



68870 Vol. 3

World Bank

**Measuring foreign direct investment in the area of
information and communication technology**

**Deliverable 2 -
Proposed system for data collection in FDI in ICT**

**Prepared for the Ministry of Communications and Information
Technology, Information Center**

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Revised 7 May 2009**

Abbreviations

BOP	Balance of payments
<i>BPCG</i>	International Monetary Fund <i>Balance of Payments Compilation Guide</i> ,
<i>BPM5</i>	International Monetary Fund <i>Balance of Payments Manual fifth edition</i>)
<i>BPM6</i>	International Monetary Fund <i>Balance of Payments Manual (draft sixth edition)</i> , 2008
CBE	Central Bank of Egypt
FDI	Foreign direct investment
FDIE	Foreign direct investment enterprise
FES	Foreign exchange system
GAFI	General Authority on Foreign Investment
GAFI EPD	GAFI Economic Performance Department
GICT	Global Information and Communication Technology
ICT	Information and Communications Technology
IIP	International Investment Position
ITIDA	Information Technology Industry Development Agency
MCIT	Ministry of Communication and Information Technology
MCIT-IC	Information Centre of the Ministry of Communication and Information Technology
RTA	Reimbursable Technical Assistance

Table of contents

Executive summary and time line.....	4
Chapter 1. Introduction	7
Chapter 2. Concepts and definitions associated with foreign direct investment.....	9
Chapter 3. International standards on the measurement of FDI in economic statistics.....	10
3.1 BOP and IIP measures.....	10
3.2 Measures of activities of FDIEs.....	11
3.3 Sources of data	12
Chapter 4. Current measurement of FDI in Egypt’s BOP and IIP statistics	14
4.1 GAFI data	14
4.2 CBE Foreign Exchange System	14
4.3 Measurement of FDI inflow.....	15
4.4 Other data capture	15
Chapter 5. Proposed improvement to FES and FDI statistics in the ICT Sector	17
Appendix A. Concepts and definitions associated with FDI.....	20
Appendix B. Proposed FDI Survey Form	22
Appendix C. Analysis of proposed data items, their purpose, priority and easy of collection.....	26
Appendix D. Outputs from the FDI survey.....	28
Appendix E. Data Entry and Tabulation System for the Proposed FDI Survey	31

Executive summary and time line

This study of the measurement of foreign direct investment (FDI) in the information and communication technology (ICT) sector of Egypt's economy forms part of the second amendment to a reimbursable technical assistance (RTA) programme delivered by the Global Information and Communication Technology (GICT) department of the World Bank to the Information Centre of the Ministry of Communication and Information Technology (MCIT-IC) of the government of Egypt. The initial agreement was signed in June 2006 and the second amendment in August 2008.

The focus of the Ministry of Communication and Information Technology (MCIT) is to promote the development of ICT services (and ICT-enabled services) in Egypt so that Egypt has the best ICT technology available to it. In addition ICT services provide significant export earnings, and provide employment opportunities, particularly for the increasingly well-educated Egyptian community. To achieve the further development of the ICT sector, Egypt aims to attract foreign direct investment (FDI) from foreign entities that are ICT specialists. To understand and monitor the success of this policy, MCIT needs good statistical data on FDI.

To date a prime focus has been on measuring the financial inflow of FDI into ICT. However, concern has been expressed about the measure of FDI inflow because there is an apparent discrepancy between the measures of FDI inflow produced by the Central Bank of Egypt (CBE) and those of the General Authority on Foreign Investment (GAFI). The measure of FDI in ICT shows great volatility from year to year (dropping from \$US 1.900 million in 2006-07 and almost zero in 2007-08), and there is a lack of understanding of exactly what is being measured.

The World Bank's GICT department has been asked to assist in MCIT's measurement of FDI in the ICT sector by clarifying what are ICT products and services, and what are appropriate measures, based on international best practice, of FDI, and what strategies should be developed to obtain a more appropriate measure of FDI. Clarifying the nature of ICT services is the first part of the project and a separate report exists on this (final draft delivered February 2009). This report covers Part 2 of the project concerned with the appropriate measurement of FDI, and forms the second and final deliverable.

Mr. Geoffrey Robertson (World Bank FDI expert consultant) visited Cairo from 12 to 17 April to assist in Part 2 of the project. The aim of Part 2 is to advise on what are appropriate measures, based on international best practice, of FDI; to assess the discrepancies in Egyptian statistics on FDI in the ICT sector, and more generally, the adequacy of the statistics; and what strategies should be developed to obtain a more appropriate measure of FDI?

During the visit, Mr Robertson worked closely with officials from MCIT IC and Information Technology Industrial Development Agency (ITIDA); held discussions with staff of the CBE responsible for the compilation of Egypt's balance of payments (BOP), based on the foreign exchange system (FES), and Egypt's international investment position (IIP) statistics; held discussion with various GAFI staff. The project was conducted under the guidance of Dr Tim Kelly, Lead ICT Policy Specialist at the World Bank.

Regarding international best practice for measuring FDI, Mr. Robertson described measures associated with the BOP and IIP statistics; and measures related the size and behaviour of FDI enterprises (FDIE) within an economy - these tend to measure national accounts measures (e.g. value added). These measures, and the international standards that support them, are documented in this report. A number of workshops were held with MCIT IC staff to explain the concepts and their practical application, and on the last day of the visit, this material was again covered in the wrap up workshop which included staff of ITIDA, CBE and GAFI.

From discussions with CBE, GAFI, MCIT-IC and ITIDA staff an understanding of the available data sources emerged. The most comprehensive number on FDI financial inflow is that measured by the CBE which includes the GAFI data on paid up capital, as well as information obtained from FES on FDI financial inflows. However, the CBE figure includes only partial data on FDI inflows. For example it does not include transactions not requiring the use of foreign exchange, which could be a significant gap, and reinvested earnings of FDIEs, another significant omission. In addition, measures of the accumulated flow of FDI (FDI liabilities as measured in Egypt's IIP statistics), are likely to be seriously understated. Apart from this, there are concerns about the quality of classification of FES measured transactions. The GAFI statistics do not provide comprehensive information on FDI. In recent years, GAFI has been attempting to collect data from all private companies in Egypt, including FDIIs. However, the response rate so far has been poor. ITIDA and MCIT-IC have also been putting together some data on individual businesses in the ICT sector. A more complete description of these findings is given in this report.

Working with MCIT-IC and ITIDA staff, a series of recommendations was devised to strengthen FES data on FDI and services in the ICT sector, which if implemented would lead to improved BOP and IIP statistics. A second set of recommendations was developed to conduct a survey of around 30 ICT sector businesses which would provide better BOP/IIP measures than are currently available and measure the overall performance and behaviour of FDIIs in the ICT sector and contribute to better national accounts data for the sector. The leadership for this work would be undertaken by MCIT-IC working closely with ITIDA and CBE staff. These recommendations are described in this report, and if implemented successfully, might be extended by the CBE and GAFI to other sectors, thus improving measures of FDI in the context of BOP/IIP and national accounts statistics across the board. These recommendations again developed in detailed discussions with MCIT IC staff and were presented to a workshop/wrap session on the last day of the mission.

For the development and implementation of the survey, the report contains a draft survey form, developed in consultation with MCIT IC staff and specifications for a system to enter and tabulate data and produce publication tables.

Possible timeline

(a) Improvements to BOP/IIP statistics compiled by CBE staff

- (i) MCIT IC to provide a copy of this report to both CBE management and BOP/IIP technical staff as a first step gaining greater cooperation on FDI statistics and to facilitate CBE making improvements to BOP/IIP statistics. Mid May 2009.
- (ii) MCIT IC and CBE staff to hold discussions on the possibility of establishing in FES:
 - A business reference number for ICT businesses.
 - A data profile (BOP codes by time series) by larger ICT enterprises.
 - A study of the larger ICT businesses and their recording of BOP transactions to determine the extent of omissions, understatement, and misclassifying of transactions by ICT enterprises

Note: (ii) should start in May 2009 to develop a work program to undertake these activities. Task should be completed by November 2009.

- (iii) MCIT IC and CBE staff to formulate recommendations about improving the quality of FES data for ICT enterprises for BOP purposes. Completed by November 2009.
- (iv) MCIT IC to provide FDI ICT survey results to CBE for inclusion in BOP/IIP statistics. February 2010.

Note: The CBE is to receive a technical assistance mission on BOP/IIP methodology. The timing of this mission is unknown. Obviously, the technical expert should be informed of these developments with a view to reflecting on them in his/her report.

(b) Improvements to BOP/IIP statistics compiled by CBE staff

(i) Phase 1 FDI ICT survey

- i. With assistance from ITIDA and possibly GAFI, decide on businesses to be collected in survey. Early May 2009.
- ii. Decide on data items to be collected following preliminary skirmish with larger ICT enterprises and finalise collection form. Late May 2009.
- iii. Test survey form and collect preliminary data. Attempt to have all enterprises to respond. Mid June 2009.
- iv. Finalise data entry, tabulation and publication system End May 2009.
- v. Entry data and query misreported data. Test that data entry, tabulation and publication tables are working correctly.
- vi. Finalise data for Phase 1. End September 2009.

Note that Phase 1 collects some data items for year ended 30 June 2006, 2007 and 2008 and data transactions data for 2006-07 and 2007-08. It also collects data on the activities of enterprises are collected for 2007-08.

(ii) Phase 2 FDI ICT survey

- i. Revise and update list of businesses in ICT sector. September 2009. Decide whether to increase the numbers of businesses.
- ii. Decide on data items to be collected, redesign and test form with some enterprises. Late September 2009
- iii. Undertake FDI ICT survey for 2008-09. October 2009.
- iv. Redesign and complete data entry, tabulation and publication system. September 2009.
- v. Entry data and query misreported data. End November 2009.
- vi. Finalise data for Phase 2. End November 2009.
- vii. Publish paper, after consultation with stakeholders. February 2010.

Chapter 1. Introduction

This study of the measurement of foreign direct investment (FDI) in the information and communication technology (ICT) sector of Egypt's economy forms part of the second amendment to a reimbursable technical assistance (RTA) programme delivered by the Global Information and Communication Technology (GICT) department of the World Bank to the Information Centre of the Ministry of Communication and Information Technology (MCIT-IC) of the government of Egypt. The initial agreement was signed in June 2006 and the second amendment in August 2008.

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To date a prime focus has been on measuring the financial inflow of FDI into ICT. However, concern has been expressed about the measure of FDI inflow because there is an apparent discrepancy between the measures of FDI inflow produced by the Central Bank of Egypt (CBE) and those of the General Authority on Foreign Investment (GAFI). The measure of FDI in ICT shows great volatility from year to year (dropping from \$US 1.900 million in 2006-07 and almost zero in 2007-08), and there is a lack of understanding of exactly what is being measured.

The World Bank's GICT department has been asked to assist in MCIT's measurement of FDI in the ICT sector by clarifying what are ICT products and services, and what are appropriate measures, based on international best practice, of FDI, and what strategies should be developed to obtain a more appropriate measure of FDI. Clarifying the nature of ICT services is the first part of the project and a separate report exists on this (final draft delivered February 2009). This report covers Part 2 of the project concerned with the appropriate measurement of FDI, and forms the second and final deliverable.

Mr. Geoffrey Robertson (World Bank FDI expert consultant) visited Cairo from 12 to 17 April to assist in Part 2 of the project. The aim of Part 2 is to advise on what are appropriate measures, based on international best practice, of FDI; to assess the discrepancies in Egyptian statistics on FDI in the ICT sector, and more generally, the adequacy of the statistics; and what strategies should be developed to obtain a more appropriate measure of FDI?

During the visit, Mr Robertson worked closely with Dr. Nagwa Elshenawy (Director, MCIT-IC), Ms. Eman El Shewy (MCIT-IC), Ms Heba Youssef (MCIT IC), Dr. Hany El Qolaly (ITIDA) and Ms. Saher El Sherbini (ITIDA); held discussions with staff of the CBE responsible for the compilation of Egypt's balance of payments (BOP), based on the foreign exchange system (FES), and Egypt's international investment position (IIP) statistics; held discussion with GAFI staff responsible for the operation of the One-Stop-Shop and the Economic Performance Department; formulated recommendations to improve FES measurement of FDI activity, and designed a survey for the more thorough measurement of FDI in the ICT sector. The project was conducted under the guidance of Dr Tim Kelly, Lead ICT Policy Specialist at the World Bank.

Regarding international best practice for measuring FDI, three approaches may be identified. These are first, measures of FDI intentions, second, measures associated with the BOP and IIP statistics; and third, measures related the size and behaviour of FDI enterprises (FDIE) within an economy - these tend to measure national accounts measures (e.g. value added). Measures of FDI intentions

have rarely been seriously developed – economic analysts have opted for better BOP/IIP statistics on FDI and where possible better statistics on the overall size and measurement of FDIEs.

The concepts and definitions of FDI, BOP/IIP measures of FDI, and measures associated with the size and behaviour of FDIEs are described in a number of international standards, most recently in the IMF's *Balance of Payments Manual (sixth edition)*, soon to be published. Staff members at the MCIT-IC were given a workshop on this material, which was repeated to a larger audience consisting of staff of GAFI, CBE and the Information Technology Industrial Development Agency (ITIDA) on the last day of the visit. A description of the concept and definition of FDI is given in Chapter 2 of this report and in Appendix A, while descriptions of BOP/IIP measures and of measures associated with the size and behaviour of FDI enterprises are given in Chapter 3

From discussions with CBE, GAFI, MCIT-IC and ITIDA staff an understanding of the available data sources emerged. The most comprehensive number on FDI financial inflow is that measured by the CBE which includes the GAFI data on paid up capital, as well as information obtained from FES on FDI financial inflows. However, the CBE figure includes only partial data on FDI inflows. For example it does not include transactions not requiring the use of foreign exchange, which could be a significant gap, and reinvested earnings of FDIEs, another significant omission. In addition, measures of the accumulated flow of FDI (FDI liabilities as measured in Egypt's IIP statistics), are likely to be seriously understated. Apart from this, there are concerns about the quality of classification of FES measured transactions. The GAFI statistics do not provide comprehensive information on FDI. In recent years, GAFI has been attempting to collect data from all private companies in Egypt, including FDIs. However, the response rate so far has been poor. ITIDA and MCIT-IC have also been putting together some data on individual businesses in the ICT sector. A more complete description of these findings is given in Chapter 4 of this report.

Working with MCIT-IC and ITIDA staff, a series of recommendations was devised to strengthen FES data on FDI and services in the ICT sector, which if implemented would lead to improved BOP and IIP statistics. A second set of recommendations was developed to conduct a survey of around 30 ICT sector businesses which would provide better BOP/IIP measures than are currently available and measure the overall performance and behaviour of FDIEs in the ICT sector and contribute to better national accounts data for the sector. The leadership for this work would be undertaken by MCIT-IC working closely with ITIDA and CBE staff. These recommendations are described in Chapter 5 of this report, and if implemented successfully, might be extended by the CBE and GAFI to other sectors, thus improving measures of FDI in the context of BOP/IIP and national accounts statistics across the board. These recommendations were presented to a workshop/wrap session on the last day of the mission.

Chapter 2. Concepts and definitions associated with foreign direct investment

The concept of direct investment is that of:

an entity, resident in one economy, having a significant degree of influence or actual control over the day-to-day operations of an entity resident in another economy.

At the outset, it should be mentioned that while many refer to this phenomenon as *foreign direct investment*, the simple term, *direct investment*, is sufficient.

While the concept is quite straightforward, in practice, those measuring direct investment have found it necessary to develop a set of concepts and definitions to describe and define this phenomenon. Over time, these concepts and definitions have been refined and the most up to date and useful description of direct investment and measures of the activities of foreign direct investment enterprises (FDIEs) may be found in the soon to be published International Monetary Fund's *Balance of Payments Manual (sixth edition) (BPM6)*. Appendix A to this report provides a summary of the concepts and definitions of direct investment relevant to Egypt's situation. This chapter touches on these issues to provide sufficient background to the discussion in this report.

The primary concept in any discussion of direct investment is that of the **direct investment relationship**, i.e. the relationship between the **direct investor** and **direct investment enterprise**. The direct investor is said to have either significant influence or control of the direct investment enterprise. This is normally achieved through ownership of shares (equity) to which attach voting rights.

Within the category of direct investment, two sub-concepts are defined. These distinguish between direct investment in which the direct investor **controls** the direct investment enterprise, defined as having majority ownership of the voting equity of the direct investment enterprise, and those situations in which the direct investor does not have control but is in a position to have **significant influence** over the operations of the direct investment enterprise, which is defined as having at least ten percent or more of the voting equity in the direct investment enterprise but less than a majority of the direct investment equity.

The direct investment relationship may be between the direct investor and the *immediate* direct investment enterprise, but may extend to those entities in which the direct investment enterprise itself controls or has significant influence. This is referred to as an indirect relationship. There are further concepts and rules to describe and define the indirect transmission of control and influence through a chain of ownership. As part of this framework, subsidiaries, associates, fellow enterprises, and affiliates are described and defined. An example of how this all comes together is given in Appendix A.

The concept of **direction of investment** describes whether the investment is *in* Egypt or *from* Egypt. Inward direct investment (direct investment in Egypt) describes situations where the direct investor is a non resident and the direct investment enterprise is a resident Egyptian company. Outward direct investment describes the less common situation, for Egypt, where the direct investor is an Egyptian resident and the direct investment enterprise is a foreign resident entity. Our sole concern in this report is with inward investment and in Egyptian foreign direct investment enterprises (FDIEs).

Chapter 3. International standards on the measurement of FDI in economic statistics

3.1 *BOP and IIP measures*

While FDIEs can impact many BOP items, the two components where their activities are explicitly measured are the direct investment financial flows and investment income.

Direct investment financial flows consist of equity investment, reinvestment of earnings, and other direct investment. Equity investment consists of the issue of capital or injection of branch equity, withdrawals of equity, purchases and sales of equity, conversion of portfolio investment to direct investment and purchase and sales of real estate by non-residents. In the BOP, that part of income that is reinvested by FDIEs is recorded as income with the offset in the financial account.

Direct investors may also provide finance to the FDIE by way of long- and short-term loans, or trade credit, as an alternative to providing equity capital.

Direct investment income contains three items, namely distributed earnings such as dividends, distribution of branch profits, reinvested earnings, which is the offset to reinvestment of earnings in the financial account, and interest payable on other forms of direct investment such as interest payable on long-term loans.

The international investment position (IIP) measures an economy's financial claims on the rest of the world (plus monetary gold) and its liabilities to the rest of the world. In this context, the stock of FDI is regarded as a liability to the rest of the world. Another way to think of FDI stock is the accumulated financial flows. The IIP reconciliation statement shows the relationship between the stock of investment at the beginning and end of period with financial transactions (the BOP financial account) and other changes due to volume (e.g. conversion of say portfolio to direct investment), exchange rate changes (e.g. movement of the Egyptian pound against the United States Dollar) and valuation changes (e.g. movement in share prices on the stock exchange if company is listed). An illustration of the IIP reconciliation statement is included on the next page.

Not only is the IIP, particularly IIP time series, useful in understanding BOP and economic transactions more generally, but when collected with financial flows data provides a built in validation check of stocks and flows.

Illustration of IIP reconciliation statement

	Beginning of period	Financial account	Others changes in financial asset and liabilities			End of period
		Changes in position due to				
		Transactions	Other changes in volume	Exchange rate changes	Other price changes	
Assets						
Direct investment						
Portfolio investment						
Financial derivatives						
Other investment						
Reserve assets						
Liabilities						
Direct investment						
Portfolio investment						
Financial derivatives						
Other investment						
Net IIP						

3.2 Measures of activities of FDIEs

The System of National Accounts recommends that a useful classification is that on **foreign controlled enterprises** and **non foreign controlled enterprises**. These are obviously a sub-set of direct investment enterprises.

BPM6 (Appendix 4) provides guidelines on the development of statistics of multinational enterprises, and in turn quotes a number of sources from which the international standards are drawn. The references include:

- Eurostat, *Recommendations Manual on the Production of Foreign Affiliates Statistics*
- Organisation for Economic Cooperation and Development (OECD), *OECD Benchmark Definition of Foreign Direct Investment (fourth edition)*, Chapter 8 FDI and Globalisation
- OECD, *OECD Handbook on Economic Globalisation Indicators*, Chapter 3 The Economic Activity of Multinational Enterprises

- United Nations, *Manual on Statistics of International Trade in Services*, Chapter IV Foreign Affiliates Statistics and the International Supply of Services

BPM6 recommends that the following data items should be published:

- Sales (turnover) and/or output
- Employment
- Value added
- Exports and imports of goods and services
- Numbers of enterprises
- Additional possible data
 - Assets (financial and non financial)
 - Gross fixed capital formation
 - Net worth
 - Net operating surplus
 - Taxes on income
 - Research and development expenditures
 - Total purchases of goods and services; and
 - Intra-group exports and imports

Unfortunately, few countries have developed such statistics. Canada initiated such studies and the USA has traditionally measured the activities of foreign affiliates of United States direct investors. Australia also has a long tradition in this field and one of the more recent studies, (Australian Bureau of Statistics *Economic Statistics of Foreign Owned Businesses in Australia, 2000-01*, Reference No. 5494.0, published 2004) illustrates the type of data that may be published. The table below shows information from the Australian Economy-wide Survey for the transport, storage and communications industry. All sectors were included, except for agriculture.

Majority Foreign owned businesses: economy-wide survey
SUMMARY OF INDUSTRY PERFORMANCE, Transport, storage and communication, 2000- 01

	Operating businesses	Employment	Total operating income	Total operating expenses	Operating profit before tax	Total assets	Total liabilities	Gross fixed capital formation	Industry value added
	No.	'000	\$'m	\$'m	\$'m	\$'m	\$'m	\$'m	\$'m
<i>Australia</i>	18,584	326.6	72,662	63,613	9,143	100,961	61,994	8,770	33,669
<i>Foreign</i>	287	60.6	18,597	19,045	-312	26,374	18,666	3,830	5,434
<i>Unknown</i>	16 520	58.2	9,123	9,186	-56	6,236	4,336	337	2,921
<i>Total</i>	35 390	445.4	100,382	91,844	8,775	133,570	85,026	12,937	42,024

3.3 Sources of data

Traditionally data for BOP statistics, including FDI, are taken either from foreign exchange record systems, described comprehensively in Chapter 3 of the *Balance of Payments Compilation Guide* (BPCG) (in that chapter they are referred to as International Transactions Recording Systems), from FDI or BOP surveys, or a mixture of both.

The *BPCG* provides thorough descriptions of these methods and should be read by persons involved in either the CBE FES or persons working on the survey proposed by this report. The methodology associated with both was described fairly fully in the presentation made on the last day of the mission.

Data sources used in measuring activities of FDI/foreign controlled statistics combine censuses and surveys of business, plus surveys of FDIs. This was the approach that the Australian Bureau of Statistics uses.

The Australian approach is to take an economic data collection and for each business in the collection to add a category such as 'majority foreign owned'/'not majority foreign owned', or 'foreign controlled', 'joint foreign and Australian controlled' and 'Australian controlled'. To establish the correct classification for this category, especially as foreign ownership/control may take the form of indirect foreign ownership, the shareholdings of each business need to be established. Shareholders may be non resident persons or entities, i.e. immediate shareholders are non resident/foreign. However, where shareholders are Australian resident companies, and sometimes other entities, their shareholdings are investigated to determine if they have immediate foreign shareholders. Again, if indirect shareholders are resident companies, their shareholdings may be investigated, and so on up the chain of ownership. A search of an ownership chains may refer to many published sources and other sources, particularly the International Investment Survey, of which FDIEs are a component.

Chapter 4. Current measurement of FDI in Egypt's BOP and IIP statistics

4.1 GAFI data

GAFI has several sources of data relevant to the measurement of FDI in the ICT sector. First GAFI collects data on company registrations through the One-Stop-Shop. Reports are produced on each company which show its issued capital and details of its shareholders. However, there are problems of terminology, because what is actually recorded is what is agreed to be issued. New forms are to be completed and submitted if this issued capital is to be amended (increased or reduced).

Under Egyptian law, some 10% of issued capital is to be paid within a month of registration of the company, 25% within three months and the remainder within ten years. The GAFI Economic Performance Department (EDP) collects data from newly registered companies to record the receipt of the 10% of the issued capital. These data are classified sector, geographic location, nationality of company and currency. No information is collected on the proceeds of the remaining issued capital.

There are about 60,000 registered private companies in Egypt. GAFI staff estimate that around 20% of these (12,000) would be FDIEs. GAFI EDP has instituted a collection of all companies to obtain information on their financial statements. While such accounts should be kept, so far only about 10% (5,000 companies have responded). We were shown a copy of the draft report which shows the following information:

	Millions Egyptian pounds
○ Total issued capital	158,000
○ Of which:	
▪ 10-50% foreign owned	20,000
▪ 50 to less than 100% foreign owned	25,000
▪ 100% foreign owned	12,000

While these data provide some useful insights, they cannot provide us with definitive information on FDI in the ICT sector.

4.2 CBE Foreign Exchange System

The CBE measures BOP transactions using the foreign exchange system which measures receipts and payments of foreign exchange by Egyptian banks. A separate form is completed on each payment/receipt by the commercial banks and forwarded to the CBE - the CBE receives around 100,000 forms a month. Total receipts and payments by currency are reconciled with bank (nostro) accounts.

Data collected on each payment and receipt includes:

- Currency and value of transaction
- Purpose
- Name of local payer/beneficiary
- Reporting bank

The purpose is written in. There seemed to be no standard wording for recording purpose. The purpose of each transaction is classified according to *BPM5*. Discussions with CBE staff revealed that there were a number of deficiencies with the current system. It was mentioned that receipts do not

always include the purpose of the transaction, as the SWIFT coding system does not allow for this. Coding in many cases is somewhat based on best guesswork, e.g. services payments and receipts by communication enterprises are coded as communication services.

Traditionally, there are a number of weaknesses of FES. Such systems usually do not measure transactions not involving foreign exchange payments and receipts such as offshore transactions. This particularly affects transactions associated with FDIs. For example issued capital may be spent on the acquisition of goods imports. Reinvested earnings of FDIEs companies are not measured. Often companies have transactions on both sides of the BOP and therefore may offset payments and receipts and so what passes through the banking system is a net payment (gross receipts less gross payments). Net payments/receipts lead to understatement on both sides of the accounts. Another practice which detracts from classification accuracy is the combining of many accounts for different transactions into a single batch payment.

There is no analysis of transactions and data validation is very limited. The CBE may wish to consider introducing a business numbering system and monitoring transactions by the larger businesses by looking at patterns of reporting and consistency over time. This would provide a valuable monitoring tool and should lead to improved data quality.

Although the system is being automated, unfortunately time did not permit the opportunity to examine what is actually planned and whether data quality may deteriorate or if there may be opportunities to improve data capture.

The CBE is expecting to receive technical assistance in BOP statistics from the IMF.

4.3 Measurement of FDI inflow

Before the visit, concern was expressed that there were two figures on FDI inflow, namely that of GAFI and that of the CBE. Both measure FDI equity investment. Both GAFI and CBE staff confirm that the CBE is the more comprehensive figure as the CBE figure measures the GAFI data *plus* transactions identified by FES. However, exactly how this was done was not clear because both agencies described the compilation process differently. The author's understanding is that the compilation is as follows (at the wrap up session, CBE staff said that this understanding was correct):

- GAFI measures the initial draw down of paid up capital (the first 10 percent). The data are available by sector. They are supplied to the CBE.
- The CBE adds the GAFI data to FDI transactions identified in the FES after deducting any duplicate transactions from the FES data. The CBE statistics on FDI inflow, published in the BOP are therefore GAFI data plus other FES identified FDI transactions. However, the CBE figure is not available by sector.
- GAFI has compiled FDI in ICT by taking its figure and adding a portion of the CBE's other FES identified FDI transactions.

The CBE figure is therefore the more comprehensive. However, it is nevertheless likely to be an inadequate measure of FDI inflow. It does not measure reinvested earnings and financial inflows resulting from transactions where settlement is offshore. Combined with this is the fact that not all inflows are adequately described in the FES and little quality control or analysis of FES transactions is undertaken.

4.4 Other data capture

ITIDA has put together profiles on about 300 of FDI ICT companies. This is a good starting point for any register of businesses in the ICT sector.

The author was impressed with a study organised by MCIT to measure current and constant price estimates of the communications sector thus leading to improved current and constant price estimates, used in the national accounts statistics, for that sector. This provides a model for what is recommended in this report to provide a range of BOP/IIP and national accounts measures of the ICT sector.

Chapter 5. Proposed improvement to FES and FDI statistics in the ICT Sector

The MCIT focus is to promote the development of ICT services (and ICT-enabled services), in Egypt so that Egypt has the best ICT services available to it. ICT services also provide significant export earnings, and employment opportunities, particularly for the increasingly educated Egyptian community. To achieve the development of the ICT sector, Egypt attempts to attract FDI from foreign entities that are ICT specialists. To understand and monitor the success of this policy, MCIT needs good data on FDI.

Developing a clear understanding of the role of FDI in the ICT sector is hampered by the lack of good statistical data. It is clear that the FES provides a good data source for measuring certain aspects of FDI in the ICT sector, as well as data on ICT services. However, the FES needs to be improved and one set of recommendations aims to improve the FES. However, even with the improvement of FES statistics, there are still data gaps, and so a survey cum study of the ICT sector is recommended. The proposed survey, as it follows internationally recommended guidelines on BOP/IIP and national accounts compilation, could in the longer term be extended to other sectors by CBE, GAFI and the Ministry of Finance.

A number of recommendations are made to improve the measurement of FDI and/or ICT services in FES. These are:

- A business reference number be added for ICT businesses. A list of such businesses could be made available primarily from ITIDA – in the longer term this might be extended to other sectors.
- For the larger ICT businesses, a data profile (BOP codes by time series) should be established – again, in the longer term this might be extended to other sectors.
- For the larger ICT businesses, a study of the recording of BOP transactions in FES should be undertaken to determine:
 - a. the extent of understatement of BOP transactions due to the non recording of non foreign exchange transactions,
 - b. the impact of offsetting, netting and batching transactions, and
 - c. the appropriateness of the classification of the BOP transactions.

This might be achieved through CBE staff participating in preliminary interviews proposed as part of establishing the FDI survey cum study.

- Recommendations should be formulated and implemented that might improve the quality of FES data for BOP purposes.

Following detailed discussion with MCIT-IC, it is proposed that MCIT-IC working closely with ITIDA, GAFI, CBE and possibly the Ministry of Finance, to test and undertake a FDI survey as part of a broader study of FDI in the ICT sector. The survey would be divided into two phases. In **phase one** it is proposed to test the feasibility of collecting data, for 2007-08 (year ended 30 June), in respect of:

- Foreign direct investment inflow of FDIEs in ICT (Note some data would also be collected in respect of 2006-07).
- Foreign FDI investment income.
- Key measures of performance of ICT companies – these data would potentially also improve the estimation of the national accounts.

In phase one, some less important component items which measure FDI inflow and investment income would not be included but would be included in phase 2. Also, some items proposed for

inclusion in phase one may be dropped following some initial form testing if their collection would not add much to accuracy and cause collection problems.

In **phase two**, it is proposed to collect the same range of data as collected in phase one – but this time for 2008-09. Further it is proposed to test the feasibility of collecting a greater range of data from the ICT companies and possibly a greater number of companies. The additional items in phase two may include:

- More detailed components of FDI inflows and FDI investment income,
- Information on portfolio and other investment flows of ICT companies,
- Information on selected services (e.g. communications, information technology) of ICT companies.

The approach in phases one and two should be flexible so that lower priority items might be deferred or dropped. Appendix B presents the collection form which shows the full range of data that may be collected in phases one and two. Appendix C provides an analysis of the proposed data items, their purpose, priority, and ease or difficulty of collection.

Appendix D describes how data collected on the form would be used to compile BOP/IIP statistics and measures of the activities of ICT companies.

The proposed study would closely conform to international standards and recommendations, and would provide a comprehensive data set on FDI in the ICT sector in Egypt. Various international standards have been consulted. The latest and most succinct recommendations are set out in the soon to be published *Balance of payments Manual (sixth edition) (BPM6)*. While most countries follow the standards (in terms of concepts, definitions, classifications and collection methods) established for BOP and IIP statistics, few countries have developed the capacity to measure the overall size and behaviour of FDI entities, as recommended by *BPM6* and standards for national accounts (*the United Nations System of National Account, edition 4*). Australia is one country that has done so and close attention has been paid to its methods (with which the author is very familiar) in the design of the proposed survey.

Following common international practice, the number of businesses would be limited to around 30, which are estimated to account for between 90-98 percent of FDI in ICT, exports and imports of ICT services, and employment in the ICT sector. At a later time, attempts should be undertaken to collect benchmark data for the remainder of the sector. Generally, the methodology proposed here is outlined in the IMF *Balance of Payments Compilation Guide (BPCG)*, Chapter on survey design. The list of ICT sector companies and information about each will be supplied by ITIDA.

The survey would include both FDI and non FDI companies. While for some purposes only FDIEs need to be included, for other purposes such as the comprehensive measurement of ICT services and comparing the relative contributions of FDIEs and non FDIEs, both need to be included.

Copies of these documents have been provided to MCIT-IC staff.

A timetable for the testing and implementation of the survey was discussed with MCIT-IC staff. Essentially, the survey will be tested and preliminary data collected for 2007-08 before mid May. Final data for 2007-08 and data for 2008-09 would be collected from mid-September with final results becoming available by late 2009-early 2010.

It is understood that the CBE will receive IMF technical assistance in BOP/IIP in the near future. It is important well before the start of that mission that the selected expert is apprised of the recommendations in this report.

Appendix A. Concepts and definitions associated with FDI

This appendix provides key information about the concepts and definitions associated with direct investment, taken from *BPM6*

The first concept is that of the direct investment relationship, which describes the relationship between the direct investor and the direct investment enterprise as either one of control or significant influence. Note the direct investor and direct investment enterprise are residents of different economies.

- A direct investment relationship *arises when an investor resident in one economy makes an investment that gives control or a significant degree of influence on the management of an enterprise that is resident in another economy. (BPM6, para 6.9)*
- 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 that is resident of a different economy. (BPM6, 6.11)*
- A direct investment enterprise *is an entity subject to control or a significant degree of influence by a direct investor. (BPM6, 6.11)*

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. *(BPM6, 6.11)*

As we can see that definition makes a distinction between immediate and indirect relationships. It should be noted that control or influence attaches itself to ownership of voting power.

- Control or influence may be achieved directly by owning equity that gives voting power in the enterprise, or
- Indirectly through having voting power in another enterprise that has voting power in the enterprise.

Accordingly, there are two ways of having control or influence. These are identified as either immediate or indirect. It is also in this part of the definition that control is defined as more than 50 percent ownership of voting power and influence as between 10 and 50 percent voting power.

(a) Immediate direct investment relationships

Immediate direct investment relationships arise when a direct investor directly owns equity that entitles it to 10 per cent or more of the voting power in the direct investment enterprise.

- *Control is determined to exist if the direct investor owns more than 50 per cent of the voting power in the direct investment enterprise.*
- *A significant degree of influence is determined to exist if the direct investor owns from 10 to 50 percent of the voting power in the direct investment enterprise.*

(BPM6, 6.12)

(b) Indirect direct investment relationships

Indirect direct investment relationships arise through owning of voting power in one direct investment enterprise that owns voting power in another enterprise or enterprises,

that is, an entity is able to exercise indirect control or influence through a chain of direct investment relationships. (BPM6, 6.12)

A further concept is also introduced; that of fellow enterprises, i.e. entities that share a common direct investor.

- *Fellow enterprises* are those which are both under the control or influence of the same direct investor. (BPM6, 6.12)

Certain principles are articulated for indirect transmission of control and influence through a chain of ownership. These are:

- Control can be passed down a chain of ownership as long as control exists at each stage.
- Influence can be generated at any point down a chain of control.
- Influence can only be passed through a chain of control but not beyond.

(BPM6, 6.14)

These principles may become clear when we study the diagram below.

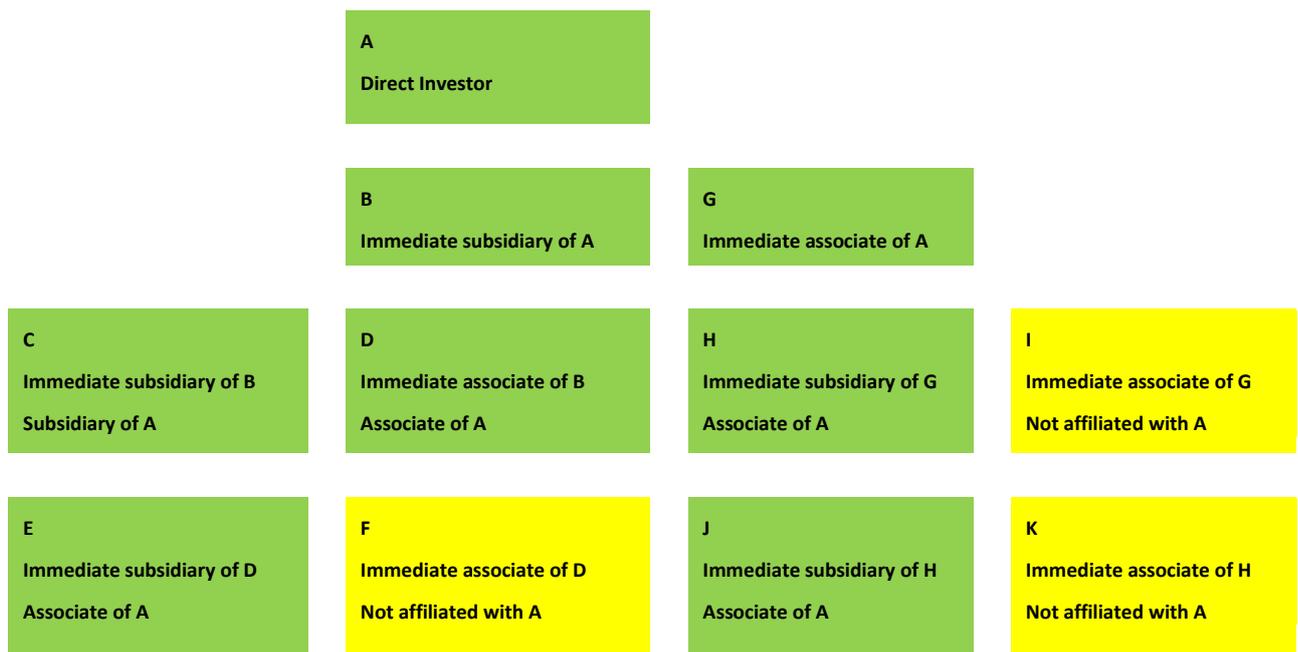
To complete the definition the definition distinguished between subsidiaries and associates.

(a) *A subsidiary is a direct investment enterprise over which the direct investor is able to exercise control*

(b) *An associate is a direct investment enterprise over which the direct investor is able to exercise a significant degree of influence, but not control*

(BPM6, 6.15)

The diagram (Box 6.1, BPM6) provides an indication of how to classify different entities using the concepts and definitions just discussed.



Appendix B. Proposed FDI Survey Form

COVER PAGE

Sir/Madam,

**Special study of foreign direct investment
in the information and communications technology sector in Egypt**

The Ministry of Communications and Information Technology (MCIT) is planning a special study on the foreign direct investment (FDI) in the information and communications technology (ICT) sector. This study will enable MCIT to devise policies and incentives to facilitate ICT sector development in Egypt and generally to improve economic statistics such as the balance of payments and international investment position statistics related to the ICT sector.

The study will largely take the form of a survey of companies in the ICT sector and is seeking balance sheet, income and expense, and related information. Officers will contact you shortly to discuss this questionnaire and seek your cooperation in its completion.

All information supplied in the survey will be used strictly for statistical purposes and be kept confidential to the MCIT Information Centre. Following the visit you will be asked to complete the questionnaire and return it to this office by 15 May 2009. You should keep a copy of the completed form for your records. As will be explained to you, where actual data are not available, careful estimates will be accepted. Ms. Xxx and Yxxx (contact details), will assist you in this task in any way that they can.

Thank you, your cooperation is greatly appreciated. Accurate statistics depend upon it.

Yours faithfully,

Dr. Elshenawy
Director
MCIT Information Centre

Special study of FDI in ICT in Egypt

Purpose

As explained in the cover page, MCIT is conducting a special study on the foreign direct investment (FDI) in the communications and information technology (ICT) sector. This study will enable MCIT to devise policies and incentives to facilitate ICT sector development in Egypt and generally improve economic statistics such as the balance of payments and international investment position statistics in the ICT sector.

Confidentiality

Information reported in this questionnaire, which you are requested to complete by 15 May 2009, will only be used for statistical purposes and will be treated as confidential by the MCIT Information Centre.

Reporting money values

Generally you are asked to report money values, which should be reported in thousands of the currency chosen (e.g. Egyptian pounds, US dollars).

Foreign (non residents) and Egyptian residents

In many parts of the form you are asked to report information on transactions with foreign (non residents) and Egyptian residents. Foreign residents includes entities (governments, businesses, persons) domiciled or operating outside Egypt, while Egyptian residents are those, including foreign owned companies, domiciled or operating in Egypt.

Parts A to H of questionnaire

The questionnaire consists of six parts:

Part A seeks information on the shareholders in this company. It consists of two parts, Part A1 seeks information on shareholders which hold 1% or more of the shares in the company, whereas Part A2 seeks to find out what percentage of the shares are held by foreign residents and the percentage held by Egyptian residents. This information will assist those conducting the study to determine whether this business is a foreign direct investment enterprise and the extent of foreign ownership.

Part B seeks key balance sheets totals such as total assets and liabilities and details of shareholders funds. Part C seeks supplementary balance sheet data on financial claims on and liabilities to non residents (see definition above) classified by whether the non resident party is a related entity or not. If uncertain about how to complete this section of the form, please contact MCIT IC staff.

Part D collects key items from the revenue and expense accounts, which should be readily available. Part E seeks supplementary on revenue and expenses, associated with exports and imports of communications, information technology and other services (excluding transportation and travel services). Part F seeks supplementary information on investment income receivable or payable abroad.

Part G seeks information on employment and fixed capital expenditure.

Name of company _____

Address of company _____

Name of person completing form _____

Position in company _____

Contact details in case of inquiry _____

Currency in which values are reported (e.g. Egyptian pounds, US Dollar) _____

NOTE: all money values amounts should be reported in thousands

A1. Shareholders

Name of shareholders who hold 1%+ of shares	% of shares held at 30 June		
	2006	2007	2008

A2. Total foreign/Egyptian shareholdings

	% of shares held at 30 June		
	2006	2007	2008
Foreign residents			
Egyptian residents			

B. Balance sheet items

	at 30 June		
	2006	2007	2008
Total assets			
Total liabilities (excl shareholders funds)			
Shareholder's funds			
Issued shares			
Reinvested earnings			
Other			

C. Supplementary balance sheet items

	at 30 June		
	2006	2007	2008
Financial claims on related foreign resident enterprises			
Financial claims on other foreign resident enterprises			
Liabilities to related foreign resident enterprises			

Liabilities to other foreign residents entities			
---	--	--	--

D. Income and expenses items

	2007-08
1. Earnings/revenue	
2. Costs of goods bought in and services	
3. Value added (=1-2)	
4. Employee costs	
5. Earnings before interest, tax, depreciation and amortisation (=3 – 4)	
6. Interest payments minus interest and dividend receipts, taxes, depreciation and amortisation	
7. Net profit (=5-6)	
8. Dividends	
9. Retained earnings (=7-8)	

E. Selected service exports and imports items

	2007-08
Service exports	
Communications	
Information technology	
Other services (included IT facilitated), excluding international transportation and travel services	
Service imports	
Communications	
Information technology	
Other services, excluding international transportation and travel services	

F. Selected investment income items with foreign resident enterprises

	2007-08
Interest and dividends receipts	
From related enterprises abroad	
Form non related enterprises abroad	
Interest payments	
To related enterprises abroad	
To non related enterprises abroad	

G. Other items

	2007-08
Number of people employed at 30 June	
Gross fixed capital formation	

Appendix C. Analysis of proposed data items, their purpose, priority and easy of collection

The following provide an analysis of the data items to be tested for inclusion in phases one and two of the proposed survey. For the initial pilot study and data collection it is proposed to restrict data items to the following:

- A. Shareholdings, but restricted to 10% or more holdings. However, in company interviews ask about the importance of those shareholdings below 10%.
- B. Balance sheet items. Include all those shown in B. However total assets and liabilities could be relegated to phase 2.
- C. Selected balance sheet items. Relegate to phase 2. However, in discussions with companies could ask about the importance of loans from related companies abroad.
- D. Income and expense items. The approach of collecting the complete range of items, verses selected items, should be discussed with companies - see note at end of table.
- E Selected services. Relegate to phase 2.
- F. Selected investment income items with related companies abroad. Relegate to phase 2.
- G. Other items. Test in phase one but possibly relegate to phase 2.

A1 Shareholders (also see Note 1)	<ul style="list-style-type: none"> • Shareholders with 10%+ shareholders • Shareholders with 1-10% shareholdings 	<ul style="list-style-type: none"> • To determine FDI and DFIE characteristics • To measure portfolio investment. 	<ul style="list-style-type: none"> • High priority • Low priority. 	Data readily available
A2 Total foreign/Egyptian shareholders		Identify portfolio investment in ICT companies.	Low priority.	Moderately easy to collect.
B. Balance sheet items	<ul style="list-style-type: none"> • Assets and liabilities • Shareholders' funds <ul style="list-style-type: none"> ○ Issued shares ○ Reinvested earnings ○ Other 	<ul style="list-style-type: none"> • Measures of behaviour of FDIEs • Measure FDI inflow 	<ul style="list-style-type: none"> • Medium priority. • High priority 	Data readily available. Care required to measure issued shares and reinvested earnings correctly.
C Supplementary balance sheet items	<ul style="list-style-type: none"> • Financial claims on and liabilities to related non residents • Financial claims on and liabilities to other non residents 	<ul style="list-style-type: none"> • Measure component of FDI • Measure other investment by FDIEs 	<ul style="list-style-type: none"> • Medium to high • Low 	Moderately easy to collect
D Income and expense items (See note 2)	<ul style="list-style-type: none"> • Earnings, value added and Employee costs • Dividends and reinvested earnings 	<ul style="list-style-type: none"> • Measure behaviour of FDIEs (also components of national accounts) • Measure FDIE BOP income items 	<ul style="list-style-type: none"> • High priority • Medium to high priority 	Data should be readily available from published accounts.
E Selected services	<ul style="list-style-type: none"> • Exports of selected services • Imports of selected services 	Measure of important economic contribution of FDIEs in ICT. Also provide improved BOP measure of ICT services.	<ul style="list-style-type: none"> • Low priority 	Data moderately difficult to collect.
F Selected investment income items with non-residents	<ul style="list-style-type: none"> • From/to related enterprises abroad • From/to non-related enterprises abroad 	<ul style="list-style-type: none"> • Measure of other DFI income • Measures of portfolio and other investment income of FDIEs 	<ul style="list-style-type: none"> • Medium • Low 	Moderately easy to collect.
G. Other items	<ul style="list-style-type: none"> • Number of people employed • Fixed capital formation 	Important measures of behaviour of FDIEs.	Medium to high	Moderately difficult to collect.

Note 1.Regarding item A1, it is necessary to use information also to identify indirect FDI and portfolio investment.

Note 2: While items D2, D5, D6 and D7 are not required per se, it may be easier to collect them as it clearly shows the nature of the data that we are attempting to collect. This could be discussed with companies during the form testing stage.

Categories:

- Data relatively available: Data are published in annual accounts and accompanying notes and/or required by FDIs.
- Moderately easy to collect: Data should be easily available, with some effort, but may be difficult for some companies.
- Data moderately difficult to collect: data may not be routinely identified and may require company to set up special arrangement to extract data.

Appendix D. Outputs from the FDI survey

Outputs from the proposed survey may be used to provide:

- Financial flows, investment incomes and services by FDIE and non FDIE in ICT sector for inclusion in the BOP/IIP.
- Measures of the activities of FDIEs and non FDIEs in ICT sector.

Within the BOP/IIP categories, priority should be given to measuring financial flows and investment income, and within that to:

- Financial flows direct investment in Egypt:
 - Equity investment, and
 - Reinvested earnings, and
 - Other capital (although this is probably not that significant)
- Investment income, direct investment debit,
 - Dividends, and
 - Reinvested earnings

It should be noted that measurement of investment income is less important than the financial flow. It should also be pointed out that reinvested earnings (financial flow) and reinvested earnings (investment income) are the two sides of the one transaction. The IIP items fall out as a by-product and are very important in their own right. Tables 1 and at the end of this Appendix show how the various BOP/IIP standard components may be derived from the survey form. Priority items are highlighted in yellow.

The measures of activity, their source in the form, their use and priority is given in Table 3.

Technical note on indirect ownership of shareholdings

For some purposes, it is necessary to identify indirect share ownership. These include:

- To determine whether a company is a FDIE, and
- To determine the portion of reinvested earnings to be attributed to FDI.

To identify if a selected company is a DFIE, it is necessary to investigate the shareholders of the shareholders, of the initially selected company, up the chain of ownership chain until satisfied that no FDI relationship exists, following the rules set out in Appendix A.

To determine the portion of FDI in a FDIE, one takes

- the portion of shares held directly by FDI, plus
- the portion of shares held indirectly by FDIs.

As an example of calculating indirect FDI, let us assume that our selected company has an Egyptian resident shareholder which owns 66% of the selected company's shares. The shareholder in turn has a FDI which holds 50% of its shares. By multiplying shares along the chain (66%*50%) we may determine that the FDI owns 33% of the selected company.

Table 1. Derivation of BOP items from proposed survey

<i>BPM5</i> Standard components (see pages 43ff of <i>BPM5</i>)		Source of data (Survey form)	
Financial transactions (flows)			
B1.2 Direct investment in reporting economy	1.2.1 Equity capital		<ul style="list-style-type: none"> • B. (Change in) issued shares * held by immediate FDIs. • A1. (Change in composition of) shareholdings of immediate FDIs
	1.2.2 Reinvested		<ul style="list-style-type: none"> • B.(Change in) reinvested earnings * % held directly and indirectly by reinvested

	earnings			earnings. • A1. (Change in composition of) Shareholdings of immediate and indirect shareholdings.
	1.2.3 Other capital			• C. (Change in) Liabilities to related foreign-resident entities, less • C. (Change in) Claims on related foreign resident enterprises
2B2.2.1.2 Portfolio investment, equity securities, other sectors				• B. (Change in) issued shares * held by immediate portfolio investors • A1. (Change in composition of) shareholdings of immediate portfolio investment shareholders
2B3.1.2.4 Other investment, assets, loans, other sectors				C. (Change in) Financial claims on other foreign resident enterprises
2B3.1.2.4 Other investment, liabilities, loans, other sectors				C. (Change in) Liabilities to other foreign resident enterprises
Investment income				
1B2. Investment income debit	2.1 Direct investment	2.1.1 Income on equity	2.1.1.1 Dividends and distributed branch profits	D8. Dividends * immediate FDI share
			2.1.1.2 Reinvested earnings and undistributed branch profits	D9. Reinvested earnings * immediate and indirect FDI share
		2.1.2 Income on debt (interest)		F Interest payments to related enterprises abroad minus interest and dividends from related enterprises abroad.
	2.2 Portfolio investment	2.2.1 Income on equity (dividends)		D8 Dividends * immediate portfolio investors share
	2.3 Other investment			F Interest payments to non related enterprises abroad
1B2 Investment income credit	2.3 Other investment			F Interest receipts from non related enterprises abroad
Service exports and imports				
1Ab3 Communication services credit				E Service exports - Communications
1Ab7 Computer and information services credit				E. Service exports – Information technology
1Ab3 Communication services debit				E Service exports - Communications
1Ab7 Computer and information services debit				E. Service exports – Information technology

Table 2. Derivation of IIP items from proposed survey

BPMS Standard components (see pages 108ff of BPMS)		Source of data (Survey form)
B1.1 Direct investment in reporting economy	1.1 Equity capital and reinvested earnings	<ul style="list-style-type: none"> • B. Issued shares * held by immediate FDIs, plus. • B. Reinvested earnings * % held directly and indirectly by reinvested earnings. • B Other shareholders' funds held * held by immediate FDIs
	1.2. Other capital	<ul style="list-style-type: none"> • C. Liabilities to related foreign-resident entities, less • C. Claims on related foreign resident enterprises
B2.1.2 Liabilities, Portfolio investment, equity securities, other sectors		<ul style="list-style-type: none"> • Shareholders' funds * % held directly by portfolio investors
A3.2 Assets, Other investment, loans, other sectors		C. Financial claims on other foreign resident enterprises
B3.2 Liabilities Other investment, loans, other sectors		C. Liabilities to other foreign resident enterprises

Table 3 Measures of economic importance, their use and priority

Measure of economic activity	Location in survey form	Use	Priority
------------------------------	-------------------------	-----	----------

Earnings/revenue	D Income and expenses	<ul style="list-style-type: none"> • Important measure of economic activity • Important in measure of national accounts 	High
Costs of goods bought and sold	D Income and expenses	<ul style="list-style-type: none"> • Important measure of economic activity • Important in measure of national accounts 	Medium-high
Value added	D Income and expenses	<ul style="list-style-type: none"> • Important measure of economic activity • Important in measure of national accounts 	High
Employee costs	D Income and expenses	<ul style="list-style-type: none"> • Important measure of economic activity • Important in measure of national accounts 	\High
Earnings before interest etc.	D Income and expenses	<ul style="list-style-type: none"> • Measure of economic activity • Important in measure of national income 	Medium
Interest payments, etc	D Income and expenses	<ul style="list-style-type: none"> • Measure of economic activity • Important in measure of national income 	Medium
Net profit	D Income and expenses	<ul style="list-style-type: none"> • Important measure of economic activity • Important in measure of national accounts 	Medium-high
Assets	B Balance sheet items	Measure of economic activity	\Medium
Liabilities	B Balance sheet items	Measure of economic activity	Medium
Selected service exports and imports	E. Service exports and imports	Measure of economic activity	Medium
Number of people employed	G other items	Measure of economic behaviour	Medium to high
Gross fixed capital formation	G other items	Measure of economic behaviour	Medium to high

Appendix E. Data Entry and Tabulation System for the Proposed FDI Survey

This appendix is comprised of three parts. Part A shows the data entry form, Part B tabulation of company results and Part C the publication tables. These are actually a set of specifications for an easy to prepare *Excel* spreadsheet which could be prepared once the exact data items to be collected in the survey are determined.

The data entry sheet would require data to be entered in the white cells. Other cells provide either descriptions or derived items. A number of the derived items are either data checks so that the person entering the data can check to determine whether there have been reporting or data entry errors. There are also a number of instructions within the data entry form to guide the person completing the form.

At the end of the data entry form are the summary measures for the company (Sections H to L) that would be automatically transferred to the tabulation sheet (Part B). By keeping the exact same format, it makes the construction of the tabulation sheet relatively easy to undertake.

Part B enables the compiler to examine which companies are contributing to each items, a very powerful data validation tool.

Part C shows the proposed publication tables which includes measures of the:

- Levels of direct investment in the ICT Sector in Egypt
- Flows of direct investment in the ICT Sector in Egypt
- The investment income payable on direct investment in the ICT Sector in Egypt, and
- Measures of activity of direct investment enterprises and non direct investment enterprises in the ICT sector in Egypt.

PART A Data Entry Sheet

Company number _____ (e.g. 01, 02 etc)

Name of company _____

AA. Currency and value

	30 June 2006	30 June 2007	30 June 2008
AA1. Currency in which values reported (e.g. USD, Egyptian pounds)			
AA2. Confirm that all money values are reported in '000 (1). One confirmed report Yes/			
AA3. Conversion factor as at year end (reported currency *Egyptian pounds conversion ratio) (2)			
	//////////	2006-07	2007-08
AA4. Conversion factor as at mid-year (reported currency *Egyptian pounds conversion ratio) (3)	//////////		(AA3 (07)+(08))/2

- (1) A common problem if for companies to report in actual pounds, dollars, etc and not as requested in thousands. This is an important check.
- (2) If company reported in USD, the conversion factor would be the number of USD to Egyptian pounds at end of year (e.g. 5.102) reported by the CBE. If company reported in Egyptian pounds the conversion facton would be 1.000
- (3) The average of beginning and end of year may not always be the best conversion factor to apply to transactions. Some judgement may therefore be required and a replacement factor used (e.g. a conversion factor that applies at the date of the transaction).

A1. Shareholders

	30 June 2006	30 June 2007	30 June 2008
A1. % of shares held by direct investors			A2+A3
A2. % of shares held by immediate direct investor			
A3. % of shares held by indirect direct investors.(1)			
A4. Direct investment enterprise (Yes=1,no=0) (2)			
	//////////	2006-07	2007-08
A5. % of shares held by direct investors at mid-year (3)	//////////		(A1 (07)+(08))/2

- (1) This requires investigating whether resident shareholders are themselves direct investment enterprises. If, for example, a resident shareholder held 40% of the shares, and it in turn had an immediate direct investor with an 80% shareholding, then the % of shares held by indirect direct investors is 32%.
- (2) It is important that an entry of 1 or 0 is made here as further calculations require it.
- (3) The average of beginning and end of year may not always be the best percentage to apply to transactions. Some judgement may therefore be required and a replacement percentage used (e.g. the percentage that applies at the date of the transaction).

B. Balance sheet items

	30 June 2006	30 June 2007	30 June 2008
B1. Total assets			
B2. Total liabilities (excl shareholders funds)			
B3. Shareholder's funds			
B4 Issued shares			
B5. Reinvested earnings			

B6. Other (1)			
B7. Check that $B1-(B2+B3) = 0$			
B8. Check that $B3 - (B4+B5+B6) = 0$			
B9. Derived financial flows	////////////////////	2006-07	2007-08
B91. Direct investment in Egypt – Equity	////////////////////		B4 (08)-(07)
B92. Direct investment in Egypt – Reinvestment of earnings	////////////////////		B5 (08)-(07)
B93. Other – Check if belongs to B91 or B92	////////////////////		B6 (08)-(07)

(1) This requires investigating to ensure that these are in the nature of revaluations and not new or withdrawal of investment or reinvestment of earnings.

C. Supplementary balance sheet items

	30 June 2006	30 June 2007	30 June 2008
C1. Financial claims on related foreign resident enterprises			
C2 Liabilities to related foreign resident enterprises			
C3. Direct investment - other investment			C2-C1
C4 Derived financial flows	////////////////////	2006-07	2007-08
C41 Direct investment - other investment			C3 (08)-(07)

D. Income and expenses items

	2007-08
D1. Earnings/revenue	
D2. Costs of goods bought in and services	
D3. Value added (=1-2)	
D4. Employee costs	
D5. Earnings before interest, tax, depreciation and amortisation (=3 – 4)	
D6. Interest payments minus interest and dividend receipts, taxes, depreciation and amortisation	
D7. Net profit (=5-6)	
D8. Dividends	
D9. Retained earnings (=7-8)	
D10. Check that $1-(2+3)=0$	
D11. Check that $3-(4+5)=0$	
D12. Check that $5-(6+7)=0$	
D13. Check that $7-(8+9)=0$	
D14. Check that $D9-B92=0$	

F. Selected investment income items with foreign resident enterprises

	2007-08
F1. Interest and dividends receipts	

From related enterprises abroad	
F2. Interest payments To related enterprises abroad	
F3. Derived investment income Direct investment – other investment income	F2-F1

G. Other items

	2007-08
G1. Number of people employed at 30 June (actual not '000)	
G2. Gross fixed capital formation	
G3. Average employee costs (D4/G1)	
G4. Does average employee costs seem acceptable (Yes/no)	

H. International investment position – Direct investment in Egypt

H. Level of direct investment in Egypt	////////////////////
HA. At 30 June 2006	
HB. At 30 June 2007	
HC At 30 June 2008	H1C+H2C
H1 Level of direct investment in Egypt – equity	////////////////////
H1A. At 30 June 2006	
H1B. At 30 June 2007	
H1C At 30 June 2008	B3*AA3*A1
H2 Level of direct investment in Egypt – other	////////////////////
H2A. At 30 June 2006	
H2B. At 30 June 2007	
H2C At 30 June 2008	C3*AA3

I. Balance of Payments Financial Account - Direct investment in Egypt

I. Direct investment in Egypt	////////////////////
IA. 2006-07	
IB. 2007-08	I1B+I2B+I3B
+I1 Direct investment in Egypt – equity	////////////////////
I1A. 2006-07	
I1B. 2007-08	B91*AA4*A5
I2 Direct investment in Egypt - reinvestment of earnings	////////////////////
I2A. 2006-07	
I2B. 2007-08	B92*AA4*A5
I3 Direct investment in Egypt - other investment	////////////////////
I3A. 2006-07	
I3B. 2007-08	C41*AA4

J. Balance of Payments Investment Income Direct investment debit

	2007-08
JA. 2006-07	
JB. 2007-08	I1B+I2B+13B
+J1 Direct investment in Egypt – Dividends and distribution of branch profits	////////////////////
J1A. 2006-07	
J1B. 2007-08	D8*AA4*A5
J2 Direct investment in Egypt - reinvestment of earnings	////////////////////
J2A. 2006-07	
J2B. 2007-08	D9*AA4*A5
J3 Direct investment in Egypt - other direct investment income	////////////////////
J3A. 2006-07	
J3B. 2007-08	F3*AA4

K. Comparison of direct and non-direct investment companies

KA Direct investment enterprises	2007-08
KA1. Turnover	D1*AA4*A4
KA2. Value added	D3*AA4*A4
KA3. Wages and salaries	D4*AA4*A4
KA4. Number of people employed	G1*AA4*A4
KA5. Gross fixed capital formation	G2*AA4*A4
KA6. Assets	B1*AA4*A4
KA7. Liabilities	B2*AA4*A4
KA8. Shareholders funds	B3*AA4*A4
KB Non-direct investment enterprises	2007-08
KB1. Turnover	(D1*AA4)-KA1
KB2. Value added	(D3*AA4)-KA2
KB3. Wages and salaries	(D4*AA4)-KA3
KB4. Number of people employed	(G1*AA4)-KA4
KB5. Gross fixed capital formation	(G2*AA4)-KA5
KB6. Assets	(B1*AA4)-KA6
KB7. Liabilities	(B2*AA4)-KA7
KB8. Shareholders funds	(B3*AA4)-KA8
KC. Check that data are entered for KA1-8 OR KB1-8, BUT NOT BOTH	Yes/no

L. Some analytical tools

LA. Direct investment reconciliation	2007-08
LA1. Direct investment at 30 June 2008	HC
LA2. Direct investment at 30 June 2007	HB
LA3. Direct investment 2007-08 (financial flow)	IB
LA4. Direct investment other changes in shareholder funds (1)	B93*AA4

LA5. Direct investment other changes (2)	LA1-LA2-LA3-LA4
LA. Direct investment reconciliation	2006-07
LA1. Direct investment at 30 June 2007	HB
LA2. Direct investment at 30 June 2006	HA
LA3. Direct investment 2006-07 (financial flow)	IB
LA4. Direct investment other changes in shareholder funds (1)	B93*AA4
LA5. Direct investment other changes (2)	LA1-LA2-LA3-LA4
LB Average wages and salaries per employee (3)	(KA3/KA4)+(KB3/KB4)
LC Investment income ratio 2006-07 (shows return on investment) (4)	JB/((HC+HB)/2)%
LC Investment income ratio 2007-08 (shows return on investment) (4)	JA/((HB+HA)/2)%

- (1) These should be due to revaluation of balance sheet items. The exact nature of such transactions should be ascertained from the company.
- (2) These can arise for various reasons, but any very large figures need to be explained.
- (3) This is a useful data validation tool to ensure that wage and salary costs and numbers of employees have been correctly reported. It is also a useful analytic tool to see whether FDIES pay higher or lower wages and salaries to employees.
- (4) This is a useful data validation tool to ensure that income items and the levels of investment have been correctly reported. It is also a useful analytic tool to see the rate of return on direct investment.

PART B Tabulation Sheet

H. International investment position – Direct investment in Egypt

	Total	01	02	03	04	05	06	Etc
H. Level of direct investment in Egypt								
HA. At 30 June 2006								
HB. At 30 June 2007								
HC At 30 June 2008								
H1 Level of direct investment in Egypt – equity								
H1A. At 30 June 2006								
H1B. At 30 June 2007								
H1C At 30 June 2008								
H2 Level of direct investment in Egypt – other								
H2A. At 30 June 2006								
H2B. At 30 June 2007								
H2C At 30 June 2008								

Note: No data are entered into green lines

I. Balance of Payments Financial Account - Direct investment in Egypt

	Total	01	02	03	04	05	06	Etc
I. Direct investment in Egypt								
IA. 2006-07								
IB. 2007-08								
I1 Direct investment in Egypt – equity								
I1A. 2006-07								
I1B. 2007-08								
I2 Direct investment in Egypt - reinvestment of earnings								
I2A. 2006-07								
I2B. 2007-08								
I3 Direct investment in Egypt - other investment								
I3A. 2006-07								
I3B. 2007-08								

J. Balance of Payments Investment Income Direct investment debit

	Total	01	02	03	04	05	06	Etc
J. Balance of Payments Investment Income Direct investment debit								
JA. 2006-07								
JB. 2007-08								
J1 Direct investment in Egypt – Dividends and distribution of branch profits								
J1A. 2006-07								
J1B. 2007-08								
J2 Direct investment in Egypt - reinvestment of earnings								
J2A. 2006-07								
J2B. 2007-08								

J3 Direct investment in Egypt - other direct investment income								
J3A. 2006-07								
J3B. 2007-08								

K. Comparison of direct and non-direct investment companies

	Total	O1	O2	O3	O4	O5	O6	etc
KA Direct investment enterprises								
KA1. Turnover								
KA2. Value added								
KA3. Wages and salaries								
KA4. Number of people employed								
KA5. Gross fixed capital formation								
KA6. Assets								
KA7. Liabilities								
KA8. Shareholders funds								
KB Non-direct investment enterprises								
KB1. Turnover								
KB2. Value added								
KB3. Wages and salaries								
KB4. Number of people employed								
KB5. Gross fixed capital formation								
KB6. Assets								
KB7. Liabilities								
KB8. Shareholders funds								

L. Some analytical tools

	Total	O1	O2	O3	O4	O5	O6	Etc
LA. Direct investment reconciliation (2007-08)								
LA1. Direct investment at 30 June 2008								
LA2. Direct investment at 30 June 2007								
LA3. Direct investment 2007-08 (financial flow)								
LA4. Direct investment other changes in shareholders funds								
LA5. Direct investment other changes								
LA. Direct investment reconciliation (2008-09)								
LA1. Direct investment at 30 June 2007								
LA2. Direct investment at 30 June 2006								
LA3. Direct investment 2006-07 (financial flow)								
LA4. Direct investment other changes in shareholders funds								
LA5. Direct investment other changes								
LB Average wages and salaries per employee								
LC Investment income ratio 2006-07 (shows return on investment)								
LC Investment income ratio 2007-08 (shows return on investment)								

PART C Publication Tables

Level of Direct Investment in Egypt in ICT Sector

Millions of Egyptian pounds

	At 30 June 2006	At 30 June 2007	At 30 June 2008
Level of direct investment in Egypt			
<i>Of which</i>			
Equity investment (incl. reinvestment of earnings)			
Other investment			

NOTE: These are the levels of investment measured in the IIP statement

Flows of Direct investment in ICT Sector in Egypt

Millions of Egyptian pounds

	2006-07	2007-08
Direct investment in Egypt		
<i>Of which</i>		
Equity investment		
Reinvestment of earnings		
Other investment		

NOTE: These are the financial flows measured in the BOP Financial Account

The investment income payable on direct investment in the ICT Sector in Egypt, and

Millions of Egyptian pounds

	2006-07	2007-08
Investment income payable abroad by direct investment enterprises in the ICT Sector		
<i>Of which</i>		
Dividends and distribution of branch profits		
Reinvestment of earnings		
Other investment income		

NOTE: These are the direct investment, investment income payable abroad measured in the BOP income account.

Measures of activity of direct investment enterprises and non direct investment enterprises in the ICT sector in Egypt in 2007-08

	Foreign direct investment enterprises	Non foreign direct investment enterprises	All enterprises
Turnover – millions			
Value added – millions			
Wages and salaries – millions			
Number of people employed			
Gross fixed capital formation millions			
Assets – millions			
Liabilities – millions			
Shareholders funds – millions			
Number of enterprises			