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**GLOBALIZATION AND MULTINATIONAL COMPANIES:  
WHAT ARE THE QUESTIONS, AND HOW WELL ARE WE DOING IN  
ANSWERING THEM?**

Paper submitted by the U.S. Bureau of Economic Analysis<sup>2</sup>

**I. INTRODUCTION**

1. Globalization has placed new demands on statistical agencies to provide the information necessary to inform policy in today's increasingly interdependent world economy. This globalization has manifested itself in the interdependence of financial markets, the increasing role of multinational corporations (MNCs), the transfer of technology, the increasing dependence of domestic markets on foreign trade, and the necessary interdependence of monetary, fiscal, and regulatory policy. Indeed, this interdependence in policy has led to increased demands for harmonization in world statistical standards. These include work to harmonize, standardize, and update the System of National Accounts (*SNA*) and the Balance of Payments Manual (*BPM*); the development of international data dissemination standards; and development and issuance of a series of handbooks ranging from International Trade in Services to Tourism.

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<sup>1</sup> French and Russian versions of this paper can be found on the ECE Statistical Division website. The French and Russian translations were provided by Statistics Canada.

<sup>2</sup> Prepared by J. Steven Landefeld, Director, and Ralph Kozlow, Associate Director for International Economics.

2. Much of this work has involved filling gaps in coverage required by changes in the economy using conventional data collection methods and the existing structure of the national accounts. Providing the information needed for evaluating the economic impact of MNCs, however, normally requires the development of direct surveys of companies that capture data on the overseas activities of their foreign affiliates, and the development and/or use of alternative accounting structures. Despite the cost to statistical agencies and the burden imposed on business respondents by these surveys and alternative structures, the sheer size, growth, and impact of multinational companies have motivated a number of countries to develop, or consider developing, such data.

3. A leading example is the United States, which is both the world's largest direct investor and the host of the world's largest stock of inward direct investments. At yearend 2001, the value of the U.S. direct investment position abroad was \$1.6 trillion, and the value of the foreign direct investment position in the United States was \$1.5 trillion. In 2000, U.S. exports and imports of goods associated with MNCs' headquartered or investing in the United States totaled nearly \$1.3 trillion and accounted for over half of U.S. imports and nearly three-fourths of U.S. exports. U.S. parent companies, their foreign affiliates, and U.S. affiliates of foreign companies together employed about 37 million people in the United States and abroad in that year (28 million were in the United States, of a total workforce of about 130 million). The combined gross product of U.S. parents and U.S. affiliates accounted for one-fourth of the U.S. gross domestic product.

4. Although some countries do not maintain data on direct investment, recent estimates by the United Nations illustrate the significance of MNCs worldwide.<sup>3</sup> It estimates worldwide sales by foreign affiliates in 2001 at \$19 trillion, or more than double the size of world exports in 2001. (In comparison, in 1990, sales by foreign affiliates were only about 25 percent larger than world exports.) Over the period 1990-2001, the world stock of outward direct investment increased an average of 13 percent per year, from \$1.7 trillion to \$6.6 trillion, compared to an annual growth rate of world current-dollar GDP of 3.5 percent. In 2001, foreign affiliates accounted for one-third of world exports.

5. By any measure, it is clear that MNCs are large and important, and that their role and influence has expanded as they have rapidly grown in recent years. Coincidental with

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<sup>3</sup> United Nations Conference on Trade and Development (2002), World Investment Report 2002: Transnational Corporations and Export Competitiveness, United Nations, New York and Geneva.

this growth, the questions that people are asking about MNCs have also become more numerous and varied. In response to these questions, over the years, the U.S. Congress has provided funds to develop the direct surveys and accounting structures to try to answer these questions. As a result, the United States has one of the most extensive statistical programs in the world for tracking direct investment.

6. This paper looks at the U.S. experience and uses it as a benchmark for identifying the key questions that are being asked about the role and influence of MNCs and the types of statistics that are required to answer those questions. The paper goes on to assess whether the U.S. statistics that are now available are adequate to help us answer those questions. Finally, it identifies steps that might be considered to address data weaknesses and to help policy makers and other data users -- both in the United States and abroad -- better answer the important questions that they now are asking about the impact of foreign direct investment.

## **II. WHAT QUESTIONS ARE BEING ASKED ABOUT MNCs?**

7. The following summary attempts to lay out the key questions, provide the answers yielded by U.S. data on direct investment, and identify some of the remaining unanswered questions and the additional data that may be needed. The questions are largely drawn from academic research and policy studies performed in the United States. It is of course impossible to develop a complete list of all questions that people are asking about MNCs, but it is possible to identify key questions that are being asked in the United States and abroad by leading policymakers, researchers, and others who have extensive knowledge and experience with issues concerning MNCs or globalization issues more generally.

### **A Brief History**

8. Before attempting to evaluate how well we may be doing in answering the key questions, it may be informative to put current U.S. data collection efforts and studies in an historical context. Some information on direct investment was collected by the U.S. Government in the early 1900's, but systematic data collection did not begin until around 1950. At that time, some data on the overall operations of parent companies and affiliates began to be collected, but the focus was on the data needed to compile the U.S. balance of payments accounts; the overall operations data tended to be viewed as supplements to the balance of payments data and were used mainly to analyze the balance-of-payments effects of direct investment, such as the extent to which production abroad by the foreign affiliates of U.S. companies substituted for or was complementary to U.S. exports. Until about the mid-1970's, much greater emphasis was placed on the data for U.S. direct investment abroad (outward investment), which, at the time, was far greater than foreign direct investment in the United States (inward investment).

9. With the continued growth in outward investment and with the acceleration in the growth of inward investment in the 1970's and 1980's, interest in the non-balance-of-payments aspects of direct investment—such as its effects on employment, technology transfer, and domestic production—increased correspondingly, and equal emphasis came to be placed on collecting data on investment in both directions. In response, BEA expanded its data on the overall operations of U.S. parent companies and their foreign affiliates and instituted new surveys to collect data on the overall operations of the U.S. affiliates of foreign companies.

10. As concern over the rapid growth in inward investment increased during the late 1980's, Congress and the general public demanded more information to assess the impact of inward investment in particular industries and States. This call led to efforts to link BEA's enterprise-level data on direct investment to establishment-level data from the Census Bureau and Bureau of Labor Statistics, to obtain those agencies' more detailed data by industry and State for the foreign-owned U.S. companies that report to BEA. This project represented one of a number of improvements that have been made simply by better utilizing existing data, without imposing additional reporting burdens on the business community. (Other major data improvement projects that did not impose additional respondent burden were the development of estimates of affiliate gross product; the development of the supplemental, ownership-based framework of the current account; and BEA's revaluations of direct investment from historical cost, or book value, to estimates based on current market prices.)

11. More recently, BEA has conducted significant methodological and conceptual work, which has led to the collection of additional data items and the improvement of concepts. In addition, BEA has been actively involved in work throughout the world, in clarifying concepts, and exploring the borderline between direct investment and other types of investment, inter alia. For example, staff have actively contributed to the development of the *Balance of Payments Manual*, the *Manual of Statistics on International Trade in Services*, and the *SNA*. In addition, they actively participate in various OECD and other workgroups, examining such issues as direct investment, nonperforming loans, the measurement of software trade, the measurement of insurance services, and various other measurement and statistical issues.

12. In these ways, BEA has responded to the need for more relevant information for use in analyzing and understanding the role of MNCs in the globalization process. Throughout the history of its data collection program, BEA has also taken steps to try to improve the accuracy and timeliness of its data. However, in this era of globalization, working to improve the accuracy, timeliness, or relevance of direct investment data is no longer sufficient. Comparability of the data, both to data on the domestic economy and to the direct investment data of other countries, is also necessary. (One major recent effort that is facilitating greater comparability of the United States data with data produced by

Canada and Mexico was the release in 1997 of the North American Industry Classification System.) Also, to minimize respondent burden and enhance data utility, it is essential to organize and enhance the data that are obtained.<sup>4</sup> In recent years, BEA, its counterpart agencies in other countries, and international organizations alike have paid increasing attention to improving the comparability of direct investment statistics across countries and, for a given country, to data for the domestic economy to which the direct investment data might be compared.

**What are the questions, and how well are we answering them?**

13. The United States has made major strides in providing information that has been used to answer many of the key questions being asked about globalization. Some of these key questions are:

- How do MNCs affect output, incomes, and employment in home and host economies? Do multinationals export jobs? How do they affect wages?

14. A frequently expressed fear is that multinational companies will shift production offshore to lower wage countries thereby exporting jobs and exerting downward pressure on wages back home. Yet evidence from the United States suggests that multinationals invest abroad for access to markets rather than low wages and that the share of their activities conducted abroad has not increased appreciably over time. According to BEA data:

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<sup>4</sup> A discussion of how the U.S. Bureau of Economic Analysis has organized and enhanced data it obtains from MNCs is contained in *Measuring Globalization: The Experience of the United States of America*, Obie G. Whichard, prepared for the 22<sup>nd</sup> CEIES Seminar, Copenhagen, Denmark, June 2003.

- Worldwide production, capital expenditures, and employment of U.S. MNCs remained concentrated in the United States in 2000; U.S. parents account for about three-fourths, and MOFAs for about one-fourth, of their combined gross product of \$2,695.3 billion, capital expenditures of \$519.6 billion, and employment of 31.2 million. These shares were essentially unchanged from 1989.<sup>5</sup>

(In the above, MOFA is an acronym for majority-owned foreign affiliates.)

15. Considerable evidence also exists that wage rates in the investor's home country are not significantly affected by wage rates in the foreign host country. In addition, output in both the home and host countries is positively correlated with new direct investments (and much evidence suggests that a dollar of new inward foreign direct investment leads to higher output than an additional dollar of new domestic investment). The impact on host and home country employment from new direct investments is unclear.<sup>6</sup> However, this lack of clarity has less to do with absence of data on employment than it does with disentangling the impact of new direct investment on employment from overall macroeconomic and industry specific impacts.

- What determines the location of production by multinationals?

16. BEA's data on foreign direct investment has helped refute one of the major fallacies about multinationals, which is that the most important determinant of the location of their overseas investment is access to low wage labor. Indeed, the most important determinant seems to be access to large and prosperous markets. Companies tend to invest for purposes of *selling* goods and services rather than for gaining access to low-cost labor and other resources for *producing* goods and services. Over three-fourths of U.S. foreign direct investment is in developed countries. Interestingly, in manufacturing, 80 percent of overseas affiliates production is in high-wage, developed countries, where investment is stimulated by a number of non-wage factors, including

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<sup>5</sup> U.S. Multinational Companies: Operations in 2000, by Raymond Mataloni, Jr., Survey of Current Business, December 2002, p. 112.

<sup>6</sup> Data collected by the U.S. Government would potentially permit a study of the impact of foreign takeovers (and of how foreign takeovers compare with takeovers more generally) on U.S. employment levels and wage rates, but (partly due to unresolved interagency data sharing questions) these data sets have not yet been utilized for this purpose.

access to markets; production of products designed for the local market; local service, support, and sales and advertising activities; tax incentives; or reduced transport costs.

- How do MNCs respond to barriers to trade and investment; to tax and investment incentives?

17. As suggested above, until recently the major determinant of foreign direct investment was seen to be access to developed economies with large and growing markets. Tax laws and investment incentives were found to be of secondary importance. More recently, the proliferation of investment incentives and changes in U.S. tax law may have increased the importance of tax laws and investment incentives.<sup>7</sup>

- How do MNCs contribute to cross-border transfers of technology?

18. One of the major concerns expressed about multinationals is that they erode the U.S. technological advantage either by U.S. companies transferring technology to their overseas investment partners or by foreign companies buying U.S. high-tech companies to gain access to U.S. technology and know how. Unfortunately, technology transfers are very hard to define and measure. Technology transfer may occur simply by an employee traveling to an overseas affiliate and discussing technology or through a series of E-mails rather than through an explicit royalty or licensing payment that would show up in companies' financial accounting statements or foreign direct investment operations reports.

19. By default, research has tended to focus on identifying and categorizing the industries in which foreign companies invest and how much they spend on research and development. As it turns out, they mainly invest in the same industries as their parents, and their investments are only slightly more concentrated in high-technology industries than those of all U.S. companies combined.<sup>8</sup> Research and development activity has grown faster within foreign-owned firms than in all U.S. firms, but this may simply reflect the propensity of these firms like U.S. multinationals to invest in more concentrated, more capital intensive, higher productivity, higher wage, and higher

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<sup>7</sup> Chains of Ownership, Regional Tax Competition, and Foreign Direct Investment, by Mihir A. Desai, C. Fritz Foley, and James R. Hines, Jr., in Foreign Direct Investment in the Real and Financial Sector of Industrial Countries, Heinz Herrman and Robert Lipsey, editors; Springer-Verlage, 2003.

<sup>8</sup> Foreign Direct Investment in the United States, An Update, U.S. Department of Commerce, 1993 and 1997.

technology industries. Additional data development work by the National Science Foundation, the U.S. Census Bureau, and the Bureau of Economic Analysis may shed additional light on this topic.

- How do multinationals affect trade flows and trade balances?

20. Although multinationals trade accounted for more than one-half of U.S. imports and for nearly three-fourths of U.S. exports, it is not clear what the impact of overseas investment by multinationals is on total U.S. trade or the U.S. trade balance. Many would suggest that overseas investment expands the overall volume of trade and production rather than substituting foreign for domestic production. Indeed, the share of U.S. multinationals' total production occurring abroad shows no upward trend. BEA studies do, however, show that, for some foreign parent countries, sales by U.S. affiliates in certain industries have a very high import content. Yet, the import content of most U.S. affiliates of foreign companies in most industries was not unusually high relative to those of U.S. parent companies.<sup>9</sup> In addition, some of the industries in which U.S. affiliate import content is highest basically represent wholesaling operations, in which affiliates were established to facilitate the distribution of goods produced by their foreign parent companies. In several cases, such affiliates have subsequently been replaced by manufacturing affiliates, which over time may progressively rely more on their own value added and on locally procured intermediate inputs, and less on imports from their foreign parents.

21. The contribution of multinationals to the U.S. economy perhaps can best be seen by looking at BEA's supplemental ownership-based measures of the U.S. current account. These measures highlight the large overseas sales of U.S. and foreign companies and their relation to U.S. trade and investment income.<sup>10</sup>

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<sup>9</sup> William J Zeile, "Merchandise Trade of U.S. Affiliates of Foreign Companies," *Survey of Current Business*, October 1993.

<sup>10</sup> J. Steven Landefeld, Obie G. Whichard, and Jeffrey H. Lowe, "Alternative Frameworks for U.S. International Transactions," *Survey*, December 1993. Jeffrey H. Lowe, "An Ownership-Based Framework of the U.S. Current Account, 1989-2001," *Survey*, January, 2003. The ownership-based framework groups direct investment income generated by sales through affiliates with cross-border trade in goods and services, to recognize the active role of parent companies in managing and coordinating their affiliates' operations. (Such income differs fundamentally from income on other types of investments, and might be regarded as a kind of implicit management fee that compensates the parent company for undertaking an active role in affiliate operations.) The framework also provides much more detailed information on trade within MNCs than does the traditional framework.



- Do MNCs invest abroad mainly to achieve efficiency in vertical integration, by locating different stages of production in different countries, or does their international expansion tend to be more horizontal in nature, with essentially identical processes replicated in multiple countries?

22. Several studies have concluded that the bulk of multinationals' investment is horizontal in nature. Once again, it is access to large and growing markets rather than access to low wage labor for labor intensive stages of the production process or on-site access to raw materials for initial processing that is driving foreign direct investment. By locating duplicate facilities in each country or region, companies can provide integrated sales, advertising, production, inventory control, and delivery of their product tailored to the needs of the individual markets.

- How do foreign-owned companies differ from domestically owned companies?

23. At one time, especially during the wave of Japanese investment in the early 1990s, there was concern about foreign companies' operating practices, especially on the part of organized labor. Would the U.S. affiliates of these companies pay lower wages, hire lower-skilled workers, or use their foreign operations as a conduit, investing less in capital equipment and performing less research and development, leaving those functions for the home office overseas?

24. BEAs data show that foreign-owned U.S. companies actually tend to pay higher than average wages, but after controlling for differences in industry mix, they pay roughly the same wages as U.S. firms in the same industries. Foreign investors also tend to invest in U.S. industries that are relatively capital intensive and to perform and consume large amounts of research and development.

- How much of a particular domestic industry is owned by foreign companies?

25. BEA and the Bureau of the Census have linked BEAs enterprise-level data on foreign direct investment in the United States to the Census Bureau's data on all U.S. establishments, and this data set has resulted in detailed estimates showing the proportion of domestic industries that are owned by foreign companies.<sup>11</sup> Also, in a parallel project,

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<sup>11</sup> More specifically, to date, BEA and the Census Bureau have published data for 1987, 1992, and 1997 on the number, employment, payroll, and value of shipments of both foreign-owned manufacturing and nonmanufacturing establishments. In addition, data for these and other items for foreign-owned manufacturing establishments for 1988-91 were published based on data from the Census Bureau's Annual Survey of Manufactures.

BEA data were linked to data of the Bureau of Labor Statistics for 1989 and 1990 covering a number of employment-related variables, including data on the occupational structure of foreign-owned U.S. manufacturing establishments. Partly based on these linked data sets, studies performed by BEA staff and others have shown the share of each domestic industry (at a detailed level of industry classification) that is owned by foreign companies.

26. These are but a few of the many questions that have been posed about foreign direct investment. As can be seen, the existing data have been useful in answering these questions to a significant extent. However, as detailed below, there also are many questions that have not been as fully or clearly answered. Some questions that will require future research to fully answer are:

- Do multinationals contribute to, or help mitigate, international financial crises, such as currency crises?
- Is intra-firm trade conducted at arm's length prices, or are prices set to shift profits and avoid taxes?

27. Although these two areas have been extensively studied, no consensus opinion has been reached. Research must continue, and additional data probably must be collected, before a consensus can be reached.

- What is the role of multinationals in international financial flows?

28. The answer to this question is not entirely clear. Although financial flows that affect the U.S. balance of payments accounts are generally well tracked, many factors (including the use of complex organizational structures, unusual types of financial arrangements, and a decentralized data collection network) have made it impossible to isolate the flows that pertain just to multinationals.

- How do multinationals affect major domestic aggregates, such as GDP, productivity, inflation, and corporate profits?

29. As noted earlier, evidence shows that output in both the home and host countries is positively correlated with new direct investments, and much evidence suggests that a dollar of new inward foreign direct investment leads to higher output than an additional dollar of new domestic investment. Nonetheless, further research is necessary to fully understand the impact of multinationals on domestic aggregates.

- In regard to the environment, is there a race to the bottom where governments competing for increased investment are willing to accept very low (or lowered) environmental standards?

30. Some studies have looked at the impact of MNCs on environmental quality, and evidence suggests that, in general, MNCs are not detrimental to environmental quality; indeed, there is some evidence that, particularly in less developed countries, the opposite could be the case. However, there also are examples of MNCs that contribute to increased air or water pollution. Further data collection and research would be needed to examine this question more fully. At present, there is very little data collected directly from MNCs that can be used to address this question.

**Although we can answer many of the key questions, there nonetheless remains substantial additional work**

31. It is clear that several of the questions posed earlier can be at least partly addressed utilizing data currently available in the United States. However, there are reasons for not accepting these research findings as definitive.

32. For one, it is unclear that U.S. experiences are applicable to other countries, where tax rules, laws, labor force attributes, stage of development, etc., may be substantially different. Furthermore, even in the United States, the answers to questions may change as direct investment continues to expand, as we move through different phases of the business cycle, and as tax laws change.

33. It is noteworthy that there are large bilateral asymmetries in data that purport to measure the same or similar positions or transactions. The answers to some questions could change, as more complete or more accurate data are obtained. Unfortunately, some of the observed differences in bilateral estimates are likely to be the result of estimation errors. Partly in recognition of this prospect, the International Monetary Fund and others have moved aggressively to improve world statistical data quality, but this is a monumental task that will take considerable time and resources to accomplish.

34. Other bilateral asymmetries are probably attributable to differences in the definitions and concepts that individual countries employ in producing estimates or in designing survey questionnaires. As mentioned earlier, in this era of globalization,

comparability of data -- both to data on the domestic economy and to data of other countries -- is an important goal.<sup>12</sup>

35. While addressing current challenges, we need to be mindful of new and emerging issues. The forces of globalization are probably serving to worsen difficulties that compilers are encountering with the accounts, as new types of business arrangements (such as corporate inversions), the growth of high technology industries, the increasing importance of services (and the related questions of how to define and measure services activities), and new ways of financing operations or hedging exposures, are being introduced. Innovations prompted by the forces of globalization may lead to gaps and imbalances in the accounts. For example, some businesses may lock in exchange rates through the use of derivative instruments, and this may lead to imbalances in the accounts if the two entries (in the trade data and in financial account of the balance of payments) do not exactly offset. Also, manufacturers may cease to operate in the conventional way - - by taking title to the goods that they process -- and instead become agents that receive fees for processing goods that they never own; this could lead to measurement and classification challenges. These are but a few examples of challenges that we must meet if we are to continue to satisfy the needs of our users adequately.

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<sup>12</sup> To work toward attaining that goal, the United States recently identified numerous borderline cases between direct investment and other types of investment, where there were no broadly accepted treatments or definitions. The following types of investment were among those identified: Mutual funds; trusts; shell companies; positions between financial intermediaries and affiliated enterprises not principally engaged in financial intermediation; offices that provide public-relations-type services; manufacturers' sales offices; tourism and business promotion offices; news bureaus; stations, ticket offices, and terminal or port facilities of an airline or ship operator. A primary purpose of identifying these borderline situations was to promote international consistency of treatment, by informing others of the treatments followed by the United States, and providing justifications for those treatments where they may be unclear. See Ralph Kozlow, Exploring the Borderline Between Direct Investment and Other Types of Investment: The U.S. Treatment, (BOPCOM-02/35), paper presented at the October 2002 meeting of the IMF's Committee on Balance of Payments Statistics, Canberra, Australia.

**IV. WHAT SHOULD BEA OR OTHER STATISTICAL ORGANIZATIONS  
BE DOING, TO PROVIDE MORE AND BETTER DATA TO OUR USERS?**

36. There are many different steps that we, as statistical organizations, should consider undertaking, to improve the accuracy, consistency, and quality of our data. For example, data consistency across countries would be improved if international statistical data standards were updated and expanded, so that key categories of positions and transactions were defined in ways that are appropriate for data users and that are practical. (Practicality refers to the ease in which transactors or survey respondents may be able to report the data, or the ease of estimating data that are not directly reported.) As mentioned earlier, a recent example of a way that BEA has worked to help establish more uniform international standards is its authorship of a discussion paper identifying key borderline direct investment areas. This work was prompted by the IMF's announcement of its intention to update the *Balance of Payments Manual*. The plan to update to the United Nations *System of National Accounts* provides another motivation, and an opportunity, for developing and updating methodological standards and classification systems.

37. Data would be augmented and improved if statistical organizations undertook additional collaborative projects, to improve data accuracy and to increase the utility of their data. Bilateral data comparisons can result in substantial data improvements, and it is clear that more of these could and should be undertaken.<sup>13</sup>

38. In addition, data output would be enhanced if statistical organizations made fuller use of the data that they already collect. For example, as mentioned earlier, BEA has integrated MNC financial and operating data with its balance of payments data, by periodically issuing a supplemental, ownership-based framework of the U.S. current account. In addition, BEA it has used data collected on various charges against production (compensation of employees, depreciation, etc.) to derive estimates of gross product (value added) of MNCs. Finally, BEA conducts a variety of research and analytical activities in support of its data on MNCs. Research is conducted to interpret the data and place it in context, and to develop new methodologies and measures. Nonetheless, BEA recognizes that there is more work still to perform than it has completed, and it continues to explore opportunities to enhance the usefulness of the data it has already collected.

39. Also, statistical agencies should work aggressively toward closing gaps in coverage, both in their coverage of cross border transactions and in their coverage of affiliate financial and operating data. For example, BEA currently collects very little information that might be used to assess the impact of MNCs on environmental quality.<sup>14</sup>

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<sup>13</sup> One example of a successful data reconciliation project is the annual United States-Canada current account reconciliation. This project - which has been performed annually since 1970 - demonstrates the benefits that ensue from carefully conducted detailed bilateral data reconciliations. However, this project also has shown that high quality reconciliation projects may be resource intensive. Viewed from a practical perspective, the bilateral reconciliation projects that are undertaken between countries probably must be limited to those where significant gains are expected, or that do not unduly burden statistical agency resources. Perhaps partly in recognition of this consideration, international organizations including the IMF and Eurostat have been playing increasing important roles in facilitating recent data comparison and reconciliation projects.

<sup>14</sup> BEA also has data gaps in areas of the accounts that are not specifically MNC-related. For example, BEA has virtually no data on derivative financial instruments, and many of its surveys of unaffiliated services transactions are conducted only annually. Efforts to close data gaps on MNCs need to be part of a broader effort by statistical agencies, to identify and work on closing all major data gaps, whether in coverage of cross-border transactions or of MNC financial and operating data.

40. Speaking more broadly, there are probably many other ways that statistical organizations may improve output and help assure that the needs of data users are being met, not just in regard to data about multinational companies and globalization indicators, but more generally as well. Some of these may include conducting customer satisfaction surveys; regularly eliciting feedback from data users; developing and regularly updating strategic plans for improving agency outputs and operations; and formulating external advisory groups comprised of experts who provide suggestions and feedback to the statistical organization. These steps can build on one another, and help to assure that statistical agencies are meeting the needs of policymakers, researchers, employees, and their other stakeholders.

## **V. CONCLUSION**

41. Although BEA and statistical organizations throughout the world have accomplished a great deal, the obligation of statistical organizations is to keep pace with changes in the world economy. To cover MNC operations effectively, we believe that direct surveys to collect the essential data must be conducted, and this is not a small undertaking for statistical organizations. Yet the forces of globalization have resulted in the world changing at an accelerating pace, and statistical agencies can meet the demands for relevant data only by conducting surveys of MNCs that collect up-to-date and relevant information. It is critical that they do so, because these data are crucial for answering objectively the many hard questions being asked about the role and impact of MNCs.