

Foreign Exposure and Job Creation

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In our highly globalized world, it is crucial for governments to monitor the flow of goods and services across their borders and to attract foreign investment. To be able to implement the most efficient trade policies, policy makers must understand the evolution of firms with foreign exposure. This note investigates differences in average job creation between purely domestic firms and firms with foreign exposure—that is, firms that export, import, or are foreign owned. The analysis shows that both exporters and importers perform better than nontraders. This provides a strong rationale for further analyzing importers—a group that has been much less studied than exporters. The analysis further shows that firms with exposure to foreign markets through trade relations create, on average, three-quarters more jobs and are twice as productive as nontrading firms.

Creating jobs is a central issue for economic development and welfare. Hence, identifying the best policies to create jobs is of great importance for governments. This note investigates the differences in job creation rates of firms with foreign exposure versus purely domestic firms. Firms gain exposure to foreign markets either through establishment of trading relations with other countries or through acquisition by a foreign firm. Analyzing these sources of global engagement, we show that firms that participate in international markets are larger, better at creating jobs, more productive, and more likely to pay higher wages than domestic firms.

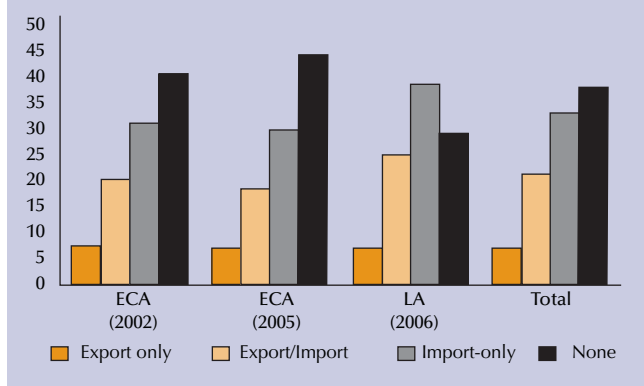
The analysis relies on a dataset collected through the World Bank's Enterprise Surveys.¹ A total of 17,843 manufacturing firms in 40 developing countries across different regions of the world are used in the analysis. In the surveys, a random sample of firms² is selected to represent the manufacturing sector in each country. The surveys covering the Eastern European and Central Asian countries (ECA survey³), conducted in 2002 and 2005, include 4,837 and 6,815

observations, respectively. The 2006 survey of Latin American countries (LA survey)⁴ includes 6,191 observations.

In analyzing the relationship between trade and net job creation, we divide firms into four groups: firms that import intermediate goods and export (two-way traders), firms that only import (only-importers), firms that only export (only-exporters), and firms that do not engage in international trade (nontraders). Figure 1 shows the fraction of firms in each trade group. In the full dataset, nontraders comprise the largest share with 38 percent, followed by only-importers. Only-exporters make up the smallest share with 7 percent. Importing seems to be more common than exporting. The same patterns are observed in the surveys from the Eastern European and Central Asian region. However, in the Latin America region, only-importers are more common than nontraders.

In terms of ownership, we divide the firms into two groups: firms with greater than 10 percent of foreign ownership⁵ are grouped as foreign, while the remaining firms are grouped as domestic. Firms with foreign ownership

Figure 1 Trade Orientation of Firms (percentage)



Source: Enterprise Surveys.

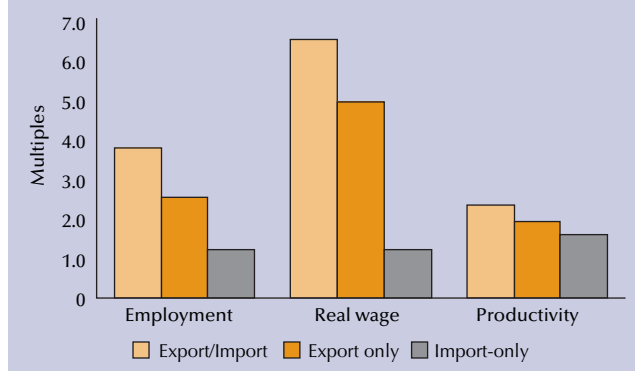
comprise 14 percent of the total firms in the data. Among the regions, the share of foreign-owned firms varies between 10 and 20 percent, with the lowest share being in Latin America.

Globally Engaged Firms Are Larger and Pay Higher Wages

The fact that exporters are larger and more productive than purely domestic firms has been well established in both empirical and theoretical studies.⁶ A few recent studies such as Bernard et al. (2007), Andersson et al. (2007), and Muuls and Pisu (2007) have shown that importers share many of those features with exporters. Hence, importers also deserve a detailed analysis on how they evolve. Moreover, trade policies affect the decisions both to import and to export. Thus, it is important to understand how importers would respond to policy changes.

Trading firms or firms with foreign ownership perform better than nontrading or purely domestic firms. In Figure 2, we compare firms with foreign exposure to nontrading firms across several measures, including average employment, annual real wage, and total sales per worker (labor productivity).⁷ The values in the graph are presented as multiples of the respective variables for nontrading firms. Firms with foreign exposure perform better than nontrading firms in all three measures, and two-way traders are the best performers. Two-way traders are almost four times larger, twice as productive, and pay six times higher wages than nontrading firms. An important implication of the data is that part of the superior performance of exporters can be explained by the fact that they import intermediate goods. In all three measures, two-way traders consistently do better than only-exporters, who outperform only-importers. The same patterns are observed in the dif-

Figure 2 Performance Measures of Globally Engaged Firms (as multiples of nontraders)



Source: Enterprise Surveys.

ferent regions and years.⁸ Hence, the differences between globally engaged firms and nontraders are not specific to a particular survey or region.

Similarly, firms with foreign ownership employ more workers, pay higher wages, and are more productive than firms that are purely domestically owned. Foreign-owned firms are also more likely to trade than purely domestic firms. Hence, it is difficult to determine the relationship between foreign ownership and firm performance without accounting for the firms' trading status.

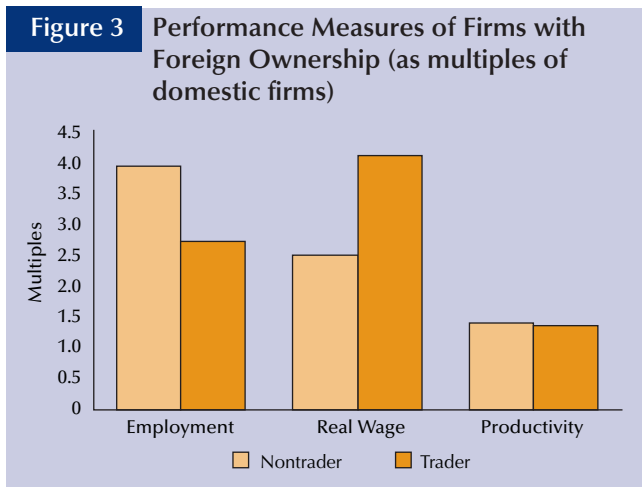
Figure 3 shows average employment, wage, and productivity levels of foreign owned firms as multiples of the respective variables for domestically owned trading and nontrading firms. In both groups, foreign-owned firms perform better than domestic firms. Results for the nontrading group show that when the effects of trade on performance are isolated, there is still a strong correlation between foreign ownership and firm performance.

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Firms that both import and export are almost four times as large, twice as productive, and pay six times more wages than nontrading firms.

Globally Engaged Firms Create More Jobs

Firms with foreign exposure create more jobs than nontrading and purely domestic firms.⁹ Grouping firms according to their foreign exposure shows that two-way traders create three percentage points more jobs than nontrading firms (see figure 4). They are followed by only-exporters and only-importers, respectively. A similar picture emerges when the same graph is constructed separately for each survey round. One notable difference that arises across survey rounds is that the employment growth rates of only-importers and nontraders are higher in ECA surveys than in LA. On the other hand, the difference between the employment growth rates of only-exporters and only-importers is relatively small in ECA compared to LA.



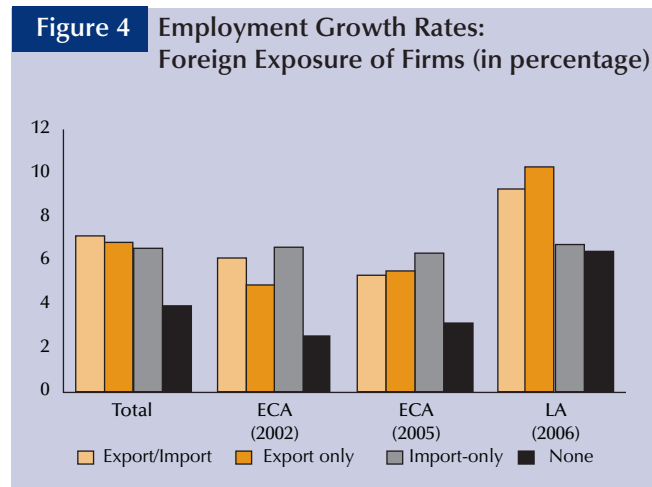
Source: Enterprise Surveys.

The analysis of foreign ownership reveals a similar picture to the analysis of the trading behavior of firms. Among nontraders, foreign-owned firms create approximately two and a half percentage points more jobs than domestically owned firms. Among trading firms, although the difference in job creation is still positive, it is small (0.2 percentage points).

How can we explain these observed relationships between job creation and foreign exposure? Although the evidence presented in this note is not sufficient to draw any causal inferences, we can present several hypotheses. Importing and exporting can lead to higher job creation through different mechanisms. Liberalizing trade stimulates a reallocation of economic activity toward larger and most productive firms that self-select into export markets. These productive firms increase their market size through exporting. For exporters, a larger market base leads to a larger return on investments (such as research and development), which when reinvested can fuel faster growth. For importers, firm productivity may increase through more efficient foreign technologies or greater access to a variety of intermediate goods that may be of higher quality. Higher productivity eventually spurs growth. For foreign-owned firms, being subsidiaries of larger multinational firms enables them to use newer, more cutting-edge technologies, making them more productive than domestic firms. Again, this may eventually lead to faster growth.

Do Industries Vary in Job Creation?

Some manufacturing industries are more engaged with the global markets than others. As a result, part of the observed relationship between foreign exposure and job creation could be a reflection of differences across industries. In order to control for industry differences, we analyze employment growth rates of firms within the same manufacturing industry.¹⁰ We show that differences in job creation among firms with different levels and measures of foreign exposure are not specific to particular industries.

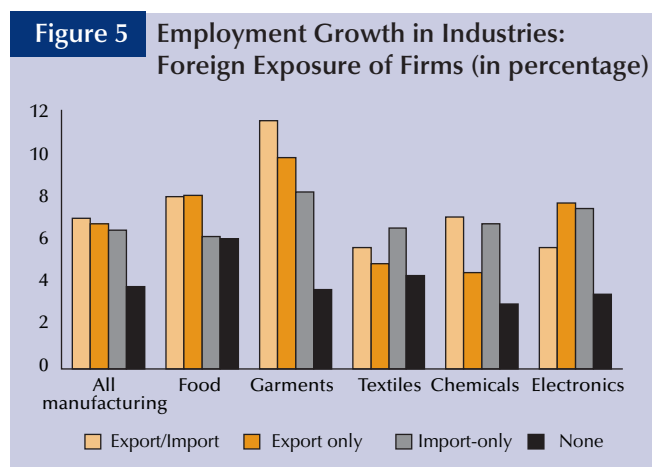


Source: Enterprise Surveys.

Analysis of growth rates for five manufacturing industries show that firms that export grow faster than nontraders (see figure 5). In all industries, importers also grow faster than nontraders. Although the fastest growing group varies across industries, the distinction between traders and nontraders remains consistent. Consistent with the aggregate evidence, in each industry, globally engaged firms are larger, more productive, and pay higher wages.¹¹

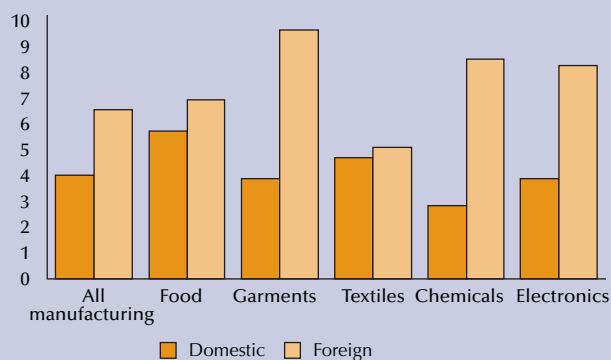
Foreign-owned firms create more jobs within industries than domestic firms—even after accounting for the firm’s trading status. Figure 6 shows that foreign-owned firms create more jobs than domestic firms across all industries analyzed. However, the size of the gap in employment growth between foreign and domestic firms varies across industries. In garments and chemicals, foreign-owned firms create around six percentage points more jobs than domestic firms. On the other hand, the difference in the textile industry is less than one percentage point.

The results presented in this note are consistent with more elaborate analysis of global engagement and firm evolution presented in Seker (2009). Using the same dataset and accounting for a rich set of factors that can affect the relationship between foreign exposure and job creation, it



Source: Enterprise Surveys.

Figure 6 Employment Growth in Industries for Nontrading Firms: Foreign Ownership (in percentage)



Source: Enterprise Surveys.

shows that firms engaged in global markets through importing intermediate goods, exporting, or having foreign ownership create more jobs, employ more workers, and are more productive than purely domestic firms. Strong evidence on the positive relationship between global engagement and job creation stresses the importance of policies that facilitate trade and attract foreign investment.

Notes

1. See www.enterprisesurveys.org for detailed description of the data and methodology used for data collection.
2. Although the actual unit of observation is the plant, we use the firm as the unit of observation because most of the firms are single-plant firms. In the survey for the Latin America region there is a question asking whether the firm is a part of a larger firm; 89 percent of the 6,223 firms who answered this question own a single plant.
3. These surveys are also known as Business Environment and Enterprise Performance Surveys (BEEPS).
4. The actual data are from one year before the survey was conducted (i.e., ECA [2002, 2005] and LA [2006] surveys use data from 2001, 2004, and 2005, respectively).

5. This level is used by statistical agencies in many countries (e.g., U.S. Bureau of Economic Analysis). It is also the amount defined in IMF's Balance of Payment Manual (1993).

6. See Bernard et al. (2007) and Lopez (2005) for extensive reviews of the literature.

7. Data for ECA 2002 and 2005 are given in U.S. dollars but the 2006 LA data were in local currencies. Nominal values of sales and wages are deflated using the GDP deflator from World Bank Development Indicators database. All values are presented in 2000 constant U.S. dollars, and the exchange rate is taken from International Financial Statistics database.

8. These results are available upon request.

9. In the analysis, we can only analyze net job creation over three years; hence we cannot make a complete analysis of reallocation of labor. Also, job creation rates are calculated as the annual change in total full-time employment over three years.

10. Industries are analyzed at the 2-digit level where the classification is made according to ISIC revision 3.1.

11. This table is available upon request.

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