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Recent Progress in Measuring FDI in the Wake of Globalization

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Abstract

The wave of globalization—the increasingly global dimension of economic and financial transactions—has impacted foreign direct investment (FDI) flows profoundly. Most of the cross border financial activities of multinationals are captured in FDI statistics. Multinational Enterprises (MNEs) also represent an important driving force behind globalization. The recent crisis has shown that sharp growth in both external assets and liabilities exposes investors and economies to large swings in capital gains and losses. It is noteworthy that persistent valuation changes of foreign assets and liabilities could render external current account surpluses or deficits relatively less important as determinants of net foreign assets positions.

The paper takes stock of the Coordinated Direct Investment Survey (CDIS) initiative, conducted under the auspices of the IMF. It notes that the IMF's Coordinated Portfolio Investment Survey (CPIS), conducted as an annual exercise since 2001, was a major step toward improving the measurement of trans-border holdings of portfolio investment. Its success underscores the need to undertake a similar data collection exercise for FDI, to improve coverage and valuation, and to provide additional valuable bilateral data. Experience clearly demonstrates that the most effective way of assuring the availability of high quality and comprehensive data on FDI is by conducting surveys. No other method is as effective in identifying enterprises that are foreign owned or that have FDI abroad, and surveys are important in obtaining data on such items as earnings and FDI positions.

The CDIS has received strong international support so far as over 130 economies have indicated an interest in participating in this initiative. Preliminary data are to be reported to the IMF by the end of September 2010, and they are scheduled to be published by the end of 2010/early 2011 on the IMF website.

I. INTRODUCTION

1. The wave of globalization—the increasingly global dimension of economic and financial transactions—has impacted foreign direct investment (FDI) flows profoundly. The recent crisis has shown that sharp growth in both external assets and liabilities exposes investors and economies to large swings in capital gains and losses. Also it is noteworthy that persistent valuation changes of foreign assets and liabilities could render external current account surpluses or deficits relatively less important as determinants of net foreign assets positions[2]. A better understanding of the size and structure of external assets and liabilities

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[1] Prepared by Adelheid Burgi-Schmelz, Ralph Kozlow, Andrew Kitili, Mark van Wersch, and John Joisce for the International Association for Research in Income and Wealth Conference, at St. Gallen, Switzerland, August 2010. The views expressed in this paper are those of the authors and do not necessary reflect the view of the International Monetary Fund, its Executive Board, or its management.

[2] Obstfeld, 2004.

plays an important role in determining whether and to which extent valuation effects contribute to external adjustment following an era of economic imbalances. Good FDI data are therefore important in analyzing cross border flows and positions, and their potential impact on the economy; hence the call in April 2009, by the Group of 20 Economies (G-20) for the IMF and the Financial Stability Board (FSB) to explore information gaps and provide proposals for strengthening data collection including FDI[3].

2. The measurement and analysis of international capital flows and positions is of central interest to the IMF in carrying out its mandate. As markets evolve and transactions become more complex the need to adapt and expand data collection systems becomes paramount. While significant progress has been made in improving the measurement of external assets and liabilities, one area that needs further strengthening is FDI. FDI is one of the five functional categories used as the primary basis for classifying data on financial transactions, positions, and income in the international economic accounts. The other four functional categories are: portfolio investment, financial derivatives (other than reserves) and employee stock options, reserve assets, and other investment.

3. Multinational enterprises (MNEs) are major participants in international financial markets and are important providers of FDI, i.e., finance to their related entities abroad. MNEs also provide important nonfinancial benefits through technical know-how, managerial expertise, market access, and other similar non-tangible benefits. Because of the significant size and impact of FDI, high quality data on FDI are needed.

4. Availability of such data can help policy makers address a number of important issues in international macroeconomic developments, including the determinants of long-run net external positions, the link between net external positions and real exchanges rates and changes in the extent of international risk sharing[4]. Also the sum of external assets and liabilities can be used (and has been used) as a volume-based measure of international financial integration when studying the effects of integration on macroeconomic performance[5]. Such data are used for compiling statistics on balance of payments and international investment positions and for other analytical purposes.

5. At the end of 2008 (the most recent year for which substantially complete data are available), total global asset and liabilities positions in the five categories mentioned above amounted to:

[3] See reports at: http://www.imf.org/external/np/g20/pdf/102909.pdf and http://www.imf.org/external/np/g20/pdf/053110.pdf.

[4] See Lane and Milesi-Ferreti, 2002b and 2004b; IMbs, 2004; Huzinga and Zhu, 2004.

[5] See Edison and others, 2002, and Prasad and others, 2003.

Table 1. Reported Assets and Libailities by Functional Categories: 2003-2008 (US$ Billions)						
			Assets			
	2003	2004	2005	2006	2007	2008
Direct investment	9,595	11,359	11,925	14,760	18,474	17,752
Portfolio investment	16,714	20,564	22,863	29,036	34,433	26,543
Financial derivatives/1	394	485	1,692	1,909	3,612	8,386
Other Investment	15,184	18,531	20,273	25,165	32,485	30,857
Reserve assets	2,863	3,986	4,397	5,235	6,600	7,100
Total	44,750	54,925	61,150	76,105	95,604	90,638
			Liabilities			
Direct investment	8,973	11,024	11,646	14,468	18,305	17,017
Portfolio investment	20,335	25,054	27,906	34,892	41,749	34,685
Financial derivatives/1	426	519	1,655	1,885	3,654	8,321
Other Investment	16,932	20,354	22,211	26,353	34,447	32,252
Total/2	47,158	57,555	63,418	78,491	98,155	92,275

Source: *Balance of Payments Database as of July 2010* , IMF

1 The data for financial derivatives are mostly reported on a net basis

2 Includes relatively small amounts of unallocated data.

6. Apart from measurement problems affecting coverage, valuation, or timing, global asset and liability positions by functional category should be similar except for the asymmetries caused by recording values for reserve assets in a single category on the assets side of the accounts and spreading offsetting liabilities among several functional categories on the liabilities side.[6]

7. This paper discusses an international coordinated initiative to improve the quality of data on FDI, i.e., the Coordinated Direct Investment Survey (CDIS).

II. Discrepancies in Global External Sector Statistics

8. The size of the statistical discrepancies in the global external sector statistics has been a cause of concern to financial data users and, in particular, to the IMF in connection with its surveillance activities and the *World Economic Outlook*. Previously, the differences between assets and liabilities were the greatest in portfolio investment and other investment, and international organizations sought to address the discrepancies in these two categories first.

[6] The counterpart liabilities to reserve assets are predominantly included in portfolio investment (securities), although some counterpart liabilities are included in other investment (deposits) or another functional category. Reserve assets are those external assets that are readily available to and controlled by monetary authorities for meeting balance of payments financing needs, for intervention in exchange markets to affect the currency exchange rate, and for other related purposes.

9. The IMF's Coordinated Portfolio Investment Survey (CPIS), conducted as an annual exercise since 2001, was a major step toward improving the measurement of trans-border holdings of portfolio investment. Also, the IMF's INFER Survey ("Instrument Composition of Transactions in Foreign Exchange Reserves"), which has been conducted annually beginning with 1991, provides information on the level of liabilities within each of the functional categories associated with reserve assets. Such information is useful in isolating the discrepancies that arise from measurement errors. Similarly, the Bank for International Settlements (BIS) has conducted a survey on banks' international positions (assets and liabilities) of currency and deposits and loans (the major components of other investment). Over time, there have been significant improvements in these data sets in the aggregate. In addition, the CPIS and BIS datasets provide bilateral data that are of growing interest. Data on positions at an individual economy level ("from whom to whom" data) help analysts gain valuable insights into the degree of interconnectedness in financial markets, particularly during periods of turmoil.

Table 2. Global Discrepancies in FDI Flows
(US$ Billions)

	2003	2004	2005	2006	2007	2008
1. Total						
Abroad	-668.1	-1008.4	-1066.2	-1501.2	-2437.1	-2107.4
In Reporting Economy	649.5	767.7	1154.2	1528.6	2351.1	1850.8
Discrepancy	*-18.7*	*-240.7*	*87.9*	*27.4*	*-86.1*	*-256.5*
2. Equity & Other Capital						
Abroad	-440.7	-649.9	-798.8	-957.3	-1757.1	-1480.9
In Reporting Economy	516.2	545.7	921.6	1166.9	1901.6	1420.5
Discrepancy	*75.5*	*-104.2*	*122.8*	*209.7*	*144.5*	*-60.4*
3. Reinvested Earnings						
Abroad	-227.5	-358.6	-267.4	-544.0	-680.0	-626.4
In Reporting Economy	133.2	222.1	232.5	361.7	449.4	430.3
Discrepancy	*-94.2*	*-136.5*	*-34.9*	*-182.2*	*-230.6*	*-196.1*

Source: BOPSY part 2, 2009

10. In light of the success of the CPIS and of the BIS banking data collections, and the significant discrepancies in FDI data (see Table 2), it was recognized that there is a need to undertake a similar data collection exercise for FDI, to improve coverage and valuation, and to provide additional valuable bilateral data.

III. FDI: Concepts and Progress in Measurement

11. FDI is a major category of cross-border investment. Unlike other categories of cross-border investment, it involves international investment in which an investor in one economy obtains an ownership interest that confers influence, or more often control, over the

management of a direct investment enterprise in another economy that receives equity investment.[7] The relationship between enterprises involved in FDI tends to be lasting, and as noted, FDI tends to bring nonfinancial dimensions, such as management expertise, technology transfer, marketing, and market access that are not usually associated with other forms of cross-border investment. Enterprises in a FDI relationship are more likely to trade with each other. FDI tends to provide a stable source of funds during periods of market stress and facilitates risk sharing.

12. FDI is, however, difficult to measure, not just because of the complexities of the concepts underlying FDI but also because identifying the parties in a FDI relationship is not straightforward. It also is difficult to explain FDI concepts to survey respondents. The challenges associated with measuring FDI include: identifying the units that meet the definition of direct investor, direct investment enterprise, and fellow;[8] consolidation of business registers; conducting a survey; and ensuring that the direct investor reports information obtained from the books of the direct investment enterprise (see Annex I).

13. Until recently, data on external assets and liabilities position were reported mainly by industrial and a few emerging market economies. However, as result of concerted effort of the IMF under the auspices of the IMF's Balance of Payments Committee[9] there has been significant improvement in data on external assets and liabilities. The number of economies reporting inward FDI investment positions to the IMF's Statistics Department has increased markedly from 82 economies at end-2000 to 113 economies at end-2008. The number reporting outward FDI positions also grew strongly, from 72 economies at end-2000, to 100 economies at end-2008. The rapid growth in reporting countries is consistent with the growth in value of the global reported FDI position. Reported inward and outward FDI positions almost doubled between 2003 and 2008, to stand at about $17.0 trillion and $17.8 trillion, at the end-2008, respectively (Table 1). These increases in value captured not only the increase of the value of the stock as a result of increased investment and price increases, but also increases in the number of economies reporting and improved coverage.

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[7] Influence is defined as owning at least 10 percent and control as owning more than 50 percent of voting power.

[8] For further detail, see the discussion of the Framework for Direct Investment Relationships in Chapter 6, Section B (and particularly Box 6.1) in *BPM6 (*http://www.imf.org/external/pubs/ft/bop/2007/bopman6.htm), and Annex 4 of the *OECD Benchmark Definition of Foreign Direct Investment*, fourth edition (available at: http://www.oecd.org/document/33/0,3343,en_2649_33763_33742497_1_1_1_1,00.html).

[9] The IMF Committee on Balance of Payments Statistics comprises the IMF and senior balance of payments experts from all regions of the world. The present members are from: Canada, Chile, China PR, China Hong Kong SAR, Germany, Ghana, Japan, Oman, Pakistan, the Philippines, Russia, South Africa, Spain, and the United States. Several international organizations also participate. These are: the Bank for International Settlements, European Central Bank, Eurostat, the Organisation for Economic Cooperation and Development, the United Nations Organization, and the United Nations Conference on Trade and Development.

Table 3. Top Ten Recipients of Inward Direct Investment and Value 2000 and 2008 Positions (US$ Billions)			
Economy	Value of Inward Direct Investment, 2000	Economy	Value of Inward Direct Investment, 2008
United States	1,421	United States	2,647
France	537	Luxembourg	1,517
United Kingdom	463	France	1,029
Germany	463	United Kingdom	980
China, P.R.: Hong Kong	455	Germany	950
Netherlands	244	China,P.R.: Mainland	876
Canada	213	China, P.R.: Hong Kong	816
Belgium	195	Belgium	671
Spain	156	Netherlands	639
Italy	121	Spain	623
Total Top Ten	4,268	Total Top Ten	10,748

***Source**: International Financial Statistics, May 2010*.
Note: Totals may not sum because of rounding.

14. The value of reported inward FDI for top ten recipients rose from $4,268 billion at end-2000 to $10,748 billion at end-2008, an increase of over 150 percent (see Table 3). The composition of the top ten changed substantially. Whereas the United States remained the top recipient throughout this time, with the value almost doubling, Luxembourg and Mainland China gained prominence as recipients of FDI, with stocks at the end of 2008 of $1,517 billion and $876 billion, respectively. (Neither of these economies produced estimates of their FDI positions for end-2000.[10]) Spain's inward FDI stock quadrupled over this period, while Belgium's more than tripled. Canada and Italy dropped out of the top ten destinations over that period.

15. For FDI abroad, the top ten direct investing economies (outward FDI) saw their total value increase from $5,507 billion at end-2000 to $12,853 billion at end-2008, or more than doubling (see Table 4). The United States remained the top investor. As with inward FDI, one of the more striking changes between 2000 and 2008 was the emergence of the importance of Luxembourg as a major outward direct investor. (In 2000, it did not produce estimates of FDI abroad. It is notable that Luxembourg is the home economy for a large number of special purpose entities that are engaged in pass-through finance.) Canada and Italy dropped out.

[10] In the four years since China PR and Luxembourg began reporting their inward FDI positions to the IMF, the values more than doubled for China PR, from $369 billion, and increased 86 percent for Luxembourg.

Table 4. Top Ten Providers of Outward Direct Investment and Value 2000 and 2008 Positions (US$ Billions)			
Economy	Value of Outward Direct Investment 2000	Economy	Value of Outward Direct Investment 2008
United States	1,532	United States	3,699
France	943	United Kingdom	1,531
United Kingdom	923	Luxembourg	1,466
Germany	487	France	1,303
China, P.R.: Hong Kong	388	Germany	1,249
Netherlands	305	Netherlands	821
Japan	278	China, P.R.: Hong Kong	762
Canada	238	Switzerland	726
Switzerland	232	Japan	680
Italy	180	Belgium	615
Total Top Ten	5,507	Total Top Ten	12,853

***Source**: International Financial Statistics, May 2010*
Note: Totals may not sum because of rounding

IV. 2009 Coordinated Direct Investment Survey

16. As noted above, there are a number of difficulties associated with measuring FDI. Some of these difficulties are beyond the scope of this paper and involve complex methodological issues, such as in regard to consolidation of statistical units. Experience clearly demonstrates that the most effective way of assuring the availability of high quality and comprehensive data on FDI is by conducting surveys. No other method is as effective in identifying enterprises that are foreign owned or that have FDI abroad, and surveys are important in obtaining data on such items as earnings and FDI positions.

17. In recognition of the need to improve data quality, the IMF, in conjunction with its international partner agencies—including the ECB, Eurostat, the OECD, UNCTAD, and the Word Bank—launched the CDIS in 2007. It is a major global statistical undertaking that is expected to improve the quality and availability of data on FDI used in the international and national economic accounts.[11]

18. The CDIS has attracted considerable support. As of July 2010, 132 economies had indicated an interest in participating (see Table 5). The purpose of the CDIS is to improve the uality of FDI position statistics in the international investment position and by immediate

[11] The CDIS home page can be found at http://www.imf.org/external/np/sta/cdis/index.htm.

counterpart economy. Specifically, the objectives of the CDIS are to collect the following data items, with a measurement date of December 31, 2009:

> *For all economies, comprehensive and harmonized data on direct investment positions, broken down between equity and debt, and for debt to be further broken down between claims and liabilities, by economy of direct investor (for inward direct investment), or of direct investment enterprise (for outward direct investment).*

19. At its meeting in November 2009, the IMF Committee on Balance of Payments Statistics agreed with the IMF's proposal that the CDIS be an annual exercise. As a result, the CDIS will continue to promote improvements in the quality and availability of data on FDI in the future.

A. Tools to Help Economies Conduct the CDIS

20. To maximize coverage, quality and consistency, the IMF formed a Task Force in June 2007 to prepare a *Guide* on the CDIS. In addition to the IMF's international partner agencies, eleven jurisdictions also participated in the Task Force[12]. The *Guide* that can be found on the IMF web site at http://www.imf.org/external/np/sta/cdis/index.htm is available in Arabic, Chinese, French, Russian, and Spanish, as well as in English. Annex II is an example of the degree of detail covered in the *Guide*.

21. In addition to the *Guide*, the IMF, with the support of its international partner agencies, conducted 10 regional seminars on the CDIS in 2008. These were for:

- members of the European Union and of the European Free Trade Association (two seminars);
- China PR;
- economies in East and South Asia and the Pacific;
- Latin American economies;
- economies in the Middle East;
- formerly centrally planned economies in South East Europe and Central Asia;
- Francophone African economies;
- Anglophone African economies; and

[12] The jurisdictions were: Brazil, China PR, China Hong Kong, France, Japan, Mexico, the Netherlands, Oman, South Africa, United Kingdom, and the United States.

- economies and jurisdictions in the Caribbean and Atlantic.

22. As a result of these seminars, it was clear that many participants were well advanced and needed no further input from the IMF, whereas others needed further assistance. In light of this, the IMF decided to modify its approach and focused on those regions/countries that were deemed to be in greater need of assistance. Accordingly, in 2009, one-on-one missions were conducted in China PR, Russia, and Nigeria, and regional workshops were held for:

- economies in East and South Asia and the Pacific;
- economies in the Middle East;
- Francophone African economies;
- Anglophone African economies; and
- economies in the Caribbean and Atlantic.

23. The primary purpose of these workshops was to review with the participants the model survey questionnaires that had been added to the *Guide* in 2009, and to discuss the participants' implementation plans.

V. Next Steps and Conclusion

24. In 2010, further assistance is being provided to countries that may be experiencing compilation challenges. Preliminary data are scheduled to be reported to the IMF by the end of September 2010, and they are scheduled to be published by the end of 2010/early 2011. The IMF has corresponded with CDIS participants and has provided data reporting templates and reporting instructions. The submitted data will be published on the IMF website. Revised data will be submitted to the IMF by the end of March 2011 and these are scheduled to be published in June or July 2011. In addition to the data, participants will be asked to provide metadata and indicate what improvements have been introduced as a result of conducting the CDIS.

25. With continued strong international support for the CDIS, continued research into FDI data compilation and analytical issues, and the decision to conduct the CDIS on an annual basis starting with data for 2009, the quality of data on FDI will improve substantially. For example, with improved data collection by an economy, as well as the availability of bilateral counterpart data ("mirror data") from other economies participating in the CDIS, there will be better coverage and consistency of balance sheet information for both equity and debt, assets and liabilities, and there will be benefits to the flow accounts as well. Indeed, the *Guide* identifies a number of income and financial account items that economies may choose to collect as part of the CDIS (there are no plans for these additional items to be reported to the IMF). These include the collection of data on all aspects of FDI income (interest, dividends, and reinvested earnings) and financial account transactions by instrument. The availability of mirror data can help an economy target areas where its own data may be weak.

26. A further benefit from CDIS participation may be improvement in the quality of data on foreign controlled enterprises—such as statistics on the Activities of Multinational Enterprises (AMNE statistics), and the closely related data on Foreign AffiliaTes Statistics (FATS) and data on the foreign-controlled sector of the national accounts.[13]

27. We are pleased that the CDIS and other international efforts have been receiving strong support, and we are optimistic of further support and progress in the months ahead. The CDIS will not only improve the overall quality of direct investment data in its own right, it will also help in the analysis of the interconnectedness of financial markets. Given the increased recognition of the need for bilateral data, the bilateral detail collected in the CDIS is an important addition to the existing BIS data set covering bank positions and the IMF data set covering holdings of securities.

[13] AMNE statistics cover a range of variables on the overall activities of direct investors and their foreign controlled enterprises, such as gross output, value added, and number of people employed. It excludes data that are classified in direct investment, portfolio investment, or elsewhere in the international financial accounts, as well as data on associates. Foreign AffiliaTes Statistics are also statistics describing the overall activities of foreign controlled enterprises; it excludes data on direct investors and on associates.

Table 5. Countries Indicating a Willingness to Participate in the Coordinated Direct Investment Survey (CDIS) as of July 2010

N. America & Caribbean	***South America***	***Europe: EU***	***Europe: Non EU***	***Former nonEU Soviet Union***	***Middle East and North Africa***	***Sub-Sahara Africa***	***East and South Asia and Pacific***
Aruba	Argentina	Austria	Albania	Armenia	Bahrain	Benin	Australia
Barbados	Bolivia	Belgium	Bosnia	Azerbaijan	Iran	Botswana	Bangladesh
Canada	Chile	Bulgaria	Croatia	Belarus	Israel	Burundi	Bhutan
Grenada	Costa Rica	Czech Rep	Iceland	Georgia	Jordan	Cape Verde	Cambodia
Guyana	Ecuador	Denmark	Macedonia	Kazakhstan	Kuwait	Comores	China PR
Haiti	El Salvador	Estonia	Montenegro	Kyrgyz	Lebanon	Congo (Rep of)	China HK SAR
Jamaica	Honduras	Finland	Norway	Moldova	Libya	Cote d'Ivoire	China Macao SAR
Netherlands Antilles	Mexico	France	Serbia	Russia	Oman	Ethiopia	Fiji
Trinidad and Tobago	Nicaragua	Germany	Switzerland	Tajikistan	Syria	Gabon	India
USA	Panama	Greece	Turkey	Ukraine		The Gambia	Indonesia
	Paraguay	Hungary				Ghana	Japan
	Peru	Ireland				Guinea-Bissau	Korea (Rep of)
	Uruguay	Italy				Guinea	Malaysia
		Latvia				Kenya	Maldives
		Lithuania				Madagascar	Mongolia
		Luxembourg				Mauritius	Myanmar
		Malta				Morocco	Nepal
		Netherlands				Mozambique	New Zealand
		Poland				Namibia	Pakistan
		Portugal				Nigeria	Philippines
		Romania				Rwanda	Samoa
		Slovakia				Seychelles	Solomon Islands
		Slovenia				Sierra Leone	Sri Lanka
		Spain				Somalia	Thailand
		Sweden				South Africa	Tonga
		UK				Swaziland	
						Tanzania	
						Uganda	
						Zambia	

Total of all participants 132

Annex I. Statistical issues in measuring FDI

1. FDI involves a direct investor, a direct investment enterprise, and a fellow enterprise. A direct investor is an entity or group of related entities that is able to exercise control or a significant degree of influence over another entity (the direct investment enterprise) that is a resident of a different economy. A direct investment enterprise is an entity subject to control or a significant degree of influence by a direct investor, obtained through holding 10 percent or more of voting power. Fellow enterprises do not meet the threshold of equity investment, but are in a FDI relationship because they have a common investor, who is a direct investor in at least one of them. In some cases, a single entity may be, at the same time, a direct investor, a direct investment enterprise, and a fellow enterprise in its relationships to other enterprises.

2. There are a number of challenges associated with measuring FDI. These include: identifying the units that meet the definition of direct investor, direct investment enterprise, and fellow; consolidation differences between business registers, particularly where different registers are used for international and national account purposes; conducting a survey so that the respondents provide data according to the concepts used in FDI; and ensuring that the data reported by the direct investor are reported using information from the books of the direct investment enterprise.

3. The development of a business register that identifies whether or not an entity is in a FDI relationship is an important step toward comprehensively identifying key units in such relationships. Most business surveys that collect information that feeds into the national accounts do not routinely collect information on whether an entity is in a FDI relationship. To build a register that includes that information may require considerable effort. In addition, because much of the information (both financial and on equity holders) may not be routinely produced for any internal company purpose, it often takes persistence on the part of the statistical agency to obtain the information from the respondent. This is true even where data collection is supported by statutory authorities that protect the confidentiality of the data reported and carry substantial penalties for nonresponse.

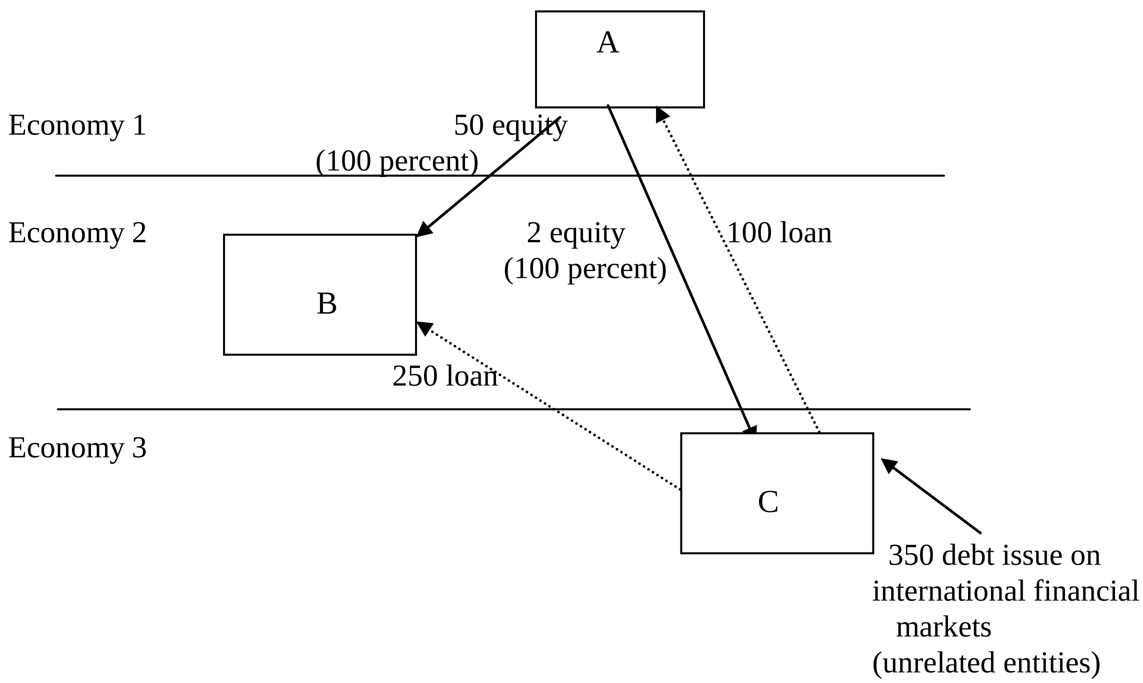
4. A further complication may occur in regard to consolidation of statistical units, particularly where separate agencies have responsibility for compiling data for the international and national economic accounts. This issue can even arise where a single agency has such responsibility but uses different registers for compiling data for the international and national accounts. In particular, for national accounts purposes, often economies include each individual enterprise on their national registers. In contrast, for international economic account purposes (such as for measuring FDI flows and positions), economies often consolidate domestic units that are under common control for statistical purposes, in much the same fashion that a business consolidates business units for reporting to stockholders. As a consequence of these differences in consolidation, there may be inconsistencies in classification by industry, domestic sector, etc. of direct investors, direct investment enterprises, and fellow enterprises between the international and national economic accounts

5. It also is noteworthy that, looking just within the international economic accounts, the degree of consolidation can affect whether a given statistical unit is recorded in inward or outward FDI. This is because consolidation may affect whether or not a given unit is a fellow enterprise.

This is significant because, under the new standards, a resident fellow enterprise is recorded in inward (or outward) FDI stocks or flows depending upon the location of its ultimate controlling parent (UCP). In contrast, a resident direct investor's stocks and flows vis-à-vis its direct investment enterprises are always recorded in outward FDI, and a resident direct investment enterprise's stocks and flows vis-à-vis its direct investor are always recorded in inward FDI. Thus, if an enterprise is consolidated within the local enterprise group, its relationship to a related nonresident enterprise could be that of a direct investor and its direct investment enterprise abroad, whereas if that enterprise is not consolidated within the local enterprise group, its relationship with its related nonresident enterprise abroad could be one of a resident fellow enterprise with its fellow enterprise abroad. This could have an impact on whether the position is recorded as inward or as outward FDI in the second instance, depending on the residence of the UCP of the fellow enterprise.

6. Identifying fellow enterprises is particularly difficult, because the concept is not based on the equity holder of the investor/investee. A common situation involves the following:

Figure: Direct Investor (Enterprise A) and Its Two Direct Investment Enterprises (Enterprises B and C)



7. In the above diagram, Enterprise A (in Economy 1) holds all the equity in Enterprise B (in Economy 2) and in Enterprise C (in Economy 3). (Thus, enterprise A is a direct investor in direct investment enterprises B and C.) Enterprise C raised funds on international financial markets and then lent the funds to Enterprises A and B. If the compiler in Economy 3 approaches Enterprise C to collect data on FDI, it has to be explained that the investment by Enterprise C in Enterprise B should be recorded in FDI, even though Enterprise C owns no equity in Enterprise B. Similarly,

the compiler in Economy 2 has to be very careful to explain that the lending to Enterprise B should be recorded in FDI.[14] Indeed, Enterprise C's lending to Enterprise A is also FDI (referred to as "reverse investment"); because all equity and debt positions between related entities are recorded in FDI (except where both parties are certain types of financial intermediaries). None of these aspects of the definition of FDI are easy for a non-direct investment statistician to understand.

8. Another statistical challenge is that information on equity holdings is often not recorded on the same basis by the direct investor as it is by its direct investment enterprise. There are several reasons for this, of which the following may be important. First, while the direct investment enterprise will record its accumulated retained earnings as part of owners' equity, it is not uncommon for the direct investor to record its investment in the direct investment enterprise at acquisition price, and make no further adjustment. A second reason is that, whereas the direct investment enterprise may adjust its assets and liabilities to reflect current market prices or exchange rates, with the concomitant adjustment to owners' equity, these adjustments may not be included on the books of the direct investor. Data from the books of the direct investment enterprise are preferred in compiling estimates of international investment positions or national balance sheets in the international and national economic accounts, because these books reflect values that are more consistent with the market value principle that is preferred in compiling both sets of accounts. The CDIS recommends this approach to improve comparability.

[14] Positions between Enterprises B and C are recorded in FDI because both of these enterprises are under the control or influence of the same direct investor (Enterprise A).

Annex II. Coverage of the CDIS Guide

The *Guide* goes into considerable detail regarding how to conduct a survey. For example, it discusses what units to survey, what information to collect in a survey, how to compile and report statistics, and how to undertake a survey. An example of the degree of detail is given below (taken from the table of contents of the *Guide*).

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