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Staggered wages and output dynamics under disinflation☆

Guido Ascari[a], Neil Rankin[b,*]

[a]Dipartimento di Economia Politica e Metodi Quantitativi, Universita degli Studi di Pavia, Via S. Felice, 5, 27100 Pavia, Italy

[b]Department of Economics, University of Warwick, and CEPR, Coventry CV4 7AL, UK

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Abstract

We study the output costs of a reduction in monetary growth in a dynamic general equilibrium model with staggered wages. The money wage is fixed for two periods, and is chosen according to intertemporal optimisation. Agents have labour market monopoly power. We show that the introduction of microfoundations helps to resolve the puzzle raised by directly postulated models, namely that disinflation in staggered pricing models causes a boom. In our model disinflation, whether unanticipated or anticipated, unambiguously causes a slump. © 2002 Elsevier Science B.V. All rights reserved.

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* Corresponding author. Tel.: + 44-2476523470; fax: + 44-2476523032.

E-mail address: n.rankin@warwick.ac.uk (N. Rankin).

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1. Introduction

'On the […] "Keynesian view", even credible disinflation is likely to increase unemployment for some time, because of the inflationary momentum caused by overlapping price and wage decisions' (Blanchard and Summers, 1988, p. 182). Statements like this one have recently been questioned by a puzzle most starkly expressed by Ball (1994) (though it was noted before this by others, e.g. Blanchard (1983) and Buiter and Miller (1985)). Ball presents a model with the surprising result that 'with credible policy and a realistic specification of staggering, quick disinflations cause *booms*'. For this reason, Ball and others (e.g. Miller and Sutherland, 1993, Driffill and Miller, 1993) have gone on to conclude that essential to the explanation of why disinflations cause prolonged recessions in practice is that policy lacks 'credibility'.

Ball and the other authors who arrive at the same conclusion, however, use macromodels which are directly postulated rather than explicitly derived from microfoundations. In this paper, instead, we introduce staggered wages into a dynamic general equilibrium structure. The question we then ask is whether introducing such microfoundations still leads to Ball and others' conclusion, or whether, on the other hand, it could help to resolve the disinflation puzzle without needing to appeal to lack of credibility.

Other authors have also looked at staggered prices or wages in a dynamic general equilibrium framework, e.g., Ascari (2000), Chari et al. (2000), Cho and Cooley (1995), Kimball (1995), Sutherland (1996), Woodford (1998), Yun (1996). These contributions have not, however, been concerned with the disinflation question. Danziger (1988) and Ireland (1995) do look at disinflation in dynamic general equilibrium models with staggered prices. Danziger (1988) investigates the welfare effects of unanticipated disinflation in a model where it is costly to change prices. The model however has no money, and hence no role for money demand. Ireland (1995), on the other hand, looks at the question of *optimal* disinflation, and is especially focused on simulations. In this paper we take an analytical rather than a numerical approach, seeking to understand more about the basic mechanics of the disinflation process. We also wish to maintain a link to the literature based on directly postulated models, and so devote some space to a comparison with such models.

The advantage of the more microfounded approach is that it leads to an internally consistent model. The analysis contained in this paper will suggest that the direct postulation approach may have led earlier researchers to dismiss certain features as unimportant too readily, and to overlook certain key parameter restrictions which the microfounded model implies ought to hold in directly postulated models.

An important insight which underlies our investigation is that Ball's (1994) paradoxical result is due to an element of preannouncement in the policy experiment he considers. Disinflation in his analysis consists of putting a linear