1979. This was when the discussion was most heated, and a core group of the FOMC argued further tightening was essential to continuing the disinflationary policy. The majority of the Committee, however, made a clear decision to not respond to worsening inflation.

Given the inflation data discussed at the FOMC meetings in the spring of 1979 and the staff's projections that inflation would rise over the next several quarters, it is clearly not the case that the disinflationary policy was weakened in March 1979 because policymakers' inflation goals had been met. Thus, this is a case of premature easing. However, it is a somewhat peculiar one because the easing came from an act of omission rather than commission. To understand the reason for the policy weakening, we need to identify why the majority chose not to respond to rising inflation.

One factor that may have played a role was that the Committee was watching the monetary aggregates closely, and money growth was below the FOMC's target. Stephen Axilrod, the FOMC's Economist, explained that the staff believed there had been a significant downward shift in the public's money demand at a given interest rate (*Transcript*, 3/20/1979, p. 5). Nevertheless, some members took the money growth numbers as a reason for easing (or at least for standing pat). Chairman Miller, for example, put the aggregates at the center of his support for not responding to inflation. He said (p. 25, bracketed material in the original):

> With all of that, my thought would be that the right posture now is one of seeking to [guide] the aggregates back toward our ranges, but not doing so with undue acceleration or signals of undue concern by moving too rapidly. I would be more patient for the reason that I think the economy is going to pursue its own course right now. Nor do I think we ought to start to send any particular signals of unusual tightening or monetary restraint because that wouldn't do much in the short term and in the long term it would work against our desire, if we believe in our own ranges and the objective of getting back inside the ranges. For that reason I would be inclined to take a moderate course of more or less even keeling where we are.

The reasoning of most of the other FOMC members who cited the monetary aggregates as an explanation for not tightening drew a line from the slow growth of the aggregates to fear that the economy was slowing. As discussed in Section II and Online Appendix B, policymakers in this episode put strict limits on how much output loss they were willing to accept to bring inflation down. In particular, they expressed a strong desire to avoid a genuine recession. The FOMC members who argued in favor of easing in March 1979 and after often cited recession concerns as a key reason. For example, Governor Charles Partee said: "So, I would have to say, looking at the real economy as well as the monetary numbers, that I now believe a recession is very likely—a recession which at this point the Federal Reserve will have done nothing about. We will have made

no effort to block it in any way. We will have sat here again, seeing very weak monetary aggregates as a precedent to the recession phase. I believe we're in considerable danger of that happening" (*Transcript*, 3/20/1979, pp. 11–12). Similarly, David Eastburn, President of the Federal Reserve Bank of Philadelphia, said: "My own conclusion, even after all these adjustments one might want to make, is that the weak money supply is telling us that the economy is going to be weaker in the future, and that that would call for a different policy prescription" (p. 7). Federal Reserve Bank of St. Louis President Lawrence Roos concurred, saying: "if we look back in history, most of the postwar recessions that have occurred … have been preceded by an abrupt reduction in the rate of money growth that has persisted for two or more quarters. … So based on that analysis, which is not one to be taken lightly, I think if we're going to err, we should err at this time in the direction of moving toward slightly expanded growth in the monetary aggregates rather than anything of a restrictive nature" (p. 16). Frank Morris, President of the Federal Reserve Bank of Boston, was even more direct: "If it's our objective to avoid a recession, I think we have to move today; I don't think we can wait for another month" (p. 21). Thus, a key reason for the weakening of the anti-inflationary policy in 1979 was that the Committee feared that the output consequences were threating to surpass their low threshold for acceptable losses.[3]

A second reason for moving away from disinflationary policy cited in this episode was the belief that monetary policy had done all that it could to deal with inflation. Miller expressed this view at the April FOMC meeting. He said of the prices of food, energy, and housing, which were surging: "We're going to lower those by tightening. That makes no sense at all. We're going to lower them by bringing the economy down to a lower rate of growth and damping demand and letting that work itself through the system in the 6, 12, or 18 months that it always has taken" (*Transcript*, 4/17/1979, p. 24). Partee said something similar: "I think we really ought to be easing. It's past time. We've already gotten ourselves into considerable difficulty with respect to the behavior of the real economy. And I agree that there isn't much we can do to restrain the kind of inflation we have now other than to encourage moderate demand over the long pull" (p. 25). Balles also joined in, saying: "Intuitively, one is tempted, of course, to tamp a bit harder on the credit brakes because of the recent news on inflation. Having taken a good hard look at what we might get out of that, I doubt if an increase in the funds rate would really give us any quick fix. Certainly it wouldn't do anything that I can see in the foreseeable future to affect the things that have been especially important in [causing] the recent increase in prices—namely what has been going on in food and in oil" (p. 19, bracketed material in the original). This belief that monetary policy was unable to deal with some types of inflation on its own was in keeping with what policymakers said at the time that they initiated the disinflationary policy, and one reason that we identified their commitment to disinflation as low.

A third reason given by FOMC participants for not continuing to actively fight inflation was the fear that fiscal policymakers would adopt expansionary fiscal policy to counter Federal Reserve inaction. For example, in March 1979, Morris said: "But the issue is whether we will be

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[3] A few FOMC members expressed the hope that inflation would eventually fall at least somewhat even if policymakers took no additional action. Federal Reserve Bank of Sans Francisco John Balles said: "So we're going through that usual agonizing period when the bad news comes now in terms of the damping the economy and the good news comes later—perhaps as much as a year later—when monetary restraint begins to show through on the price front. The real danger at the moment, therefore, is overstaying restraint" (*Transcript*, 3/20/1979, p. 19). Robert Black, President of the Federal Reserve Bank of Richmond, said: "I think we probably will see some abatement in inflation as a result of the past slowing in the aggregates" (*Transcript*, 4/17/1979, p. 13). This may be another reason that these members, at least, were willing to move away from anti-inflationary policy.

better off in 1980 with a 7 percent unemployment rate or an 8 percent unemployment rate. I'm inclined to believe that in the long run we will be better off with a 7 percent unemployment rate simply because that is likely to be more conducive to the maintenance of the kind of conservative fiscal policies that are now being talked about in the Congress" (*Transcript*, 3/20/1979, p. 21). In April, Black said: "And as a matter of political reality, if the recession is more serious than it otherwise might be, I think the political system is such that we're likely to have the kind of fiscal policy fallout that will aggravate inflation rather than help" (*Transcript*, 4/17/79, p. 13). And, in a speech in early May 1979, Miller said: "Finally, in monetary policy, we've been endeavoring to accomplish this [dampening of inflationary forces] without throwing the economy into a serious tailspin, into a serious recession. Such a recession would automatically result in increased Federal deficits, would automatically result in pressures for additional Federal spending and would automatically result in increased bias toward inflation which would start us off on a new treadmill and a new cycle the next time around" (Miller speech, 5/1/1979, p. 7).

October 1979. The behavior of the federal funds rate indicates a decided move toward ease in this episode starting in May 1980. Following the switch to disinflationary policy, the funds rate rose from 11.43 percent in September 1979 to 17.61 in April 1980. In May 1980, the funds rate fell to 10.98 percent; by July it was down to 9.03 percent. By any conventional standard, a fall in the funds rate of more than 8 percentage points suggests an abrupt move away from active disinflationary policy.

For policymakers at the time, however, the interpretation of their actions was less clearcut. A central component of the October 1979 disinflationary policy was a central focus on the growth rates of the monetary aggregates. Following the sharp rise in interest rates, as well as the imposition of credit controls in March 1980, both real output and money growth rates fell sharply. As Chairman Paul Volcker explained at the April 1980 FOMC meeting: "Let me say in connection with all of these confusing money figures and related numbers, that we took some actions in March that were unusual, to say the least, on consumer credit, on the voluntary program, on the money market funds, and all the rest. And we had interest rates at levels nobody ever saw before. I suspect this has led to some uncertainty and adjustments of a magnitude we can't quantify very well" (*Transcript*, 4/22/1980, p. 9). Because money growth was below target, some FOMC members believed the fall in interest rates did not indicate a move away from their disinflationary policy. For example, on a conference call in May 1980, Federal Reserve Bank of San Francisco President John Balles said: "I've written you a letter, which probably hasn't landed on your desk yet, hoping and urging that you would find an appropriate occasion to make a strong public statement as to why we have not resisted this decline of interest rates. [I'd urge you to say] that it does not mean we're [abandoning our] anti-inflation fight and to explain that it's to head off the unexpected and undesired absolute shrinking of the money supply" (*Transcript*, 5/6/1980, p. 2, bracketed material in the original). Volcker made just that case in a speech a week later, saying: "The sharp decline in interest rates has demonstrably reflected a fall in the demand for money and credit, not an increase in supply;" and "interest rates have not in any sense been "forced" lower—nor will they be at the expense of excessive growth in money and credit, at the risk of a resurgence in inflation and inflationary expectations" (Volcker speech, 5/14/1980, pp. 6 and 7). Lawrence Roos, President of the Federal Reserve Bank of St. Louis, concurred, saying: "As our Chairman has said repeatedly, as have others among us, accepting a reduction in interest rates in times like this should not be construed as an easing of monetary policy" (*Transcript*, 5/20/1980, p. 23).

Despite frequent claims that they were just sticking with their announced policy money targeting, a number of FOMC members seems to realize they were clearly easing at a time when inflation was still highly problematic. The clearest statements to this effect came from Governor Henry Wallich. At the April FOMC meeting, he said: "I think it is perfectly possible to convince the market that we are sticking to a fixed money supply policy. That doesn't mean that we are not engaging in a very stimulative policy at a time of recession;" and "There may be very good reasons normally for stimulating strongly in a recession .... But in our present predicament, where we have to worry more about inflation than anything else, I don't think we can afford this remedy" (*Transcript*, 4/22/1980, pp. 11 and 12). He was even more forceful in May, when he said: "But these interest rates—not only internationally but domestically—convey an impression of a drastic shift in policy and create expectations that we're all for inflation as soon as we work out of this difficulty" (*Transcript*, 5/6/1980, p. 4). Governor Nancy Teeters, after describing the weakness in the economy said: "Probably [the recession] will be both deep and long, the worst of all possible combinations. As a result, I think we should ... be providing to the economy the sort of support that it needs at this particular point in time" (*Transcript*, 5/20/1980, p. 22). Similarly, Governor Frederick Schultz said: "I think the economy is weakening very rapidly and will turn down very sharply, and I want interest rates to come down" (p. 24).

The decision to let interest rates fall rapidly began at the April 22, 1980 FOMC meeting, and reached a peak on the conference call on May 6th and at the FOMC meeting on May 20th. For this reason, we date the weakening of the October 1979 disinflationary policy in May 1980—roughly 7 months after the start of the program.

A few FOMC members expressed the hope that they had succeeded in changing inflationary expectations by the spring of 1980. For example, Balles said: "I'm beginning to see encouraging signs, at least, that we've broken the back of inflationary expectations" (*Transcript*, 4/22/1980, p. 16). Similarly, Roger Guffey, President of the Federal Reserve Bank of Kansas City, spoke of "having come from a period when we've successfully—hopefully—killed off inflationary expectations" (p. 16). And the staff forecast predicted inflation would fall because of the recession; Kichline said: "we expect inflation to slow appreciably in the second half of this year and next in response to weak product and labor markets and the absence of another surge in oil prices" (Presentation materials, 5/20/1980, Kichline, p. 3). However, most participants clearly felt that inflation remained a serious problem. Schultz said: "I don't think we can seriously say that we're out of the woods on inflation" (*Transcript*, 5/20/1980, p. 24). Governor Rice concurred, saying: "I'd like to assure Governor Schultz that I'm still very much worried about inflation and hope that we will bring it under control" (p. 25). Federal Reserve Bank of Atlanta President Robert Forrestal said: "And I don't think we ought to be bullied into acting too quickly because inflation certainly is still a problem" (p. 25). FOMC Vice Chairman Anthony Solomon said: "There is nobody who assumes that the rate of inflation is going to be below 10 percent even by the end of the year" (p. 26). Volcker agreed that inflation was still a severe problem: "And we have the risk of inflation that Fred Schultz talked of eloquently. That's not a risk; it's here" (p. 28). In a speech in May 1980, Volcker put a number on his inflation prediction. He said: "In my judgment, a more balanced view suggests there is indeed a reasonable prospect for a decline in the inflation rate to or below 10 percent before the year is out" (Volcker speech, 5/14/1980, p. 9). Given the clear sense that inflation remained at an unacceptable level, this is another case of premature easing. Thus, it is important to examine the source of the policy change.

As described above, one unusual motivation in this episode was the new operating procedure adopted on October 6, 1979. A number of FOMC members cited the below-target

growth of the monetary aggregates as a reason for letting the federal funds rate fall. For example, Balles said: "It certainly took a great deal of courage for this Committee to let interest rates rise to these extraordinary levels that we've seen, and I think that was the right thing to do. … I think we should be equally courageous on the other side, while sticking to our monetary targets. If that implies that interest rates are going to decline, that doesn't bother me one bit" (*Transcript*, 4/22/1980, pp. 15–16). Similarly, Mark Willes, President of the Federal Reserve Bank of Minneapolis, said: "it seems to us that the decision we made last fall was a wise one and we ought to stick to it. … So, as others have said, if interest rates are going to go down, I think this is one time when we just ought to let them go down because we've got to make sure that we establish the credibility in the basic policy thrust that we've been following" (pp. 19–20). Robert Mayo, President of the Federal Reserve Bank of Chicago, said: "We should be getting back on target or we will have a credibility problem again" (*Transcript*, 5/20/1980, p. 21). Federal Reserve Bank of Dallas President Ernest Baughman agreed, saying: "On the monetary policy issue, it seems to me that the risks are on the side of a fairly extended period of [money growth] running well below target and that, therefore, we should move fairly quickly and fairly decisively to try to get back within our announced target ranges" (p. 22, bracketed material in the original). And Roos, a strong monetarist, said: "I think not only is the credibility of our October 6 program at stake, but the very credibility of the Open Market Committee is at stake in terms of whether or not we perform what we've said we were going to accomplish" (p. 23).

Even a number of members who were uneasy about the clear easing of policy felt it was important to be seen as following the new operating framework. Their goal, however, was to make the interest rate declines more gradual and less extreme. For example, Guffey said: "If we move into the May-June period when things are very weak, … and people are wondering what is going to happen and they see interest rates drop not to the 13 percent level implied by alternative B but maybe to 10 percent, then we may lose all that we've gained over the last 60 days by going to a 20 percent prime rate or a 19 percent federal funds rate. Thus, I think this Committee does have a responsibility to moderate [the movement of interest rates] on the down side" (*Transcript*, 4/22/1980, p. 16, bracketed material in the original). Likewise, Solomon said: "And I would hope that everybody feels as well that we want to retain the perception that the Fed is not changing its policy [of fighting inflation]. So it's really important to show a sense of prudence and gradualism in this [so as] not to precipitate further sharp declines in the market rates by people seeing us move so abruptly to a level as low as 10 percent" (*Transcript*, 5/6/1980, p. 4, bracketed material in the original). And Schultz said: "If we move too rapidly, that could have some very serious attitudinal effects [on the] psychology of inflationary expectations and could subvert [any progress we've made in that area]" (*Transcript*, 5/20/1980, p. 24, bracketed material in the original).

The other main motivation for the move away from active disinflationary policy was concern that the output losses would be very large. As discussed in the text and Online Appendix B, policymakers in this episode were willing to accept significant output losses to bring inflation down. That is a key reason we score their commitment to disinflation in this episode as very high. However, the output losses that policymakers saw and feared in the spring of 1980 appear to have surpassed even this high acceptable level.

The FOMC staff forecast for the April 1980 FOMC meeting was quite dire. Kichline said: "The staff forecast contains a fairly severe recession, which persists longer than usual and is followed by a weak recovery" (Presentation materials, 4/22/1980, Kichline, p. 3). The Greenbook for the meeting said that "Real GNP is projected to continue moving down through the first half

of 1981. Activity is expected to fall 3-3/4 percent from peak to trough—more than in the typical postwar recession (Greenbook, 4/16/1980, p. I-4). Likewise at the May FOMC meeting, Kichline said: "Information on economic developments early in this quarter suggests activity is contracting substantially. The staff has revised downward its forecast of real GNP for the second quarter, and now anticipates a decline of around 6 percent at an annual rate" (Presentation materials, 5/20/1980, Kichline, p. 1). Thus, FOMC members would have been justified in believing that a severe and prolonged recession was in store.

A number of members expressed the view that the grim outlook justified a rapid fall in interest rates. At the April meeting, Federal Reserve Bank of Boston President Frank Morris said: "Rather than viewing lower rates as stimulative, as Henry does, I would view them as a force for mitigating the severity of the recession, because there is no question that we are in for a very sharp decline. The issue is: Do we want a monetary policy that is going to make the recession, if anything, sharper, steeper and longer than the staff has forecast?" (*Transcript*, 4/22/1980, p. 13). On a conference call in late April, Governor Charles Partee said: "So I think there is a fair chance that this money supply [behavior] is telling us that we're now entering into the sharpest phase of recession we've seen any time since World War II. And if that is the case, to maintain interest rates [at their current high levels] and thereby destroy the reserves necessary to support reasonable monetary growth is a grossly wrong policy for the Board or the FOMC to follow" (*Transcript*, 4/29/1980, p. 4, bracketed material in the original). At the May FOMC meeting, David Eastburn, President of the Federal Reserve Bank of Philadelphia, said: "I tend to be at least as pessimistic as the projections. There's one other factor that could enter in and I wonder if you have explored it, Jim. And that is the [potential] catastrophic aspects of this, with large numbers of bankruptcies both in the nonfinancial and financial side—in municipal finances and so on if they accumulate" (*Transcript*, 5/20/1980, p. 14, bracketed material in the original). Eastburn advocated that they follow a policy that would get money growth back to path more rapidly (p. 18). Volcker also expressed significant concern about the real economy. He said: "The obvious risk is the presence of recession, and when that [occurs] one always has the feeling of being in a bottomless period. Indeed, there is a certain degree of risk that we are in a more bottomless period than we would expect or like to be in" (p. 28, bracketed material in the original). Volcker proposed lowering the bottom range for the funds rate to 9 percent. The Committee ultimately agreed to lower the limit ½ percentage point below that.

May 1981. The second Volcker-era disinflationary shock was followed quickly by a severe recession. Monetary policymakers nevertheless stuck with their disinflationary policy for the next year. In May 1982, we find the first obvious cracks in their anti-inflation resolve. The move away from disinflationary policy became more pronounced in the summer of 1982, and by October 1982, it was clear that the policy focus had changed toward expansion and recession fighting.

This gradual change away from disinflationary policy is evident in the behavior of the federal funds rate. The funds rate surged right around the start of the disinflation program—peaking at 19.1 percent in June 1981. It then drifted down gradually over the next six months, before stabilizing at around 14 to 15 percent in the first half of 1982. In July 1982, the funds rate fell to 12.59 percent, and in October it hit 9.71 percent. It then fluctuated between 8 and 9 percent through June 1983.

Some of the clearest expressions of a desire to move away from active inflation fighting occurred at the May 1982 FOMC meeting. The meeting was a somewhat chaotic one because a financial firm was in distress, and Chairman Volcker kept leaving the room to take calls about the

matter. This drama may have exacerbated some of the concerns about financial fragility that had been brewing. Governor Lyle Gramley was one of the most emotional voices. He said: “We cannot let devotion to a predetermined path of reserve growth or money growth permit us to commit a major crime against the U.S. economy. It just can’t be done” (*Transcript*, 5/18/1982, p. 5). Federal Reserve Bank of Philadelphia President Edward Boehne concurred, saying: “Well, as Chuck [Partee] said, we have been putting the economy through hell. I think maybe a drop of water would be helpful to those poor souls in hell at this point! So, in my view, we’ve reached the point where we ought to put some downward pressure on rates” (p. 28). Frank Morris, President of the Federal Reserve Bank of Boston, argued that: “our ability to forecast the economy is pretty limited in this unprecedented period and that, therefore, a pragmatic case can be made for erring a bit on the side of ease at this juncture” (p. 29). Despite these and other statements in support of easing, the actual change in policy at this meeting was extremely muted. Volcker suggested “easing the pressures on bank reserve positions” somewhat, but waiting before taking more aggressive measures that would have a significant effect on the funds rate (p. 34).

At the FOMC meeting in July 1982, policymakers again talked of a desire to move away from active disinflationary policy. For example, Federal Reserve Bank of San Francisco President John Balles said: “I’m tempted to follow the same strategy that Ed [Boehne] has already mentioned … and have a temporary easing of our monetary targets” (*Transcript*, 6/30–7/1/1982, p. 5). Governor Emmett Rice said: “the basic problem … is: How do we get interest rates down?” His policy recommendation was to “stick with the current targets but allow ourselves the flexibility to come in above these targets—and in my judgment, considerably above these targets—if necessary” (p. 21). Governor Nancy Teeters, a more dovish member, said: “Well, I want to get interest rates down. I’m not worrying about them going up, because I think that’s intolerable. Therefore, I would move toward what Pres and Chuck have said but a little more strongly” (p. 46). William Ford, President of the Federal Reserve Bank of Atlanta, one of the more hawkish members, confirmed a noticeable change in the desired policy, saying: “Well, I sense a rather interesting shift in the perspective of the Committee. … I certainly am not a fan of high interest rates, but I very strongly oppose any shift in policy toward putting on a maximum rate cap, particularly the notion that a number of people who have already spoken have expressed of setting a rate cap at or below the present level” (p. 47). Federal Reserve Bank of New York President Anthony Solomon agreed there had been a noticeable change in the discussion. He said: “Well, let me say first that this is the strangest FOMC meeting I’ve attended. There seems to be a whole change or shift in mood. … But during the depth of the recession there was a much tougher attitude than I hear today. I don’t know what is bringing about this change, although I share in that view, as indicated by my remarks yesterday” (p. 52). Following Volcker’s suggestion, the Committee left the directive largely the same as it had been in May, but with an understanding that they would tolerate money growth above the top of the target ranges, and would strongly resist any movement in the funds rate in an upward direction (p. 58).

The discussion at the August FOMC meeting and on a conference call in September was somewhat different. Volcker was very concerned about interest rate volatility. In August, he said: “I, frankly, cannot live in these circumstances, given what is going on in the money markets, with violent moves in short-term rates in either direction. It would just be so disturbing in terms of expectations, market psychology, and fragility that it’s just the wrong policy, period, during this particular period” (*Transcript*, 8/24/1982, p. 29). Other members were somewhat cantankerous. They voted to widen the funds rate range slightly relative to Volcker’s recommendation, and refused to add concern about volatility to the directive (pp. 37–41). On the September conference

call, Volcker said: "we should not follow—and I would not intend to—a mechanical application of those reserve provisions but rather stabilize market conditions somewhere close to where they are presently or even slightly below where they have been in the last couple of weeks" (*Transcript*, 9/24/1982, p. 1). Some Committee members pushed back on his proposal. For example, Robert Black, President of the Federal Reserve Bank of Richmond, said: "It looks to me as if it's moving in the wrong direction, really" (p. 5). Volcker shot back: "Oh, now you're talking about risks. Let me leave no doubt. I see it as extremely negative in terms of actually precipitating a change in the interest rate quiescence that we have at the moment. Precisely what level of borrowings produces that I do not know. But I'm quite confident about what direction the risks lie in" (p. 5). The Committee did not take a formal vote.

At the October 1982 FOMC meeting, the desire to move away from disinflation was widespread and very strong. Volcker said: "Domestically, I would simply say that I don't think this is any time for taking any great chances. There is a substantive need for a relaxation of pressures in the private markets in the United States. How best to achieve that seems to me is the question before the house" (*Transcript*, 10/5/1982, p. 19). Boehne said: "this is not business as usual. I think we have to take our chances on the side of discretion, which tells me that at a minimum we cannot have higher rates in these circumstances; and if we can get lower rates, that's fine" (p. 43). Silas Keehn, President of the Federal Reserve Bank of Chicago said: "I certainly am in the camp that thinks that we simply must bring rates down" (p. 44). Rice agreed, saying: "we should do what we reasonably can to get interest rates moving down" (p. 44). And Solomon said: "On substance, I feel that we absolutely have to have some modest decline in rates. I believe there is a real danger of a major cracking and then we would have to go even farther; whereas with a modest decline now that stays in place for a while there is a better chance of working ourselves out of this both internationally and at home" (p. 49). The directive called for essentially ignoring M1 (which was behaving erratically), and for growth in the other aggregates at, or even above, the tops of their target ranges ("Record of Policy Actions," 10/5/1982, p. 12).

Assigning a specific date to the end of clear disinflationary policy in this episode is difficult. It could be as early as May 1982 or as late as October 1982. Given that the largest falls in the funds rate occurred following the July 1982 FOMC meeting, we choose that as the obvious compromise date.

Policymakers certainly felt that they had made significant progress on inflation. The staff presentation materials for the May 1982 meeting said: "we seem to be on track for a GNP deflator increase of under 6 percent this year, more than 3 percentage points below the rate last year" (Presentation materials, 5/18/1982, Kichline, p. 4). Rice said: "I think it is obvious in the present situation that we have made a good deal of progress toward reducing inflation and that we've made enough progress so that we can now look around and survey the damage that has been done to the economy. It's also time, I think, to see what we can do to allow the economy to repair some of this damage" (*Transcript*, 5/18/1982, p. 19). Lawrence Roos, President of the Federal Reserve Bank of St. Louis said sarcastically that the supposedly failed monetary policy of the last few years "has gotten us from those glorious double-digit inflation days that apparently some enjoyed a few years ago to inflation at a tolerable rate" (p. 30). Federal Reserve Bank of New York Vice President Thomas Timlen said: "We all recognize that the country has had some success in its war against inflation" (p. 32).

This sense of at least partial success continued at subsequent meetings. For example, at the July 1982 FOMC meeting, Roger Guffey, President of the Federal Reserve Bank of Kansas City,

said: “We have achieved some good on the price side” (*Transcript*, 6/30–7/1/1982, p. 12). At the October 1982 FOMC meeting, the FOMC Economist said: “The silver lining in all of this is on the wage-price side where there continues to be considerable progress. Given the substantial slack in labor and product markets, abundant harvests, and well behaved oil prices, the chances of seeing further progress in slowing inflation next year are very good” (Presentation materials, 10/5/1982, Kichline, p. 4).

Volcker also expressed considerable satisfaction with the progress on inflation. In his Humphrey-Hawkins testimony in July 1982, he said: “In these past two years we have traveled a considerable way toward reversing the inflationary trend of the previous decade or more,” and “In fact, the evidence now seems to me strong that the inflationary tide has turned in a fundamental way” (Volcker testimony, 7/20/1982, pp. 1 and 2). At a press conference in October 1982, he sounded even more confident, saying: “Let me say I am encouraged. I’ve said it on a number of occasions that I think the inflationary momentum that has come to grip the economy in the 60’s and the 70’s has been broken, and I do think the prospects are good for some further reductions; that we can build up a momentum toward price stability” (Volcker press conference, 10/9/1982, p. 2). And in a speech in November, he said: “We are still some distance from price stability. But I do believe we can now fairly claim the insidious upward momentum of inflation has been broken. I judge that not simply by the fact that the common indices of inflation this year have been running at a third to a half of their earlier peak levels. I believe we also see signs that the hardened skepticism of financial markets and the public at large about our ability to deal with inflation … is beginning to yield” (Volcker speech, 11/16/1982, p. 4).

Despite the upbeat tone, it seems implausible that policymakers stopped the disinflation program simply because they felt they had reached their inflation goal. First, inflation was objectively still elevated. The GDP implicit price deflator was hovering around 5 to 6 percent in the summer and early fall of 1982. Second, their words tended to emphasize “some success” and a “tolerable” level of inflation—not outright victory. Gramley was even more clear; he said: “We have made a lot of progress against inflation but I don’t think the battle is over yet by any means” (*Transcript*, 5/18/1982, p. 31). Third, in testimony in late July 1982, Volcker took pains to say that more work remained on inflation. He said (Volcker testimony, 7/20/1982, p. 17):

> The hard fact remains that we cannot escape those dilemmas by a decision to give up the fight on inflation—by declaring the battle won before it is. Such an approach would be transparently clear—not just to you and me—but to the investors, the businessmen and the workers who would, once again, find their suspicions confirmed that they had better prepare to live with inflation, and try to keep ahead of it. The reactions in financial markets and other sectors of the economy would, in the end, aggravate our problems, not eliminate them. It would strike me as the cruelest blow of all to the millions who have felt the pain of recession directly to suggest, in effect, it was all in vain.

Thus, this episode, like many others, involved at least an element of premature ending of disinflationary policy.

The overarching reason for moving away from active disinflationary policy before inflation was fully down to their goal in this episode was acute concern about the economy and financial stability. As discussed in the text and Online Appendix B, monetary policymakers in this episode were willing to accept substantial output costs to bring inflation down. However, after a year of severe recession, and fear that financial instability could cause even larger output losses going

forward, policymakers decided that the output costs had finally surpassed their high threshold for weakening the disinflationary policy.

This was an emerging view at the May 1982 FOMC meeting. Gramley said: "We are looking at an economy that the latest Redbook suggests is teetering on the brink of going over the edge. Attitudes are very, very pessimistic. There are lots of very worried people out there. Add to this atmosphere a financial crisis, and there's just no question in my mind that that is the factor that will push us over the edge. We can't afford to [allow] that" (*Transcript*, 5/18/1982, p. 5, bracketed material in the original). This led to Gramley's policy recommendation that "it's time to let the economy grow at a restrained pace and still make progress against inflation" (p. 31). Governor Nancy Teeters said: "So, it seems to me pretty obvious when one looks at the economic projection, which I don't disagree with, that we are in the process of just pushing the whole economy not just into recession, but into depression" (p. 27). Her policy recommendation could not have been clearer: "as far as I'm concerned, I've had it with the monetary experiment. It's time to put this economy back together again .... I think it's time to relax [policy] and to reliquify the economy. It's time to permit corporations to fund their securities loans. It's time just to say we are finished one job and to start the next one." (p. 27, bracketed material in the original). And Governor Charles Partee said: "the recession in 1929 didn't look too bad for the first 9 or 10 months; one might reasonably have thought after that period that the economy was going to recover and would be all right. But there was a second-tier decline. And that was much sharper and it occurred because of financial collapse. So, if we really do have a crisis here with this firm, or if a crisis developed that tested the very financial fabric of the economy, I think we would have to deal with that" (pp. 23–24). He supported faster money growth and a lower bottom for the funds rate range (p. 35).

At the July meeting, the staff was beginning to sound more sanguine about the outlook. Joseph Zeisel, an Associate Economist, said: "There have been some persuasive indications recently that the contraction is drawing to a close, although few signs as yet of significant recovery" (Presentation materials, 6/30–7/1/1982, Zeisel, p. 1). But many FOMC members challenged that view and expressed greater concern about the economy. For example, Balles said of businessmen and bankers in his district: "They are more worried than I've seen them worried in my adult life about the spreading risks of bankruptcies for a great number of institutions that they would not normally consider being on a problem list" (*Transcript*, 6/30–7/1/1982, pp. 4–5). As discussed above, he favored an easing of the monetary targets. Volcker agreed, saying; "Everybody talks about the risks on the down side and I agree that the biggest risks are clearly on the down side;" but he cautioned that "I don't think we can discount the possibility that the economy might do better than we're talking about" (p. 33). Vice Chairman of the Board of Governors, Preston Martin, said: "The reasons for my position with regard to the upper limit of the target came out, as was obvious to all of us, in the discussion yesterday. It is the downside risk; it is the unusually high degree of uncertainty; it is the peril that corporations and financial institutions confront; it is the great uncertainty of the international situation added to all of these" (p. 43). And Partee said: "The thing that we do know, though, is that the economy can't stand higher interest rates because the financial fabric of the country just won't tolerate higher rates in this environment or the environment one can see in the reasonably foreseeable future" (p. 44).

At the August FOMC meeting, there was much discussion of debt problems in Mexico and other Latin American countries, and a proposal to help Mexico with short-term funding. Volcker said: "We're in a very sensitive period, not just economically, but in terms of the markets and interpretations and in fact concern—and I'm afraid to some degree justified concern—about the

stability of the banking system" (*Transcript*, 8/24/1982, p. 18). His primary concern was to tamp down interest rate volatility with a narrow range for the funds rate (p. 29), but the majority of the Committee modified his proposal somewhat. On the conference call in September, Volcker again sounded grim. He said: "In terms of the general background, my own conclusion … is that it is clear that any sense of economic expansion has been delayed. … Investment is declining and is going to decline for some time. The atmosphere, if anything, seems to be weakening, and survey data seem to show a weakening" (*Transcript*, 9/24/1982, p. 1). He continued: "The problems of Mexico have in no way cleared up; the problems of the rest of Latin America are clearly being compounded by a general economic slowdown and recession;" and "The weaknesses in the financial system remain very evident both internationally and domestically" (p. 1). The implication he took for policy was that "this is a situation in which I would not find a mechanical application of the reserve provision rules suitable, given the certainty that that would lead to a decided change on the tightening side from recent money market conditions" (p. 1). Gramley concurred that any tightening would be dangerous, saying: "My perception is that Wall Street now has a view that interest rates simply can't go up because the economy is sick, sick, sick. So, if we started any operation that began to push interest rates up by reacting strongly to an overrun on M1 now, that would be the worst possible thing we could do" (p. 6).

Concern about the economy hit a fever pitch at the October FOMC meeting. Volcker said: "We are in a worldwide recession. I don't think there's any doubt about that" (*Transcript*, 10/5/1982, p. 15). He also expressed concerns about U.S. banks, saying: "this leads to a considerable feeling in financial markets and elsewhere of developing disarray, a certain floundering. And that in itself contributes to uncertainty, which feeds upon itself. And it is dangerous in and of itself" (p. 18). He went on to say: "I would like not to neglect the international situation with respect to some of these countries. This is not a time, as I undoubtedly implied—that's a mild word—for business as usual, certainly, in the international area. I don't think it's time for business as usual in the domestic area either. Extraordinary things may have to be done. We haven't had a parallel to this situation historically except to the extent 1929 was a parallel" (p. 19). Morris said: "There is a feeling of apprehension, a vague apprehension that maybe things are going to get out of hand" (p. 25). Rice said: "And the longer the economy stays in the doldrums, the greater the risk and the greater the dangers. In your words, the developing disarray feeds upon itself, and until we see some evidence of a turnaround, I think we're in a very vulnerable situation. So, in this environment, we should not do anything that risks rising interest rates; on the contrary, we should do what we reasonably can to get interest rates moving down" (p. 44). Solomon also supported lowering rates because of the state of the economy, saying: "I believe there is a real danger of a major cracking and then we would have to go even farther; whereas with a modest decline now that stays in place for a while there is a better chance of working ourselves out of this both internationally and at home" (p. 49). Finally, Volcker summed up the situation very well, saying: "following a mechanical operation because we think that's vital to credibility and driving the economy into the ground isn't exactly my version of how to maintain credibility over time. Credibility in some sense is there to be spent when we think it's necessary to spend it and we can carry through a change in approach" (p. 50).

December 1988. The disinflationary episode that we date as beginning in December 1988 was characterized by fairly modest movements in the federal funds rate. The funds rate had been brought down about three-quarters of a percentage point following the October 1987 stock market crash. That decline had been allowed to reverse over the spring and summer of 1988. Then, in the ramp up to the decision to disinflate, the funds rate had risen another percentage point in the fall

of 1988. Following the December decision, rates were quickly raised another percentage point—peaking at 9.85 percent in March 1989. The funds rate began to decline in June 1989, with the largest decline in July 1989. It then drifted down further over the next year. The narrative record agrees that a noticeable weakening of the disinflationary policy began in the summer of 1989.

At the May 1989 FOMC meeting, both the FOMC staff and members saw the economy cooling. The staff forecast, which was predicated on additional increases in interest rates, was "very close to recession … in the first part of 1990" (*Transcript*, 5/16/1989, p. 14). Chairman Alan Greenspan summarized the discussion of the outlook, saying: "there is a fairly central tendency in this group's evaluation, which says in a sense that the economy clearly has slowed and probably will stabilize without going into a recession. I think the evidence at this stage is fairly solid on that conclusion but probably needs to be audited with some degree of sensitivity" (p. 38). For the most part, members were content with that development. For example, Manuel Johnson, Vice Chairman of the Board of Governors, said: "I'd like to associate myself with those people who generally view the current environment as satisfactory. The evidence clearly is showing a slowing in economic activity. In my opinion it has gone beyond the stage where this might be a temporary situation. I think it is [likely to be] sustained. And I think the slowdown in domestic demand or consumer spending is a desirable feature that we've been looking for" (p. 28, bracketed material in the original). E. Gerald Corrigan, President of the Federal Reserve Bank of New York, said: "Having said that the outlook in Mike's forecast in some ways is about as good as one can hope for, I think it's worthwhile to then ask: Where does that leave us? … Well, even in Mike's forecast the underlying inflation rate is still 5 percent, maybe a shade higher" (p. 25). His implicit view that inflation was still higher than desired was said explicitly by Federal Reserve Bank of Cleveland President W. Lee Hoskins, who said: "I don't think I can contribute much to what has been said here already other than to say that the long-term objective ought to remain consistent, and that is to bring down the rate of inflation" (p. 46). Thomas Melzer, President of the Federal Reserve Bank of St. Louis, also worried about inflation, but nevertheless wanted to ease. He said: "Now, I continue to think that the major problem we face is inflation. But I don't think it's going to be any easier to deal with if we destabilize the economy through a monetary policy that's too tight" (p. 45). At Greenspan's suggestion, the Committee voted for no change in the funds rate, but a move in the directive from asymmetry toward tightening, to symmetric.

On a conference call two weeks later, Greenspan said: "I personally am concerned about what in fact is going on out there. People to whom I'm talking are indicating to me for the first time a degree of softness, especially on the price side" (*Transcript*, 5/31/1989, p. 1). There was also concern that the money growth numbers are coming in very low. For example, Hoskins said: "Inflation is too high and I don't think that it's coming down. Nevertheless, having said that, I have more serious concerns now than previously about the rate of monetary growth" (p. 1). Many members wanted to ease, but four did not. Greenspan, desiring consensus, suggested waiting a few days for the employment report to come out (p. 1).

Soon after the May employment report came out, the FOMC reduced the funds rate ¼ percentage point. Greenspan was emphatic that it was the report of slowing wage inflation that most influenced his thinking. He said (*Transcript*, 6/5/1989, p. 2):

> As I indicated last week, I was concerned about how the data would come out on Friday's employment report—if they would show no contrary evidence to what was beginning to emerge very clearly as a significant defusing of inflationary pressures. Increasingly, as I look at commodity prices, and especially wages, I would be inclined

> to request the Desk to bring down the borrowing requirement a notch. I've concluded—looking at the data and thinking about it considerably over the weekend—that that is the appropriate thing to do. Hence, consistent with the directive, I am requesting the Desk to move the borrowing objective from $600 million down to $500 million; and I expect that to be consistent with a funds rate of about 9-1/2 to 9-5/8 percent.

J. Roger Guffey, President of the Federal Reserve Bank of Kansas City, pushed back a little, saying: "I don't really understand the urgency of moving at this time given the uncertainty about inflation and the uncertainty about the strength of the economy generally. It still isn't clear to me that we're in anything other than a pause" (pp. 2–3). Greenspan responded: "My major concerns are (1) the money supply data and (2) evidence that is emerging that the commodity price inflation is beginning to subdue" (p. 3). Whether Greenspan took slowing inflation as an indicator of a slowing economy, or a sign that he thought the Committee had achieved its inflation goal, is impossible to tell from the narrative record. President of the Federal Reserve Bank of San Francisco Robert Parry conveyed a sense that he felt the current inflation rate was not acceptable, saying: "If we were to make the change that you've suggested, perhaps at some convenient opportunity you could underline the concerns that we all have about gradually reducing the rate of inflation over the longer term. I think it would be a very desirable way to go" (p. 3).

At the July 1989 FOMC meeting, the tenor of the discussion changed noticeably toward general concern about the economy. Governor Martha Seger summed up the discussion this way: "I've been sitting here thinking that I need a new hearing aid because I can't believe the change in the comments today versus the FOMC meeting in May or, for sure, the one in March. Either I needed the new one then and not now, or vice versa. Anyway, as you know, I've been somewhat concerned about the slowing economy for a fair while. So, it is nice to have some other people who are on board with the same concerns" (*Transcript*, 7/5–6/1989, p. 30). Federal Reserve Bank of Philadelphia President Edward Boehne said: "Looking at the national economy we can't help but be influenced by the people who surround us, and I think the outlook nationally is still most likely to be a soft landing. But the chances of a bumpier landing have increased" (p. 16). Governor Edward Kelley picked up on another member's concerns about the financial system, saying: "But one word that I think was in his remarks bears some emphasis, and that's the fragility of this situation. However you assess the risks, it seems to me that the fragility on the down side is quite substantial and should be recognized as an element therein" (p. 30).

Importantly, many members continued to express concern about inflation. Hoskins said: "Listening to the discussion, I hear a lot of words about long-term price stability objectives. I could have heard the same thing last year when I sat here. The inflation rate is still up there; it's probably higher than it was last year at this time" (*Transcript*, 7/5–6/1989, p. 41). Corrigan said: "it still, as I said earlier, is not clear to me that the inflation rate necessarily has stopped rising—and even if it has, I think we still could get a couple of months of lousy numbers" (p. 50). Greenspan summarized the Committee's view, saying: "A lot of issues have been raised here, and I think it's very clear that without exception they are all focusing on some way to eventually bring the inflation rate down significantly below where it is" (p. 43). Thus, it does not seem to be the case that the Committee felt it had achieved its inflation goal.

Nevertheless, Greenspan proposed, and the Committee agreed, to a reduction in the funds rate of another ¼ percentage point. The reason was concern about what most people saw as a relatively mild slowdown in the economy. For example, Governor John LaWare said: "I think that

in spite of the risk of not achieving further progress on inflation immediately, the effects of a significant recession—if that's what we've tipped into—could be even greater. I'm not at all satisfied that we even have to be in what is technically a recession in order to have significant changes in business plans and significant consequences in the areas that I'm talking about" (*Transcript*, 7/5–6/1989, pp. 24–25). Robert Forrestal, President of the Federal Reserve Bank of Atlanta, said: "I think we have pretty well gotten the results we wanted—that is, in the sense that we have brought the economy down to a more sustainable level of performance. Unfortunately, inflation is still at too high a level. ... So, I think your prescription is the right one" (p. 50). Greenspan both made it clear they were easing, and expressed a desired to move cautiously. He said: "I'm concerned that the worst thing that can happen to us, as far as policy is concerned, is that we are perceived to be easing too fast and in a manner which would open up the possibilities of inflationary expectations" (pp. 48–49). Corrigan concurred, saying: "I at least am prepared to run some risk of an economy that is on the slow side for some period. But I think the thrust of your prescription is precisely right" (p. 50). His reference to the "slow side" suggests that he supported easing despite his perception that the output loss would be fairly mild.

The notion that the FOMC was weakening its disinflationary policy in July 1989 is confirmed by Greenspan's Humphrey-Hawkins testimony two weeks later. He said: "By the beginning of the second quarter, the outlook for spending and prices was becoming more mixed. Scattered indications of an emerging softening in economic activity began to appear;" and "Against this background, the Federal Reserve eased reserve conditions, first in early June and again in early July" (Greenspan testimony, 7/20/1989, pp. 2–3). At the same time, inflation clearly remained above the Federal Reserve's desired level. Greenspan told Congress: "recent developments suggest that the balance of risks may have shifted somewhat away from greater inflation. Even so, inflation remains high—clearly above our objective" (p. 8). He also reported that "The outlook for inflation this year, as reflected in the central tendency of the projections expressed at the FOMC meeting, is for a 5 to 5-1/2 percent increase in the consumer price index. A figure in this range would represent the highest annual inflation rate in the United States since 1981; this is a source of concern to the Federal Reserve" (p. 12). Greenspan said "Consequently, monetary policy will need to continue to focus on laying the groundwork for gradual progress toward price stability. Such an outcome need not imply a marked downturn in the economy, and policy will have to be alert to any emerging indications of a cumulative weakening of activity" (p. 8). This suggests that the Federal Reserve was unlikely to tolerate more than mild output losses. This view was reiterated toward the close of his testimony, when Greenspan said: "We also recognize, however, that a degree of slack in labor and product markets will ease the inflationary pressures that have built up. So our policy, under current circumstances, is not oriented toward avoiding a slowdown in demand, for a slowing from the unsustainable rates of 1987 and 1988 is probably unavoidable. Rather what we seek to avoid is an unnecessary and destructive recession" (pp. 15–16).

On a conference call at the end of July, Greenspan said (*Transcript*, 7/26/1989, p. 1, bracketed material in the original):

> On the issue of monetary policy: As a result of data we have just gotten recently, which I'll mention in a moment, the Desk has been instructed to lower the borrowing requirement from $600 million to $550 million, which is equivalent to moving the funds rate from around 9-1/4 to 9-3/8 percent down to the 9 to 9-1/8 percent area. The two most recent indications of continued softening [in the economy] are: (1) the

> initial claims figures, which will be released tomorrow; and (2) information from the purchasing managers' survey.

He did, however, point out that there had been improvement in existing home sales and an acceleration in money growth (p. 1). He therefore concluded that, "having made this move, we should probably stay put for a while until we see how the money supply works out and how a number of other elements within the economy continue to move" (p. 1).

Taken together, the narrative evidence from this episode indicates that the disinflationary policy was weakened substantially in the summer of 1989—despite the fact that most FOMC members (including the chairman) found the current rate of inflation unacceptably high. The reason for this premature stopping was concern about a relatively minor slowing of economic activity. Since the clearest statements and the most obvious changes in policy occurred in July 1989, this is when we date the end of the disinflationary policy.

At the August 1989 FOMC meeting, the Committee did indeed decide to stand pat. Members, for the most part, confirmed that inflation was still unacceptably high, but that the alternative of a more-than-modest output decline was worse. For example, Boehne said (*Transcript*, 8/22/1989, p. 31):

> As far as the national economy, I think we are doing about as well as we could hope to do. We are achieving the subpar growth with a reasonable risk of recession. ... On the inflation side, I think that what we have done is to contain the growth of inflation. If you look at the basic rate, I don't think we have rolled it back. Maybe that's all we can hope to achieve with this subpar growth strategy. Whether we can actually reduce the rate remains to be seen. I think our challenge today is to gather up enough strength that we'll leave well enough alone.

LaWare said: "We have done so well on so much of this, yet we are still looking at inflation levels which are unacceptable, I think, and that is the principal thing that frustrates me and makes me feel kind of helpless in this process. At the same time, I am convinced that if the only way to really knock inflation down is to have a recession, that's a very unwelcomed alternative option" (p. 39). Greenspan said: "I think policy is probably as good as we can have it at this particular moment" (p. 40). And Richard Syron, President of the Federal Reserve Bank of Boston, said: "Given the uncertainties that we face, I just don't see a reason to change at this point in time;" but "we should face the issue of where we are going over the longer run, because there's general agreement and a lot of frustration that the inflation rate is at an undesirably high level" (p. 41).

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