

workers' outside opportunities, that the latter are inversely correlated to the rate of unemployment and, finally, that the mark-up over outside opportunities depends positively on the degree of market power on the product market. Notice that the reference to this non competitive framework opens the possibility that a transmission mechanism of fiscal policy, based on changes in product demand elasticity, operates not only directly, *via* shifts in the PS schedule, but also indirectly *via* induced shifts of the WS schedule.

In order to evaluate the effectiveness of fiscal policy on employment we follow the same procedure developed in section 3, and obtain the employment multiplier:

$$\eta_{\tilde{L}\tilde{G}} = - \frac{\eta_{r\tilde{G}} - \frac{\tilde{G}}{\omega} \frac{\partial \Omega}{\partial \tilde{G}}}{(\alpha - 1) - \alpha \eta_{r\tilde{G}} - \frac{\tilde{L}^*}{\omega} \frac{\partial \Omega}{\partial \tilde{L}}}$$

To evaluate the sign of this multiplier, we again consider first the case in which the elasticity of public demand is higher than that of private demand. If  $\gamma > \rho$ ,  $\partial \Omega / \partial \tilde{G} = \Omega_\epsilon \left( \partial \epsilon / \partial \tilde{G} \right) < 0$  and  $\partial \Omega / \partial \tilde{L} = \Omega_u \left( \partial u / \partial \tilde{L} \right) + \Omega_\epsilon \left( \partial \epsilon / \partial \tilde{L} \right) > 0$ . This allows us to establish that if the conditions for the PS schedule to be negatively sloped are verified, then an expansionary fiscal policy has a positive effect on employment. The PS curve shifts upwards and the overall effect is amplified by a downward shift of a positively sloped WS schedule.

If  $\gamma < \rho$ ,  $\partial \Omega / \partial \tilde{G} > 0$  while  $\partial \Omega / \partial \tilde{L}$  is ambiguous in sign. If it is positive, so that the WS is positively sloped, and if the PS is upward sloping as well, then the above multiplier is positive, provided the WS intersects the PS from above (it is flatter at equilibrium). This configuration resembles that obtained above in a competitive framework. In this case, however, we cannot easily rely upon stability conditions. As noticed by Manning (1990), if both the labour and the goods markets are non competitive, no equilibria can be assessed to be stable or unstable, without *a priori* information on the degree of the nominal and real price and wage rigidities. Finally, we notice that if the WS schedule turns out to be negatively sloped, the multiplier is unambiguously positive.

## 5 Conclusions

In this paper we have highlighted the properties of a macroeconomic model with monopolistic competition, where the differentiated goods which enter the aggregate output basket are demanded and consumed by both the private and the public sector, with different demand elasticities. In this set-up, the level of public expenditure influences the overall demand elasticity and the labour demand schedule, through a direct 'demand composition' effect. In particular, we have proved that an increase in public expenditure may increase output, not only (as previously established) when public demand is more elastic than private demand and returns are decreasing, or when it is less elastic and returns are increasing. There is a set of technological conditions, from moderately increasing to moderately decreasing returns, in which fiscal policy is expansionary, independently of the way in which it alters the elasticity of demand at the initial equilibrium.

With these results we aim at contributing to the research program which views the degree of market power as a possible intermediate target for an employment-oriented fiscal policy (D'Aspremont *et al.* (1995)). Some authors have stressed the difficulties and risks involved in the actual implementation of such a policy intervention (Jacobsen and Schultz (1994)). However it is by now clear that the degree of market competitiveness plays a crucial role in the determination of the level of macroeconomic activity, and this suggests that a serious theoretical assessment of the market power effect of fiscal policy should be carried out.

In this wider perspective, one can draw no definite conclusions, be them theoretical or empirical, on the direction in which fiscal policy may influence the degree of market power. In some sectors, the presence of a public component of demand in addition to the private component may actually increase market competitiveness; to quote an example, the rules recently imposed in Italy on the government-financed purchases of pharmaceutical products may induce a more competitive price behaviour on the firms' side. On the other hand, public expenditure is somehow "rigidly" allocated - the setting of expenditure in real terms is often accompanied by a predetermination of its allocation between the different sectors - and this contributes to making demand more rigid. Both kinds of phenomena are consistent with our analysis.