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Research by the U.S. Bureau of Economic Analysis on Large Bilateral Asymmetries in FDI Based on the CDIS 2011 Results

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Background

Since 2010, the Statistics Department of the International Monetary Fund (IMF) has led a worldwide statistical data collection effort, the Coordinated Direct Investment Survey (CDIS), designed to improve the quality of the data on direct investment, both overall and by immediate counterpart economy. The CDIS database presents information for each participating country on inward direct investment positions by immediate investing country and on outward direct investment by country of immediate destination. Where possible, these positions are disaggregated into their equity and debt components. To highlight bilateral asymmetries, the database also presents mirror data for counterparty countries. As part of the data improvement effort, the Statistics Department informs participating countries of the largest bilateral asymmetries and encourages them to investigate these asymmetries, such as by reviewing their estimation techniques, or sharing information with their counterpart countries. In addition to the data, participating countries are provided with the results of the CDIS metadata questionnaires which include detailed information on collection and compilation practices adopted by CDIS reporting countries, as well as information on contact persons.

On October 2013, the U.S. Bureau of Economic Analysis (BEA) received a message from the CDIS team requesting information about 6 large bilateral asymmetries from the CDIS for U.S. estimates of inward direct investment and 10 large bilateral discrepancies for outward direct investment for yearend 2011. Staff from the International Directorate of BEA met to plan an investigation of the largest bilateral discrepancies between the United States and four countries: the Netherlands, the United Kingdom, Belgium, and Ireland. Table 1 shows the difference between the inward positions reported by the United States and the outward positions reported by the counterpart economy. Table 2 shows the difference between the outward positions reported by the United States and the inward positions reported by the counterpart economy.

Table 1: Largest Bilateral Discrepancies between Inward reported by the United States and Outward reported by Counterpart Economy, as of end-2011

	Direct Investment Positions			Equity Positions (Net)			Debt Instruments Positions (Net)		
	Inward Reported by BEA	Outward Reported by Counterpart Economy	Difference	Inward Reported by BEA	Outward Reported by Counterpart Economy	Difference	Inward Reported by BEA	Outward Reported by Counterpart Economy	Difference
Netherlands	240,306	473,727	233,421	188,860	355,280	166,420	51,446	118,447	67,001
United Kingdom	442,179	318,767	123,412	376,000	286,206	89,794	66,179	32,561	33,618
Belgium	86,021	22,335	63,686	23,748	13,669	10,079	62,274	8,667	53,607

Table 2: Largest Bilateral Discrepancies between Outward reported by the United States and Inward reported by Counterpart Economy, as of end-2011

	Direct Investment Positions			Equity Positions (Net)			Debt Instruments Positions (Net)		
	Outward Reported by BEA	Inward Reported by Counterpart Economy	Difference	Outward Reported by BEA	Inward Reported by Counterpart Economy	Difference	Outward Reported by BEA	Inward Reported by Counterpart Economy	Difference
United Kingdom	549,399	264,516	284,883	532,065	226,306	305,759	17,334	38,210	20,876
Ireland	188,274	5,797	182,477	167,120	64,560	102,560	21,154	-58,765	79,919
Netherlands	595,139	771,687	176,548	547,254	569,122	21,868	47,885	202,565	154,680
Belgium	52,888	-51,434	104,322	49,692	26,828	22,864	3,196	-78,261	81,457

Concurrently, we reached out to our counterparts in Ireland and the Netherlands in an effort to begin discussions on the potential sources of the discrepancies and both countries have been receptive to our communication. On February 2014, BEA provided the IMF Statistics Department a status report of these investigations, which focused on the four countries with the largest bilateral asymmetries. The IMF included our findings in their paper on the CDIS results and also asked BEA to present their findings at this BOPCOM meeting.[1]

This paper summarizes our investigation of the largest bilateral asymmetries, and focuses on five primary areas: 1) inherent inconsistencies in the recommended treatment of fellow enterprises, 2) features of BEA's surveys to collect direct investment statistics that prevent the identification of debt positions between some fellow enterprises, 3) uncertainty regarding the treatment of positions involving Special Purpose Entities (SPEs), 4) differences in the bases for valuing direct investment positions, such as market value versus historical cost valuation, and 5) differences in geographic definitions. For each of these areas, this paper summarizes our intended actions to understand, and, to the extent possible, reduce the asymmetries.

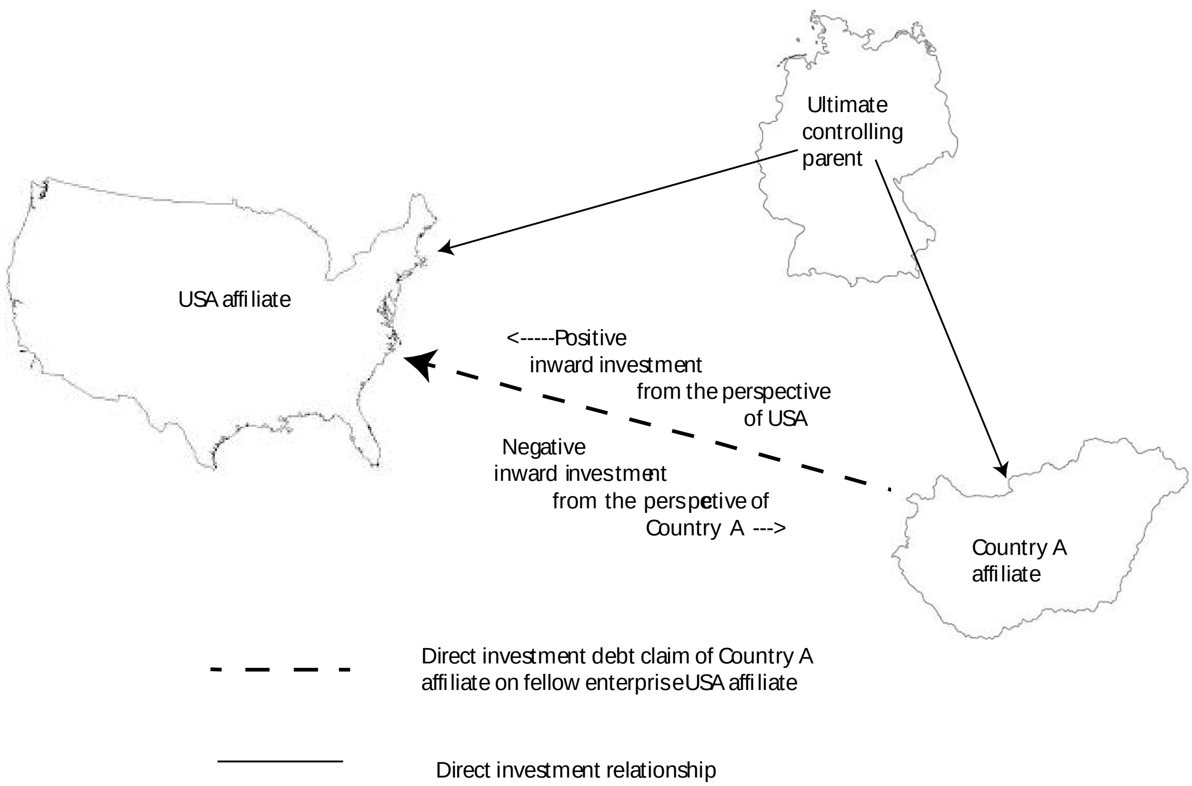
1 The recommended treatment of fellow enterprises

For statistics reported according to the directional principle, like those in the CDIS, the recommendations for recording positions between fellow enterprises can lead to a bilateral asymmetry in the statistics. Specifically, debt positions between fellow enterprises not located in the same country as the ultimate controlling parent will lead to bilateral asymmetries. As shown in diagram 1, a loan from an affiliate in Country A to its fellow enterprise in the United States will be recorded by the United States as positive inward direct investment from Country A. Country A will record this loan as negative inward direct investment from the United States rather than as a mirror position in its outward investment statistics. In this case, even though both countries are following established guidelines, a bilateral asymmetry is created. This situation could be causing the asymmetries with Belgium, among others. Most of the bilateral asymmetry for Belgium is in the debt positions. Debt transactions between fellow enterprises accounts for a significant share, more than 85 percent, of the debt investment position from

[1] International Monetary Fund. 2014. "*Coordinated Direct Investment Survey (CDIS); Project on Bilateral Asymmetries*." DMSDR1S-#5436883-v2-Paper : http://www.imf.org/external/np/sta/cdis/index.htm.

Belgium in our data. Therefore, the asymmetries resulting from the treatment of fellow enterprises discussed above could make a significant contribution to the total asymmetry.

Diagram 1. An Example of Fellow Enterprise Transactions – U.S. Inward Direct Investment, Directional Basis



2 Features of BEA's surveys collection methods

Certain features of BEA's surveys to collect direct investment statistics make it impossible to identify debt positions between certain fellow enterprises. BEA direct investment surveys capture debt transactions between fellow enterprises only in cases involving direct investment entities that are majority-owned rather than all fellow enterprises (10 percent or more ownership). Debt transactions that include a non-majority-owned fellow enterprise are covered by the U.S. surveys that collect portfolio investment and other investment (the Treasury International Capital system), but these transactions cannot be separately identified. To separately capture non-majority-owned fellow enterprises, BEA would need to modify its direct investment surveys.

For outward direct investment on a directional basis, the entity responsible for reporting on the direct investment surveys is the U.S. parent company. The reporting instructions on the surveys define a U.S. parent company as the consolidation of all majority-owned operations in the United States.[2] Therefore, all debt between foreign affiliates and U.S. parent companies is reported to BEA. To cover all debt transactions of foreign affiliates with domestic fellow enterprises, the

[2] U.S. Bureau of Economic Analysis (BEA). 2013. *U.S. Direct Investment Abroad: 2009 Revised Benchmark Data*. Washington, DC: BEA, April: M-8 at http://www.bea.gov/international/usdia2009r.htm.

instructions for reporting debt receivables/payables and interest receipts/payments on the BE-577 Quarterly Survey of U.S. Direct Investment Abroad would need to be modified to indicate that respondents should also include debt and interest between the respondent's foreign affiliates and U.S. businesses that are 10-50 percent owned by the U.S. parent company.

For inward direct investment on a directional basis, the U.S. affiliates report positions with their "foreign parent group." The reporting instructions on BEA direct investment surveys define the foreign parent group as the consolidation of all foreign business enterprises that are majority-owned by the ultimate beneficial owner (UBO) of the U.S. affiliate.[3] In the BE-605 Quarterly Survey of Foreign Direct Investment in the United States, the instructions for reporting debt receivables/payables and interest receipts/payments would need to be modified to indicate that respondents should also include debt and interest between the U.S. affiliate and any foreign business that is at least 10 percent owned, directly or indirectly, by the UBO.

The current instructions in BEA direct investment surveys, to consolidate only majority-owned operations, are based on the consolidation procedures used by corporations when preparing financial statements under standard financial accounting guidelines, such as U.S. Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS). While it is feasible for BEA to expand the coverage of debt transactions to include all non-majority-owned fellow enterprises, the information may be practically difficult to collect because companies generally keep much less detailed information on transactions with minority-owned operations in their internal accounting records.

3 Special Purpose Entities

Ensuring consistent treatment of special purpose entities (SPEs) across reporting countries is an important, but sometimes difficult, task given that the chains of ownership and financing associated with SPEs can be extremely difficult to track. Reconciliation of bilateral direct investment positions would be simpler if multinational firms tended to structure their foreign investments so that there are no cross-border ownership connections among their foreign affiliates. Though some U.S. multinationals adopt such flat ownership structures, others are substantially more complex; that is, foreign subsidiaries sometimes form long ownership chains spanning multiple countries so that the U.S. parent owns many of its affiliates indirectly.

3.1 The growing complexity of ownership chains

A recent research paper that is based on data from BEA direct investment surveys demonstrates that the chains of ownership between foreign affiliates are becoming more complex and suggests that this rising complexity may be related to tax management strategies. Lewellen and Robinson (2013) provide a comprehensive picture of how the internal ownership of U.S. multinationals is organized.[4] Their data come from BEA's annual survey of U.S. direct investment abroad, which

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[3] U.S. Bureau of Economic Analysis (BEA). 2011. *Foreign Direct Investment in the United States: Final Results from the 2007 Benchmark Survey*. Washington, DC: BEA, September: M-7-M-8 at https://www.bea.gov/international/fdius2007_final.htm.

[4] See Lewellen, K. and L. Robison (2013). "Internal Ownership Structures of U.S. Multinational Firms," Tuck School of Business working paper at http://www.law.nyu.edu/sites/default/files/ECM_PRO_075236.pdf.

collects data on the overall domestic and foreign operations of U.S. multinationals as well as detailed information on the chains of ownership between these entities. They find that large U.S. multinational firms can take vastly different approaches to internal ownership, with close to half the firms in their sample having simple flat structures, while other firms have structures that are highly complex. On average, complex firms arrange 39% of their foreign subsidiaries (and 50% of foreign operation assets) into cross-border ownership chains, but the fraction can be as high as 90% for some firms. The degree of complexity has shifted over time. While the proportion of complex firms examined by the authors declines steadily from 52% in 1994 to 45% in 1999, complex firms became increasingly complex; that is, the ownership chains became longer over time. In examining the forces driving the internal ownership choices, the authors find evidence of tax management strategies and of a number of non-tax factors, such as minimization of transaction costs, expropriation risks, and legal liability towards outside partners. The growing complexity of the ownership chains increases the probability that partner countries do not have full information on chains of ownership, which reduces the ability to ensure consistent treatment of SPEs across reporting countries.

3.2 Input from our counterparts in the Netherlands and Ireland

To initiate a discussion with our counterparts on the potential source of the discrepancies related to SPEs, BEA contacted the Netherlands' central bank (Nederlandsche Bank) and Ireland's Central Statistics Office. Both countries expressed an interest in cooperating to address and explain the sources of the discrepancies. The 2011 estimate provided by the CDIS team of the inward direct investment position from the United States for the Netherlands, which includes SPEs, exceeded BEA's estimate of outward investment to the Netherlands by $176.5 billion, with almost all of the asymmetry in the debt positions. Our Dutch counterparts indicated that 80 percent of the debt position is in SPEs. In contrast, in the BEA data, debt accounted for only 6 percent of the U.S. outward position in the Netherlands in industries that are indicative of SPEs—finance and insurance and holding companies. While these differences suggest that the asymmetry lies in the difference in the debt position in SPEs, the inability to discuss confidential business survey data with our counterparts in the Netherlands hampers our ability to resolve the issue. For Ireland, our counterparts communicated their interest in investigating the asymmetries, but they indicated that their resources are being directed towards the implementation of the new international statistical guidelines from the sixth edition of the IMF's *Balance of Payments Manual* (BPM6).

3.3 Level of consolidation in the internal accounting records of survey respondents

BEA has recently visited the headquarters of some of the larger firms that respond to its direct investment surveys and learned that the level of aggregation in the internal accounting records of some companies may make it more difficult to identify full chains of ownership between foreign affiliates, particularly complex chains of ownership involving SPEs. While some of the companies are able to report foreign operations in the level of disaggregation requested by BEA, some consolidate multiple foreign affiliates within a country, even when those affiliates are in different industries, and some even consolidate foreign affiliates in an individual product line across countries. If corporate accounting records do not support country-level reporting of financial data, the quality of bilateral statistics will be limited. BEA intends to continue these company visits to understand more fully companies' internal accounting practices and to help them report the information requested on BEA surveys more accurately.

4 Differences in the basis for valuing direct investment positions

BEA's country-level direct investment position statistics are available only on a historical cost basis, whereas some partner countries—such as the Netherlands—measure a portion of the positions at market value. Historical-cost statistics are not routinely adjusted to reflect changes in the market valuations of firms, while market-value statistics value the equity portion of direct investment using indexes of stock market prices. From discussions with our counterparts at the Nederlandsche Bank, we learned that they do not believe that this difference in valuation of investments in listed equity explains the large discrepancy in the bilateral direct investment positions statistics with the United States. The Nederlandsche Bank values the equity of publicly listed direct investment enterprises at market value. However, in their data there do not appear to be many cases in which Dutch entities hold direct investment positions in publicly listed U.S. affiliates. When such investments do occur, they tend to be in portfolio investment rather than direct investment. In instances where valuation differences may play a large role in the asymmetry, the differences could be examined further by comparing detailed historical-cost estimates, since countries that create market-value estimates also tend to produce historical-cost estimates by country and industry.

5 Differences in geographic definitions

BEA includes the Channel Islands as part of direct investment to and from the United Kingdom, whereas the U.K. Office for National Statistics does not. BEA would like to remove this inconsistency by separating the Channel Islands from its direct investment estimates for the United Kingdom, but would also like to implement the change in a coordinated fashion for all components of the international transactions accounts. The change for the direct investment position appears feasible, but the change for some accounts (e.g., trade in goods) will require changes by other agencies (e.g., U.S. Customs and Border Protection), which is outside of BEA's direct control.[5]

[5] The U.S. trade in goods transactions data does not distinguish Channel Islands exports/imports separately from the United Kingdoms. See the U.S. Bureau of the Census publication "Schedule D: Statistical Classification of Domestic and Foreign Commodities Exported from the United States and Code Classifications for Country Codes 1(Schedule C)" at http://www2.census.gov/prod2/decennial/documents/09876150jan1949p1ch1.pdf.