FISCAL AND ENVIRONMENTAL POLICY UNDER MONOPOLISTIC COMPETITION**

BY

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1 INTRODUCTION

Unlikely coalitions sometimes emerge between environmentalists and vested interests in the business community. Industry often pleads for more protection from foreign competition or less interference with practices, such as carving up markets or fixing prices. In other words, companies often like to be protected from the discipline of the market in order to exploit their monopoly power by raising prices at the expense of consumers. Green lobbies sometimes embrace these arguments, because monopolistic behaviour implies lower levels of output and thus lower levels of emissions and a better quality of the natural environment. Free trade induces regional specialisation and thus creates more interregional traffic. This causes congestion and emissions which harms environmental quality. It is questionable, however, whether sustaining cartels and protectionist policies are efficient ways of combating environmental damage. They are likely to be blunt instruments of environmental policy. It may be better to tackle the problem of environmental damage at source.

This paper analyses environmental policy within the context of imperfect competition in product markets. We abstract from international trade and regional specialisation and, instead, focus attention on environmental policy in a closed economy with monopolistic competition. Our qualitative conclusions can be made within the context of imperfect competition and international trade as well. Before we proceed to a discussion of environmental policy, we point out the Key-

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** This paper was prepared for the OCFEB workshop 'Quantitative Economics for Environmental Policy' held at the Tinbergen Institute Rotterdam, March 22 1994. We thank Casper van Ewijk and Jenny E. Ligthart for useful comments. Requests for reprints should be directed to: B.J. Heijdra, Department of Macroeconomics, University of Amsterdam, Roetersstraat 11, 1018 WB Amsterdam, The Netherlands.
nesian features of such an economy. Since prices exceed marginal cost under imperfect competition, firms are eager to sell additional output if aggregate demand rises. The profit margin, a quintessential feature of monopolistic competition, creates the potential for another round of the multiplier process. The multiplier process is dampened by labour supply declining as people become better off. If the government steps in and engages in a balanced-budget expansion of public spending, employment and output increase. Although such Keynesian demand management overcomes some of the distortions of monopolistic competition, it causes environmental problems as pollution increases. Hence, the level and composition of public spending should strike a balance between, on the one hand, managing aggregate demand and reducing the distortions from monopolistic competition, and, on the other hand, protecting environmental quality. We show that a shift to greener preferences raises the cost of public funds and changes the mix of government spending away from traditional public goods towards public abatement. If the demand for traditional public goods is much less elastic than that of public abatement, and the initial share of abatement in total government spending is large, output may rise. Pollution then increases, but environmental quality improves nevertheless on account of the substantial rise in public abatement. Protecting cartels lowers the cost of public funds and may boost the provision of traditional public goods and abatement. If the initial distortion in the product market is large, output and pollution fall. Consequently, environmental quality improves. This is why green and protectionist or cartel lobbies may become unlikely bedfellows.

In this paper we investigate the issues discussed above in detail. We can also analyse the effects of changes in the mix of pollution and labour taxes on private abatement, pollution, environmental quality, national income, and employment. In particular, we address whether the following version of the double dividend hypothesis holds: does a green tax reform yield both an improvement in environmental quality and a rise in employment? Finally, in this paper we set out to investigate the effects on output, employment, and environmental quality of a balanced decline in the public sector (fiscal consolidation) and of a more progressive tax system.

Section 2 presents a simple macroeconomic model of imperfect competition. We assume a non-unitary elasticity of substitution between consumption and leisure. Section 3 derives the output, profit and employment multipliers for a rise in public spending financed by lump-sum taxes and discusses the extent to which private consumption is crowded out both under restricted and free entry and exit of firms. Section 3 also derives the marginal cost of public funds and discusses

1 See Hart (1982), Dixon (1987), Blanchard and Kiyotaki (1987), Mankiw (1988), Startz (1989), and Heijdra and Van der Ploeg (1993). The Keynesian multiplier is due to a coordination failure, since all firms together have an incentive to hire more workers and expand demand but no individual firm has such an incentive as new workers will spend most of their income on products of rival firms.