Does Material and Service Offshoring Improve Domestic Productivity?
Evidence from Japanese Manufacturing Industries†

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ABSTRACT

An increasing number of manufactures are shifting some stages of the production processes offshore. This study investigates the effects of offshoring on productivity in Japanese manufacturing industries for the period 1988–2004. Offshoring measures are constructed using data taken from the Japanese Input-Output Tables and Trade Statistics.

Material offshoring, as measured by an import share of intermediate material inputs, has steadily increased during the period, with a pronounced increase in offshoring to Asian countries. In a wide range of specifications, we find significantly positive correlations between the material offshoring and productivity at the industry level. The estimates are particularly robust for offshoring to Asia. These results suggest that Japanese manufacturing firms extensively developed international division of labor in East Asia, which possibly generated a strong productivity-enhancing effect.

In contrast, service offshoring, as measured by an import ratio of service inputs, is not associated with industry-level productivity. The insignificant effect of service offshoring we find in this paper is in conflict with the results of previous studies on the U.S. manufacturing sector, but consistent with results in studies for Italy and Korea. Moreover, no clearly increasing trend in service offshoring can be observed in the Japanese manufacturing sector. However, we find a positive correlation between offshoring and productivity only for information services, suggesting that in this segment, offshoring offers potential benefits.

JEL Classifications: F10, F14, F23
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