Exports and Productivity: Comparable Evidence for 14 Countries

● *International Study Group on Exports and Productivity*

Exporting firms have strong productivity premiums. Understanding why these differ across countries is key for policy

That exporting firms outperform counterparts selling only in the domestic market is well established through anecdotal evidence and microeconometric research. Two alternative (but not mutually exclusive) hypotheses offer explanations for this difference in performance.

The first hypothesis points to self-selection into export markets by the more productive firms. Selling goods in foreign markets requires firms to incur additional transport and distribution costs, the expenses of skilled personnel to manage foreign networks, and production costs to customize domestic products for foreign markets. These costs constitute an entry barrier that less productive firms cannot overcome. Moreover, firms may be forward-looking, with their desire to export tomorrow leading them to improve their performance today.

The second hypothesis points to the role of "learning by exporting." Flows of knowledge from foreign buyers and competitors help improve the postentry performance of export starters. In addition, firms selling in foreign markets are exposed to more intense competition and must improve their performance faster than firms that sell only domestically.

Cross-sectional differences between exporters and nonexporters may therefore be explained by ex ante differences between firms (the more productive firms become exporters) but also by ex post differences (exporting makes firms more productive).

The big picture emerging from the literature on exports and productivity is this: the more productive firms self-select into export markets, but exporting does not necessarily improve productivity. But this big picture hides substantial heterogeneity. Cross-country comparisons and even cross-study comparisons for a given country are difficult to make because the studies differ in the specifics of the approach followed.

In a recent study the International Study Group on Exports and Productivity uses comparable micro-level panel data for 14 countries and a set of identically specified empirical models to investigate the relationship between exports and productivity. The results are internationally comparable, both qualitatively and quantitatively. The study covers countries in Asia (China), Latin America (Chile, Colombia), and the European Union (Austria, Belgium, Denmark, France, Germany, Ireland, Italy, Slovenia, Spain, Sweden, the United Kingdom), with contributions by economists in all these countries.

The study's main results are in line with the big picture from the literature. The study finds that exporters are significantly more productive than nonexporters when observed and unobserved firm heterogeneity is controlled for, and whether performance is measured by labor productivity or by total factor productivity. It shows that the productivity premiums of exporters increase with the share of exports in total sales but do not differ by firm size.

Interestingly, the exporter premiums differ considerably across countries, with Colombia exhibiting the largest estimated premium and Sweden the smallest. To understand the cross-country heterogeneity in exporter premiums, the study conducts a meta-analysis that econometrically relates the estimated premiums to features of the estimation (for example, whether ordinary least squares is used and how many observations are included) and to country characteristics (for example, size proxied by GDP, level of development proxied by GDP per capita, and indicators of institutional quality). The meta-analysis shows that the level of development cannot explain the observed cross-country differences in exporter premiums. But it also shows that larger or more open countries and countries with a more business-friendly environment and a more effective government exhibit larger estimated exporter premiums.

The findings on exporter premiums suggest a strong correlation between productivity and exports but do not establish causality. To test the self-selection hypothesis, the study examines preentry differences in productivity between export starters and nonexporters. If better firms become exporters, one should find significant differences in productivity between future export starters and future nonstarters even before some of them begin to export. Indeed, the results show preentry productivity premiums for export starters. The preentry premiums are larger in smaller or less open countries and in countries with less business-friendly regulations. Thus, in such environments future export starters must have a strong productivity advantage to cover the extra costs associated with becoming an exporter.

To test the learning-by-exporting hypothesis, the study investigates the postentry differences in productivity growth between export starters and nonexporters. The results provide only weak evidence of learning by exporting. But the authors caution that their methodology does not control for the potential bias caused by self-selection of the most productive firms into exporting and thus that this weak evidence deserves further scrutiny using more sophisticated techniques.

The study's key findings are the cross-country differences in exporter premiums that are shown not to be related to the use of different types of data or to the application of differently specified econometric models. The crucial next step in the research agenda is to develop a solid understanding of the nature and causes of the differences in exporter premiums across countries—a prerequisite for sound policy prescriptions that can help foster

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