

Discussion of “Falling Behind the Curve: A Positive Analysis of Stop-Start Monetary Policies and the Great Inflation,” by Andrew Levin and John B. Taylor

Christina Romer felt the need to emphasize that the authors are rediscovering the wheel of the Great Inflation starting in 1965. Any story that stresses money or ideas cites the 1960s as the onset of the Great Inflation. *Romer* also took issue with the role of credibility and unanchoring of expectations. There is a mystery of why inflation expectations did not take off until 1976 or 1977. In 1974 and 1975, Chairman Arthur Burns ran tight monetary policy in a recession, so it makes sense people’s expectations didn’t become unhinged. *Romer’s* last point dealt with the natural rate mismeasurement. The natural rate was computed wrong for a reason. It was a symptom of the bad ideas, most importantly the idea that monetary policy was not effective. *Matthew Shapiro* added that one of the reasons the gap estimates were so crazy and were often ignored by some at the Federal Reserve was due to the atmospheric. Chairman Burns often referred to estimates as the “so-called natural rate.”

Edward Nelson was not sympathetic to the idea that Chairman Burns was much better than Chairman G. William Miller. The idea that Chairman Miller should be held responsible for the period 1978-1979 is premised on the idea that monetary policy works on inflation immediately, which is not how the process is seen in inflation targeting regimes. Both Burns and Miller attributed poor inflation outcomes in the late 1970s to special factors such as exchange rate depreciation. The idea that monetary policy loosened dramatically under Miller is just unfounded. On the contrary, he raised nominal and real interest rates quite a bit. If you believe that monetary policy actions take over a year to have a substantial effect on inflation, then you can blame the rise in inflation in 1978-1979 on Chairman Burns, not Chairman Miller, and you can attribute the decline in inflation from 1980 onward partially to the actions of Chairman Miller.

Jeremy Rudd made two small points. First, if you look at the statistical properties of the Livingston Survey, inflation expectations take off in 1972. If you do a regression of changes in the survey expectations on changes in actual inflation and its lags, however, there is no relationship between these variables from 1964-1972. Inflation expectations do trend up, but it’s not until the end of 1972 that there begins to be a recognizable relationship between inflation expectations and actual inflation. *Rudd’s* second point involved defending the Council of Economic Advisors series on the natural rate of unemployment. What they were computing is exactly what people at the time were thinking about and using for policy. In 1978, there was an article in the Federal Reserve Bulletin about the prospects for inflation and it argues that the productivity slowdown is a level phenomenon related to inflation and unemployment was currently at 5 $\frac{3}{4}$ % and approaching full employment. Most current measures say the economy was 2% below NAIRU at the point. In terms of the 15% output gap measured at the time, researchers used an Okun’s law coefficient of 3, and most people kept that in mind too long. Lastly, the authors cannot use the one-sided Hodrick-Prescott filter since the technique did not exist at the time.

John Williams echoed a comment made by *McCallum*, claiming that the history of Chairman Paul Volcker was puzzling. In March of 1980 the interest rate was cut, and the credit controls were put into place. GDP fell at an 8% annual rate. By December of 1980, the Federal Funds rate was up near 20%. But the Federal Reserve was cutting rates when GDP was falling. In terms of Regulation Q and disintermediation, *Williams* cited work from the Federal Reserve Bank of Dallas that estimated an IS equation relating output growth to the Federal Funds rate and Regulation Q variables. From their point of view, the fact that Regulation Q was binding meant monetary policy had large effects on output.

Allan Meltzer discussed three issues. First, he was interested in seeing evidence that Chairman Burns resigned, since he wanted a Democrat to reappoint him. Second, the idea of Chairman Miller having an

inflation target of 8% seemed mind-boggling to *Meltzer*, since Miller did not think in those terms. Third, to give Miller credit for the 1980 decline in inflation, one must remember that the relative price shock had gone through and so even if the Federal Reserve did nothing but continue its current policies, the measured rate of inflation should have come down because the charts show that the relative price shock ended. Chairman Volcker did have to renew the policy. It's interesting to compare what actually happened to what was predicted. James Tobin thought it would take ten years with output growth of -10% to bring inflation down. But these were all Brookings Institution estimates, and no one else ever believed it. Tobin was a practical monetarist. But the public was supportive of the idea that inflation should be ended, and thousands of people cut up their credit cards when they thought the credit controls were going to be severe. It all took two years to settle down, not ten.

Athanasios Orphanides referred to his own work where he showed that policy from the mid-1960s to the late 1970s using the classic Taylor Rule with a 2% inflation target and the real-time output gap predicts a policy very similar to what actually happened, and he found this very distressing. In 1975, specifically, the Council of Economic Advisors knew that their estimates were badly measured and were already working on revising the methodology in order to fix the estimates. The Taylor Rule prescription for 1975 was to be much lower than the actual policy rate, so actual policy was more optimal. The same strand of literature also points out that if you use a Taylor Rule and remove the output gap from the equation, then policy would have performed much better in the 1970s. *Orphanides* stressed that this is exactly what the authors are doing when they use the one-sided HP filter, because you are just using white noise in place of the output gap. Regarding the reliability and political sensitivity of output gap measures, there was something terrible that happened to economists starting in the late 1960s. The productivity slowdown, depending on when you date it, threw off all of the estimates of the natural rate, so there is a period of one-sided misperceptions that make output gap policies look bad. Would things have been better if the Federal Reserve had used something else? In 1980, the Council of Economic Advisors stopped producing potential output estimates, so the Federal Reserve had to produce their own. You can track the misperceptions embedded in Federal Reserve Board staff estimates from 1980 onward, and they are sizeable for many years. In fact, the same people that were computing these estimates at the Council of Economic Advisors were computing them at the Federal Reserve Board, so it was all the same methodology. In terms of historical appearance of the potential output measure in Federal Reserve Board documents, within three months of estimates being presented at the Council of Economic Advisors in the late 1960s, those estimates showed up in the appendix of a Federal Reserve Board document which soon developed into what is now known as the Greenbook.

Christopher Sims had two broad comments. First, he felt it was a mistake to look at the fact that inflation expectations began to increase in 1964 and use some single mechanism to explain the single uptick. Giorgio Primaceri has the most plausible explanation in *Sims'* view, but what it comes down to is there were different mechanisms at play at different times. In the beginning, there was the experience of the 1950s and Korean War Inflation, which ended by themselves. But then there was too much reliance on Phillips curve misestimates and bad ideas. How does fiscal theory play a role? *Sims* then went on to proclaim that policy reaction functions with exogenous inflation targets are not explaining anything. If target inflation rates are shifting around, a model that explain Federal Reserve behavior has to explain why target rates are moving around. If you put into your system a policy reaction function with an inflation target and do not have an explanation of that inflation target anywhere in your system, you have just given up on explaining monetary policy.

Levin began his comments by emphasizing that when you refer to the "Great Inflation of the 1970s" as has become commonplace, it seems more plausible to attribute all of the inflation to energy shocks. There were pressures long before those shocks. The same goes for the ending of the Great Inflation. It is still a mystery, from the credit controls, the lack of coordination, etc. It's as if the Federal Reserve was full of a bunch of comedians. What kind of inflation control were they trying to implement? *Levin* then

segued into *Sims*' comments, agreeing that there were lots of factors at play, like Regulation Q. It hit the economy very hard, the Federal Reserve was reluctant to tighten, and it created political pressures that took away a lot of independence from the Federal Reserve. In reference to *McCallum*, *Levin* felt there were two key phases to the Great Inflation. Long-run inflation expectations started at around 1% from 1965-1970, and then jumped up to 5%. They were stable there until 1976, and then there was another 4% deterioration to 9%. What went wrong on the jumps? Was it confidence, or lack thereof, in the Federal Reserve Chairman? *Levin* was in agreement with *Nelson* that it was not all Chairman Miller's fault, since he was in office for such a short period of time. In the end, *Levin* believed that the lack of an explicit inflation target for a central bank can be a big problem, and in order to have good policy you need clear objectives.