

BEA BRIEFING

American Multinationals and American Interests 40 Years Later What Have We Learned From Research Using BEA Data?

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A LONGSTANDING QUESTION about U.S. multinational enterprises (MNEs) is how their foreign operations affect U.S. workers. When a U.S. MNE expands abroad, one might ask why the firm chose to locate its production operations abroad rather than in the United States. As Bergsten, Horst, and Moran note in their seminal work *American Multinationals and American Interests* (1978, 6): “The central question in assessing the impact on the U.S. economy of foreign investment is how the actual event compares with what would have happened otherwise.” In the foreword of that book, Bruce MacLaury notes that answering this question had, until then, been frustrated by inadequate data, inappropriate theories and analytical methods, and complex interactions between the economics and politics of foreign investment. The purpose of this briefing is to take stock of where we stand nearly 40 years later in answering this question and related questions about the effects of U.S. MNEs on the U.S. economy. Specifically, it offers a summary of how improvements in the business confidential data, or “microdata,” that the Bureau of Economic Analysis (BEA) collects on the activities of multinational enterprises (AMNEs) and on trade in services and how improvements in access to the data have advanced our understanding of these issues.

Over the past 40 years, BEA has greatly expanded its AMNE statistics. When Bergsten, Horst, and Moran released their book, BEA had a program to collect information on the global operations of U.S. MNEs, which was authorized under the International Investment Survey Act of 1976, which was later amended as the International Investment and Trade in Services Survey Act (Survey Act).¹ The data, however, were col-

lected at infrequent intervals, roughly every 5 years. Beginning in July 1984, the U.S. Office of Management and Budget approved an annual survey, beginning with the reference year 1983, and surveys have been conducted annually ever since. The availability of annual data ensures that the series is kept up-to-date and that researchers can separate the effects of business cycles from structural changes in the activities of U.S. MNEs. Data are collected each year, but the most complete AMNE data are collected every 5 years in benchmark surveys.

Over the same period, BEA greatly expanded its statistics on U.S. trade in services. The Trade and Tariff Act of 1984 provided the President with specific authority to include services in trade negotiations with other countries. To support these activities, the Act provided for mandatory reporting of trade in services to the federal government and several other key provisions that allowed a significant expansion in BEA statistics on U.S. international trade in services. BEA has used this authority to collect information on services trade using business surveys. The Omnibus Trade and Competitiveness Act of 1988 extended and built on these provisions. Within this expanded legal framework, BEA has worked steadily to improve the coverage, specificity, and international comparability of its statistics on trade in services. The improvements in the 1980s, 1990s, and early 2000s are summarized in Ascher and Whichard (1991) and in the appendix of Whichard and Borga (2002). More recent improvements are described in the series of articles in BEA’s monthly journal the *SURVEY OF CURRENT BUSINESS* that describe the annual updates to the international transactions accounts as well as the articles that describe the 2014 comprehensive restructuring of the U.S. international economic accounts. Data are collected each

1. Public Law 94–472, §3, October 11, 1976, 90 Statute. 2060, as amended.

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quarter, but the most complete data on trade in service are collected every 5 years in benchmark surveys.²

Along with these expansions in data collection, BEA has greatly expanded access to the microdata to guest researchers, recognizing that some research requires data at a more detailed level than that provided in publicly disseminated tabulations. Before the establishment of a formal guest researcher program, BEA had on occasion provided selected academic economists with access to its confidential survey data for research purposes. Foremost among these early researchers was Robert E. Lipsey, who was also a very prolific user of BEA's published data on international direct investment and multinational company operations.³ In 1991, BEA initiated a formal guest researcher program that permits qualified academic researchers with approved projects to work on site as unpaid special sworn employees of the Bureau for the purpose of conducting analytical and statistical studies using the microdata on MNEs and international service transactions.⁴ The main impetus for the creation of this program was the enactment of the Foreign Direct Investment and International Financial Data Improvements Act of 1990, which provided for an exchange of data between BEA, the Census Bureau, and the Bureau of Labor Statistics (BLS) to produce more detailed information on foreign direct investment in the United States (FDIUS) and which mandated an annual report on FDIUS to Congress by the Secretary of Commerce. In response, BEA developed guidelines that specify the conditions under which access to BEA business confidential data on both U.S. direct investment abroad (outbound foreign direct investment), and on foreign direct investment in the United States (inbound foreign direct investment) col-

lected under the International Investment and Trade in Services Survey Act would be granted to designated employees of those agencies. For guest academic researchers, the guidelines specify the procedures under which BEA would provide access to its business confidential data to non-government "experts and consultants" designated as special sworn employees of the Bureau for the purpose of carrying out projects under the Survey Act with the same legal obligation to maintain the confidentiality of the microdata as BEA employees. Currently, BEA guest researchers must work on site at BEA headquarters and are granted access only to microdata from BEA surveys. BEA is arranging

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to house its survey microdata in the Federal Statistical Research Data Centers (FSRDCs), a partnership of federal statistical agencies and leading research institutions. Under this arrangement, BEA special sworn employees will be able to access the BEA microdata at participating research institutions and to combine BEA microdata with

microdata from other participating federal statistical agencies, such as the Census Bureau, subject to the approval of the agencies involved.

The creation of the special sworn employee program has allowed researchers to probe the question of how investment abroad by U.S. MNEs affects U.S. workers. One difficulty in answering this question is that not all foreign investments of U.S. MNEs are undertaken for the same reasons. Some investments are *market seeking*, in which an MNE goes abroad to produce goods and service close to its foreign customers. In the literature, this type of investment is often referred to as *horizontal* foreign direct investment (FDI). Other investments are *resource seeking*, in which an MNE goes abroad to be close to inputs to its production process, including, for example, natural resources, favorable labor markets, and external economies. In the literature, this type of investment is often referred to as *vertical* FDI.

Three of the most widely cited studies that are based on microdata from BEA AMNE surveys are Brainard and Riker (2001), Harrison and McMillan (2011), and Desai, Foley, and Hines (2009). All three of the studies explore the relationship between domestic and foreign employment of U.S. MNEs in the manufacturing sector. The Brainard and Riker and Harrison and McMillan studies use a similar methodology, estimating an implied cross elasticity of substitution for labor across different geographic locations of a U.S. MNE. Brainard

2. Although the AMNE surveys are conducted annually and the services surveys are conducted quarterly, some surveys are more comprehensive than others. Benchmark surveys (or censuses), which are currently conducted every 5 years, are the most comprehensive surveys in two respects: (1) They collect more data items, and (2) they cover the entire survey population—or universe. In nonbenchmark years, BEA conducts sample surveys in which reports are not required for smaller entities, in order to reduce the reporting burden on the U.S. companies that must file. Instead, BEA estimates the data for these entities by extrapolating forward their data from the most recent benchmark survey on the basis of the movement of the sample data. Thus, provisions are made toward making coverage of the survey universe complete in nonbenchmark as well as in benchmark periods.

3. For a brief survey of Lipsey's research and an accompanying list of papers, see the "Introduction" (Blomstrom and Goldberg 2001).

4. More information about [BEA's guest researcher program](#) is available on the [BEA Web site](#).

and Riker use data for 1983–92 and find weak evidence that foreign labor substitutes for domestic labor, but they find strong evidence for MNEs' substituting labor across foreign locations. Harrison and McMillan use data for 1982–99 and find that workers of affiliates located in low-income countries substitute for U.S. parent workers if they don't allow for the motive for investment (horizontal versus vertical). When allowing for the motive (by adding an explanatory variable that explores the relationship between production sharing between U.S. parents and their foreign affiliates and affiliate wages), they find that U.S. parent workers and workers in affiliates located in low-income countries are complements; however, workers in high-income affiliates substitute for U.S. parent workers. They conclude that the evidence on the link between foreign affiliate employment and U.S. parent employment is mixed and that the effect depends on both the type and the location of foreign investment.

Desai, Foley, and Hines use a different methodology that better isolates the effects of expansion abroad on domestic employment of U.S. MNEs. The authors use data for 1982–2004 to compare the actual domestic employment outcomes of U.S. MNEs against forecasts of their foreign employment outcomes based on geographic patterns in their foreign operations in a base year. This method helps to eliminate the effects of events that occur during the period that can simultaneously impact domestic and foreign operations of a firm, such as the launch of a new product. They find that foreign labor and domestic labor of U.S. MNEs are complementary.

Together, these studies have made the fullest possible use of BEA data to understand this question, yet because of data limitations, they have not been able to examine some important aspects of the question, such as the employment impact at the individual plant level or the outcomes for similar U.S. firms that did not invest abroad. Given these data limitations and the sometimes conflicting results of the three studies, many researchers believe that definitive evidence is lacking on the domestic employment effects of outward investment by U.S. MNEs. The added richness of the data sets that will be created by linking microdata from BEA surveys to microdata from other federal statistical agencies under the FSRDC program could yield more conclusive results.

It is beyond the scope of this briefing to provide a comprehensive list of the relevant studies, but the fol-

lowing studies are indicative.⁵

- Hanlon, Lester, and Verdi (2015) build on the results of Foley and others (2007), finding that the relatively high U.S. corporate tax rate, which gives U.S. MNEs an incentive to stockpile cash abroad, can lead these firms to undertake suboptimal investments abroad rather than invest the cash in their U.S. operations. Other studies have demonstrated that these results do not suggest that all cash that MNEs stockpile abroad would otherwise be invested in the United States. For example, Dharmapala, Foley, and Forbes (2011) find that the Homeland Investment Act of 2004, which provided a large temporary reduction in repatriated foreign earnings, tended to result in financial investments, such as share repurchases, rather than investment in U.S. production. Lester (2016) also demonstrates the limited effect of tax incentives on domestic investment by U.S. MNEs.

- Berry (2014) combines BEA survey microdata for U.S. MNEs in manufacturing with patent data from the United States Patent and Trademark Office to examine conditions that enable MNEs to both produce and benefit from collaborative innovations across parent companies and their subsidiaries abroad. Her results show that manufacturing integration leads to collaborative innovations that bring together diverse knowledge that is significantly more likely to be used in subsequent innovations by MNEs than in innovations created by individual foreign subsidiaries acting alone.

- Yeaple (2009) builds on earlier theoretical work to show that domestic manufacturing firms face progressively higher cost barriers as they deepen their global engagement and that only the most productive firms are able to overcome all of these barriers; that is, firms must overcome certain costs, such as learning how to market to foreign customers, to become successful exporters, and they must overcome additional costs associated with operating a business in a foreign country to serve foreign customers through FDI successfully. His research confirms earlier studies, such as Doms and Jensen (1998), that show that MNEs tend to be more productive than other firms in their industries. It also suggests that this productivity advantage allows

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5. A complete list of papers by BEA special sworn employees is available on the BEA Web site.

them to reach more foreign customers than less productive firms both through investing in a larger number of foreign countries and through selling more in each country in which they operate.

In addition to its special sworn employee program, BEA engages in joint microdata linking projects with the Census Bureau and BLS. The following is an example of a relevant research paper from those initiatives.

- Handwerker, Kim, and Mason (2011) use manufacturing sector data from the BEA 2004 benchmark survey of outbound FDI linked to BLS employment surveys to show that U.S. MNEs tend to employ a higher skilled and higher wage domestic workforce than other firms in their industries.

BEA research staff also conducts research using the microdata from BEA's direct investment and trade in services surveys. For example, Ibarra-Caton and Mataloni (in press) use linked data from BEA's MNE and trade-in-services surveys to show that when U.S. MNEs in manufacturing are engaged in a global value chain with a foreign affiliate, they tend to export more headquarters-type services to that affiliate than they do to other affiliates. The results suggest that these production arrangements create a division of labor within the MNE that supports high-skill, high-wage jobs in the United States.

In summary, the expansion of BEA surveys of the activities of U.S. MNEs has greatly expanded our knowledge of how investment abroad by these firms can affect the U.S. economy. Yet much work remains to be done, particularly with regard to understanding the employment effects of U.S. MNE investments abroad and the domestic effects of U.S. MNE investments abroad in non-manufacturing industries.

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