Available online at www.sciencedirect.com
SCIENCE DIRECT®
ELSEVIER
Journal of Monetary Economics 52 (2005) 477–496
Journal of MONETARY ECONOMICS
www.elsevier.com/locate/econbase

Discretionary monetary policy and inflation persistence ☆

Niklas J. Westelius*

The Paul H. Nitze School of Advanced International Studies, 1740 Massachusetts Avenue NW, Washington DC 20036, USA

Received 2 March 2001; received in revised form 4 February 2004; accepted 20 May 2004

Abstract

Rational expectations models of staggered price/wage contracts have failed to replicate the observed persistence in inflation and unemployment during disinflationary periods. The current literature on this *persistency puzzle* has focused on augmenting the nominal contract model with imperfect credibility and learning. In this paper, I re-examine the persistency puzzle by focusing on the discretionary nature of monetary policy. I show that when the central bank is allowed to re-optimize a quadratic loss function each period, imperfect credibility and learning, even in the absence of staggered contracts, can generate a significant amount of inflation persistence and employment losses during a disinflationary period.

JEL classification: E31; E52

Keywords: Monetary policy; Disinflation; Credibility; Inflation persistence

☆I am grateful to Jean Boivin, Andrea Bubula, Richard Clarida, Laila Haider, Peter Ireland, Frederic Mishkin and two anonymous referees for helpful comments and suggestions, and The Royal Swedish Academy of Sciences for financial support.
*Tel.: +1 202 663 5687; fax: +1 202 663 7718.
E-mail address: nwestelius@jhu.edu.

0304-3932/$ - see front matter © 2005 Elsevier B.V. All rights reserved.
doi:10.1016/j.jmoneco.2004.05.006

1. Introduction

The New Keynesian sticky price/wage framework has been criticized for its empirical failure to generate sufficient inflation and output persistence.[1] This so-called persistency puzzle has led researchers to more closely examine the theoretical problems of generating observed output and inflation dynamics. In particular, a group of models has emerged attempting to improve the empirical fit of the New Keynesian framework by augmenting it with imperfect credibility and learning.[2] This literature asserts that the persistency puzzle arises because of the empirically questionable assumption of perfect policy transparency, and not because of any intrinsic shortcomings of the contract structure. The idea is that if policy suffers from imperfect transparency and credibility, then the public is forced to learn the true intentions of the monetary authorities by observing real outcomes. It is this learning process that is likely to generate additional persistence in inflation and output dynamics. For example, Erceg and Levin (2001) use a contract model similar to Taylor (1983) and argue that by including imperfect information and learning they can account fairly well for the dynamics of inflation and output following the Volker-disinflaition in 1979.

The problem with these learning models is that they typically assume that the monetary authorities do not behave optimally, but instead simply follow an exogenously determined Taylor rule. As a consequence, the explicit relationship between discretionary monetary policy and inflation and output dynamics is disregarded.[3]

The main reason for sidestepping the central bank's optimization problem is the difficulties of modeling optimal policy in an environment of imperfect information and learning. However, this is not without consequences. For instance, the common specification of the Taylor rule includes lags of the central bank's control instrument. This exogenously assumed policy inertia is not only likely to create inflation persistence in itself but also makes it harder for agents in the economy to learn the true nature of the current regime and thus reinforce the persistence in both output and inflation. The question then is how much of the persistency is really generated endogenously through imperfect credibility and transparency and how much is exogenously assumed by eliminating discretionary monetary policy in favor of an appropriately specified Taylor rule.[4]

[1] Phelps (1978) and Taylor (1983) show that forward-looking staggered wage contracts do not necessarily lead to an initial decline in economic activity following a disinflationary shift in monetary policy. Ball (1994) demonstrates that contractionary monetary policy coupled with staggered price setting can even give rise to a boom in output. Fuhrer and Moore (1995) also show that the New Keynesian Phillips curve derived from overlapping wage contract fails to account for the observed persistence in inflation.

[2] For example, Erceg and Levin (2001), Andolfatto and Gomme (1999), and Huh and Lansing (2000).

[3] In the conclusion of their paper, Erceg and Levin (2001) do recognizes this limitation of their model and suggest that future research should give explicit considerations to the relationship between discretionary policy and imperfect credibility and transparency.

[4] Another interesting feature of these learning models is that the importance of credibility and transparency as determinants of disinflation costs depend on the nature of the staggered contract. For