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Report to Congressional Requesters

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FOREIGN DIRECT INVESTMENT

Review of Commerce Department Reports and Data-Sharing Activities

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The Honorable Larry Pressler
Chairman, Committee on Commerce, Science, and Transportation
United States Senate

The Honorable Thomas J. Bliley, Jr.
Chairman, Committee on Commerce

The Honorable Bill Archer
Chairman, Committee on Ways and Means

The Honorable Benjamin A. Gilman
Chairman, Committee on International Relations
House of Representatives

The Honorable Connie Mack
Chairman, Joint Economic Committee
Congress of the United States

This is our final report responding to a requirement under the Foreign Direct Investment and International Financial Data Improvements Act of 1990 (Public Law 101-533) that we analyze the Secretary of Commerce's first three annual reports on foreign direct investment in the United States (FDIUS) and review federal government efforts to improve the quality of foreign direct investment (FDI) data.[1] Specifically, our objectives were to (1) assess the extent to which Commerce's second and third reports—issued in 1993 and 1995—fulfilled the requirements of the 1990 act and addressed the recommendations in our 1992 report;[2] (2) review the process by which federal agencies collect FDI data; (3) review the status and processes of the data exchanges, or links, initiated by the 1990 act between the Commerce Department's Bureau of Economic Analysis (BEA) and its Bureau of the Census and between BEA and the Labor Department's Bureau of Labor Statistics (BLS); and (4) evaluate the extent to which implementation of the act has brought about the intended improvements in public information on FDI in the United States.

[1]FDI is the ownership by a foreign person or business of 10 percent or more of the voting equity of a firm located in the United States.

[2]We reviewed Commerce's 1991 FDIUS report in Foreign Direct Investment: Assessment of Commerce's Annual Report and Data Improvement Efforts (GAO/NSIAD-92-107, Mar. 18, 1992).

Results in Brief

Commerce has issued three FDIUS reports—in August 1991, June 1993, and January 1995. Commerce has approached each of the three FDIUS reports differently, in response to changing public concerns about FDIUS and limited staff and budget resources, according to Commerce officials. Together, the 1993 and 1995 reports included discussion of all the data requirements of the 1990 act for which data exists,[3] and responded to the recommendations in our 1992 report. In addition, based on factors such as organizational structure of the reports and individual chapters, sufficiency of evidence for principal findings, coverage of specific industry sectors, coverage of countries with the largest shares of direct investment in the United States, and use of relevant outside economic studies, we found that the two reports adequately present the Commerce Department's analysis and findings.

Overall, the Commerce reports' analyses and conclusions relating to the effects of FDIUS on the U.S. economy were thorough and reasonable. There were a few exceptions where Commerce's conclusions were more definitive than warranted by the evidence. For example, in some cases, Commerce characterized FDI as having a "positive impact" on the U.S. economy without providing sufficient support for this statement. (See app. I for a more detailed discussion of factors that, in our view, limited some aspects of Commerce's analysis of the possible effects of FDIUS on the U.S. economy.)

The Commerce Department is the principal source of U.S. government data on FDIUS. Commerce's BEA obtains information on FDIUS through four survey questionnaires that require U.S. affiliates of foreign firms[4] to report on a wide range of financial and operating data. (See app. II for a discussion of BEA surveys.) To ensure compliance with FDIUS survey reporting requirements, BEA has strengthened survey procedures and increased the number of staff devoted to survey follow-up.

The BEA-Census and the BEA-BLS data-sharing efforts, initiated by the 1990 act, have generated data on U.S. affiliates of foreign firms at a greater level of industry specificity than was previously available. The data have enabled Commerce to provide a richer description of U.S. affiliates'

[3]The 1990 act requires that the Commerce reports "compare business enterprises controlled by foreign persons with other business enterprises in the United States with respect to employment, market share, value added, productivity, research and development (R&D), exports, imports, profitability, taxes paid, and investment incentives and services provided by state and local governments (including quasi-governmental entities)."

[4]Commerce uses this term to refer to U.S. businesses with investment resulting in the foreign ownership of 10 percent or more equity interest.

activities and to draw more meaningful comparisons between their operations and those of other U.S. firms without imposing any additional burdens on survey respondents. However, certain restrictions and other factors related to the protection of business-confidential data continue to limit more extensive data sharing among U.S. government agencies. (See app. III for a more detailed discussion of the BEA, Census, and BLS data-sharing projects.)

The Commerce Department's FDIUS reports and the data-sharing activities between BEA, Census, and BLS have largely fulfilled the purpose of the 1990 act by improving the quality and quantity of federal government data on FDIUS. As a result, both government officials and analysts in the research and academic communities have access to FDIUS data that was previously unavailable.[5]

Background

To facilitate the public debate on FDIUS issues by improving existing government information, Congress enacted the Foreign Direct Investment and International Financial Data Improvements Act of 1990. This act required the Secretary of Commerce to submit an annual report addressing the history, scope, trends, and market concentrations of FDIUS, as well as its effects on the U.S. economy. In addition, the act provided for an exchange of business-confidential data between the Bureau of the Census and BEA and authorized BLS to have access to selected business-confidential BEA data.[6] The purpose of this data sharing, as specified by the 1990 act, is to improve the quality of U.S. government data on FDIUS and to enhance analysts' ability to assess the impact of that investment on the U.S. economy. BLS gives BEA access to publicly available macro-level, or aggregated, data on foreign-owned establishments generated from the BEA-BLS data link project.

BEA data on foreign investment are collected on a consolidated firm or "enterprise" basis and reported under the industry category of the firm's primary business[7] and then linked with "establishment" or plant-level data collected by Census and by BLS. Since Census and BLS data are collected on

[5]Information available to government agencies and the public is subject to the confidentiality requirements that apply to proprietary business data.

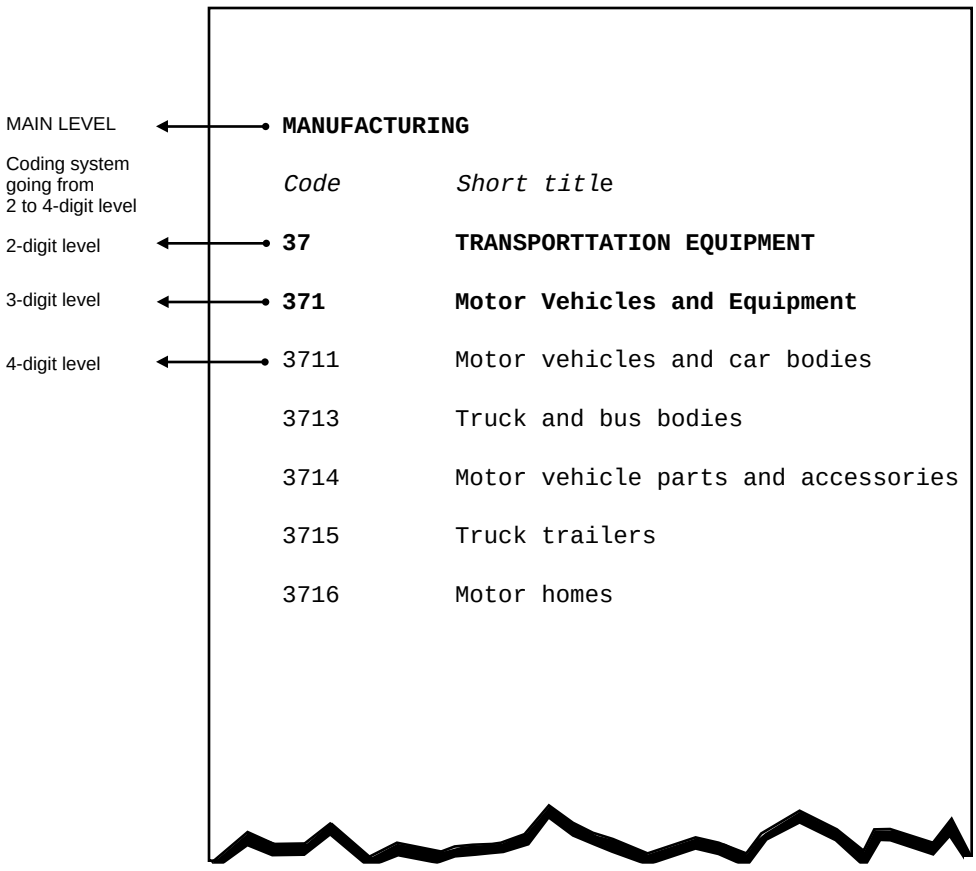
[6]In this report, we use the terms "business-confidential" or "micro-level" data to refer to data that identify individual companies or individual plants. We use the term "macro-level" data to refer to aggregated, publicly available data that do not identify individual companies or individual plants.

[7]For example, a U.S. affiliate whose primary business is chemicals but that has substantial petroleum operations would be categorized entirely as a chemicals investment.

an "establishment basis"—i.e., from individual commercial plants—the data are more likely to correlate to specific industry sectors. However, Census and BLS data do not identify foreign ownership. Linking BEA's enterprise data with Census' and BLS' establishment data enables Commerce to report on the operations of U.S. affiliates of foreign firms in over 800 individual industries at the establishment level, as opposed to only 135 industries at the enterprise level. The establishment industry categories are disaggregated according to the Standard Industrial Classification (SIC) system.[8] See figure 1 for an illustration of how one industry category within the manufacturing sector is disaggregated at the 2-, 3-, and 4-digit SIC levels.

[8]SIC is the statistical classification standard underlying all establishment-based (plant-level) federal economic statistics classified by industry. The classification covers the entire field of economic activities and defines industries in accordance with the composition and structure of the economy.

Figure 1: Examples of SIC Disaggregation of One Industry Category



Source: Standard Industrial Classification Manual, 1987. Office of Management and Budget (Washington, D.C.: U.S. Government Printing Office).

In addition to its three reports, Commerce published data from the first phase of the BEA-Census data exchange effort in June 1992. Commerce also published data from the BEA-Census data exchange effort in 1993, and again in 1994. BLS has published 1989, 1990, and 1991 data from the BEA-BLS data-sharing efforts in July 1992, October 1992, October 1993, and December 1994, respectively.

Scope and Methodology

The Foreign Direct Investment and International Financial Data Improvements Act of 1990 directs us to analyze and report on Commerce's

first three annual reports on FDIUS and review government efforts to improve the quality of FDIUS data. To assess how well Commerce fulfilled the reporting requirements of the 1990 act, we reviewed the 1993 and 1995 reports, with specific attention to Commerce's coverage of the data requirements of the act, and to the overall quality of Commerce's analysis of the potential effects of FDI on the U.S. economy. In addition, we evaluated the extent to which the 1993 and 1995 reports responded to the recommendations in our 1992 report.

We used standard economic principles in our review and evaluation of the Commerce reports, with special attention to the chapters relating to the implications of FDIUS for U.S. trade, technology transfer, tax payment, employment, and banking issues. We relied on internal economists as well as an outside economist with expertise in FDIUS issues to carry out this evaluation. We also considered such factors as organizational structure, sufficiency of evidence for principal findings, coverage of the data requirements of the 1990 act, coverage of specific industry sectors, coverage of major investing countries, and use of relevant outside studies. We interviewed officials from BEA, Census, and BLS, as well as several outside experts, in the course of our review.

We obtained written comments on a draft of this report from the Secretary of Commerce. They are discussed on page 15 and presented in their entirety in appendix IV. We also discussed the results of our work with program officials in BLS and incorporated their suggestions where appropriate.

We performed our review in Washington, D.C., from January 1995 to August 1995 in accordance with generally accepted government auditing standards. See appendix V for a more detailed description of our objectives, scope, and methodology.

Commerce's FDIUS Reports Fulfilled Requirements of the 1990 Act

We found that, taken together, Commerce's 1993 and 1995 FDIUS reports largely fulfilled the requirements of the 1990 act and addressed the recommendations in our 1992 report on Commerce's 1991 FDIUS report. In an effort to address changing public concerns about FDIUS and conserve agency resources, Commerce took a different approach to each of its three reports, according to Commerce officials. The reports included discussion of all the data requirements in the act for which data existed, such as comparing U.S. affiliates of foreign firms' operations to those of other U.S. companies with respect to employment, exports and imports, and research

and development (R&D) spending. With few exceptions, the two reports adequately presented Commerce's analysis and findings regarding publicly debated FDIUS issues.

Commerce's FDIUS Reports Responded to Public Concerns

Commerce has approached each of the three FDIUS reports differently in terms of organization and content. Commerce officials said these differences reflected the changing nature of public concerns about FDIUS and resource considerations within the agency. The August 1991 report highlighted the growth and characteristics of FDIUS in five industry sectors, including electronics, automotives (including automobile parts and components), steel, chemicals, and banking. It provided a description of the initial BEA-Census data link effort, which was not yet complete at the time of the report's publication.

In our 1992 review of Commerce's 1991 FDIUS report, we recommended that Commerce's subsequent FDIUS reports (1) provide an analysis that clearly distinguishes between costs and benefits derived from FDI and those derived from all foreign investment in the United States, (2) make greater use of available government studies and private sector data, and (3) provide more focused analyses of publicly debated questions regarding the effects of FDI in the U.S. economy. We subsequently determined that Commerce had adequately addressed our recommendations in its June 1993 report.

Commerce's June 1993 FDIUS report was organized by general issues of public policy concern rather than by industry sector. The report contained analyses of the implications of FDIUS for U.S. merchandise trade patterns, technology development and transfer, and corporate tax payment. It also presented a more detailed description of the operations of foreign-owned firms[9] in the United States, as well as the results of the first phase of the data link project, based on data obtained through 1987 BEA and Census surveys. Further, the report included an extensive literature survey on the economic issues relating to FDIUS, such as technology transfer, exports and imports, and employment effects.

The January 1995 report also highlighted general FDIUS issues of public policy concern rather than specific industry sectors. It included new data obtained through the BEA-BLS data link on occupational employment patterns in foreign-owned manufacturing establishments, and further

[9]A foreign-owned firm is a business in the United States in which there is sufficient foreign investment to be classified as foreign direct investment, as defined by Commerce.

analysis of the role of U.S. affiliates in U.S. merchandise trade. Commerce also reported the results of the comprehensive 1992 BEA benchmark survey[10] of FDIUS and of ongoing BEA-Census and BEA-BLS data link projects. The primary factor that distinguished it from the 1993 report was that, with the exception of the introduction and chapter 6, all of the chapters of the 1995 report were reproductions of articles previously published in BEA's monthly Survey of Current Business or contained data previously released in BLS publications. Commerce officials told us they believed this approach was a better use of limited staff and budget resources, given the cyclical nature of public concerns about FDIUS.

Commerce Covered the Data Requirements of the 1990 Act

Together, Commerce's 1993 and 1995 FDIUS reports covered all of the data requirements specified by the 1990 act for which data existed and presented Commerce's analysis and findings in a comprehensive manner. Specifically, Commerce presented extensive data on the history, scope, trends, and market concentrations of FDIUS. It also compared the operations of U.S. affiliates of foreign firms with those of other business enterprises in the United States with respect to employment, value added, productivity, R&D spending, exports and imports, profitability, taxes paid, and market share.

The market share information was limited by Commerce's data aggregation and confidentiality requirements. To the extent possible with existing data, Commerce reported on U.S. affiliates of foreign firms' market concentration in various U.S. industries. Commerce relied primarily on sales data to estimate U.S. affiliates' market share, but also examined U.S. affiliates' share of U.S. gross domestic product (GDP) and employment. However, if Congress is concerned about the amount of foreign control exercised in specific product sectors, market sales data at a less aggregated level would be needed.[11] According to Commerce officials, presenting more detailed sector data in these reports would likely compromise the confidentiality requirements of data collection agencies (see discussion in app. III).

The one item called for in the law (section 3(c)(1)) but not addressed in the reports was information about investment incentives and services provided by state and local governments, including quasi-government

[10]This survey is normally conducted every 5 years.

[11]Detailed data on U.S. affiliates at the 4-digit SIC level appear in the Census Bureau's Foreign Direct Investment in the United States: Establishment Data for 1987 (Washington, D.C.: June 1992). In some cases, information is suppressed to avoid disclosure of data on individual companies.

entities. According to a BEA official, BEA attempts to collect this type of data through its survey of U.S. business enterprises newly acquired or established by foreign investors. However, a BEA official said that in many cases the data BEA receives are not complete. Therefore, the reliability of these data is questionable, and they are not published in Commerce's FDIUS reports. These data are, however, publicly available upon request with a disclaimer from Commerce about their reliability.

Commerce's Conclusions Sometimes More Definitive Than Warranted by the Evidence

While our economic review showed Commerce's analysis to be adequate, in some instances its interpretation of the effects of FDI in the U.S. economy were overly definitive. The conclusion in chapter 8 of Commerce's 1995 report, with regard to the occupational employment patterns of foreign-owned manufacturing establishments, illustrates this problem. In the conclusion, the report stated that "on balance, foreign investment in high skill industries has a positive impact on the U.S. manufacturing labor market." However, the statistical data presented showed that foreign and U.S.-owned firms were actually similar in the occupational distribution of their employees. A similar problem appears in Commerce's discussion of technology transfer issues in chapter 6 of the 1993 report (see app. I).

To reach a more definitive conclusion on the "positive impact" of FDIUS, the analysis would require a comparison of the observed scenario to the scenario that would have occurred in the absence of FDI, sometimes called the 'counterfactual' scenario. While it is not possible to state with absolute certainty what would have happened (the counterfactual), this approach often highlights important assumptions about the cause and effect relationships between various factors. In some cases, Commerce did not formally include such scenarios in its analysis (for more details, see app. I).

Linked Data Presented in Comparative Analyses of U.S. Affiliates and U.S.-Owned Firms

The 1995 report shifted emphasis away from the economic effects of FDI toward a general comparison of the operational behaviors of U.S. affiliates of foreign firms to those of U.S.-owned firms. Commerce used linked data to examine several characteristics of firms, including plant scale, plant and equipment expenditure, R&D spending, capital intensity, skill level, wage compensation, and labor productivity. These analyses are helpful in identifying the potential effects of FDI and in determining the industry sectors that have attracted the most foreign investment.

Some Complex Questions Remain Difficult to Answer

Commerce's ability to perform statistical analyses on FDIUS-related questions is currently limited by the level at which available data are aggregated. In its analyses, Commerce presently uses the 3-digit SIC-level data, and where possible, the 4-digit SIC level data. Data at the 4-digit SIC level are sufficiently detailed to address some issues, such as the role of U.S. affiliates of foreign firms in U.S. employment and GDP, but other issues related to market control and technology transfer could be more effectively addressed using more narrowly defined industry categories.

Nevertheless, because some FDIUS questions are so complex, definitive conclusions would be hard to draw even if less aggregated data were available. For example, it would be difficult to determine empirically whether foreign firms invest in the United States with the intent of acquiring U.S. technology. A fuller understanding of the technology strategies employed by foreign investors in the United States would require continued research and debate. Determining the effects of FDI on U.S. imports and exports and on federal tax revenues would also be empirically difficult in some cases.

Commerce Is the Principal Source of Federal Government Data on FDIUS

Within the U.S. government, the Commerce Department is the principal source of U.S. government data on FDIUS. BEA collects FDIUS data directly from U.S. businesses through surveys, while the International Trade Administration (ITA) obtains its data primarily from news accounts of FDIUS transactions, according to Commerce. In addition, the Census Bureau within Commerce collects detailed information on the operations of nearly all U.S. businesses, both foreign and domestically owned. However, Census does not have systems established specifically to track FDIUS.

Many other federal government entities collect data on foreign investment incidental to their overall missions. The Treasury Department is primarily responsible for collecting data on portfolio foreign investment, which includes bonds and other debt instruments as well as equity interest of less than 10 percent. The Departments of Agriculture, Energy, and Defense monitor certain aspects of foreign investment related to their particular industries.[12]

[12]For more information on federal data collection on foreign investment in the United States, see Foreign Investment: Federal Data Collection on Foreign Investment in the United States (GAO/NSIAD-90-25BR, Oct. 3, 1989).

BEA Has Established Steps to Ensure Compliance With Its FDIUS Surveys

BEA obtains information on FDIUS through four survey questionnaires that cover a wide range of financial and operating data for U.S. affiliates of foreign firms. Data reported by survey respondents are classified according to BEA's International Surveys Industry (ISI) classification system, which is based roughly on SIC categories.[13] Beginning in 1990, BEA established steps to ensure compliance with its FDIUS surveys by strengthening survey follow-up procedures and increasing the number of staff devoted to survey follow-up.

FDIUS Surveys

BEA's FDIUS surveys require qualifying companies to disclose financial and operational data to BEA in accordance with the International Investment and Trade in Services Survey Act (Public Law 94-472, 22 U.S.C. 3101-3108, Oct. 11, 1976, as amended).[14] The individual responses are considered business proprietary information, and only aggregated data are publicly released. These surveys cover such topics as balance of payments flows, U.S. business enterprises acquired or established by FDI, and the operations of U.S. affiliates of foreign firms.

The ISI classification system that BEA uses in collecting data on U.S. affiliates of foreign firms is roughly based on the SIC system at the 3-digit level. To facilitate survey responses, the ISI system combines certain SIC industry categories based on typical company structures of U.S. affiliates. According to BEA officials, the ISI classifications correlate more closely with the organizational arrangement of U.S. affiliates than does the SIC system, which is designed for classifying individual establishments within an enterprise.

Efforts to Ensure Survey Compliance

In response to reduced compliance with reporting requirements among large company[15] reporters in the 1987 benchmark and 1988 annual FDIUS surveys, BEA has instituted efforts to ensure U.S. affiliates of foreign firms' compliance with its benchmark and annual FDIUS survey reporting requirements, according to a BEA official. By the end of November 1989—6 months after the May 31 reporting deadline—BEA had received 68 percent of the large company reports in the 1988 annual survey, compared with

[13]The ISI coding system is an aggregation of detailed codes contained in the 1987 SIC manual.

[14]Under the International Investment and Trade in Services Survey Act, U.S. businesses are required to report to the U.S. government if FDI results in ownership or control of 10 percent or more equity interest in the U.S. business. Failure to file the required forms is punishable by a civil penalty of not less than $2,500 and not more than $25,000 (22 U.S.C. 3105 (a)), or by a criminal penalty not to exceed $10,000 or imprisonment for not more than 1 year, or both (22 U.S.C. 3105(c)).

[15]"Large companies," as defined by Commerce, are those with assets or sales greater than $100 million. Delays in reporting by these companies have the greatest impact on the quality of BEA's FDIUS estimates.

84 percent received by the same time in the 1987 survey and 92 percent in the 1986 survey. BEA officials told us that one of the factors that may have contributed to this decline in compliance was the rapid (39 percent) growth in the numbers of qualified large companies to which BEA sent surveys between the survey covering 1986 and the survey covering 1988.[16] They said that BEA's survey follow-up procedures and staff resources at the time were not sufficient to manage the growing volume of potential reporters.

Beginning with the annual survey covering the year 1989, BEA's International Investment Division (IID), together with Commerce's Office of the General Counsel (OGC), undertook a concerted effort to tighten procedures and ensure U.S. affiliates' compliance with the 1989 survey and subsequent surveys. For example, "repeat offenders" (those large companies that were late in reporting in both the 1988 survey and the 1989 survey) were sent a letter from Commerce's OGC in place of IID's standard follow-up letter. In addition, IID and OGC accelerated their telephone follow-up for late reporters. Further, Commerce carried out standard compliance procedures earlier in the processing cycle compared with previous years. A BEA official also told us that in fiscal year 1991 Congress appropriated increased funding to BEA for survey compliance efforts. As a result, BEA now has three full-time staff devoted primarily to FDIUS survey follow-up efforts. This official explained that, prior to the 1991 funding increase, each survey editor was expected to conduct his own follow-up work.

In early 1990, BEA developed indicators to measure one key element of compliance—the timeliness of reporting by large company respondents. The indicators show (1) the cumulative number of reports received by BEA, on a monthly basis, over the 11-month period following the annual survey mailing in March, and (2) the cumulative dollar value of the assets associated with those reporting companies, for the same period. Since BEA began implementing steps to address the reduced compliance with the 1987 and 1988 surveys, the timeliness of reporting on subsequent surveys has returned to acceptable levels, according to BEA officials. For example, the percentage of reports received within 6 months of the May 31 reporting deadline increased from 68 percent for the 1988 survey, to 92 percent for the 1989 survey (for which BEA first tightened its compliance procedures), and to 96 percent for the 1993 survey; while the cumulative value of the assets associated with those reporting companies increased from

[16]According to BEA documents, the number of qualified large reporters to which BEA mailed surveys increased from 837 in the survey covering 1986 to 1,160 in the survey covering 1988. For the survey covering 1993, the number of large company survey recipients had increased to 1,841.

69 percent for the 1988 survey, to 92 percent for the 1989 survey, and to 98 percent for the 1993 survey.[17] Based on these data, BEA officials believe that their efforts to maintain high compliance rates have had a positive, measurable impact on the timeliness of reporting by large companies.

BEA has established other systems to improve its surveys and data management processes, a BEA official told us. BEA has a continuous process to improve the quality of its survey forms, which includes proposing changes to the forms, soliciting feedback from survey users and respondents through a series of meetings and discussions, publishing a request for public comment on proposals, and finally, submitting proposals to the Office of Management and Budget (OMB) for formal review and clearance. This official said that BEA has also instituted an office-wide "best practices"[18] initiative to ensure the accuracy of the data it produces and tabulates. Formal "best practices" standards are now part of each BEA staff member's work plan.

Data-Sharing Efforts Generated New, Detailed FDIUS Data

The BEA-Census and BEA-BLS data link projects, initiated under the 1990 act, have greatly improved the amount and quality of data available about FDIUS. The data have enabled Commerce to produce more detailed analyses of FDIUS and to draw more meaningful comparisons between the activities of U.S. affiliates of foreign firms and those of U.S. firms than previous data allowed. For example, by comparing the market and employment shares of foreign-owned establishments with U.S. establishments, Commerce has been able to respond to concerns about the possibility that foreign investors might be acquiring a disproportionate level of ownership in certain U.S. industries.

Thus far, the data link project between BEA and Census has generated data covering the number, employment, payroll, and shipments or sales of foreign-owned establishments in 1987[19] and foreign-owned manufacturing

[17]A BEA official told us that some of the perceived improvement in compliance between 1989 and 1993 may be attributable to the use of different methods for computing compliance rates. The total number of reports used to calculate compliance rates for the 1986-89 surveys may have included enterprises that were later disqualified because they were sold, liquidated, or consolidated into another report, or for other reasons, while these enterprises were excluded from the total number of qualified reporters for calculations made for the 1990-1993 surveys.

[18]"Best practices" is a term that is commonly used in the field of organizational quality management to refer to those practices identified by an organization through experience as particularly effective in achieving that organization's goals.

[19]This includes both manufacturing and nonmanufacturing establishments.

establishments' operations in 1988, 1989, 1990, and 1991.[20] Commerce's FDIUS reports have included the results of the data links for 1987, 1989, and 1990. The BEA-BLS data link project has generated data on the employment and wages of foreign-owned establishments in all industries in 1989 through 1991, as well as the occupational employment of foreign-owned manufacturing establishments in 1989, which was included in Commerce's 1995 report.

Data provided by Commerce and BLS officials show that the data link projects have been carried out at an average annual cost of about $1.6 million. According to BEA officials, although BEA does not have a separate budget line item for the BEA-Census and BEA-BLS data link projects and does not separately track costs incurred on these projects, BEA officials estimate that BEA's average annual cost of carrying out the projects was about $1 million for 1991 through 1995. Of this amount, an average of $300,000 per year was paid by BEA to Census, to reimburse Census for its costs associated with the project. The average annual budget for BLS to perform the BEA-BLS data link project was slightly less than $600,000 between 1991 and 1995.[21] A major achievement of the two data link projects is that they have produced significant and extensive new data without causing any increase in companies' reporting burdens.

According to Commerce officials, several opportunities exist to improve FDIUS data sharing. These include expanding the BEA-Census data link project to include other data items and attempting to resolve differences between BLS' and Census' establishment databases. However, resource constraints, as well as other factors related to the protection of business confidential data, may limit the agencies' ability to pursue such activities. (See app. III for a discussion of these factors.)

Implementation of the 1990 Act Has Improved U.S. Government Data on FDIUS

Based on our review of the Commerce Department's FDIUS reports and data exchange activities, we found that the implementation of the 1990 act has improved the quantity and quality of U.S. government FDIUS data to a great extent. The data link operations mandated by the law produced significant improvements in publicly available FDIUS data, according to BEA, Census, and BLS officials. This was done at an average annual cost of about $1.6 million. These officials told us they believe the benefits of the data

[20]Commerce's coverage of foreign-owned manufacturing establishments' operations for these years include six additional data items. See appendix III for more detail.

[21]The average annual budget for BLS is based on an average for 1991, 1992, 1994, and 1995—the 4 years that Congress appropriated funding for the BEA-BLS data link project. In 1993 Congress did not appropriate funding for the BEA-BLS data link project.

link have been well worth the investment. The new data are available to the public through several means, including regularly published Commerce Department and BLS reports, Commerce's National Trade Data Bank,[22] and annually produced computer disks that can be purchased from Commerce and BLS.

The Commerce Department reports mandated by the law have provided a regular venue for disseminating new FDIUS data and current analysis of publicly debated questions relating to the effects of FDIUS on the U.S. economy. With each publication, the Commerce reports' coverage, analysis, and organization have provided a growing body of quality information on FDIUS. The most recent report, issued in 1995, presented a large amount of data on the characteristics of U.S. affiliates of foreign firms, including extensive use of tables and graphics. It also included the new data obtained from BEA's 1992 benchmark survey, the BEA-Census data link, and the BEA-BLS data link. Overall, it provided useful information for further analysis by Commerce and other analysts about the potential economic effects of FDI on the U.S. economy.

In our view, compiling previously published articles and data is a reasonable approach to fulfilling the reporting requirements of the 1990 act in a period of government budgetary constraint and when FDIUS issues have been extensively covered in BEA's Survey of Current Business and in periodic joint BEA-Census and BLS publications.

Agency Comments

We received written comments on a draft of this report from the Secretary of Commerce. These comments were of a technical nature, and we have incorporated changes in the report where appropriate. A copy of the Secretary's comments is presented in appendix IV. We also discussed the draft report with program officials in BLS and incorporated their suggestions where appropriate.

[22]Commerce's National Trade Data Bank was established in 1988 to provide public access, including electronic access, to the export promotion and international economic data of 15 federal agencies.

We are providing copies of this report to the Secretary of Commerce and other interested parties. We will make copies available to other parties upon request. Major contributors to this report are listed in appendix VI. If you have any questions concerning this report, please contact me on (202) 512-4812.

Allan I. Mendelowitz, Managing Director
International Trade, Finance, and Competitiveness Issues

Contents

Figures

Abbreviations

ASM	Annual Survey of Manufacturers
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor Statistics
EIN	employer identification number
FDI	foreign direct investment
FDIUS	foreign direct investment in the United States
GDP	gross domestic product
IID	International Investment Division
IRS	Internal Revenue Service
ISI	International Surveys Industry
ITA	International Trade Administration
OGC	Office of the General Counsel
OMB	Office of Management and Budget
R&D	research and development
SSEL	Standard Statistical Establishment List
SIC	Standard Industrial Classification

Factors That Limited Some Aspects of the Commerce Department's Analysis

Although the findings presented in Commerce's 1993 and 1995 reports were generally reasonable and credible, we found several factors that limited some aspects of the reports' analysis. In some cases, Commerce did not clearly acknowledge that firm conclusions could not be drawn without the use of "counterfactual scenarios" to account for economic conditions in the absence of foreign direct investment (FDI). We also found that Commerce's statements regarding the positive impact of U.S. affiliates of foreign firms' research and development (R&D) spending did not acknowledge the possibility that technological developments resulting from R&D do not necessarily benefit the U.S. economy. Finally, in one case, we noted statements in the 1993 report that seemed contradictory.

Certain Conclusions Regarding FDI Were Overly Definitive

In the 1993 report, Commerce sometimes reached conclusions about the effects of FDI on the U.S. economy without acknowledging possible "counterfactual scenarios," i.e., what would have happened in the absence of FDIUS. Such scenarios are often used in discussions of the effects of policy changes. The difference between the observed scenario—when FDI is present—and the counterfactual scenario—when FDI is not—would constitute the effects of FDI. While it is not possible to state with any certainty what would have happened in the absence of FDI, the counterfactual approach can highlight important assumptions about the cause and effect relationships between various economic factors.

One example of where a counterfactual scenario would have been useful is in chapter 8 of Commerce's 1995 report, which addresses the occupational employment patterns of foreign-owned manufacturing establishments. In the conclusion of this chapter, the author stated that "on balance, foreign investment in high skill industries has a positive impact on the U.S. manufacturing labor market." However, the statistical data presented showed that foreign and U.S.-owned firms were actually similar in the occupational distribution of their employees. Without knowledge of U.S. labor market conditions in the absence of FDI, one cannot draw definitive conclusions about the positive impact of FDI on the U.S. labor market.

An example of how this discussion of counterfactual scenarios can be used effectively appeared in chapter 6 of the 1995 report. The author pointed out that the trade deficits of U.S. affiliates of foreign firms amounted to more than half of the total amount of the U.S. merchandise

trade deficit[1] in recent years, and that most of the U.S. affiliates' deficit was accounted for by wholesale trade affiliates rather than manufacturing affiliates. The author concluded that the overall "effect" of those wholesale trade affiliates on trade flows was unclear: on the one hand, many of their imports probably would have been brought into the country by unaffiliated U.S. wholesalers, even in the absence of U.S. affiliates; on the other hand, U.S. affiliates may have allowed foreign parent companies to expand their exports to the United States. The author's discussion of scenarios that might have occurred in the absence of FDI improves our understanding of the possible effects of FDI on the U.S. economy.

Technology Issues Were Addressed, but Conclusions About R&D Spending Were Overly Definitive

Commerce's analyses of the implications of FDIUS for the development and transfer of U.S. technology included an extensive amount of relevant data. Particularly useful were Commerce's analyses of the market concentration of U.S. affiliates of foreign firms in high-technology sectors, and U.S. affiliates' royalty and licensing fee payments to foreign parent companies.

We found that Commerce's conclusions about recent patterns of R&D spending by U.S. affiliates of foreign firms were overly definitive. Commerce concluded that "U.S. affiliates have contributed to U.S. technological development, dramatically increasing their R&D spending in the United States over the past ten years." In our review of the economic literature on the motives of multinationals' FDI, we found that higher R&D spending by U.S. affiliates does not necessarily lead to a higher technology development in the U.S. economy. Sometimes foreign firms locate in the United States simply to monitor the technology developments of other firms in this country.[2] Even if R&D funds are dedicated to technology development, there is no guarantee that such spending will ultimately benefit the U.S. economy.

In one instance in the 1993 report, the authors made two statements that seemed to be contradictory. On one hand, Commerce presented evidence to suggest that some foreign firms have used their affiliates to gain

[1]The U.S. merchandise trade deficit is the amount by which U.S. merchandise imports exceed merchandise exports.

[2]Richard E. Caves' analysis of Japanese investment shows that an important motive for Japan's FDI is to acquire technology. See "Japanese Investment in the United States: Lessons for the Economic Analysis of Foreign Investment," The World Economy, Vol. 16, Number 3 (May 1993).

U.S.-developed "critical technologies"[3] and to displace U.S. firms. Commerce's evidence was based on several case studies of certain high-technology industries conducted by experts within and outside the Commerce Department. On the other hand, Commerce concluded from its own systematic data analysis that there was little evidence that foreign acquisitions of small, U.S. high-technology firms had resulted in large scale technology transfer abroad. Rather, Commerce said that the data suggest U.S. affiliates of foreign firms were contributing positively to U.S. R&D investment and technological development, and that the R&D spending patterns of U.S. affiliates were similar to those of domestic firms. In our view, the evidence Commerce cited to support its broad statement that U.S. affiliates have contributed to U.S. technological development was not sufficiently strong to support the overall conclusion, because Commerce's analysis did not include discussion of possible counterfactual scenarios.

Due to the complexity of the technology issues and the limitations of the SIC data classification system, some questions cannot be conclusively answered at this time. For example, Commerce's effort to evaluate FDI's presence in sectors that engaged substantially in the development of critical technologies was hampered by the aggregated level of available data. To describe the activities of companies involved in the production of critical technologies, the data would have to be significantly disaggregated—beyond the 3- or 4-digit Standard Industrial Classification (SIC) code levels.[4]

Neither the 4-digit SIC level nor the "DOC-3"[5] data developed by Commerce is sufficiently detailed by industry to address questions about the activities of U.S. affiliates of foreign firms in U.S. critical technology sectors. Commerce used a modified version of the DOC-3 definition in its analysis. Based roughly on 3-digit SIC codes, this definition includes only broad industry groups such as "industrial chemicals and synthetics," "computers and office machines," "electronic components," "instruments and related products," and "other transportation equipment." Some of the products included in the definition are actually low-technology products. For

[3]Commerce defines critical technologies as those that generate future innovations in a wide range of goods and services. Specifically, critical technologies satisfy long-term national security, economic, or scientific objectives, such as a strong national defense, improved economic competitiveness, a rising standard of living, improved public health, and energy independence.

[4]According to Commerce, the SIC system is too broad to capture the existence, the extent, and the frequency with which any given critical technology is embodied in a product and thus reflected in an industry's output or trade data.

[5]Commerce developed the DOC-3 definition classification scheme specifically for studying U.S. industries that use advanced technologies. DOC-3 classifies industries by their total R&D spending, including R&D spending for both the final product and for related inputs.

example, the "computers and office machines" category includes such products as scales, balances, cash registers, and adding machines; and "other transportation equipment" includes ship and boat building and railroad equipment. Similar limitations exist with the 4-digit SIC data. For example, the 4-digit "electrical machinery, equipment, and supplies, not elsewhere classified" (SIC 3629) category includes both high-technology items, such as "atom smashers" (particle accelerators) and "cyclotrons," and low-technology items, such as "Christmas tree lighting sets."

Surveys Conducted by the Bureau of Economic Analysis (BEA)

BEA collects data on foreign direct investment in the United States (FDIUS) through four survey questionnaires that require U.S. affiliates of foreign firms to disclose a broad range of financial and operating data. The most comprehensive of these surveys is BEA's benchmark survey, which is required by law to be conducted every 5 years. The other three FDIUS surveys collect data on the status of newly acquired or established U.S. affiliates, the current operations of U.S. affiliates, and on balance of payments flows between U.S. affiliates and their foreign parents.

Benchmark Survey

The International Investment and Trade in Services Survey Act (P.L. 94-472, 22 U.S.C. 3101 to 3108, as amended), requires BEA to conduct the benchmark survey of FDIUS (or census) at least once every 5 years. The most comprehensive of the BEA surveys, it collects both financial and operating data and balance of payments data for the entire universe of U.S. affiliates of foreign firms with more than $1 million in total assets, sales, or net income during the benchmark year. It includes balance sheets and income statements; measures of employment and employee compensation; sales of goods and services; property, plant, and equipment; merchandise trade; research and development expenditures; and, for selected items, data broken down by state. Although it is normally conducted every 5 years, the 1987 benchmark survey was conducted after a 7-year interval in order to coincide with the Census Bureau's quinquennial economic census. The purpose of this adjustment was to facilitate the link between BEA's enterprise data and the Census Bureau's establishment data, and to enhance their analytical usefulness, according to Commerce.

Operations of U.S. Affiliates of Foreign Firms

BEA's annual sample survey of FDIUS collects data on the overall operations of nonbank[1] U.S. affiliates of foreign companies. This survey provides annual updates of the financial and operating data collected in BEA's benchmark surveys. A key measure is the value of total assets of U.S. affiliates at year end. The annual and the benchmark surveys are the only BEA sources of foreign investment data by state.[2] Data from the annual FDIUS survey have been available since 1977.

[1]Nonbank U.S. affiliates include all companies except those classified as banks, savings and loan institutions, credit unions, or other business entities that accept deposits.

[2]Some state-level data are also available from the BEA-Census and BEA-BLS data links.

Survey of U.S. Businesses Acquired or Established by Foreign Direct Investors

Data collected by BEA's survey of U.S. business enterprises acquired or established by foreign direct investors[3] is complied on an annual basis. This data series covers new direct investments and collects data on the associated transactions only for the year in which the new investments were made and includes all financing, including local borrowing in the United States. Data have been available since 1979. An adjunct form is to be filed by persons who act as intermediaries, such as attorneys or accountants, for new direct investment transactions and is used only to obtain the names and addresses of the principals to the transactions so that the primary form can be mailed to the appropriate person.

Foreign Direct Investment Position and Balance of Payments Flows

BEA's survey on the U.S. foreign direct investment position and balance of payments flows is a quarterly sample survey that collects information on transactions between U.S. affiliates of foreign firms and their foreign parent companies for inclusion in the U.S. balance of payments accounts, the national income and product accounts, and in calculating the inward FDI and international investment position of the United States.[4] The purpose of this survey is to monitor capital flows, income, fees and royalties, and other services transactions between foreign parent companies and their U.S. affiliates. Data from this survey have been available since 1950.

[3]This form is required for new investment transactions in which a foreign person, or a U.S. affiliate of a foreign person, acquires at least a 10-percent ownership interest, provided the total cost of the investment is at least $1 million or involves the acquisition of 200 or more acres of land.

[4]The FDI position of the United States is the cumulative value of foreign parents' investment in their U.S. affiliates. It includes only equity and debt funding provided by foreign parents, not funds provided by other foreign firms or by U.S. firms.

BEA, Census, and Bureau of Labor Statistics (BLS) Data-Sharing Projects

The Foreign Direct Investment and International Financial Data Improvements Act of 1990 (Public Law 101-533) authorized BEA to share business-confidential data on FDIUS with Census and BLS, and Census to share business-confidential data with BEA in order to improve the quantity and quality of data on FDIUS.[1] In accordance with the 1990 act, BEA enterprise data has been linked with Census and BLS establishment data and has generated more detailed information on the characteristics and operations of U.S. affiliates of foreign firms in the United States than was previously available. BEA, Census, and BLS officials said there were opportunities for further collaboration to improve the quality and quantity of data available on FDIUS, but certain resource limitations and other factors related to protecting business-confidential information may inhibit their fulfillment.

BEA-Census Data Link

The BEA-Census data link project involves linking BEA's business-confidential enterprise data on U.S. affiliates of foreign firms—collected at the 3-digit International Surveys Industry (ISI) code level—with Census' business-confidential establishment data collected at the 4-digit SIC level.

Thus far, the data link project between BEA and Census has generated data covering foreign-owned U.S. establishments for 1987-91. For 1987, both manufacturing and nonmanufacturing establishments were covered and data were provided on the number, employment, payroll, and shipments or sales of the foreign-owned establishments. For 1988-91, only manufacturing establishments were covered, but more data items were obtained—including data on the number, value added, shipments, employment, total employee compensation, employee benefits, hourly wage rates of production workers, cost of materials and energy used, inventories by state of fabrication, and expenditures on new plant and equipment of foreign-owned establishments. The data were obtained by matching enterprise data collected in BEA's 1987 Benchmark and 1988-91 Annual Surveys of Foreign Direct Investment in the United States to establishment data from Census' 1987 Economic Censuses, 1987-91 Report of Organization surveys, and 1988-91 Annual Survey of Manufacturers (ASM), as well as establishment data Census obtains from administrative or other statistical agencies. The Census establishments that linked to BEA's

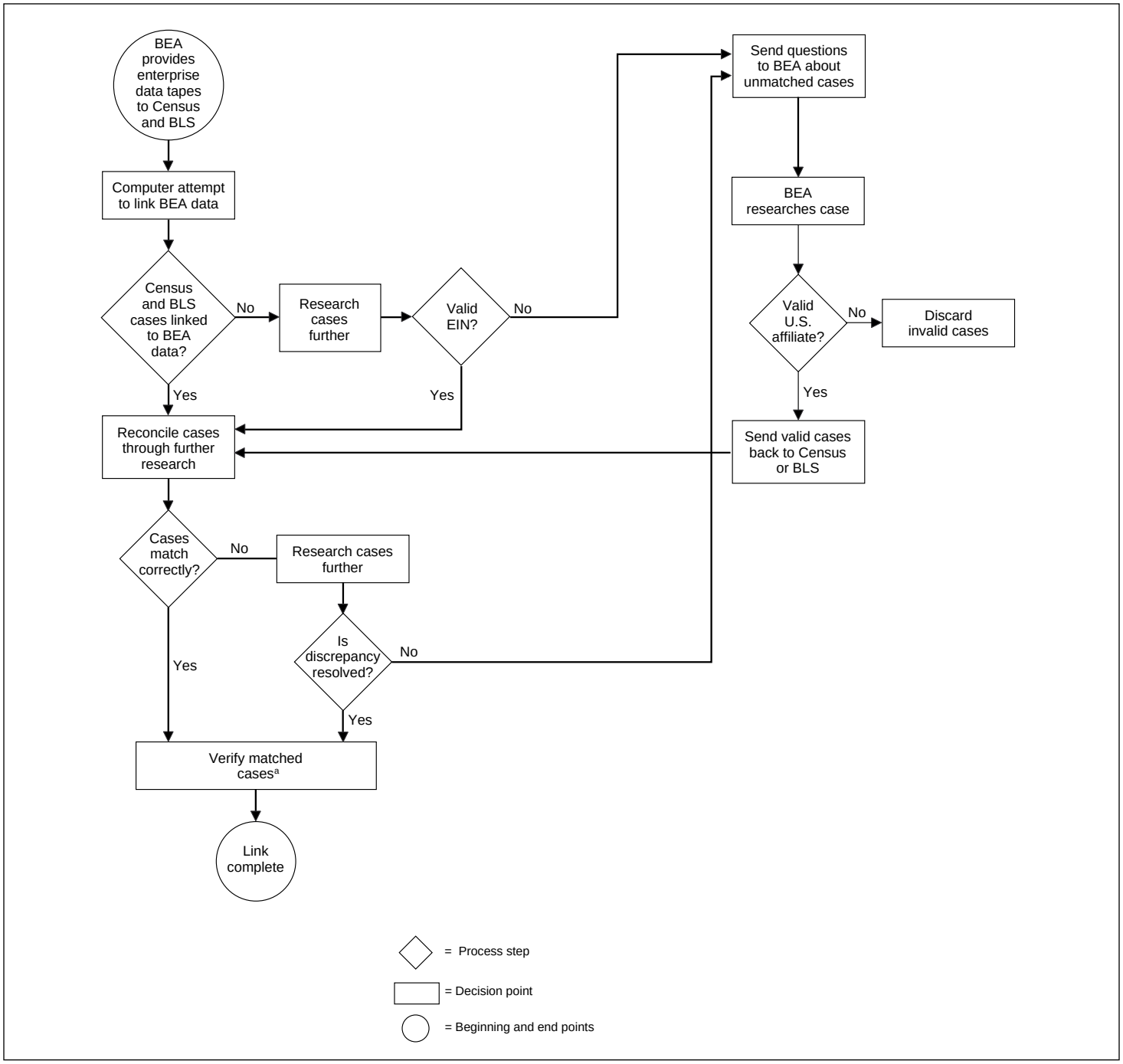
[1]The provisions providing for the exchange of data between BEA and Census and for BLS access to BEA data are as follows: section 5(a) of Public Law 101-533 amended title 13 U.S.C., to allow BEA to obtain access to Census' data; section 6(d) amended the International Investment and Trade in Services Survey Act (Public Law 94-472, Oct. 11, 1976, 22 U.S.C. 3104), to allow Census and BLS to obtain access to BEA's data.

enterprises in the most recent BEA-Census data link (1991) accounted for 98 percent of the employment by foreign-owned manufacturing firms in the United States.

The BEA-Census data link is a technically complex process requiring both automated and manual procedures.[2] The following is a simplified explanation of how the BEA-Census link is conducted. Figure III.1 illustrates the process at a simplified level.

[2]The scope of linking and reconciling the data is reflected in the numbers involved for an upcoming data link: 1992 BEA files covering approximately 12,000 enterprises and 39,000 employer identification numbers (EIN) are being matched against Census files covering 9.5 million establishments. Preliminary indications are that about 105,000 of these establishments were at least 10-percent foreign owned.

Figure III.1: Simplified Illustration of the Process for Linking BEA Enterprise Data With Census and BLS Establishment Data



(Figure notes on next page)

[a]Verifying matched cases includes developing and checking preliminary data tables to verify the accuracy of the linked data.

Source: GAO analysis of data link process.

Computerized Link

The BEA-Census data link project begins when BEA sends Census a computer tape containing micro-level data on foreign-owned enterprises. The data tape contains key information about the enterprise, such as its name, address, and EIN.[3] The tape also includes other descriptive items for the enterprise, such as the number of its employees and its sales in dollars.

Census then attempts to match by computer BEA's enterprise EINs with EINs listed in Census' Standard Statistical Establishment List (SSEL), a computerized list covering all U.S. companies and their establishments—about 9.5 million single and multi-unit companies.[4] The computerized EIN matching operation has three possible outcomes: (1) an enterprise links to one or more of Census' establishments, (2) two or more enterprises link to one or more establishments,[5] or (3) an enterprise does not link to any of Census' establishments. For those enterprises that do not link (outcome 3), Census and BEA conduct further research. For those enterprises that do link (outcome 1 or 2), Census and BEA verify the accuracy of the matched cases.

Identifying Cases That Did Not Link

Once the computerized link has been completed, Census must identify those cases in which BEA's enterprise did not link to any of Census' establishments. This nonlinkage may have occurred because the original EIN that BEA provided to Census for that enterprise on the data tape was incorrect—perhaps the enterprise reported the EIN incorrectly to BEA. Whatever the reason, Census tries to identify the correct EIN by researching the enterprise on the SSEL. If Census is unable to identify the correct EIN, Census forwards the case to BEA for further research.

The research at BEA often entails checking historical or archived information in various BEA files to ensure that the enterprise is a valid U.S.

[3]The IRS assigns all enterprises an EIN for tax-related purposes. EINs are reported on both BEA and Census surveys; all companies are required to use their EINs when filing federal and state payroll and income taxes.

[4]When a company consists of only one establishment, the company is referred to as a single-unit company. When a company has more than one establishment, the company is referred to as a multi-unit company.

[5]This can occur when establishments have multiple foreign owners.

affiliate of a foreign firm, i.e., the enterprise is at least 10 percent foreign owned and the EIN for that enterprise in BEA's files is valid. If the enterprise is not a valid U.S. affiliate, the enterprise is eliminated from inclusion in the data link. If the enterprise is a valid U.S. affiliate, BEA obtains the necessary information to allow the enterprise to be matched correctly to Census' establishments. BEA then sends this information back to Census. Generally, the research at BEA on unmatched cases is carried on concurrently as the project moves into the reconciliation phase. For the data link covering 1992, 243 cases were referred to BEA for further research. Depending on the research required, each case referred can take up to 15 days to research, according to BEA officials.

Reconciliation Process

At this point the cases that did link—those in which a BEA enterprise linked to at least one Census establishment—must be reconciled. A BEA official—who has been sworn in as a Census agent—works with Census to help evaluate whether those cases that linked were correctly matched and to reconcile them if they were not. The reconciliation process is very time-consuming and intensive. For example, for the data link covering 1992, about 1,700 cases were reconciled because of data discrepancies. According to BEA and Census officials, the reconciliation process generally takes about 10 weeks to complete. The process requires Census and BEA to compare the employment count for a given BEA enterprise with the aggregate employment count for the Census establishments that were linked to the BEA enterprise. If there is a large difference between the BEA and Census employment counts—generally over 100 employees—Census and BEA officials must research each case further. To do so, Census and BEA officials compare the data provided by BEA on each enterprise's name, address or location, and employment with Census' SSEL data.

In general, Census and the BEA official are able to resolve discrepancies between BEA and Census data by further researching the cases, according to BEA and Census officials. However, when the discrepancy for some linked cases cannot be resolved, those cases must be returned to BEA for further research. The research conducted on mismatched enterprises is similar to that previously described for unmatched enterprises, except that BEA may contact the enterprise directly to assure an accurate link; research may sometimes take up to 90 days to complete.

Once Census and BEA have reconciled and correctly matched BEA's foreign-owned enterprises with Census' establishments, all of the linked cases must be reverified. Census and BEA officials again work together to

verify their judgement that linked cases have been reconciled and correctly matched.[6] BEA also verifies the accuracy of the linked data by generating preliminary tables to check both the consistency with other data on FDIUS (both from BEA and from other sources) and the internal consistency within the preliminary tables themselves. Developing and checking the tables usually takes BEA about 2 weeks. The data link is complete once the individual linked cases and the table data have been verified.[7]

Disclosure Avoidance Review[8] and Table Development Following Data Link

Developing and publishing tables covering the data generated by the data link on an annual basis is also a joint Census-BEA project. For example, tables generated from the 1987 data link project provided over 600 pages of data tables on FDIUS disaggregated by industry, country, and state. BEA designs and writes the computer programs for the tables and generates the data with assistance from Census. Census performs disclosure avoidance review on each table to ensure that no confidential data are disclosed;[9] in many cases, data in tables must be suppressed before the tables can be published. BEA also checks the tables for their accuracy by comparing the table data with other data on FDIUS. The process to design the tables, generate the data, and perform the necessary disclosure avoidance review, and check the tables can take as long as 7 months. According to Commerce officials, the need to suppress certain data elements so as not to compromise the confidentiality of the data is one of the problems that the agencies face in making the more detailed, 4-digit SIC level data available, because it limits the amount of data that can be published.

BEA-BLS Data Link

Like the BEA-Census data link project, the BEA-BLS data link project was developed to obtain data on U.S. affiliates of foreign firms at a greater

[6]However, BEA officials may not see cases that were based on data Census obtained from IRS and therefore are unable to verify these cases. Restrictions on BEA access to IRS data are set forth in the IRS regulations (26 CFR 301.6103(j)(1)-1) that implement the IRS statutes.

[7]For the 1988-91 data link projects using data from the ASM, an additional step was necessary once the link with establishment data from the SSEL was completed, but before tables were developed for publication. Data were extracted from the ASM for those establishments that linked and reported on the ASM. Since the ASM is a sample survey, data for establishments that did link but did not report on the ASM were imputed using industry averages for the relevant data elements.

[8] Disclosure avoidance review is the process of suppressing data from publications so as to avoid disclosing confidential data.

[9]Public Law 101-533 restricts the agencies from disclosing any data that may reveal the identity of an individual respondent, be it an enterprise or an establishment.

level of industry detail than is available from the BEA data alone. The BEA-BLS data link project has generated data on the fourth-quarter employment and wages of foreign-owned establishments in 1989, 1990, and 1991, as well as the occupational employment of foreign-owned manufacturing establishments in 1989. Data for the first set of data link projects covering employment and wages were derived by matching BEA's enterprise data from its Annual Survey of Foreign Direct Investment in the United States with BLS' establishment data from its Covered Employment and Wages (ES-202) Program—covering approximately 6.5 million U.S. establishments.[10] Data for the data link covering occupational employment were derived by matching the linked manufacturing establishment data from 1989 with other 1989 establishment data from BLS' Occupational Employment Statistics Survey.[11]

The BEA-BLS data link process is very similar to that of the BEA-Census data link project. However, BLS reconciles and verifies the BEA-BLS data link on its own, with input from BEA. As with the BEA-Census data link project, the BEA-BLS data link project is designed to link BEA's 3-digit ISI data on enterprises with BLS' 4-digit SIC data on establishments. The data link project begins with BEA sending its data tape containing business-confidential enterprise data and key identifiers (such as the enterprises' EIN, name, address, employment, etc.) to BLS (see fig. III.1). BLS then is to perform a computerized link of BEA's data with BLS' business-confidential establishment data.

Once BLS has generated a computerized link of the two data sets, it attempts to verify and reconcile discrepancies in the data. In general, BLS will try to resolve these discrepancies on its own, often using secondary sources such as the Directory of Corporate Affiliations or Moody's Industrial Manual to help explain why mismatches may have occurred and to identify cases that should have matched. However, when discrepancies cannot be easily explained, BLS sometimes sends questions about unmatched or mismatched cases to BEA for further research.

BLS then is to verify that all cases included in the link have been matched correctly and develop tables for data publication. The linked

[10]The ES-202 is a federal-state cooperative program whereby data are primarily derived from the quarterly tax reports submitted to state employment security agencies by employers subject to state unemployment insurance laws and federal agencies subject to the Unemployment Compensation for Federal Employees program. The states provide the data directly to BLS.

[11]The Occupational Employment Statistics Survey is a periodic mail sample survey that state employment security agencies conduct of nonfarm establishments to obtain wage and salary employment by occupation. These data are used to estimate total employment by occupation for the nation, each state, and selected areas within states.

establishments from the 1991 employment and wages BEA-BLS data link accounted for about 99 percent of the employment by all U.S. affiliates of foreign firms. Like Census, BLS must perform disclosure avoidance review on each table before the data are published.

Opportunities Exist to Expand Data Link, but Resources Are Limited

According to Commerce officials, several opportunities exist for improving FDIUS data by expanding the BEA-Census data link project. Specifically, opportunities exist to link BEA data with Census product-level and export data, as well as with Census longitudinal[12] data on manufacturing establishments' operations. However, budget and resource constraints may limit the agencies' ability to pursue these projects.

According to BEA officials, the two agencies are currently evaluating the possibility of linking BEA's enterprise data with product- and product class-level data obtained by Census through its economic censuses and ASM survey.[13] A link with product-level data would enable Commerce to provide data on specific products or product classes produced by foreign-owned establishments at a much greater level of detail than either BEA's 3-digit ISI industry data or the 4-digit SIC industry data currently produced under the data link project. According to agency officials, one potential problem with linking these highly detailed product-level data is that much of the data would be business-confidential and would need to be suppressed. However, the product data would enable BEA to study with greater accuracy and precision issues such as whether U.S. affiliates of foreign firms are targeting high-technology industries.

Another opportunity exists for a data link with Census' exporter database. Census developed this database by matching information on exports from the U.S. Customs Service with individual establishments listed on Census' SSEL register. For 1987, Census was able to attribute approximately 60 to 70 percent of all U.S. exports to establishments on Census' register. Census is now constructing a 1992 exporter database that could potentially be linked to BEA's enterprise data. Such a link would generate much more detailed, precise data on exports by type of product than BEA has because U.S. exports are reported to Customs according to a 10-digit

[12]A longitudinal study would be one that follows the growth and change of an individual or group over a period of years.

[13]These data are based on Census' Numerical List of Manufactured and Mineral Products, a classification system for those principal products and services of the manufacturing and mining industries in the United States. The classification system is a 7-digit system representing Census' extension of the 4-digit SIC system; the economic censuses collect product data at the 7-digit level, while ASM collects product class data at the 5-digit level.

schedule that classifies commodities.[14] The more detailed data could help shed light on how U.S. affiliates of foreign firms contribute to U.S. exports.

Commerce officials also told us they anticipate developing a link between Census' Center for Economic Studies longitudinal database and BEA data at some point in the future. Such a link would allow Commerce to analyze individual manufacturing establishments' operations over time. For example, Commerce could study changes in establishments' employment, value added, shipments, etc., once the establishments become foreign owned.

Commerce officials stated that budget and staff constraints, as well as the unavailability of funding, may limit the agencies' ability to pursue these additional data link projects. For example, BEA officials emphasized that, to date, no funding has been allocated to pursue a data link to Census' export or longitudinal databases.

Data-Sharing Restrictions Limit Exchange and Use of Data by Agencies

According to Commerce and Labor officials, certain restrictions and other factors continue to limit the extent to which federal agencies exchange and use FDIUS data on an ongoing basis. Specifically, restrictions on the use and disclosure of confidential data obtained from IRS limit reconciliation and analysis of data generated from the BEA-Census data link project. In addition, various factors restrict BLS' data sharing with BEA. While Public Law 101-533 provides a mechanism for agencies to resolve data access issues, BEA and BLS have not used this mechanism to resolve issues related to BEA access to BLS' business-confidential establishment data.

Restrictions on IRS Data Sharing

Although both Census and BEA are permitted to request and obtain confidential information directly from IRS, restrictions on the use and disclosure of such data prevent either BEA or Census from sharing the data with each other. According to BEA officials, these restrictions prevent BEA from comparing, analyzing, or verifying data in its own databases with data on individual establishments that Census obtains from IRS. Section 401 (a) of title 13 U.S.C. states that Census may share with BEA only data collected directly from respondents by the Census Bureau itself.[15] In addition, IRS regulations (26 CFR 301.6103(j)(1)-1), which describe the

[14]The 10-digit schedule is known as "Schedule B," Statistical Classification of Domestic and Foreign Commodities Exported from the United States. It is an extension of the 6-digit Harmonized Commodity and Coding System, the internationally recognized classification system for commodities.

[15]Title 13 of the United States Code, among other things, governs the collection and publication of statistics that the Census Bureau gathers.

projects for which access to IRS data is permitted, do not specifically mention the BEA-Census FDI link project. IRS has stated that BEA may not have access to the IRS data on the FDI data link files until it has revised its regulations to specifically mention the data link project, according to BEA officials. Therefore, Census cannot disclose to BEA any data Census has obtained directly from IRS until Census has verified the data through its own surveys.

According to BEA officials, Census and IRS are currently developing an agreement to modify IRS' implementing regulations for title 26 of the United States Code so that BEA staff who are sworn Census employees may be granted access to IRS data contained in Census' files.[16] The agencies do not anticipate that this action will require any legislative changes in either title 13 or title 26 of the United States Code.

Restrictions on BLS Data Sharing

BEA would like access to BLS' business-confidential establishment data to evaluate differences between the BLS' and Census' establishment data bases.[17] However, according to BLS officials, BLS has pledged not to disclose any of the business-confidential employment and wage data it obtains from the states under cooperative agreements. BLS officials told us that BLS would have to get permission from each of the states before any such data could be released to BEA, or any other agency. Although Public Law 101-533 neither prohibits nor requires BEA access to BLS' business-confidential establishment data, section 8(e)(2) of Public Law 101-533 states that the Director of the Office of Management and Budget shall be responsible for resolving questions on access to information with regard to any exchange of information between BEA and BLS. At this time, the agencies have not requested mediation on these issues from OMB.

[16]Title 26 of the United States Code is the U.S. tax code provision that governs the disclosure of IRS taxpayer information.

[17]Such differences may be due to several factors, including differences related to how SIC industry codes are assigned to establishments, and when the SIC codes are assigned and updated.

Comments From the Department of Commerce

THE SECRETARY OF COMMERCE
Washington, D.C. 20230

SEP - 7 1995

Mr. Allan I. Mendelowitz
Managing Director, International Trade, Finance,
and Competitiveness Issues
General Accounting Office
Washington, D.C. 20548

Dear Mr. Mendelowitz:

Enclosed are the Department of Commerce's comments you requested on your draft report to congressional committees entitled Foreign Direct Investment: Review of Commerce Department Reports and Data-Sharing Activities.

As you know, the Administration, including the Department of Commerce, is working hard to "reinvent government" and to continue delivering high quality services at costs in line with a reduced budget. The Department's March 1995 report is a good example. As you pointed out in your comments, production of this report was considerably simplified by mainly reproducing under a separate report cover as individual chapters the latest articles on this topic that were published by the Bureau of Economic Analysis in its monthly Survey of Current Business. In the future, we will consider other ways of further reducing costs while continuing to meet the legislative mandate.

Sincerely,

Ronald H. Brown

Enclosure

Objectives, Scope, and Methodology

The Foreign Direct Investment and International Financial Data Improvements Act of 1990 directs us to analyze and report on Commerce's first three annual reports on FDIUS and review government efforts to improve the quality of FDIUS data. Specifically, our objectives were to (1) assess the extent to which Commerce's second and third reports—issued in 1993 and 1995—fulfilled the requirements of the 1990 act and addressed the recommendations in our 1992 review;[1] (2) review the process by which federal agencies collect FDI data; (3) review the status and processes of the data exchanges, or links, initiated by the 1990 act between the Commerce Department's Bureau of Economic Analysis (BEA) and its Bureau of the Census and between BEA and the Labor Department's Bureau of Labor Statistics (BLS); and (4) evaluate the extent to which implementation of the act has brought about the intended improvements in public information on FDI in the United States.

To assess how well Commerce fulfilled the reporting requirements of the 1990 act, we reviewed the 1993 and 1995 reports, with specific attention to Commerce's coverage of the data requirements of the act, and to the overall quality of Commerce's analysis of the potential effects of FDI on the U.S. economy. In addition, we evaluated the extent to which the 1993 and 1995 reports responded to the recommendations in our 1992 report.

We used standard economic principles in our review and evaluation of the Commerce reports, with special attention to the chapters relating to the implications of FDIUS for U.S. trade, technology transfer, tax payment, employment, and banking issues. We relied on internal economists as well as an outside economist with expertise in FDIUS issues to carry out this evaluation. We also consulted Commerce officials frequently in the conduct of our review to ensure consideration of their views in our findings.

In evaluating Commerce's reports, we considered the following factors:

- Organizational structure: We considered whether the organizational structure of the reports as a whole and individual chapters (1) facilitated discussion of key FDIUS issues, (2) presented principal findings in a logical, consistent format, and (3) used tables and graphics effectively to highlight the trends in FDIUS and describe the characteristics of U.S. affiliates of foreign-owned firms.

[1]We reviewed Commerce's 1991 FDIUS report in Foreign Direct Investment: Assessment of Commerce's Annual Report and Data Improvement Efforts (GAO/NSIAD-92-107, Mar. 18, 1992).

- Sufficiency of evidence for principal findings: To evaluate the sufficiency of Commerce's support for its principal findings, we considered whether the reports (1) presented convincing evidence to establish causal relationships, (2) identified limitations in the data available or used, (3) used appropriate analytical techniques to address specific questions, and (4) qualified conclusions where appropriate.
- Coverage of the data requirements of the 1990 act: We reviewed the reports to determine the extent to which they included discussion of the data requirements of the 1990 act. To the extent of available data, the act requires Commerce to compare business enterprises controlled by foreign persons with other business enterprises in the United States with respect to employment, market share, value added, productivity, research and development, exports, imports, profitability, taxes paid, and investment incentives and services provided by state and local governments, including quasi-government entities.
- Coverage of specific industry sectors: We assessed the extent to which the reports included discussion of most of the major industry sectors identified in the SIC system at the 2-digit and 3-digit levels,[2] as well as specific industries with higher levels of foreign direct investment and/or those that involve the use or production of advanced technologies. Where appropriate, we also evaluated Commerce's presentation of the 4-digit SIC data made available through the BEA-Census and BEA-BLS data links.
- Coverage of major investing countries: We determined the extent to which the reports included coverage of the countries with the highest shares of direct investment in the United States, which included Japan, United Kingdom, Canada, Germany, France, and Switzerland in 1993.
- Use of relevant outside studies: We evaluated the extent to which the reports included reference to current FDIUS publications by major academic or research institutions and to economists with recognized expertise in FDI issues.

To identify and obtain information on significant FDI research and policy developments, we reviewed current literature on FDIUS and attended conferences where researchers presented the results of recent FDIUS studies. In addition, we consulted with outside experts in government and the research communities to obtain their perspectives on the Commerce reports and on our principal findings. To obtain information on federal government FDI data collection activities, we interviewed officials from BEA, Census, and BLS, and obtained documents outlining their data

[2]The 2-digit SIC industry groups include agriculture, forestry, and fishing; mining; construction; manufacturing; transportation, communications, electric, gas, and sanitary services; wholesale trade; retail trade; finance, insurance, and real estate; services; and public administration. The 3-digit SIC industry groups are further disaggregations of the 2-digit groups; there are over 400 such groups.

collection processes, as well as current examples of relevant survey questionnaires. We also consulted past GAO and Commerce reports which discussed federal government FDI data collection efforts outside of the Departments of Commerce and Labor.

To review the status and processes of the interagency data exchanges required by the 1990 act, we interviewed officials with responsibility for such activities in BEA, Census, and BLS. These officials provided us with detailed verbal and documentary descriptions of the steps required to perform the data exchanges. In addition, in June 1995 we observed a demonstration of the data link reconciliation process at the Census Bureau.

To evaluate the extent to which the implementation of the 1990 act has led to improvements in FDIUS data, we considered factors such as the contribution of the BEA-Census and BEA-BLS data exchange programs, the overall quality and coverage of the Commerce Department reports since 1991, and Commerce's changing approach to fulfilling its reporting requirements under the act.

In addition to our usual quality assurance procedures, we requested an outside research economist with expertise in FDIUS issues to review a draft of the report and provide comments. We have incorporated his suggestions where appropriate.

We performed our review in Washington, D.C., from January 1995 to August 1995 in accordance with generally accepted government auditing standards.

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