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**From Inflation to More Inflation, Disinflation and Low Inflation**

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## **From Inflation to Disinflation and Low Inflation**

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Volume 2 of *A History of the Federal Reserve* covers mainly the years of inflation and disinflation, followed by a return to what is now regarded as relatively low inflation. It treats four questions: Why did inflation start? Why did it continue for 15 or more years, from 1965 to about 1982? Why did it end? Why did it not return? In this paper, I give an overview of the material that I consider in much greater detail in my book.

As we look back to the 1950s and 1960s from the early 21<sup>st</sup> century, two of the many changes in the Federal Reserve System affecting inflation deserve comment. First, in the 1950s the goal was price stability, zero reported inflation, not inflation of about two percent. The 1959-60 disinflation brought reported cpi inflation, measured as a 12-month moving average, to less than 1 percent from March through August 1959. This measure again was below 1 percent through most of 1961, and it did not reach 2 percent until early 1966. Properly measured and adjusted for biases in the price index, the true price level probably declined modestly during this period. This period of deflation was also a period of sustained economic growth. It, and several periods of deflation discussed in volume 1 of *A History of the Federal Reserve*, show no evidence of the liquidity trap that absorbed much recent attention in Japan and here.

A second major change is the role of economists and economic research at the Board and in the Reserve banks. The Board had no economists as members in the 1950s, and there were few economists as bank presidents. Sherman Maisel was the first academic economist appointed to the Board since Adolph Miller, 1914-36. Maisel came in 1965 followed by Andy Brimmer in 1966.

The chairman of the Board, William McChesney Martin, Jr., did not believe economic analysis was useful for making monetary policy, and he forbade econometric forecasting by the staff until about 1966. The one time he clearly relied on a model-based forecast, the summer and fall of 1968, it misled him into accepting that the June 1968 tax surcharge was “fiscal overkill” and had to be offset by more expansive monetary policy. By December 1968, when the Federal Reserve decided to act against inflation, the twelve month moving average rate of cpi increase was above 4.5 percent and rising. It was not sustained below 3 percent until 1983.

Looking back from the present, monetary policymaking lacked more than today's sophisticated econometric models with rational expectations and sticky prices. Many of the policymakers accepted the short-run Keynesian model with adaptive expectations and a permanent tradeoff between inflation and unemployment.

Along with this framework, and perhaps as part of it, many policymakers and academics accepted two propositions that have now disappeared. First, many claimed that a modern economy could not reach full employment without inflation. Guideposts, guidelines, or some official interference in wage and price setting – including price and wage controls – was believed to be required if policymakers in a market economy wanted to reach full employment with minimum inflation or wanted to prevent inflation from rising before the economy reached full employment. That idea disappeared sometime during the past 25 years. Evidence for it was never supportive as experience from 1961 to 1964 showed.

Second, the need for coordination of fiscal and monetary policy seemed obvious. The meaning of coordination varied. To Gardner Ackley, Chairman of President Johnson's Council of Economic Advisers, coordination meant that the administration chose fiscal policy, and the Federal Reserve financed the deficit to keep interest rates from rising. (Hargrove and Morley, 1984, 286-7)

Edward Nelson (2003) has an excellent summary and critique of several explanations of the Great Inflation. These include the Federal Reserve's failure to raise interest rates enough to maintain positive real rates, mismeasurement of the output gap with the result that the inflation rate remained persistently above the forecast, and belief in a long-run tradeoff that lowered the unemployment rate especially for minorities. Romer and Romer (2002) add reliance on an inappropriate theory. Nelson (2003) argues for neglect of, or too little attention to, money growth.

Each of these explanations contains a correct statement for at least part of the reason for the Great Inflation. Something is missing. Policymakers are not wedded to any particular model. In fact during much of the period, and certainly at the start, there was very little agreement about how monetary policy affected output and inflation and how policy actions had an effect beyond the initial effect in the money market. When Sherman Maisel became a governor, he was surprised at the lack of analytical clarity, the lack of attention to money growth, and what he regarded as arguments without evidence.

A problem with many explanations of the Great Inflation is that inflation continued and rose periodically from 1965 to 1981. Although Brunner and I and others criticized the models used during the 1960s and 1970s and the explanations given at the time, I do not believe that wrong theory alone is a sufficient explanation. And while I agree that measurement errors were large and persistent, as Orphanides (2003) showed, and that they contributed to the Great Inflation, the largest errors came late in the inflation.

More important perhaps is the failure by the Federal Reserve to respond to persistent, one-sided errors. The members of the Federal Open Market Committee (FOMC) knew that the inflation forecasts were persistently too low. They even attempted in the mid 1970s to set targets for money growth in part to remedy the problem of monetary control. Late in the decade, Congress required the FOMC to announce money growth targets every quarter for the following four quarters. FOMC members knew that money growth was often above target. Instead of removing the excess, the FOMC started the next target from the higher than predicted level thereby building in the excessive money growth. An explanation of inflation should account for this, and other perverse, behavior.

My reading of the policy record and other Federal Reserve documents convinces me that no single explanation applies to the 19 members of FOMC. New members came and left, so the reference to 19 members understates the number of decision makers. There were three chairmen – William McC. Martin, Arthur Burns, and G. William Miller – during the years of rising inflation, and there were changes in the senior staff that advised them.

However, two central beliefs changed when Paul Volcker became chairman. Volcker insisted on independence from administration interference, and he changed the weights that the FOMC gave to inflation and unemployment. He allowed the unemployment rate to rise above 10 percent, the highest rate in the postwar period and, no less important, he did not ease policy despite an unemployment rate between 7 and 10 percent for 28 months. Independence kept him from coordinating policy. The historically high fiscal deficits of the early Reagan years had to be financed in the debt markets. Giving most weight to inflation, despite high unemployment, eventually convinced the public that the Federal Reserve would succeed in permanently reducing the inflation rate.

## Why Inflation Started

Disinflation in 1959 and 1960 followed the sharp reversal from the large 1958 budget deficit and the reduction in money growth. A small budget surplus in 1960 and monetary base growth between zero and 1 percent contributed to recession. Rising fears of inflation in the mid-1950s turned into confident beliefs that United States would maintain price stability despite the inflation of the mid-1950s. This confidence, and the low inflation that supported it, continued until 1965. By 1963, however, monetary base growth reached a 4 to 5 percent annual rate, the budget deficit increased following the 1964 tax cut, so the government had more bonds to sell.

Until the 1970s, the Treasury sold all notes and bonds at fixed interest rates, and the Federal Reserve followed an “even keel” policy, holding interest rates fixed during the weeks surrounding new debt issues or refundings. If the market did not buy all the bonds at the fixed price and yield, the Federal Reserve did. Rarely, if ever, could it remove the excess issue of base money. Even keel became a larger problem when budget deficits rose and refinancing became more common later in the 1960s and early 1970s. At times, there were few dates when the FOMC could reduce money growth or raise interest rates.

In the 1950s and 1960s the members of the FOMC did not have a common view or theory about how inflationary impulses were released, and most of them rejected a monetary explanation of inflation. They did not agree on how to express their intentions to the open market desk in New York. Directives often referred to the “tone and feel of the money market” or to free reserves. Occasionally, the directive mentioned the Treasury bill rate and later the federal funds rate. No one attempted to reconcile the various measures or targets; the account manager had considerable discretion.

The interpretation of interest rates and money market conditions encouraged pro-cyclical policy. The FOMC interpreted relatively low nominal interest rates as evidence of monetary ease, despite falling or slow growth of money and credit. This was the same error the System had made in the Great Depression. Its consequence was that the System permitted money growth to fall in recessions and rise excessively in expansions.

Chairman Martin never tried systematically to relate current decisions or actions to longer-term influences on output, employment, and prices. When Sherman Maisel and others expressed concern about the vague language of the directive to the manager, he appointed a Committee on the Directive but maintained his short-term focus on the money market.

Martin adopted a phrase first used by Allan Sproul, President of the New York bank, to explain Federal Reserve independence. The Federal Reserve was “independent within the government.” What could that mean, and what did it mean to Martin? Martin was fond of metaphors. He described the Federal Reserve as “taking away the punch bowl” when the party became too lively. His view went beyond these metaphors. Independence within government meant, to Martin, that the Federal Reserve had to help finance budget deficits. Congress and the Executive set the budget. The Federal Reserve was the agent of Congress. He believed it could not fail to finance the deficit without greatly increasing interest rates. In the 1950s and early 1960s, financing deficits was not a persistent problem. After 1965, the problem became persistent.

Martin was not a Keynesian. He believed deficits caused inflation. In practice, he accepted the idea of coordinated fiscal and monetary policy. He had opposed the Kennedy-Johnson tax cuts because of their effect on the budget deficit. Strong growth, reduced unemployment, and continued low inflation in 1964 and early 1965 convinced him that he had been wrong, that tax reduction worked the way Walter Heller told him it would. However, his actions depended much more on his beliefs about independence within government than on a conversion to Keynesian policies.

To the extent that Martin had a theory of inflation, inflation was caused by budget deficits. This was a widely held view. It isn't hard to see the basis of that belief; most inflation in the United States had occurred in wartime, when the government ran a budget deficit. It was the deficit, not its financing that mattered. And, like most practical people who held this view, he did not relate the deficit to the interest rate and the rate of money growth.

Martin was especially concerned about deficit finance in 1965, when President Johnson increased spending for the Great Society and the Vietnam War. Johnson kept the spending and projected deficit secret until the budget message in January 1966, but Martin had his own sources and learned early that the 1966 deficit would increase substantially. He could not convince the president of the need for higher interest rates. Out of concern for coordination, he delayed the increase until December. In a 4 to 3 vote, the Board increased the discount rate in December 1965.

Delay was Martin's first mistake. The next mistake was more important. After raising the discount rate, monetary policy became more expansive. Annual growth of the monetary base increased to 6 percent.

Sherman Maisel described what happened.

"Most of those who had voted for the discount rate increase then spent the period through June holding that the amount of restriction applied should be minor and should be increased only gradually. On the other hand, those who had voted against the discount rate increase ... now became hawks." (Maisel Diary, FOMC Summary, February 9, 1967, 3)

Misled by the decline in free reserves and a modest increase in interest rates, the majority ignored rising money growth. By summer 1966, 12 month cpi inflation reached 3.5 percent, a rate then considered highly inflationary. The Great Inflation was underway.

### **Why Inflation Continued**

The Federal Reserve tried several times to reduce or end inflation. Each time, it reversed direction when unemployment rose or real activity faltered. In part, this was based on a political judgment that the public, the Congress, or the administration would not accept the temporary increase in unemployment necessary to bring a permanent reduction in inflation. James Tobin and many other economists argued that the social costs of unemployment greatly outweighed the social cost of inflation. In Tobin's words, "many Harberger triangles fit in an Okun gap." This misstates the issue, first, by ignoring many costs of inflation such as non-indexed tax and depreciation rates but also by neglecting that the increased unemployment is temporary but lower inflation persists.

The error that was more important for policymaking came from the Phillips curve. Arthur Okun, CEA chairman at the end of the Johnson administration, was clear. He thought that policy had moved down the Phillips curve. He thought the 1968 tax surcharge would induce a reversal. He recognized Friedman's (1968) argument that the long-run Phillips curve was vertical, but he dismissed it as having limited practical relevance. Later, he recognized that the economy had not moved back along the Phillips curve. Too late, he realized that ending inflation would be costly.

Economists in the Nixon administration accepted Friedman's (1968) natural rate argument and accepted also that inflation resulted from excessive money growth. What they didn't accept was that ending inflation would require more than the 4.5 percent unemployment rate that they were willing to accept. Their principal, President Nixon, had promised to end inflation without a recession. Although his advisers told him that was wrong, he did not change his fundamental belief that no one lost an election because of inflation; elections were lost because of unemployment. His decision to impose price and wage controls was a political decision, a decision to expand the economy in time for the 1972 election while hiding any inflationary consequences. And it worked for him. Inflation did not start to increase until after the 1972 election, and the unemployment rate fell to 5.6 percent in the month before the election from 6.1 percent in the month that controls began.

The economy then experienced a series of large shocks to oil and food prices that carried the twelve month cpi increase to an annual rate of 11.5 percent in May 1974. Neither the administration nor the Federal Reserve had learned to separate one-time price level changes from a maintained rate of price change. It was all inflation, and it called for restrictive policy. The Carter administration came in 1977 and called for expansive policies. The Federal Reserve started to lower the funds rate a year earlier when the unemployment rate was between 8.5 and 9 percent.

Economists have offered several reasons for continued inflation. I accept that many of them are correct partially. None explain why it took 15 years to correct these mistakes. The inflation rate was available at every meeting; FOMC members knew that over time inflation and the unemployment rate increased together, contrary to the Phillips curve. Many of the FOMC members were practical men, not attached to any theory.

After he left the Federal Reserve, Arthur Burns gave a cogent explanation of the persistence of inflation in his Per Jacobsson lecture to the 1979 IMF-World Bank meeting. Burns described the "anguish" of central bankers. By training and disposition they opposed inflation. "Despite their antipathy to inflation and the powerful weapons they could wield against it, central bankers have failed ... utterly in this mission in recent years." (Burns, 1987, 688)

Burns gave his usual explanations. The public believed that the Employment Act of 1946 committed the government to prevent unemployment, and the welfare system made them look to



government for assistance. In Burns words, “many Americans came to believe that all of the new or newly discovered ills of society should be addressed promptly by the federal government” (ibid., 690). This led to unbalanced budgets, increased regulation, and other ways of increasing production costs.

Burns expressed the two main reasons for persistent inflation: policy errors and the relative weights that the public, Congress, and most administrations gave to unemployment and inflation. The first includes mistaken theories of inflation; the second is a political argument. Here is Burns’s summary.

“‘Maximum’ or ‘full’ employment, after all, had become the nation’s economic goal – not stability of the price level. ... Fear of immediate unemployment – rather than fear of current or eventual inflation – thus came to dominate economic policymaking” (ibid., 691).

Central banks were not helpless, Burns said. “Viewed in the abstract, the Federal Reserve had the power to abort the inflation at its incipient stage fifteen years ago or at any later point, and it has the power to end it today. At any time within that period, it could have restricted the money supply and created sufficient strains in financial and industrial markets to terminate inflation with little delay. It did not do so because the Federal Reserve was itself caught up in the philosophic and political currents that were transforming American life and culture” (ibid., 692).

My reading of the detailed record finds strong support for both claims, policy error and political concerns. In the 1960s and 1970s, the Federal Reserve ignored or denied the role of money growth for inflation, did not distinguish between real and nominal interest rates, continued pro-cyclical policies, and used a backward looking Phillips curve that the members believed permitted inflation to bring a permanent gain in employment. When oil and food prices rose in the 1970s, it did not distinguish between one-time, possibly permanent, increases in the price level and sustained inflation driven by sustained excess money growth. The former produces a temporary increase in the rate of price change; the latter causes a persistent increase in the rate of price change. The former arises because of reduced supply, the latter because of increased demand. Reducing demand following a reduction in supply reduces output. Monetary policy can not compensate for a reduction in oil or a temporary loss of the Mississippi harbor and waterway.

Is the Federal Reserve now determined to repeat its 1970s mistakes, as recent speeches by some officials suggest?

During the Great Inflation, the Federal Reserve also held the view that more than a modest increase in unemployment, even if temporary, was unacceptable as a way of reducing inflation. As Burns said, in principle the Federal Reserve could have slowed money growth to end inflation at any time. In practice, it reduced its independence by acceding to the fashion that interpreted the Employment Act as giving greatest weight to unemployment and lesser weight to inflation.

### **Why Inflation Ended**

Several changes by 1979 or 1980 brought an end to the inflationary regime. Most important, in my judgment, was a change in public attitudes about inflation. Polling data suggest that in 1979-80, the public listed inflation as the most important national problem. This change was not limited to the United States; it occurred about the same time in many other countries. And it made possible a sustained anti-inflation policy.

To President Carter's credit, he chose Paul Volcker as Chairman of the Board of Governors. Volcker's views were well-known to Carter's staff. He served as Vice Chairman of the FOMC, he had dissented from the inflationary policies, and he had a long record from his service at the Treasury during the Nixon administration. In any case, when President Carter interviewed him, Volcker told him that he favored greater independence and less inflation. To his credit, the president agreed. He honored the agreement by criticizing Volcker only once during the 1980 election even though he knew that Volcker's actions reduced his chance for re-election.

President Reagan shared the Federal Reserve's goal of reducing inflation. As Volcker explained, administration economists consisted of monetarists and supply-siders. The monetarists complained that money growth was too expansive; supply-siders wanted monetary policy to be more expansive. Since they did not send a clear message, Volcker ignored them and did as he chose. President Reagan agreed.

The public had changed. It tolerated the increase in the unemployment rate. The chairmen of the Banking Committees and principal Congressional members did not threaten the Federal Reserve until 1982, when the unemployment rate rose to a new postwar high above 9

percent. By the time the Federal Reserve ended its anti-inflation policy, in fall 1982, cpi inflation had had fallen below 5 percent. It continued to fall.

Volcker and the Federal Reserve made much of their decision to control money growth. I regard this as largely a smoke screen. They didn't do it, and although they several times considered changes in operating procedures to improve control of money, they did not adopt them. The staff favored the changes. Volcker and the FOMC did not.

Courage and conviction matter. Paul Volcker was present when Arthur Burns gave the Per Jacobsson lecture to explain why he, and others, had been unable politically to end inflation. Volcker had already decided to do what Burns said was politically infeasible. He left the IMF meeting to implement the anti-inflation policy. He informed President Carter and his economic advisers. Although some had reservations, they did not object to the decision.

The main change was in the weights assigned to unemployment and inflation. Volcker and a majority of his colleagues were willing to accept unprecedented increases in interest rates and a long period of high unemployment. The unemployment rate remained above 7.5 percent for more than 50 months, long after the economy began to recover. Long-term nominal interest rates remained above 10 percent until November 1985, long after the inflation had fallen to 3 or 4 percent.

The market was slow to believe that high inflation had ended and that political pressures to reduce the unemployment rate more quickly would not once again abort the policy and bring another rise in inflation.

Disinflation did not require sophisticated economic theory or careful implementation, and it did not have them. It required enough persistence to convince the public that high inflation would not return. And it required political and public support for the transitional effects on unemployment, homebuilding and other durable assets. Volcker and most of his colleagues supplied the persistence. The public, members of Congress, and two presidents provided the political support.

### **Why Inflation Did Not Return**

The Great Inflation and the disinflation taught many lessons, many of them old and forgotten until the 1980s. Central banks, including the Federal Reserve put more weight on the

cost of inflation and less weight on the costs of temporary increase in unemployment than they had in the 1960s and 1970s. There are several reasons.

Research showed that the costs of inflation included much more than the additional trips to the bank highlighted in traditional analysis. (Fischer, 1981) Central banks learned that disinflation was costly and painful for society and for them. The 1960s idea that a free market economy could not achieve full employment and low inflation without guideposts or other forms of interference with wages and prices disappeared. The new mantra was that inflation reduced information about changes in relative prices, hindered efficient resource allocation, and slowed investment and growth. Beginning in New Zealand, but followed by many other countries, central banks adopted rules for monetary policy such as inflation targets.

Central bank economists, and most other economists, are more aware of the role of information and the interaction between their statements and actions and market responses. Central banks once known for their secrecy now take pride in their increased transparency and their “communication policy.” Economists within and outside central banks contributed importantly to these developments and their implementation. Open transparent central banks are less likely to create another Great Inflation.

In 1994, the FOMC took pre-emptive action to prevent inflation. This was a long step away from the pro-cyclical policies that I and others criticized in the 1960s and 1970s. Monetary policy became counter cyclical. The Federal Reserve has continued these policies in the most recent recession and recovery. One consequence was that at relatively low interest rates, consumer spending for housing and durables rose strongly during the recession.

My study of Federal Reserve history stresses economic theory but also the role of individuals, presidents, chairmen, members, and other officials. Alan Greenspan was a long-time anti-inflationist. When he replaced Volcker in August 1987, twelve month average cpi inflation was about 4.2 percent with not much public demand for further reductions. Chairman Greenspan and President Reagan preferred lower inflation. Gradually the Greenspan Fed achieved that. They have an enviable record.

Of course, we still have to get many central banks, including ours, to believe that excessive money growth produces sustained inflation and to give more weight to medium-term effects of their actions letting markets smooth out short-term fluctuations. One place to begin

currently would be a clearer distinction between price level changes and sustained rates of change.

### **Conclusion**

The Great Inflation began mainly because of economic errors including, as Nelson (2003) emphasized, neglect of money growth. It continued because of this and other errors but also, importantly, for political reasons. The public, Congress, several administrations and the Federal Reserve were unwilling to permit unemployment to increase long enough to end inflation. Markets soon recognized this behavior making it more difficult for temporary anti-inflation policy to succeed.

Once these attitudes changed and political pressures eased, the Federal Reserve could reduce inflation. And it did. The change in relative weights on inflation and unemployment remained, so inflation has not returned.

Economic understanding also changed. But the central role of the Phillips curve in staff (but not FOMC) analyses, and the neglect of money growth remains. Recent changes abroad include importantly adoption of a low inflation rule. The United States has not chosen to make its rule explicit.

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