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Monetary policy when potential output is uncertain: Understanding the growth gamble of the 1990s☆

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Abstract

The Fed kept interest rates low and essentially unchanged during the late 1990s despite a booming economy and record-low unemployment. These interest rates were accommodative by historical standards. Nonetheless, inflation remained low. How did the Fed succeed in sustaining rapid economic growth without fueling inflation and inflationary expectations? In retrospect, it is evident that the productive capacity of the economy increased. Yet as events unfolded, there was uncertainty about the expansion of the capacity of the economy and therefore about the sustainability of the Fed's policy.

This paper provides an explanation for the success of the Fed in accommodating growth with stable inflation in the late 1990s. It shows that if the central bank is committed to reverse policy errors it makes because of unwarranted optimism, inflation can remain in check even if the central bank keeps interest rates low because of this optimism. In particular, a price level target—which is a simple way to model a commitment to offset errors—can serve to anchor inflation even if the public does not share the central bank's optimism about shifts in potential output. The paper shows that price level targeting is superior to inflation targeting in a wide range of situations. The paper also provides econometric evidence that, in contrast to earlier periods, the Fed has recently put substantial weight

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on the price level in setting interest rates. Moreover, it shows that CPI announcement surprises lead to reversion in the price level. Finally, it provides textual evidence that Alan Greenspan puts relatively more weight on the price level than inflation.

JEL classification: C20; E42; E43

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1. Introduction

The performance of the US economy during the second half of the 1990s was outstanding. Rapid GDP and productivity growth were coupled with a very low unemployment rate and low-and-falling inflation. The sources of this performance are the focus of much of recent research (e.g., Krueger and Solow, 2001). Of course, many factors—including a possible decline in the equilibrium rate of unemployment (Staiger et al., 2001), changes in the structure of the labor force (Blank and Shapiro, 2001), acceleration in technological progress (Jorgenson and Stiroh, 2000; Oliner and Sichel, 2000; Basu et al., 2001), and pure luck (Mankiw, 2002)—likely contributed to the success of the late 1990s.

Nonetheless, few question that the Fed's policies were very important in supporting economic growth with low and stable inflation. Since output was above its historical trend and unemployment was near a historical low, one might have expected the Fed to raise interest rates given its history of past policy actions. Even though inflation was not increasing, a preemptive tightening of monetary policy such as the Fed undertook in 1994 seemed likely. Yet the Fed held interest rates essentially unchanged in the face of output's spurt without an increase in inflation. Indeed, the rate of inflation has trended down since the mid-1990s. Alan Greenspan agrees that monetary policy was expansionary relative to historical standards. He says, "… from 1995 forward, we at the Fed were able to be much more accommodative to the rise in economic growth than our past experiences would have deemed prudent" (Greenspan, 2004, p. 35).

The aim of this paper is to explain why accommodative monetary policy in this period did not increase inflation or inflationary expectations. One possibility is that the expansion of the economy's capacity in the late 1990s was apparent at the time, so that monetary policy merely accommodated an increase in productive capacity. In retrospect, this explanation has some appeal. As the 1990s unfolded, it was, however, much less clear that the economy experienced an increase in capacity. As Greenspan (2004, p. 34) notes, "The rise in structural productivity growth was not obvious in the official data… until later in the decade but precursors had emerged earlier." Though it is now clearly established that a burst of productivity occurred in the late 1990s, there was a sequence of positive surprises as events unfolded. In the context of these very substantial, favorable surprises, the Fed pursued what at the time appeared to be a very expansionary policy.

We argue that the Fed was effectively committed to a price level path. We do not claim that the Fed was following a price level rule *per se*, but rather that correcting policy mistakes was an important ingredient in its policy actions. We use a commitment to price level stability as a modeling device to represent a general commitment to undo the