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Coordinated Direct Investment Survey (CDIS)

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This paper updates the IMF Committee on Balance of Payments Statistics (Committee) on the recent developments in the Coordinated Direct Investment Survey (CDIS) including the changes in data collection and dissemination processes. The main change is the IMF's Statistics Department (STA)'s decision to undertake only one annual collection cycle in September every year for dissemination in December. In December 2014, STA launched the new enhanced CDIS website and posted a set of FAQs on the website in September 2015. In April 2015, STA released the pre-publication of the 2015 CDIS Guide and the final version was disseminated on September 30, 2015. Going forward CDIS work program will include continued efforts to increase participation and data quality as well as regular analysis of bilateral asymmetries for promoting bilateral collaboration to improve data consistency. G-20 economies participation in the CDIS is also included as a new recommendation under the second phase of the G-20 Data Gaps Initiative (DGI-II).

A. Introduction

1. The IMF's CDIS is a worldwide statistical data collection effort to provide bilateral direct investment positions data by immediate counterpart economies and to improve the quality of direct investment position statistics in the international investment position (IIP). Therefore, the CDIS supports the objective of developing from-whom-to-whom cross border data, complementing the IMF's Coordinated Portfolio Investment Survey (CPIS) and the Bank for International Settlements' (BIS) International Banking Statistics (IBS) in contributing to a better understanding of financial interconnectedness.

2. The CDIS collects, from reporting economies, comprehensive and harmonized end-year data on direct investment positions-both inward and outward based on the location of the immediate counterpart to a direct investment position, with separate reporting of equity and debt investments. Gross debt liabilities and gross debt assets are separately identified. As part of the overall CDIS reporting to the IMF, economies provide the methodology applied to compile the data (metadata). The CDIS data results are available at <http://data.imf.org/CDIS>.

B. CDIS Data Collection and Dissemination

Changes in CDIS Data Collection Cycle

3. The CDIS is conducted on an annual basis starting with end-2009 data. CDIS preliminary data and metadata used to be reported to the IMF within nine months after the end of the reference year and released within 12 months. Revised and more comprehensive data and metadata, if prepared, were disseminated 18 months after the end of the reference year.

¹ Prepared by Alicia Hierro and Emma Angulo, Balance of Payments Division, STA.

4. Considering the limited value added of collecting data twice (September and March) for the same reference date and the cost of data collection and respondents' burden, STA decided in March 2015 to undertake **only one annual CDIS data collection cycle in September and one CDIS data release in December**. CDIS data are, therefore, collected only once a year (in September), within nine months following the end of the reference date, and disseminated on the IMF's website by the end of each year. The re-running of the survey in March of the following year **is discontinued**. Therefore, as of end of September 2015, STA collected revised (or new) end-2013 CDIS data together with end-2014.²

Challenges Brought by SDMX Data Collection

5. Few economies commenced submitting their CDIS data through SDMX last year. First CDIS data submissions in SDMX format were challenging both for reporters and STA (for example due to mapping and coding issues). STA worked in close collaboration with reporters to address issues raised by the new data processing system. Other key challenges of the SDMX CDIS data submissions included data inconsistencies (components not adding to the aggregate) and the possibility of residual disclosure of confidential information.³ As a quick fix to solve these issues, and in consultation with a few SDMX reporters, STA generated the CDIS excel report form with the SDMX data received and sent it to SDMX reporters for their further review. Going forward, SDMX reporters will be expected to verify that there are no confidentiality issues or discrepancies prior to submitting the data to STA.

CDIS Enhanced Website

6. In December 2014, together with the release of 2013 data, STA launched the enhanced CDIS website featuring maps, tables, charts, graphs, and relevant documents as well as providing users with the possibility to create extensive customized data reports. The new website also includes all relevant documents and features of the previous website which was decommissioned. The enhanced website, tested for CDIS first, was also implemented for the rest of the external sector datasets (CPIS, BOP/IIP, and the reserves data template). All these portals now have similar features and structure to facilitate easier access by users.

² There were 15 economies that participated in 2012 CDIS, but did not report 2013 data within the nine months after the end of the reference year for the December 2014 release. Their 2012 data represent 2 percent of total inward data for 2012, with one economy accounting for the 63 percent of this 2 percent. In July 2015, STA contacted those economies that did not meet the nine months deadline, to encourage their timely submission of 2014 CDIS data.

³ CDIS data submission in the excel report form allowed reporters to identify potential issues, such as residual disclosure of confidential data and discrepancies between reported aggregates and the sum of their components (through a set of v-checks included in the excel form).

C. CDIS Results

7. In December 2014, the IMF released CDIS results, available publicly at <http://data.imf.org/CDIS>. The results comprise direct investment positions data for end 2013 and revised data for 2009-2012. The 2013 survey includes data from 90 economies (compared to 88 economies in the 2012 preliminary results). New CDIS participants are Sri Lanka and Niger.

8. There is large and expanding participation of economies in the CDIS database. (Table 1) and the data cover larger amounts of foreign direct investment over time (Table 2).

Table 1. Number of CDIS Reporting Economies

	Inward			Outward		
	Total	Net Equity	Net Debt	Total	Net Equity	Net Debt
2009	91	84	82	62	58	57
2010	97	90	88	68	64	61
2011	103	97	96	72	68	66
2012	103	97	95	70	65	63
2013⁴	90	86	84	65	62	60

As of December 2014 CDIS data release.

Table 2. FDI Positions as Reported by all Participants. US dollars, trillions⁵

	Inward			Outward		
	Total	Net Equity	Net Debt	Total	Net Equity	Net Debt
2009	20.37	15.73	3.36	20.65	17.29	2.67
2010	22.88	17.90	3.49	22.42	19.02	2.65
2011	24.26	18.72	4.19	24.62	20.54	3.31
2012	26.32	20.07	4.74	26.79	22.29	3.66
2013	27.90	21.85	4.51	28.18	23.77	3.54

As of December 2014 CDIS data release.

9. **There is high concentration of direct investment in few economies and within some regions.** The top ten economies with inward direct investment positions cross classified by their main counterpart economies as of end-2013 are included in Appendix I. In 2013, similar

⁴ It is expected that the number of participating economies for 2013 data increases during the 2014 data collection cycle (some economies could not meet the nine months deadline for 2013 data; by the next deadline to report 2014 CDIS data they would have already compiled 2013 CDIS data).

⁵ Total direct investment is not equal to the sum of equity and debt positions because some countries reported total direct investment but did not report the split between equity and debt positions, to preserve the confidentiality of these positions or because data were unavailable.

to previous years, 67 percent of the total inward direct investment (US\$27.9 trillion) was received by the 10 economies with the largest inward direct investment, and 80 percent of the total outward direct investment (US\$28.2 trillion) originated from the 10 economies with the largest outward direct investment. For the 88 economies that reported data in both 2012 and 2013, inward direct investment positions increased from US\$25.8 trillion in 2012 to US\$27.9 trillion in 2013, up 8.2 percent. There is large direct investment within some regions. Intra-regional direct investment explains about 2/3 of the inward direct investment in Europe and economies of the Persian Gulf, and almost one half in East Asia in 2013.

D. Coverage and Extensiveness of CDIS Data

CDIS Compared to IIP

10. There are some differences in global direct investment data reported in the IIP and CDIS. For this comparison, STA rearranged direct investment assets and liabilities data from IIP into the directional principle, and thus compared them with inward and outward CDIS data.⁶ For 2013 results, CDIS represents about 82 percent of the total direct investment reported in the global IIP for both inward and outward direct investment.

11. This gap is explained by two reasons: coverage (non CDIS reporting economies) and differences in values reported by individual economies in their CDIS and IIP data. For the inward data, only around 26 percent of this gap is explained by economies that report IIP but not CDIS data. For the outward data, around 33 percent of the gap is explained by non CDIS reporters. The rest is explained by differences between IIP and CDIS data reported by participating economies. The CDIS metadata questionnaire includes a question on discrepancies between IIP and CDIS, and economies are encouraged to provide details on the reasons that explain such differences. The 2015 *CDIS Guide* describes possible explanations of the discrepancies between IIP and CDIS data in Box 6.1.

Extensiveness of Data Availability

12. For the period 2009 to 2013, the number of economies reporting inward CDIS ranges between 90 and 103, of which 77 provided data for the entire time series. The number of economies reporting outward CDIS ranges between 62 and 72, of which 54 provided data for the entire time series.

⁶ The level of detail reported in IIP varies by economy. In cases where IIP lacks sufficient detail, simplified methods were used to rearrange IIP direct investment assets and liabilities into inward and outward direct investment (for example, for the few countries reporting direct investment assets and liabilities without further desegregations, all assets were considered outward and liabilities inward).

G-20 Participation in CDIS

13. CDIS participation of G-20 economies has improved over time. While Argentina does not participate in the CDIS, Brazil and India commenced participation with 2010 CDIS data. All G-20 economies that report inward CDIS also report outward CDIS, except for China, P.R.: Mainland, Indonesia, and Saudi Arabia. Saudi Arabia reported CDIS inward data for 2009 and 2010 only. (See Appendix II). The G-20 economies' participation in CDIS is now recommended under the second phase of the G-20 Data Gaps Initiative (DGI-II) (*G-20 economies to participate in and improve their reporting of the IMF Coordinated Direct Investment Survey, both inward and outward direct investment. IMF to monitor the progress*).⁷

E. CDIS Granular Data

Granular Data Availability

14. The CDIS database includes detailed breakdowns for inward and outward data. The greater the granularity, data availability diminishes and confidentiality issues become more relevant. The breakdown between net equity and net debt instruments is generally well reported. For 2013 inward data, all participating G-20 economies report the equity/debt breakdown, with the exception of Canada; China, P.R.: Mainland provides counterpart country breakdown for equity only. The split of net debt into resident financial intermediaries and resident enterprises that are not financial intermediaries is reported by 12 out of 17 participating G-20 economies. CDIS is the only STA dataset that provides such breakdown. The split of debt instruments into liabilities and assets is reported by 14 G-20 economies. Only 9 G-20 economies report separate data for fellows. (See Appendix III for the detailed status of reporting for the G-20 economies).

Policy Relevance of Granular Data

15. The CDIS database provides detailed direct investment data by immediate (first) counterpart economy which supports the analysis of financial interconnectedness and cross country vulnerabilities. The database also provides information on intercompany equity and debt investments allowing for a better understanding of intercompany lending policies and the extent to which companies get financing through their direct investment enterprises (reverse investment) or fellows.

⁷ The conclusion of the first phase of the IMF/FSB G-20 DGI and the launch of DGI-II was endorsed by the G-20 Finance Ministers and Central Bank Governors in their September 2015 meeting. During the outreach activities in 2015 as part of the DGI work process, the data users addressed the need for consistent data on cross-border direct investment positions. Participation in the CDIS with annual data reporting is also prescribed for the adherents of SDDS Plus. Given the request by the data users and considering the link between the DGI and SDDS Plus, CDIS data was brought into DGI-II as a new recommendation based on an already existing data reporting framework.

F. Update of the CDIS Guidelines

The CDIS Guide

16. In April 2015, the IMF released the pre-publication of the 2015 *Coordinated Direct Investment Survey Guide (2015 CDIS Guide)*. On September 30, 2015, the IMF finalized the editing process and disseminated the final version on the IMF's website. The hard copy version will soon be available (English version). The [2015 CDIS Guide](#) clarifies and updates the previous international guidelines on CDIS published by the IMF in 2010. As agreed during the last meeting of the IMF Committee in Washington, D.C., the draft 2015 *CDIS Guide* was sent to the Committee members for review and comments. It was also distributed to the OECD Working Group on International Investment Statistics (WGIIS) for their comments. The 2015 *CDIS Guide* is consistent with the *BPM6* and the fourth edition of the OECD's *Benchmark Definition of Foreign Direct Investment*.

17. The 2015 *CDIS Guide* includes a new chapter (Chapter 6) to assist compilers in improving the quality of direct investment data; (i) by using self-assessment tools for compiling and reporting data, (ii) by assessing consistency between IIP and CDIS data, and (iii) by assessing data reported by counterpart economies (mirror data).

The CDIS FAQ

18. In September 2015, STA posted a set of CDIS FAQs on the CDIS website, as part of the efforts to provide further guidance to CDIS reporters and users.

G. Forward CDIS Work Program

19. **STA is continuing its efforts to increase CDIS participation, improve data quality, and expand coverage, including reporting the outward data for relevant economies.** These efforts will encompass initiatives to address greater participation by G-20 economies in the CDIS, and in improving the scope of their reporting. STA staff will continue working closely with CDIS participants to address data and metadata issues and to improve the quality of direct investment data. The work is now focused on the collection and review of 2014 CDIS results that will be released in December 2015.

20. STA will continue providing advice on CDIS related topics as part of its external sector statistics technical assistance work (mainly to economies that have not yet participated in the CDIS but have plans to do so, or did participate and results could be further improved). In addition, STA is placing more emphasis on the CDIS in its training courses, drawing on the main topics of the new *CDIS Guide*.

New Bilateral Asymmetries Project

21. To further enhance CDIS data quality, STA initiated in 2013 a project to raise awareness of, and to address to the extent feasible, large bilateral asymmetries for end-2011

data.⁸ STA will conduct a similar project based on end-2014 CDIS data (to be available by end-2015).

22. While the project was successful in identifying main reasons that explain asymmetries, it is resource consuming for economies to identify the specific reasons and even more to address the asymmetries. The plan is to make the study of bilateral asymmetries a regular activity so as to identify asymmetries and encourage countries to improve data consistency. The objective of improving data quality and bilateral symmetry can be achieved only if affected economies are actively involved.

Questions for the Committee:

1. *Do Committee members support the proposal to regularly study CDIS bilateral asymmetries and encourage CDIS participants to work towards solving such asymmetries?*
2. *Do Committee members support efforts by the IMF to encourage relevant economies to report outward direct investment and more granular data, such as the separate reporting of net equity and net debt instruments and the breakdown of net debt instruments into gross liabilities and gross asset positions?*

⁸ As a result of this work, STA posted a paper, "[*Coordinated Direct Investment Survey \(CDIS\): Project on Bilateral Asymmetries: June 2014*](#)".

Appendix I. Inward Direct Investment: Top Ten From-Whom-To-Whom 2013

US Dollars, Millions

Counterpart Economy (Investment from):	Reporting Economy (Investment in):											
	Netherlands	Luxembourg	United States	China, P.R.: Mainland	United Kingdom	China, P.R.: Hong Kong	Germany	France	Switzerland	Singapore	All Other Economies	Total Investment
United States	997,712	774,723		76,465	389,608	42,871	94,001	86,260	98,323	97,417	1,239,719	3,897,098
Netherlands		322,325	273,884	27,721	C	78,515	207,655	123,090	213,181	69,052	1,391,157	2,706,581
United Kingdom	455,896	540,818	518,643	20,989		20,054	62,154	75,802	23,892	40,501	633,031	2,391,780
Luxembourg	693,715		201,603	4,940	C	C	161,530	133,495	161,760	19,479	717,608	2,094,131
China, P.R.: Hong Kong	15,744	23,931	5,860	1,112,242	C		642	2,243	C	25,239	66,195	1,252,096
Germany	246,134	104,871	208,841	53,450	C	5,301		85,446	28,704	15,792	429,677	1,178,217
France	166,579	72,443	226,131	20,748	C	6,981	53,584		43,124	12,129	514,441	1,116,159
Japan	64,357	3,200	342,327	147,594	80,357	25,936	21,875	14,488	3,546	55,433	350,764	1,109,877
Switzerland	234,314	123,912	209,397	11,705	62,748	8,249	59,991	81,829		29,308	251,905	1,073,357
Virgin Islands, British	40,508	C		330,624	13,680	447,918	3,241	757	C	57,611	80,432	974,772
All Other Economies	1,427,401	1,285,283	777,270	524,759	1,061,577	559,475	261,860	180,300	197,797	328,118	3,505,381	10,109,220
Total Investment	4,342,358	3,251,506	2,763,956	2,331,238	1,607,970	1,195,301	926,532	783,712	770,327	750,078	9,180,310	27,903,288

Notes

Direct investment positions are negative when a direct investor's claims (equity and/or debt) on its direct investment enterprise are less than the direct investment enterprise's claims (equity and/or debt) on its direct investor. Direct investment positions also can be negative due to negative retained earnings (which may result from the accumulation of negative reinvested earnings).

Blank cells reflect data not available or not applicable and cells with "c" reflect data that were suppressed by the reporting economy to preserve confidentiality.

"All Other Economies" row includes "Not Specified" (unallocated) and Confidential data.

Totals may not be equal to the sum of their components due to rounding. "0" reflects amounts that are less than +/- \$500,000, or amounts reported as "0".

China P.R.: Mainland: For counterpart economies, data cover equity investment only. Data on debt instruments are included in "All Other Economies".

Data in "Total" column reflect the sum of inward direct investment positions reported by all CDIS reporting economies, vis-à-vis the individual counterpart economies in the rows. These data are not equivalent to the outward direct investment positions reported by the economies in the rows.

Top ten counterpart economies (listed in the first column) are selected based on inward information reported by all CDIS reporting economies.

Data in "Total Investment" are the total inward direct investment positions for the CDIS reporting economies combined.

For the complete list of reporting and counterpart economies for inward direct investment position data, see tables 6-i.

Data Source: Coordinated Direct Investment Survey (CDIS)

Data extracted from IMF Data Warehouse on: 9/4/2015 12:50:44 PM

Appendix II: G-20 Participation in CDIS

G- 20 Economies ⁹	Inward Direct Investment Positions					Outward Direct Investment Positions				
	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Argentina										
Australia	X	X	X	X	X	X	X	X	X	X
Brazil		X	X	X	X		X	X	X	X
Canada	X	X	X	X	X	X	X	X	X	X
China, P.R.: Mainland	X	X	X	X	X					
France	X	X	X	X	X	X	X	X	X	X
Germany	X	X	X	X	X	X	X	X	X	X
India		X	X	X	X		X	X	X	X
Indonesia	X	X	X	X	X					
Italy	X	X	X	X	X	X	X	X	X	X
Japan	X	X	X	X	X	X	X	X	X	X
Korea, Republic of	X	X	X	X	X	X	X	X	X	X
Mexico	X	X	X	X	X	X	X	X	X	X
Russian Federation	X	X	X	X	X	X	X	X	X	X
Saudi Arabia	X	X								
South Africa	X	X	X	X	X	X	X	X	X	X
Turkey	X	X	X	X	X	X	X	X	X	X
United Kingdom	X	X	X	X	X	X	X	X	X	X
United States	X	X	X	X	X	X	X	X	X	X

⁹ The list excludes European Union.

Appendix III: Granular Data Availability: Status of Reporting for G-20 Economies in 2013

US Dollars, Millions

	Inward Direct Investment Positions	Inward Equity Positions (Net)	Inward Debt Instruments Positions (Net)	Inward Debt Positions (Net): Resident Financial Intermediaries	Inward Debt Positions (Net): Resident Enterprises that are not Financial Intermediaries	Inward Debt Instruments Liabilities Positions (Gross)	Inward Debt Instruments Assets Positions (Gross)	Inward Direct Investment Positions (Net) with Fellow Enterprises	Inward Direct Investment Liabilities Positions (Gross) with Fellow Enterprises	Inward Direct Investment Assets Positions (Gross) with Fellow Enterprises
Australia	558,443	405,738	152,705	0	0	0	0	0	0	0
Brazil	715,182	576,011	139,171	4,569	134,602	139,171	0	63,330	63,330	0
Canada	644,977	0	0	0	0	0	0	0	0	0
China, P.R.: Mainland	2,331,238	2,214,930	116,307	0	116,307	120,261	3,954	0	0	0
France	783,712	684,733	98,978	825	98,153	251,073	152,095	32,481	141,612	109,131
Germany	926,532	660,162	266,370	0	266,370	459,928	193,558	123,333	232,581	109,248
India	249,288	235,854	13,434	274	13,160	15,550	2,116	0	0	0
Indonesia	230,439	208,741	21,698	0	21,698	23,707	2,009	0	0	0
Italy	360,911	307,002	53,909	6,437	47,473	114,077	60,168	4,818	42,600	37,782
Japan	170,710	163,423	7,287	0	0	13,253	5,967	0	0	0
Korea, Republic of	172,554	165,636	6,918	91	6,827	9,797	2,879	555	2,438	1,884
Mexico	391,879	366,525	25,354	0	25,354	46,995	21,640	10,764	26,988	16,224
Russian Federation	472,281	410,622	61,659	-2,781	64,440	76,758	15,099	28,887	28,894	7
South Africa	152,124	123,726	28,398	0	28,398	28,398	0	0	0	0
Turkey	112,814	106,604	6,210	0	6,210	6,210	0	656	656	0
United Kingdom	1,607,970	1,463,569	144,401	0	0	280,165	135,764	23,824	31,737	7,913
United States	2,763,956	2,240,008	523,948	-12,887	536,835	869,727	345,779	0	0	0
Number of G20 reporters	17	16	15	12		14		9		

Shaded areas indicate breakdowns not reported.

The list excludes European Union.

China P.R.: Mainland does not report counterpart economy breakdown for debt instrument positions.