

Taking Account...

BEA economist studies U.S. plant shutdowns

During the 1990s, U.S. multinational companies (MNCs) increased employment by 4.4 million in the United States and 2.7 million abroad. That is, for every job created abroad, two jobs were created within the U.S.-based parent. A decade later, however, U.S. MNCs had cut their domestic workforce by 2.9 million while adding 2.4 million jobs overseas. During the same period, manufacturing employment in the United States declined significantly as a result of layoffs, a lack of new hiring, and plant closures. Between 1997 and 2002, 30 percent of U.S. plants, accounting for 17 percent of manufacturing employment, shut down.

These trends fueled the perception that U.S. MNCs were shifting jobs abroad—closing domestic plants while opening plants abroad.

A recent study by Marilyn Ibarra-Caton, an international economist at the Bureau of Economic Analysis (BEA), focused on the closures of U.S. manufacturing plants by MNCs in an attempt to close a gap in the growing literature on the determinants of a plant's shutdown.

Most research on this topic has concentrated on the importance of plant characteristics and the role of the firm's domestic structure while largely ignoring the role of the firm's foreign direct investment abroad. Researchers have shown that U.S.

plants owned by U.S. MNCs are more likely to close once plant and industry attributes have been controlled for.

These findings are consistent with the popular view that increased foreign direct investment may lead to more elastic labor demand by MNCs due to their ability to shift production across locations within the firm. This ability to relocate production outside of the United States but still within the firm highlights the need to examine the role of the firm's direct investment abroad by including the activities of the firm's foreign affiliates as a possible determinant of a U.S. plant's shutdown.

Ibarra-Caton's study added to the economic literature on this issue in two ways.

First, in her probability of shutdown model, she included foreign direct investment in the United States, finding conclusive evidence that U.S. manufacturing plants of foreign MNCs are more likely to shut down than non-MNC plants. This result is consistent with the idea that MNCs are able and willing to shift production from their domestic establishments to their affiliates abroad and vice versa. This result is also consistent with the findings of other studies that looked at foreign-owned plants in other countries, such as Indonesia and Ireland. Ibarra-Caton's study provided the first empirical evidence for the United States.

Second, using BEA data on

the operations of foreign affiliates of U.S. MNCs, Ibarra-Caton found conclusive evidence that a firm's type of foreign direct investment plays an important role in the firm's decision to shut down a U.S. manufacturing plant. More specifically, the results suggest that U.S. MNC domestic plants in the same industry as their foreign affiliates are less likely to close if increased production abroad serves the local market and more likely to close if increased production abroad is exported back to the United States, controlling for plant and industry attributes.

Using the foreign affiliate sales data in conjunction with coefficients derived from BEA's input-output tables, the study identified foreign affiliates that are suppliers to their U.S. parents' plants (that is, it identified vertically integrated foreign affiliates), and it concluded that U.S. parents' domestic plants in the same industry as a vertically integrated foreign affiliate are indeed more likely to close than parents' U.S. plants that are not in the same industry as a vertically integrated foreign affiliate.

For U.S. MNCs engaged in vertical investment, the survival of a domestic plant is threatened when the firm chooses to produce not from this plant but from the foreign affiliate that produces the same inputs of production as the U.S. plant.

The study can be accessed at www.bea.gov/papers/working_papers.htm.