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Welfare, taxes and foreign investment

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Abstract

R&D-based growth models imply a positive growth effect of foreign investment through the introduction of new technologies. However, it has been shown that in an economy without taxes, national welfare may decrease due to the transfer of profits to foreigners. This paper investigates whether the introduction of a tax on profits warrants a positive welfare effect of foreign investment.

It is shown that the welfare effect of foreign investment may be negative due to the existence of transfers of profits to foreigners even when the domestic economy is following the optimal tax policy.

JEL classification: F21; H21; O40

Keywords: Foreign direct investment; Endogenous growth; Taxes; Welfare

1. Introduction

Recent literature on growth theory emphasizes technological change as the engine of growth. This has given new strength to those who defend opening the economy to foreign direct investment (FDI). Foreign investors bring better technologies, increasing the rate of growth. Empirical studies, such as Barrel and Pain (1997) and Borensztein et al. (1998), also seem to indicate a positive growth effect of foreign

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investment. The strength of the theoretical and empirical results that FDI increases growth leads many economies to attract FDI with subsidies. The fact that an increase in growth does not necessarily imply an increase in welfare is often forgotten.

Following a suggestion of Feenstra (1996, Section 6.2), Reis (2001) shows for an economy with no taxes or subsidies that the welfare effect of foreign investment may be negative due to the transfer of profits to foreigners. This may dominate the positive effect of the increase in growth caused by a decrease in the cost of introducing new goods in the economy. Taxing profits could reduce the transfer of profits and change this result. This paper studies whether following the optimal tax policy warrants a positive welfare effect of FDI in an economy where the main effect of foreign investment is a decrease in the innovation cost.

To this end, the first step is to determine the optimal tax in the economy open to foreign investment. I do this in a simple endogenous growth model designed to address the effect on growth of a technological upgrade brought about by foreign investment. In this model a tax/subsidy on profits is equivalent to a subsidy/tax to investment on R&D. The optimal policy may be to tax profits to reduce the transfer to foreigners or to subsidize investment in R&D due to the technological advantages brought about by this investment.

Because in this paper profits are just the return on investment, the results on the optimal tax may be related to the results on the optimal taxation of capital income. For dynamic models of closed economies, Judd (1985) and Chamley (1986) showed that the optimal tax on capital income is asymptotically zero, and recently Judd (2002) defended that the result is strengthened when imperfect competition is considered; in this case the optimal tax may be negative. Guo and Lansing (1999) extended Judd's analysis to consider several features of fiscal behavior and showed that the optimal tax rate may be positive or negative; it may be positive if there are pure profits which cannot be taxed separately. As noted by these authors 'the capital tax in Judd's model represents an effective tax rate that subsumes the various features of the tax code that influence the investment decision'. The tax on profits in this paper should be understood in a similar way. For endogenous growth models, but still for closed economies, Jones et al. (1993) restate the result of a zero asymptotic tax rate on capital income as long as there are no pure profits.

Gordon and Hines (2002) evaluate recent research on taxation in an open economy. In Section 5.2.3. they consider the role of R&D and its implication of positive profits. However, its relationship with growth is not addressed.[1] I consider an endogenous growth model and show that when investment is foreign there is an additional reason that may lead to a positive optimal tax on investment income.[2]

The welfare effect of foreign investment was studied long ago by Bhagwati and Brecher (1981). In their paper foreign investment increases the stock of physical

[1]For the static models of trade, Jones (1967), and Brecher (1983) studied the optimal commercial policy for an open economy and determined the optimal taxes on trade and foreign investment.

[2]Guo and Lansing (1999, p. 971) give several references of 'research that identifies alternative theoretical justifications for a non-zero limiting capital tax in dynamic general equilibrium models'.