Non-technical summary

"Spillovers from Multinationals to Heterogeneous Domestic Firms: Evidence from Hungary".

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The paper examined the impact of the presence of foreign multinational firms in a particular Hungarian county on the productivity of Hungarian firms in the same county. It searched for horizontal spillovers from multinational firms in the same sector, backward spillovers from multinationals that are customers of Hungarian firms and forward spillovers from multinationals that are input suppliers. A large sample of Hungarian firms for the 1993-2002 period was used. For this sample, the paper found significant horizontal spillovers in a firm level fixed effect regression but no evidence of backward and forward spillovers.
Yet, average spillover effects over all firms might not be very informative if Hungarian firms are very heterogeneous and this heterogeneity affects the size of the spillovers. Great deal of heterogeneity among Hungarian firms with respect to their productivity was documented and size and analyzed whether more productive and larger firms are able to reap more benefit from spillovers of multinational firms than less productive smaller firms. The paper used simultaneous quantile regression to analyze group specific effects with groups defined with respect to productivity and found significant differences among the groups with more productive firms receiving more horizontal and backward spillovers from foreign multinational firms but less forward spillovers than less productive firms.

A second obvious characteristic in which firms differ is their export status. However it is not independent from productivity since only more productive firms start exporting to foreign market. One may expect export status to have an effect for two reasons. First, exporters are more productive, and second, exporters are used to interact with foreign firms and therefore possibly able to gain more from the presence of foreign multinational firms in Hungary. In a fixed effects regression which separates the spillover effects on exporters and non-exporters, positive backward spillovers of multinational firms on Hungarian exporters were found significantly but no effect on Hungarian non-exporters. Horizontal spillovers in contrast were only significant for non-exporting firms. In line with the results from the fixed effects regression, the quantile regressions revealed no larger spillovers for exporters than for non-exporting domestic firms.

Several theories have been put forward to motivate differing effects for heterogeneous firms. The paper found that the most productive firms gain the most, while the least productive are actually negatively affected by proximity to foreign firms. This supports the idea of an absorptive capacity necessary to reap positive spillover effects. The role of peer pressure on innovative activities of most productive firms is also supported. Convergence of the least productive firms, in contrast, does not receive support by our data.

Overall, the paper found that heterogeneity in terms of productivity affects domestically owned firms' capacity to absorb knowledge and achieve higher productivity.