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Foreign ownership and productivity: Is the direction of causality so obvious?

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Abstract

This paper estimates the effect of foreign ownership on productivity in a very general setting where all potential endogeneity sources are controlled for. In particular we apply the GMM-System estimator to estimate TFP for a large sample of firms located in Italy. After controlling for unobserved heterogeneity, input simultaneity and measurement errors, foreign ownership has no effect on productivity. When we also control for the simultaneity of the ownership variable we find that nationality matters since firms under US ownership tend to be more productive than firms under national ownership. Therefore we do not find widespread empirical support to the standard internalization theory of foreign direct investment. In particular, the transfer of technology seems to occur only if the difference between the recipient and the investment country is sufficiently pronounced. Our results also highlight the importance of controlling for simultaneity of the foreign ownership variable.

JEL classification: C23; D24; F23

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1. Introduction

The existence of Multinational Enterprises (MNEs) and the characteristics of their foreign affiliates have been extensively examined by the economic literature. The most widely accepted theory on MNEs, the so-called "internalization theory" (see Caves, 1996), provides some

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insights to both issues. It suggests that MNEs exist so that they can exploit superior knowledge (e.g. managerial expertise and superior technological skills) in foreign markets, which compensates for the higher costs induced by operating in a foreign environment. In turn, MNEs' foreign affiliates should benefit from the transfer of this knowledge and might therefore display higher productivity and profitability levels with respect to domestic-owned firms. The alleged superior performance of MNEs' subsidiaries compared with domestic-owned firms has been widely documented in early empirical works, mostly using aggregate data, and has become a "stylised fact" in the literature on MNEs (Conyon et al., 2002).

However, a more recent strand of literature has cast more than a passing doubt on whether this "stylised fact" can be given a causal or structural interpretation. In particular, aggregate data do not allow controls for composition effects and firms' heterogeneity. This is a major shortcoming since MNEs are concentrated in a small number of industries, which might be more productive than the manufacturing sector as a whole. Furthermore, there are other firm characteristics (including age, size, capital intensity, input, and managerial quality)–potentially correlated with foreign ownership–which are natural candidates for explaining productivity differentials.

In an attempt to answer these criticisms, empirical work in this area has initially shifted towards cross-sectional regressions at the firm or plant level (Globerman et al., 1994; Doms and Jensen, 1998). It is probably fair to summarize this early literature by saying that it gives only limited support to the alleged superior performance of multinational firms. Firm-level cross-sectional evidence is not immune to methodological criticisms, however. First, some firm characteristics are unobservable (e.g. managerial quality). If this unobserved heterogeneity is correlated with the observables, then standard estimation techniques applied to cross-sectional data produce biased and inconsistent estimates of the parameters of interest. Second, additional estimation problems arise because of input simultaneity and measurement errors. As is well known, these problems are very difficult to deal with in cross-sectional regressions. Third, even after controlling for unobserved heterogeneity, the type of ownership is unlikely to be orthogonal to present and past idiosyncratic productivity shocks.

Further advances in this research area have been very recently achieved by applying appropriate microeconometric techniques to firm level longitudinal data sets (Griffith, 1999a,b; Girma et al., 2001; Harris, 2002; Harris and Robinson, 2003). Our work contributes to this strand of research both methodologically and empirically. As in most recent work, we estimate dynamic gross output production functions using the GMM-System technique recently developed by Blundell and Bond (1998). In doing so, we are able to obtain consistent estimates of the impact of foreign ownership on productivity, controlling for unobserved heterogeneity, inputs' simultaneity and measurement errors. However, we depart from most of the existing literature by also allowing the type of ownership to be endogenous. In addition, by using a specially constructed panel of firms located in Italy, this is the first paper providing empirical evidence on this issue for a Continental European country.

Our aggregate findings suggest that once all potential endogeneity sources are controlled for, any systematic difference between foreign affiliates and domestic firms disappears. Therefore we do not find widespread empirical evidence in favor of the standard internalization theory of foreign direct investment. However, we also find that the country of origin matters as firms under US ownership outperform domestic-owned firms. In turn, this finding gives empirical support to the hypothesis that the transfer of knowledge occurs only if the gap between host (Italy) and home (US) countries is sufficiently pronounced.

The paper is organized in the following way. The next section motivates this paper by reviewing the theoretical literature and the empirical evidence on MNEs' productivity