ELSEVIER

Journal of Economic Dynamics & Control
27 (2003) 573–597

JOURNAL OF
Economic
Dynamics
& Control

www.elsevier.com/locate/econbase

Profits, markups and entry: fiscal policy in an open economy

Javier Coto-Martínez[a], Huw Dixon[b,c,*]

[a] *University of East Anglia, Norwich, NR4 7TJ, UK*
[b] *CESifo, Poschingerst 5, 81697 Munich, Germany*
[c] *University of York, York YO10 5DD, UK*

Received 11 June 1999; accepted 15 August 2001

Abstract

In this paper, we develop a general model of an imperfectly competitive small open economy. There is a traded and non-traded sector, whose outputs are combined in order to produce a single final good that can be either consumed or invested. We make general assumptions about preferences and technology, and analyze the impact of fiscal policy on the economy. We find that the fiscal multiplier is between zero and one, and provide sufficient conditions for it to be increasing in the degree of imperfect competition. We also are able to compare the multiplier under free-entry and with a fixed number of firms and welfare. A simple graphical representation of the model is developed.

JEL classification: E20; E62; F4

Keywords: Imperfect competition; Open economy; Fiscal policy

1. Introduction

This paper focuses on the relationship between markups, profits and entry in an open economy. There is now a well established literature which explores the effects of imperfect competition in output markets on fiscal policy

* Corresponding author. University of York, York, YO10 5DD, UK.
E-mail addresses: j.coto-martinez@uea.ac.uk (J. Coto-Martínez), hdd1@york.ac.uk (H. Dixon).

0165-1889/02/$ - see front matter
PII: S0165-1889(01)00062-8

in a closed economy.[1] With perfectly competitive labor markets, the key result is that the presence of imperfect competition in the product market leads to a *profit multiplier*, by which an initial increase in output generates a positive feed-back onto consumption via profits which is stronger with larger markups. As Startz (1989) argued, this effect will be absent when free-entry drives profits down to zero or in a Walrasian model with constant returns when profits are zero anyway. This paper seeks to extend this analysis to a dynamic small open economy model, developing the Walrasian framework of Turnovsky et al.[2] by explicitly introducing monopolistic competition and entry into the model. We keep the traditional Ramsey assumption of a single final output which can be used for consumption, investment or government expenditure, with the traded and non-traded goods as intermediates. There are two factors or production (capital and labor). The Ramsey household holds two assets, capital and an international bond and solves the standard intertemporal optimization problem giving rise to the dynamics of the economy.

The main innovation in the paper is the inclusion of monopolistic competition in the output market: we retain perfect competition in the labor market.[3] We are able to provide a simple graphical analysis of the steady-state effects of fiscal policy and consider the relationship between the multiplier and the markup. We are able to show that whenever there is imperfect competition, the multiplier is larger when there is a fixed number of firms as opposed to the free-entry case. The multiplier is increasing in the degree of imperfect competition when preferences and technology are Cobb–Douglas. Throughout, the *profit effect* of imperfect competition without free-entry is vital for understanding the multiplier and resultant welfare effects. A crucial feature in the dynamic case is that we need to consider changes in the net present value of profits: in particular we find that variations in profit along the path to equilibrium influence the steady-state equilibrium through their impact on household wealth.

Our setup differs in certain key respects from other papers. We allow for a general non-separable utility function over consumption and leisure (in many papers, either there is no disutility of work—e.g. Dornbusch, 1983; Turnovsky, 1991; or it is additive—e.g. Sen and Turnovsky, 1991). Whilst it is standard in RBC models to have leisure in utility, it usually takes

[1] Dixon (1987), Mankiw (1988), Startz (1989), Dixon and Lawler (1996) and more recently in dynamic closed economy models Rotemberg and Woodford (1995), Heijdra (1998), Dixon (1998).

[2] Sen and Turnovsky (1990, 1991), Brock and Turnovsky (1994), Turnovsky (1991). Other papers that have looked at this issue in an essentially dynamic context include Ghosh (1992), Mendoza (1995), Obstfeld (1982, 1989), Serven (1995), van Wincoop (1993) inter alia (see Obstfeld and Rogoff, 1995a for more references).

[3] For closed economy, Ramsey models with a unionized labor market, see Hansen (1999) and Dixon (2000).