A Note on Patterns of Production and Employment by U.S. Multinational Companies

The "outsourcing" of production to foreign locations and its effect on domestic employment and wages has been a much discussed topic. While BEA does not collect direct measures of the gains and losses that are associated with international trade and investment, it does collect a variety of data on the operations of U.S. multinational companies that are relevant to the investigation of these issues. For example, using these data, it is possible to track the changes in the share of these companies' operations carried out in the United States as compared with the share of their operations carried out by branches and subsidiaries located overseas. This note examines recent patterns and trends in the worldwide operations of U.S. multinationals with a focus on production and employment. It concludes with a discussion of several data and analytical considerations.

U.S. MULTINATIONAL companies (MNCs) account for a large share of the U.S. economy. In 2001, the value added in production (gross product) originating in nonbank U.S. parent companies totaled more than $2.5 trillion, which amounted to nearly a quarter of current-dollar gross domestic product originating in the private sector. These companies had 23.4 million employees, or more than a fifth of the total U.S. nonbank work force.

U.S. MNCs play an even greater role in U.S. international trade in goods. In 2001, the U.S. exports of goods that involved U.S. parents or their foreign affiliates totaled $425.4 billion, or 58 percent of total U.S. exports of goods. U.S. imports of goods that were associated with U.S. MNCs totaled $432.9 billion, or 38 percent of total U.S. imports of goods.[1]

The following are some patterns in U.S.-MNC operations:

- Worldwide operations of U.S. MNCs are concentrated in the United States: Over an extended period, U.S. parents have consistently accounted for about three-fourths of the total gross product, capital expenditures, and employment of MNCs, and their majority-owned foreign affiliates (henceforth, "foreign affiliates") accounted for about a fourth (table 1 and chart 1). In 2001, U.S. parents accounted for 77 percent of the total production of MNCs, 79 percent of total capital expenditures, and 74 percent of total employment.
- The foreign operations of U.S. MNCs are centered in high-wage countries, which suggests that access to markets has been a key consideration in their decisions to locate operations abroad. In 2001, high-wage countries accounted for 62 percent of total employment by foreign affiliates (chart 2).[2]
- The role of market access in the location choices of MNCs is also suggested by the patterns in the destination of sales by foreign affiliates. In 2001, 65 percent of sales by foreign affiliates were to local customers—that is, customers who resided in the same country as the foreign affiliate. An additional

1. Further details and analysis of U.S.-MNC operations are published in a series of annual articles that present the results from BEA's benchmark and annual surveys of U.S. direct investment abroad. For the most recent article, see Raymond J. Mataloni, Jr., "U.S. Multinational Companies: Operations in 2001," SURVEY OF CURRENT BUSINESS 83 (November 2003): 85–105. For additional information on MNC operations, go to BEA's Web site at <www.bea.gov>.

2. In this note, high-wage foreign countries are defined as all the non-U.S. members of the Organisation for Economic Co-operation and Development except for the Czech Republic, Hungary, Mexico, Poland, the Slovak Republic, and the Republic of Korea.

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Table 1. U.S.-Parent Share of Selected Measures of U.S.-MNC Operations

[Percent]

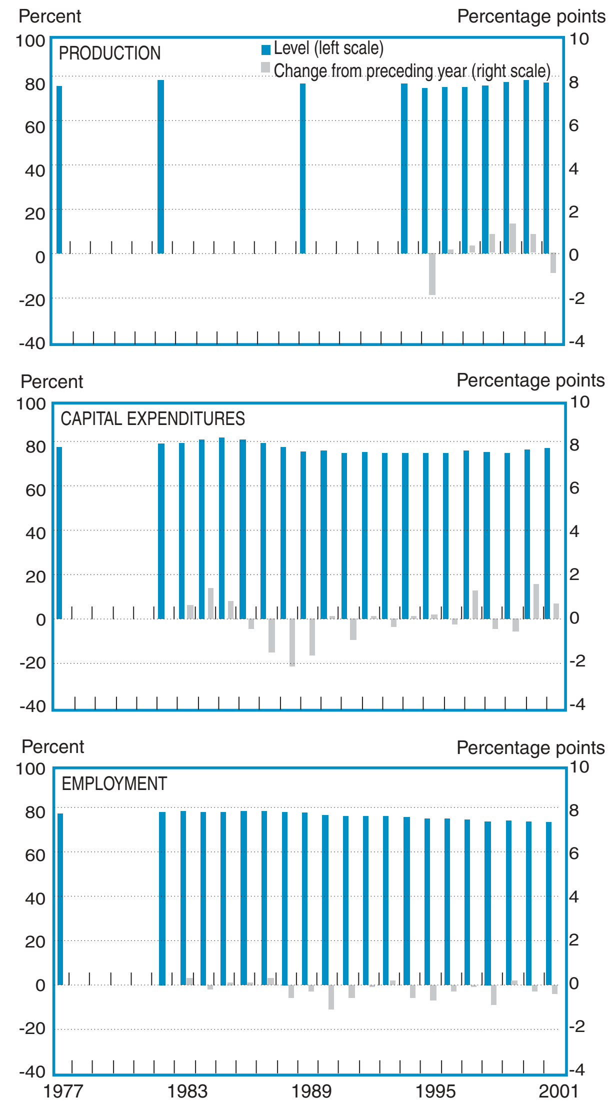
	Production	Capital expenditures	Employment
1977	75.3	79.8	77.9
1978	n.a.	n.a.	n.a.
1979	n.a.	n.a.	n.a.
1980	n.a.	n.a.	n.a.
1981	n.a.	n.a.	n.a.
1982	78.1	80.8	78.8
1983	n.a.	81.3	79.1
1984	n.a.	82.8	78.9
1985	n.a.	83.5	79.0
1986	n.a.	83.0	79.1
1987	n.a.	81.4	79.4
1988	n.a.	79.2	78.8
1989	76.6	77.5	78.6
1990	n.a.	77.6	77.5
1991	n.a.	76.6	76.9
1992	n.a.	76.8	76.8
1993	n.a.	76.4	77.1
1994	76.5	76.4	76.5
1995	74.6	76.6	75.8
1996	74.8	76.4	75.6
1997	75.1	77.7	75.4
1998	75.9	77.1	74.5
1999	77.2	76.5	74.8
2000	77.9	78.2	74.5
2001	77.0	78.9	74.1

MNC Multinational company
n.a. Not available.

24 percent of sales by these affiliates were to customers in other foreign countries; other data suggest that a significant fraction of these sales were to customers who were "local" in the sense that they were located in the same economic area as the affiliate.[3] Only 11 percent of their sales were to customers in the United States.

3. Information on the destination of sales to nonlocal foreign countries is not available annually, but for the benchmark year of 1999, information was collected on sales by foreign affiliates in the European Union (EU) to other EU countries; including these sales in local sales raises the share of local sales for 1999 from 67 percent to 78 percent. Information on sales within other economic areas was not collected, but including them in local sales would also raise the share of local sales.

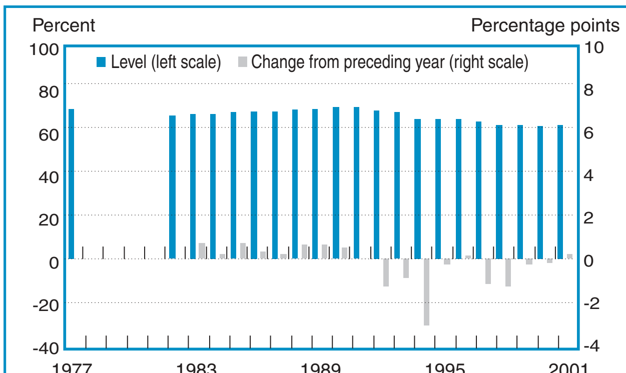
Chart 1. U.S.-Parent Share of Selected Measures of U.S.-MNC Operations, 1977–2001



MNC Multinational company
NOTE. Data are available only for selected years. For each measure, the U.S. parent share is calculated as the value for U.S. parents as a percentage of the combined total for U.S. parents and majority-owned foreign affiliates.
U.S. Bureau of Economic Analysis

- The key measures of MNC operations have consistently shown that their operations are concentrated in the United States, but among the measures, the distributions of the operations have changed over time. For production and capital expenditures, the U.S.-parent shares of the worldwide MNC totals were similar in 2001 and in 1977: U.S. parents accounted for 77 percent of MNC production in 2001 and for 75 percent in 1977, and they accounted for 79 percent of capital expenditures in 2001 and for 80 percent in 1977. In contrast, for employment, the U.S.-parent share has decreased, from 78 percent in 1977 to 74 percent in 2001.
- Employment by foreign affiliates remains concentrated in high-wage countries, but in recent years, it has grown faster in low-wage countries. In 1991–2001, their employment grew at an average annual rate of 7 percent in low-wage countries, and it grew at a rate of 3 percent in high-wage countries. These patterns reflect a variety of factors, such as cost considerations and the development of new markets and liberalization of policies toward foreign direct investment in a number of major developing countries.
- The forces of globalization that have resulted in increased foreign employment by U.S. MNCs have also resulted in growth in employment in the United States by foreign MNCs. During 1977–2001, employment by majority-owned U.S. affiliates of foreign companies (henceforth, "U.S. affiliates") grew by 4.7 million; this growth surpassed that in employment by foreign affiliates of U.S. companies

Chart 2. High-Wage-Country Share of Employment by Foreign Affiliates, 1977–2001



NOTES. Data are available only for selected years.
The high-wage country share is calculated as the number of employees of majority-owned foreign affiliates in high-wage foreign countries (see footnote 2 to the text) as a percentage of the number of employees of majority-owned foreign affiliates in all foreign countries.
U.S. Bureau of Economic Analysis

at 2.8 million.[4] (However, in 1991–2001, the employment growth of foreign affiliates—at 2.8 million—exceeded that of U.S. affiliates—1.7 million.)

One of the key questions raised in discussions about MNC production patterns is the degree to which U.S. companies rely on purchased goods and services rather than on value added in production by labor and capital employed within these firms. During 1977–2001, purchases from outside suppliers as a percentage of total sales for U.S. parent companies in all industries except wholesale and retail trade increased from 63 percent to 69 percent (chart 3).[5] Some of these outside purchases were obtained from domestic suppliers, and some were obtained from both affiliated and unaffiliated foreign suppliers. The share of purchases that were imported directly from foreign suppliers has essentially been unchanged, at 9 percent in 1977 and in 1999.[6] However, it must be recognized that in many cases, the goods and services purchased domestically have some imported content, which may be considered "indirect imports."

Data on the imported content of domestic purchases by U.S. parent companies are not available, but data for the entire U.S. economy indicate a general increase in the reliance on imports. The share of U.S. gross domestic purchases accounted for by U.S. imports of goods and services increased from 9 percent in 1977 to 13 percent in 2003 (chart 4).[7] Based on these figures, it seems probable that the share of U.S. parents' purchases that are accounted for by indirect imports of goods and services also increased over the period even though the share accounted for by their direct imports did not. However, even with the increase, the reliance on imports by the United States remains lower than in most other large developed countries.[8]

4. Employment accounted for by U.S. affiliates that are majority-owned by foreign direct investors cannot be separately identified for 1977, but in recent years, these affiliates have consistently accounted for about 80 percent of employment by all U.S. affiliates. The estimate of the change in employment by majority-owned affiliates was based on the assumption that these affiliates accounted for the same share—81 percent—of total U.S.-affiliate employment in 1977 as in 1987.

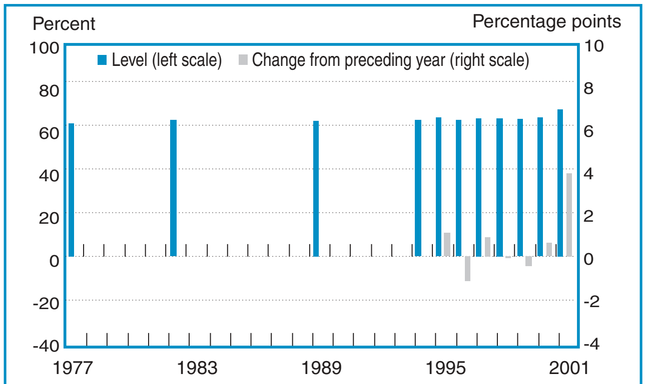
5. Wholesale and retail trade are excluded here because their purchases, unlike those in most other industries, consist mainly of goods for resale rather than intermediate inputs used in production. The exclusion of these industries does not, however, materially affect the results: Purchases from outside suppliers as a percentage of total sales for U.S. parent companies in all industries increased 7 percentage points (from 65 percent to 72 percent), compared with 6 percentage points in the selected industries.

6. The data needed to compute this share are available only for years covered by a benchmark survey, and the most recent survey was conducted for 1999.

7. These imports include purchases for final use as well as for intermediate consumption.

8. For example, in 2002 the share of gross domestic purchases accounted for by imports of goods and services was 28 percent in the United Kingdom, 38 percent in Canada, and 26 percent in France.

Chart 3. Ratio of Purchased Goods and Services to Sales for U.S. Parents, 1977–2001



NOTES. Data are available only for selected years.
Excludes data for parents in wholesale and retail trade (see footnote 5 to the text).

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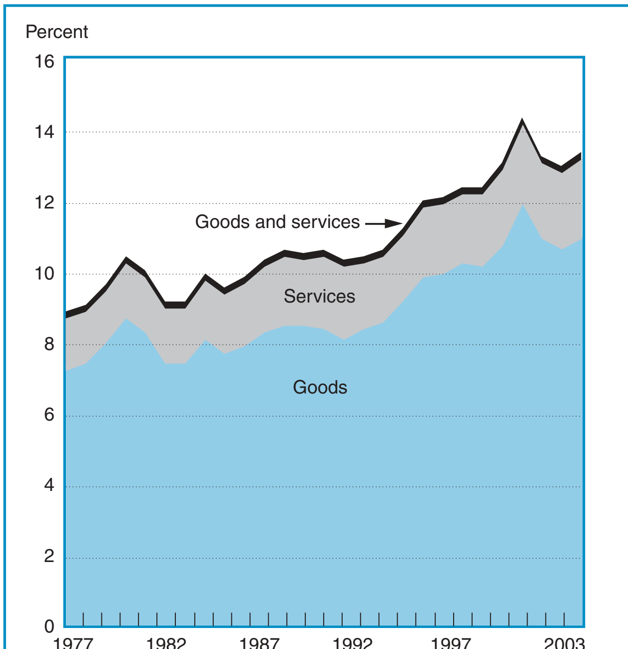
Chart 4. U.S. Imports of Goods and Services as a Share of U.S. Gross Domestic Purchases, 1977–2003



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Data and analytical considerations

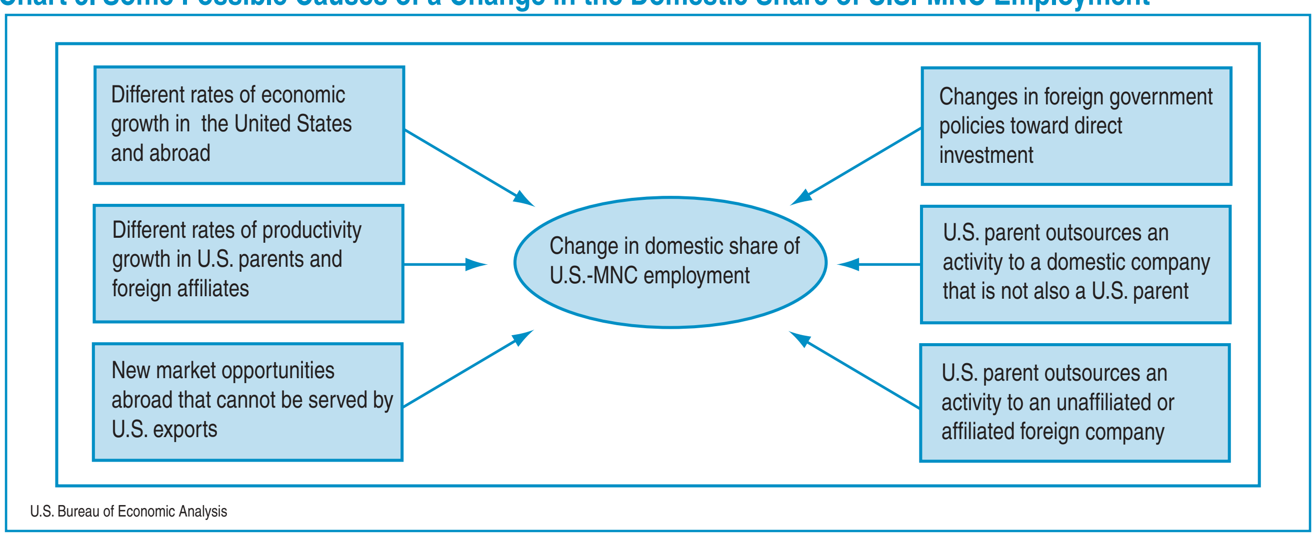
BEA's data on the operations of U.S. MNCs indicate a relatively stable mix of domestic and foreign operations, but the inferences that can be drawn from these data about the production strategies of MNCs and about the ultimate effects of U.S.-MNC activity on the U.S. economy and on foreign economies are limited. The U.S.-parent share of U.S.-MNC activity can change for a number of reasons, and these changes do not uniformly correspond to either additions to, or subtractions from, production and employment in the United States. Additional factors that might be associated with a change in the parent and affiliate shares of MNC activity are given in chart 5.

It might be expected that new direct investment abroad by U.S. MNCs would cause the employment share of U.S. parents to fall and that of foreign affiliates to rise, but its impact on employment in the United States and abroad could vary, depending on the form of the investment and the reasons why it was undertaken. To illustrate the significance of the *form* of the investment, a new investment might represent the establishment of a new company (or "greenfield investment"), the acquisition of a successful existing company, or the acquisition of a failing company. In each case, the employment by affiliates would rise, but the impact on host-country employment would likely differ. Furthermore, this impact cannot be discerned from information on MNC operations alone. Instead, the impact will be determined by a wide range of factors, including the overall level of employment in the economy and the types of jobs involved.

To illustrate the significance of the *reasons* for the investment, affiliate employment shares might rise either because of the shifting of production from parents to affiliates or because of the opening of new overseas markets—such as those for meals or lodging—that can be served only through a locally established enterprise. In the case of production shifting, the rise in employment by affiliates might be expected to come partly or wholly at the expense of employment by the parents. In contrast, in the example of new overseas markets, the rise in employment by foreign affiliates would not affect employment in the United States by parent companies, or it could cause U.S. employment to rise, because of the need to provide headquarters services to the newly established affiliates. While the examples given here and in chart 5 have been constructed with reference to U.S. investments abroad, the economic mechanisms that they illustrate are equally applicable to foreign investments in the United States.

A data limitation is the scarcity of information on the types of jobs held by the domestic and foreign employees of U.S. MNCs. Except for the data collected in benchmark survey years on the number of production workers of foreign affiliates in manufacturing, BEA does not collect data on the types of jobs held by

Chart 5. Some Possible Causes of a Change in the Domestic Share of U.S.-MNC Employment



employees of either U.S. parents or foreign affiliates.[9] Thus, it is not possible to determine the relative changes in the types of jobs offered by parents and affiliates, either in terms of the occupation or the skill required for the job.

Finally, the major patterns in U.S.-MNC operations have been relatively stable over an extended period, but the most recent data cover 2001, and the patterns of operations may have changed since then.

In recognition of the current public interest in these data and the need for more timely information, this year, BEA is accelerating the release of the summary estimates of a few key items. A news release providing estimates of total employment, sales, and capital expenditures by U.S. parent companies, by their foreign affiliates, and by U.S. affiliates of foreign companies for 2002 has been scheduled for April 16, 2004.

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9. A related limitation is the absence of information on the use of "leased" employees, a practice that has become increasingly common in recent years. Because these employees are carried on the payrolls of employee-leasing firms rather than on the payrolls of the firms where the employees perform their duties, the changes in their use may result in changes in the observed patterns of MNC employment. For example, if a U.S. parent in manufacturing leases production workers from an employee-leasing firm that is also a U.S. parent, then the employment total for U.S. parents would not change, but the industry composition of the employment would change. Specifically, employment in manufacturing would decrease and employment in the employee-leasing industry would increase. Thus, the industry composition of employment would shift away from manufacturing and toward services. However, if the leasing firm is not a U.S. parent, then the employment totals for U.S. parents, both overall and in manufacturing, would decrease.