



World Bank

**Calculating foreign direct investment in the information
and communication technology sector in Egypt**

**Prepared for the Ministry of Communications and Information
Technology, Information Centre (MCIT-IC)**

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Abbreviations

BOP	Balance of payments
<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
DI	Direct investor
DIE	Direct investment enterprise
GAFI	General Authority for Investment
GICT	Global Information and Communication Technology (World Bank department)
ICT	Information and Communications Technology
IMF	International Monetary Fund
MCIT	Ministry of Communication and Information Technology
MCIT-IC	Information Centre of the Ministry of Communication and Information Technology

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Executive summary

This report is part of an ongoing study of the measurement of foreign direct investment (FDI) in the information and communication technology (ICT) sector of Egypt's economy and 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 FDI from direct investors (DIs) that are ICT specialists. Indeed, attracting FDI is a key pillar of Egypt's ICT Strategy. To understand and monitor the success of this policy, MCIT therefore needs good statistical data on FDI.

The World Bank's GICT department undertook a project (2007-2009) 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 accurate measure of FDI. This led to the design and undertaking a survey of direct investment enterprises (DIEs) in the ICT sector in 2009. The survey collected data on FDI stock for financial years 2006-2008 (FY2006-FY2008), FDI flows for FY2007 and FY2008 and the operations of DIEs for FY2008. DIEs (i.e., the recipients of FDI) were selected from a sample frame which was designed as part of the project. Results from the survey were compiled and presented in separate sessions to the MCIT-IT and Central Bank of Egypt (CBE) in November 2009.

During my third visit to Cairo (19th to 23rd December 2010), I reviewed the progress made by MCIT-IT on collecting FDI for the ICT for FY2009 and revised data for earlier years, provided a presentation to staff of DIEs in the FDI survey, reviewed the methodology with a view to strengthening it, undertook training sessions with MCIT-IT staff, and formulated, with MCIT-IT, future plans and recommendations.

The objectives of the visit were to conduct a second iteration of the calculation of FDI in the Egyptian ICT sector, based on the previously defined calculation methodology and incorporate any improvements that may be required. The second iteration included the stock and flow of FDI for FY2009 and revisions to figures for earlier years. In particular the objectives were:

- a) To analyze the new results of the FDI questionnaire and make recommendations to refine the methodology and sampling framework;
- b) To generate an estimate of the true level of FDI in Egypt's ICT sector for FY2009;
- c) Should the calculation methodology be adjusted for FY2009, to apply the necessary adjustments to the earlier data so as to maintain the availability of a time series; and
- d) To continue work towards establishing an ongoing process for the regular data collection and reporting of FDI data by providing training and relevant tools, in collaboration with relevant ministries and other institutions.

My involvement in the project thus far has been to provide advice on the appropriate measurement of FDI. In my first visit in May 2009, I assisted to establish the reasons why current data sources, namely the CBE's foreign exchange statistics used in balance of payments (BOP) statistics and the General Administration for Investment (GAFI) statistics, failed to capture sizeable FDI flows into the ICT sector. I also assisted to design a survey to measure the flow and stock of FDI in the ICT sector

and to provide measures of the operations of DIEs in the ICT sector thus illustrating their contribution to the economy in Egypt. On the last day of that visit, I provided a presentation to staff of MCIT, CBE and GAFI on the findings to date and recommendations to develop a survey of FDI in the ICT sector. All three institutions supported the approach outlined.

Subsequent to my first visit, the survey form and methodology were tested, modified, and then data collected. Data on the level of FDI were collected for the FY2006, FY2007, and FY2008, the flow of FDI for FY2007 and FY2008, and the operations of DIEs in the ICT sector for FY2008. Part of the data collection preparation required determining which enterprises were actually DIEs in the ICT sector. Data collection was patchy as not all the selected companies provided complete data. In fact much of the data collated for the three financial years relied on partial balance sheet and profit and loss data that had been obtained. The lack of complete co-operation was not to be unexpected and was in fact predicted as MCIT has no legal basis on which to collect such data. Businesses, as expected, are secretive about the type of data being collected, and DIE staff often does not fully understand the accounting information on which the survey is based. In the circumstances, the assertiveness and commitment of MCIT-IT staff in bringing the data together was a major achievement.

During my second visit (November 2009) the data that had been gathered were used to compile measures of the level of FDI for FY2006 to FY2008, FDI flows for FY2007 and 2008, and measures of the operations of DIEs in the ICT sector for FY2008. A number of companies were interviewed, including the large three, and additional data extracted from them. Sometimes these data were very broad and qualitative rather than the quantitative. Nevertheless, it was possible to compile reasonable estimates on the stock and flow of FDI and the activities of DIEs. In compiling data on the operations of DIEs, a comparison was made with data compiled by the MCIT-IT the financial survey which includes data from the large three ICT DIEs. In the time available it wasn't possible to resolve some apparent discrepancies between the FDI survey and financial survey data. (An analysis of the discrepancies is documented in my report of this visit). A presentation of the results of this work, including the results of the FDI survey and an analysis of them, was provided to the staff of MCIT-IC during the visit, and repeated to CBE staff some two weeks later, as I was still in Egypt that that time.

During 2010, MCIT-IT pressed ahead with collecting data for FY2009 and, as only partial data had been collected previously, data were also collected for FY2007 and FY2008. Priority was given to collecting data on the stock and flow of FDI; data on the operations of DIEs were not collected. The three large businesses and three of the smaller businesses (six out of twelve) responded. Even though, only six companies provided data, as the three largest companies, which dominate the industry, are included, the results are considered good. The data for FY2009 and revised earlier data are better data than previously available. The revisions to previous years turned out not to be that large which suggests that the results compiled in 2009 (for FY2008 and earlier) were a reasonable indicator of the flows and stocks of FDI for FY2007 and FY2008.

During the current visit (19-23 December 2101) a presentation was given to businesses in the FDI survey. The slides in the presentation are reproduced in Chapter 2, together with further comments that were made in the presentation, or arose during the presentation, or provide further background to the presentation. While, Chapter 2 is somewhat lengthy, it documents key aspects of the survey and provides a good summary of the project overall, including the uses of the data, the methodology employed and future plans.

Chapter 3 covers a number of matters that were investigated during the visit and the conclusions and recommendations that that were arrived at. These cover:

- The publication of FDI and DIE operations data.
- The continued collection on data of the operations of DIEs. This should take place in respect of data collected for FY2011 onwards, and earlier if possible.

- The steps to be taken to improve the response rates from businesses in the survey and to expand gradually the coverage of the survey.
- The profiling of DIE ownership and investment structures, taking account of re-structures, mergers and demerges, and steps that ought to be undertaken to validate data.
- The treatment of Orascom and more generally indirect FDI.
- The steps that should be taken to integrate components of the FDI and financial surveys.
- The legal basis of the data collection.
- Staff training regarding access to IMF regional courses on BOP and national accounts and accounting training.

Chapter 4, *Recommendations and next steps*, sets out in summary the recommendations in this report, taking up the issues mentioned in Chapter 3. These were prepared following discussion with MCIT-IT staff.

Annex A to this report provides data from the investigation into company profiles.

Chapter 1. Introduction

This report is part of an ongoing study of the measurement of foreign direct investment (FDI) in the information and communication technology (ICT) sector of Egypt's economy and 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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Chapter 2. Presentation to businesses in the Survey of FDI in Egypt's ICT Sector

During the mission, representatives of seven of the twelve businesses participating in the FDI survey attended a presentation. Some business had two representatives attend. Businesses represented were Mobilnil, Etisalat, HP, Fijitsu, Alcatel, Ericsson, and Siemens.

As the presentation provides a comprehensive overview of the survey and achievements to date they are reproduced here, together with some further background commentary and feedback from participants at the presentation.

2.1 Explanatory terms and aim of session

The first slide provided a summary of the concepts and terminology used in the session. It focused on the role of MCIT-IT which initiated the FDI project with the assistance of the Bank. The project led directly to the introduction of the FDI survey.

At this point, it was important to mention the concept of FDI and how FDI takes place between the DI and DIE. Mention was also made of the concepts of control or 'significance degree of influence' on the management of an enterprise. A brief definition of what the ICT sector comprises was also included.

The second slide sums up the aim of the session, to provide information on the survey to the ICT enterprises taking part in the survey. The key justification of the survey is the importance of measuring FDI in the ICT sector in the absence of suitable data from other sources. The importance of good data and the lack of an alternative data source provide the starting point to explain the origins of the survey and how the survey was designed using best practice. While providing information on the survey to participants in the survey is an important objective in its own right, such feedback should also improve the quality of reporting in the survey.

2.2 Importance of measuring FDI in ICT sector

The third slide emphasized the importance of measuring FDI in the ICT sector.

ICT businesses are aware of the importance of the role of MCIT and the fact that MCIT's decisions are far reaching in terms of what projects go ahead and the impact of decision making on creating the ICT environment. Therefore for both MCIT and the industry, access to accurate statistics on FDI and the operations of DfEs is obviously an important factor in decision and policy making. This point seemed to be fairly well accepted by participants.

It was emphasized that the methods used in the FDI survey are based upon international statistical standards and methodology, namely the International Monetary Fund (IMF) *Balance of Payments Manual, Sixth edition* (BPM6) and the United Nation's *System of National Accounts*, which are themselves integrated.

Other very important uses of the statistics gathered by the FDI survey are to compile the balance of payments (BOP), international investment position and national accounts for Egypt for the ICT sector.

2.3 The FDI in the ICT sector Project

There is a perception that data required by MCIT should be readily available from other sources. Therefore, discussion of alternative data sources and their inadequacy is an important issue.

The starting point for the FDI project was the fact that CBE and GAFI data, that were available in 2008, were obviously inconsistent and under measured FDI flows. This gave rise to questions about what were the actual FDI flows and what was the best way to measure such flows. To answer these questions, the FDI project was initiated and its aims were to define the ICT sector and to devise an internationally acceptable way to measure FDI.

The next slide (slide 5) describes the phases and the deliverables determined for the FDI project.

The first phase, to define the ICT sector and determine the statistical methodology, took place between October 2008 and May 2009, while the second phase, to collect and analyse the data was completed in December 2009. The final report on the FDI project was delivered by the Bank to MCIT-IT in early 2010.

The achievements of the project (slide 6) were explained. First the definition of the ICT sector, again defined in terms of internationally acceptable methods, was determined. This definition seems to have been accepted by the industry.

The differences between the CBE and GAFI data were explained as was the fact that they failed to capture the large FDI inflows that had taken place. Some participants were particularly interested in knowing why these sources had failed to capture FDI flows. The explanation which is recorded in my earlier reports was given in some detail at the presentation.

The last major achievement of the project was that it designed and completed the FDI survey which collected and analysed data through to the end of FY2008.

2.4 The meaning and measurements of FDI

At this point, the concept and measurements of FDI was introduced (slide 7).

It was explained that many people find it difficult to understand the concept of FDI when first encountered.

Therefore it is best to start with the generally understood concept of investment. This is often thought of as building up the assets of a business, or expenditure on items that will not be immediately consumed.

FDI is the building up of resources by the DI in the DIE. Therefore if the DIE builds up assets that are not financed by the DI, the investment is not part of FDI. Another way to say this, it that FDI is the DI's equity in the DIE.

Slide 8 defines FDI more precisely, developing the concept of equity of the DI in the DIE.

There are two measures of FDI, namely the stock, or accumulated FDI at a point in time, and the FDI flow, i.e., the injection of investment by the DI during a given period. Said another way, the stock of FDI at the end of a period is the stock of FDI at the beginning of a period, plus the flow of FDI during the period. The stock of investment may be affected by valuation changes (examples of this were given) and these should be excluded from the measurement of FDI flows.

The level of investment at the end of period is thus equal to the DI's equity in the DIE. This is measured as shareholders' funds, less minority interests, plus net lending (lending minus borrowing) by the DI to the DIE. Minority interest equals investment by other shareholders in the DIE. Another way to consider this is total assets of the DIE less its liabilities other parties (i.e., parties other than the DI).

The FDI flow may be measured as the change in the DI's equity in the year less any valuation changes, or new investment less withdrawal of investments by the DI (this includes purchases less shares of shares), plus reinvested earnings (which may be positive or negative), which in turn equals net profit after tax less dividends.

2.5 Survey results

Slide 9 shows the levels and flows of FDI beginning at end of FY2006. They show a large FDI inflow in FY2007 and moderate inflows since.

While data are preliminary, and based on a limited response, they are considered to provide an accurate picture of FDI in the ICT sector in Egypt. One important qualification is that a number of larger ICT businesses do not have a financial year ended June (i.e. financial years are based on a whatever accounting period has been adopted by business). It is interesting to note that for the first round of calculation through to end FY2008 much informed guesswork was required due to missing data. However, the early round of estimates were close to the revised estimates, based on more thorough data.

It should be remembered that the financial flow is based on new investment plus reinvested earnings. While not shown, reinvestment of earnings in ICT DIEs seems to be negative in recent years. This means that that the inflow of new investment is somewhat higher than the combined figure would suggest. Negative reinvested earnings reflects two factors, namely, dividend payments are higher than net profit after tax, and some businesses are making losses.

One non-industry participant commented that the figure for FDI at the end of FY2006 seemed a little low and therefore the flow figure for FY2007 may be a little on the high side. In response, it was pointed out that while the numbers are subject to qualification, the picture provided by them, based on knowledge of the industry, data sources and methods, would seem to provide a reasonable accurate picture of what has occurred.

Another comment that was made was that it would be worthwhile if other foreign liabilities of DIEs, such as their borrowings could be collected. In response, it was mentioned that other liabilities of DIEs were on the list of items considered for inclusion in the original survey. This list was reduced to the more essential items. Nevertheless, information on the other liabilities (such as foreign and

domestic borrowings) would greatly assist in our understanding of the financial arrangements of DIEs in the ICT sector.

The next slide (slide 10) provides statistics for FY2008 on the operations of DIEs. Again data need to be qualified because they are based to some extent on informed guesswork and some enterprises use financial years other than the year ended June. Unfortunately, these data were not collected in respect of FY2009, as priority was given in the FDI survey to collecting data on FDI rather than the operations of DIEs.

There was a comment that the employment figures looked to be a little on the low side. The response was that while numbers may be a little low, they did not appear unreasonable, because DIEs did outsource a lot of work to locally owned enterprises. DIEs had been instructed to report their total employment. In cases where DIEs used employment companies but controlled the activities of employed persons they were asked to report these staff in their wages and salaries and numbers employed.

These data indicate the type of information that may be provided about DIEs in the CIT sector and hence assist our understanding of their contribution to the ICT sector and economy more generally.

The participant's were very interested in the actual methodology to measure FDI stocks and flows and the measures of DIE operations and requested that they be provided with copies of the presentation and details of the definition. (This is being arranged).

2.6 Survey design

The next section of the presentation described the survey in some more detail.

Slide 11 examines the reasons why a FDI survey was chosen, as this is an important consideration in the overall design. There are three strong reasons for adopting a survey approach, namely, first the importance of having good data on FDI in the ICT sector, second the existing data sources being inadequate in term of providing good data, and third the survey being an ideal approach in the circumstances.

The circumstances that allowed for a good design were fourfold. First the number of DIEs in the ICT sector was relatively few and concentrated. Second the type of data that are required come readily from company accounts, i.e., data on FDI stocks and flows may be readily measured from the balance sheets of DIEs while data on the operations of DIEs largely come from their profit and loss (or income and expenditure) statements. Third there is close contact and mutual respect between the businesses in the ICT sector and MCIT-IT. Finally, MCIT-IT already approaches the larger ICT businesses and collects data from them in the financial survey which is used in the compilation of the national accounts for the sector.

However, to collect the data MCIT-IT face a number of challenges, although these challenges may also be described as opportunities. First there is no legal requirement for companies to report the data requested to MCIT-IT, although there are legal requirements for companies to report to other agencies such as GAFI. The opportunity here is to persuade DIEs about the benefits of their participating in the survey. Second measuring FDI and the operations of DIEs require an understanding of complex FDI concepts and accounting records. While this is a challenge, once the understanding of the concepts and measures is acquired, this knowledge provides a sound basis for understanding the nature of FDI and the impact of DIEs; this provides a good platform on which good policy and decision making can be developed. Third DIEs are large and complex structures. Again, to conduct the survey requires MCIT-IT staff to understand these structures, also a good basis for informed decision making. Fourth collection of data is made difficult by the fact that the DIE accounting staff, who would understand the requirements of the survey, is often not based in Egypt but in head offices or regional offices abroad. The DIE staff encountered in Egypt fall more into the

categories of sales and client servicing and technical staff. Here the challenge is to communicate with staff abroad. However, once the connection is made, understanding how the accounting information explains FDI flows and levels and the operations of DIES provides a more complete understanding of the nature and operations of DIES both within the DIES themselves and the nation more generally. Fifth data required are considered highly sensitive. This is because data required include earnings, profits, investment earnings, investment and dividends. While data are sensitive, here the challenge is to convince businesses that data will be treated confidentially and will be released in the form of statistics only (i.e., it will not be possible to identify data reported by any one business in the data released in final statistical form). In any case much of the data collected are also normally released when companies publish their annual data or report it to agencies such as GAFI. Sixth there was only a short time frame to conduct the survey (results were wanted quickly) and seventh MCIT-IT staff needed to learn about the ICT sector, FDI and survey methodology quickly. MCIT-IT staff proved that they had the commitment and skills to accomplish these tasks quickly.

Representatives of the businesses present accepted that strategy that had been presented, although wanted MCIT-IT staff attempt to use alternative data sources if possible, rather than duplicate requests of them.

Slide twelve provides a description of the sample frame as it was at the beginning of the survey. The information in the frame was compiled as part of a sub-project to gather information on the DIES in the ICT sector and to categorise them by size of ICT activity.

The DIES were placed into three groups, namely the big three, and then the nine medium sized DIES which are also included in the survey. The other businesses are smaller players and their exclusion from the initial collection will not unduly affect the quality of the results. Estimates were made for their contribution to FDI and operations data.

The intention with the small enterprises is that they be surveyed infrequently, say every three to four years, and their results included in the estimation benchmark. The collection approach outlined was regarded as sensible by the businesses representatives present.

2.7 Definition of FDI

The next two slides (twelve and thirteen) explained the definition of the direct investment relationship.

Slide twelve, which is taken from BPM6, illustrates the FDI relationship that defines the DI and the DIE. The DI either controls or has significant influence over the management of the DIE. Control exists when a DI owns the majority of the voting power in an enterprise (DIE). This may also be described as a parent-subsidiary relationship. Influence exists when the DI owns between ten to fifty percent of the voting power in an enterprise (DIE). Usually such voting power may entitle, by arrangement, seats on the board of management or influence may be exercised in other ways.

Control and/or influence may be transmitted through a chain of ownership. In the diagram, (Box 6.1) all the shaded boxes are DIES of DI A directly or indirectly, through the ownership links that exist through B, D, G and H. Control and/or influence may be transmitted through an enterprise provided at least control exists along the chain. If A controls B and B controls C, then A controls C. A also has a significant influence on D through its subsidiary B. A has a significant influence on the management of H and J because H and J are subsidiaries of G over which A has a significant influence. However, influence breaks down as in F, I and K because A cannot exercise influence beyond the immediate DIE in which it has influence.

To determine whether or not two enterprises are in a FDI relationship, the enterprises may be compared with examples in the Box 6.1, which provides a very strong tool. It should be noted that each enterprise in Box 6.1 is in a separate economy (country).

While the FDI relationship may extend beyond immediate ownership, only direct transactions are measured when measuring FDI flows and levels of investment. This is illustrated in slide thirteen. D is both a DIE of A and B and between them they control 100 percent of the voting power in D. However, their combined direct net equity is only eighty percent, as twenty percent of the net equity is held by C, which is a DIE of B, but not a DI in D. B's twenty percent indirect equity in D would be measured as its FDI equity in C.

This type of example has been useful in determining the treatment of flows and levels of investment in some of Egypt's complex ownership cases.

Participants found these examples very helpful in explaining the application the definition of FDI used in the ICT FDI survey.

2.8 Assessment and next steps

Remarkable progress has been made in initiating the FDI survey and obtaining the results to date in less than eighteen months. The methodology is complex and challenging, and initially ICT DIEs were concerned about aspects of the survey. MCIT-IC staff is to be congratulated for successfully taking on this task. They needed to learn the methodology and apply it and showed great commitment to ensuring its success. Congratulations also extend to those ICT DIEs that have co-operated in making the survey a success.

Now that the foundation of the project has been laid, plans may be put in place to improve the collection and publish the results. The tasks ahead of MCIT-IT are set out in the final slide. First, the data on the FDI flows and levels for FY2009 need to be finalised.

Data in respect of the operations of DIEs were collected in respect of FY2008, but in order to ensure the collection of the success of the 2009 survey which only collected data on FDI flows and levels, DIE operations data were not collected in respect of FY2009. The DIE operations data for FY2008 were partly estimated and there were some discrepancies with similar financial survey data collected from largest DIEs. It is considered that the FY2008 DIE operations data should be published on a preliminary basis and should be collected from FY2011, of earlier if possible.

Another important step is to improve the timeliness of the data. It should be possible to collect more timely data in future as DIEs have more confidence in the survey. It should also be possible to improve the methodology as DIEs may improve reported data so that they align more closely with survey requirements. It should also be possible to expand the coverage so that over time the activities of smaller DIEs are reported, rather than estimated, as at present.

The presentation of the results to date to representatives of the DIEs in the survey is a first step in publishing the results of the survey. Plans are being developed to publish the survey results. The survey results provide important national and international measures of economic activity of the DIEs in the ICT sector. As these results become available, a great range of users, national and international, should begin to appreciate the value of these types of data and the methodology that underlies them. The publication of results will strengthen the survey, as DIEs will more fully appreciate the importance of the survey which will provide them with very useful information on the size and characteristics of DIEs in the ICT sector.

The response by participants at the presentation was very positive and should do much to establish and strengthen the credibility of the survey. Participants were very keen to obtain the slides from the presentation which is being arranged.

Chapter 3. Strengthening FDI statistics

3.1 Publication of FDI statistics

The statistics presented in this report are of sufficient accuracy to justify their publication in the near future. Publication would have a number of important benefits. First it would make important data available to a large number of national and international users which would lead to a greater understanding of FDI in the ICT sector in Egypt. Second publication would illustrate the strength of the underlying methodology, which can greatly assist to enhance the understanding of FDI and the measurement of the activities of DIES. Third it would encourage DIES in the ICT sector to provide accurate and timely data. Fourth it would facilitate the collection of these statistics in future.

Mr. Carlo Rossoto, who participated in work of the mission, also urged early publication and outlined the possibility of bringing the data to the attention of the international community, including areas of the Bank and the IMF, through publication in Bank publications.

Any publication should naturally be accompanied by some description of the methodology which has been described in this report.

Representatives of businesses who attended the presentation of FDI in the ICT sector showed great interest in the statistics presented and the methodology on which they are based and strongly supported their early publication. This they considered would be a great assistance to them.

While many countries measure the stock and flow of FDI, relatively few do this well. Only a handful or so publish data on the operations of DIES which is urged as good statistical practice by the Bank and the IMF. The statistics that have been presented in this report closely follow international statistical standards.

3.2 Continued collection of DIES operational data

Data were collected in the 2009 survey on the operations of DIES in the CIT sector for FY2008. As response on the survey was poor, data for the items were compiled using a mix of reported data, company accounts, and informed estimation. To improve reporting on FDI in the 2009 survey, data on the operations of DIES were not collected. These data on DIES provide important insights on the contributions of ICT sector DIES to the Egyptian economy, although it is not necessary to collect such data each year. It is recommended that these data be reintroduced in future when the survey is more robust. Another possibility discussed in 3.7 is to investigate the possibility of integrating part at least of the FDI survey with the financial survey which collects selected operations data of ICT enterprises for the compilation of the national accounts.

3.3 Improving response and coverage

During the visit, no additional data was collected from units that had so far failed to report data for FY2009. Three of the nonrespondents attended the presentation and were sent a copy of the presentation. It is anticipated that they should provide data shortly. Another, Microsoft was visited. The manager there described his company's activities and considered that providing his profit and loss account data may provide misleading data on the overall FDI and the operations of DIES in the ICT sector. He was somewhat reassured when we described how his data and data from other enterprises would be recorded in the survey. He promised to send in his data soon. Persistence with the remaining two should eventually turn them into reporters.

Generally businesses in the survey are accepting the need to report data, especially as the current collection is limited to measuring FDI flows and stocks. Collection of data for 2010, should commence in the first half of 2011.

As staff in MCIT-IT become more proficient at data collection, those small companies for which, to date, data have been estimated should be approached and data on FDI flows and stocks should be collected. Smaller companies could be asked to report every three years to four years and estimated between survey years.

3.4 Profiling, merges, demerges, and restructuring, and data validation

One task that took some time during the visit was to establish information on company ownership structures and how these change over time through changes in ownership, acquisitions, merges and demerges. Such activity can obviously affect the measurement of FDI and the operations of DIEs.

The ownership profile of each DIE in the survey should be examined afresh each year and a diagram drawn of its ownership structure if this has changed from the previous year. This ownership structure should also include any Egyptian resident companies in which the DI has direct, or indirect, control or influence. This should include subsidiaries and associates of the DIE in the survey.

Where an ownership chain consists of more than one entity that are either related (parent-subsidiary or common subsidiaries) or associated to one another, special care is required to measure their activities correctly. First it needs to be established whether or not each entity is a DIE or not. Second it needs to be established which entities in an ownership structure are ICT enterprises.

For purposes of measuring FDI, only direct FDI flows and levels by the DI in the ICT DIE are measured. For purposes of measuring the operations of ICT DIEs in an ownership structure, where more than one entity is an ICT enterprise, it needs to be established whether each ICT entity operates separately (and has separate accounts) or all ICT entities operate as a single entity (and have a consolidated set of accounts). The data for all ICT entities need to be collected (or if small estimated).

In preparing ownership profiles, it was established that there have been many takeovers of ICT businesses by ICT DIEs. Here the question that arises is how was the takeover financed? Three scenarios, or a combination, are possible. First, the DIE finances the takeover from its own resources. There is not FDI activity in this case. Second, the DIE borrows locally or from abroad but from an unrelated company. Again, there is not FDI activity. Finally, the DIE issues new share to its DIs or borrows from them or related companies. This is FDI. In all the cases of acquisitions that were discussed with companies, all were financed by the DIE from its own resources, i.e., there was no new FDI.

Profiles have been drawn up for the large three DIEs in the survey and are included in Annex A. These profiles show changes over time. Profiles have not been drawn up for the remaining nine companies, all of which have a single non resident shareholder holding one hundred percent of the equity in seven cases and over nine-five percent in the other cases.

An ongoing concern is that MCIT-IT staff and DIE reporting staffs are not fully aware of the conceptual and measurement concepts and definitions that the FDI survey attempts to measure. This is not an uncommon phenomenon (it occurs in many countries) and therefore reporting errors are not only possible but to be expected. It is common practice elsewhere, and recommended here, that all opportunities are taken to ensure the quality of the data. Such data quality checks would include comparing reported data with published accounts, GAFI data, and reports appearing in the media or web. Opportunities should be taken wherever possible to discuss the results of any data reconciliations with DIE reporting staff so that they may provide MCIT-IT staff of any useful background and to take steps to correct or improve reporting.

3.5 Treatment of Orascom Telecom and indirect investment

To date Orascom Telecom has not been included as a DIE in the ICT sector. It is not clear from the original sample selection process whether its exclusion was due to its being considered not to be an ICT sector enterprise, or whether it was considered not to be a DIE. I have formed the view, on balance, that Orascom should not be treated as an ICT enterprise and should be regarded as a DIE.

In describing itself, Orascom mentions that it is an investor in the ICT sector. However, it does not appear to provide ICT services in Egypt. This would suggest that it should not be treated as an ICT company. However, it would be desirable to discuss with the national accounts compilers whether they consider Orascom is in or out of the ICT sector.

In the previous compilation (for FY2008), Orascom was regarded as a DIE for purposes of compiling reinvested earnings in Elisalat (see profile in Annex A). Orascom has a large stake in Elisalat. Orascom trades on the Egyptian and London stock exchange and so may be assumed to have a diffuse shareholding apart from the majority shareholding (50 percent plus one) by Weather Investments, a company incorporated in Italy, but which we understand is 97 percent owned by Naguib Sawaris and the Sawaris family. Following the international statistical standards, even though the owners of Weather are essentially Egyptian residents, Weather's incorporation outside of Egypt requires that it be treated as a DI and therefore Orascom as a DIE. There could be an argument for looking through this arrangement, i.e. treating Orascom as directly owned by a resident. However, that is not the international standard treatment. There is a proposed large share restructuring in Orascom and Weather, which if it succeeds, would unquestionably make Orascom a DIE.

A related issue is the treatment of indirect FDI flows and stocks. For purposes of measuring most transactions between two enterprises in a FDI relation, only direct transactions between the DI and DIE are measured. For example, a DI A (a non resident) is the parent company of subsidiary B (an Egyptian resident) which in turn is a parent of subsidiary C (also an Egyptian resident) and therefore A is a DI in C. If DIE B requires funds to lend to C, it may issue new shares to A and receives cash in return which it on-lends to C. C may be regarded as having an indirect liability to its A. However, only the (direct) transaction between A and B is measured for purposes of measuring FDI. The transaction between B and C, which is between two domestic entities, is not measured in BOP and hence is not included in FDI statistics.

However, in the case of reinvested earnings attributable to the DI, indirect transactions have been included in the 2009 results. In our case above, let us assume that C retains profit, which are therefore attributable to B and therefore indirectly to A. Unless B provided consolidated accounts for B and C, it is unlikely B would record the retained income of C in its own accounts. Therefore, BOP statisticians have compiled estimates of reinvested earnings indirectly attributable to the DI. Therefore in the previous survey, we calculated and included the reinvested earnings attributable indirectly through Orascom to Weather by multiplying the percentage ownership links (percentage of Orascom in Elisalat by percentage of Weather in Orascom).

This treatment has been changed in the latest results (2010) as the latest edition of *BPM6* (reference Para 11.47 and Box 11.1) has clarified this treatment. It points out that reinvested earnings is measured at each link in the chain and therefore only the reinvested earnings of a DI in its immediately owed DIE are measured. The *BPM6* treatment makes some assumptions about the way in which profits and reinvested earnings are measured in business accounts which may not always be the case in practice. The question arises whether we should continue to make the adjustment to include indirect reinvested earnings or to adopt the new international standard. I would prefer to adopt the international standard, although recognise that the adjustment has some merit. Adopting the standard makes compilation easier (and will generally avoid making complicated adjustments) and does not have a large impact on the resulting FDI flows and levels. Hence a revised treatment has been adopted in the latest compilation for FY2009 and earlier results have also been revised accordingly.

3.6 New GAFI data

GAFI have been continuing its efforts to require companies incorporated in Egypt to provide annual account reports. These could be a source for measuring FDI and the operations of DIEs. During 2010, MCIT-IT requested GAFI to provide selected data, from its database, on the businesses in the FDI survey. Data were provided to MCIT-IT by GAFI and, for example, for Elisalat and Mobilnil (but not Vodaphone), data were available through to FY2009. Unfortunately, the data for each company did not internally reconcile. It would be useful to review GAFI data for each company in the survey (and to reconcile it with data reported in the FDI and financial surveys) and to point out any inadequacies to GAFI. Hopefully, this would lead to GAFI improving its data collection and companies improving on

what they are reporting. This could be a win-win all round. Unfortunately, it will require some effort to improve reporting to GAFI.

3.7 Integration of financial and FDI surveys' data on operations of DIEs

In the 2009 survey, data were collected/extracted/ estimated so that the following characteristics of DIEs for FY2008 could be measured:

- Revenue
- Value added (revenue less cost of goods and services acquired)
- Wages and salaries
- Net operating surplus (Value added, less wages and salaries, less depreciation)
- Net investment income and taxes (Interest, dividends and rents received, less interest, rents and income taxes)
- Net profit before tax (Net operating surplus less net investment income)
- Dividends
- Reinvested earnings (Net profit before tax less dividends)

For the large three DIEs, data compiled from these items did not agree with data from the quarterly financial survey compiled by MCIT-IT. The financial survey uses a different approach and collects data on operating revenue and operating expenses. More recently for the financial survey data have been added for wages and salaries and depreciation.

In future, certain operations data (Value added, Wages and salaries, and Net operating surplus) for the three large DIEs could be obtained from the financial survey. This would require using a different formulae but one which is logically the same as that used to date. This is shown in the box on this page. This would avoid approaching the large three for the same data twice and ensure consistency between the two approaches.

There are reservations about the quality of data using either approach. To improve data quality over time, it is recommended that annual financial accounts data produced by the companies should be reconciled with operation data. If, through this process, errors are found in the operation data, the operation data could be revised. It is also recommended that consideration be given to improving the coverage of the financial survey, so that more ICT enterprises are included. These could be approached annually rather than quarterly.

Consideration could be given to collecting in an annual financial survey data on net investment income and taxes, net profit after tax, dividends and reinvested earnings.

Revenue/sales/Operating revenue
- Cost of goods and services acquired
= Value added
- Wages and salaries
= Gross operating surplus
- Use of capital (Depreciation)
= Net operating surplus
OR
Revenue/sales/Operating revenue
- Operating expenses
= Net operating surplus
+ Use of capital
+ Wages and salaries
= Value added

3.8 Strengthening the legal basis of the collection

In the previous report prepared by Tim Kelly and me, Recommendation 3 stated “Data collection would be more effective if the requirement to report were made a legal obligation”. The supporting statement pointed out that “already companies have some obligation in reporting to GAFI and ITIDA. These requirements should be codified and, if appropriate, extended to the necessary FDI data.” Certainly, data collection on FDI and the operations of DIEs would be made easier if there was a legal obligation to report. DIEs in the ICT sector have been slow to convince that it is in their interest to co-operate with the survey on a voluntary basis and there is a general culture of non or slow reporting. MCIT-IT staff has done well, although this has required the utmost effort on its part, to progress to the extent that they have. However, obtaining the necessary legislative authority may be difficult and may not greatly improve actual response. The issue of some form of compulsion in reporting ought to be kept under review.

3.9 Staff training and development

MCIT-IT staff has a strong sense of commitment and ability and has made very remarkable progress. Unfortunately, they have not received any formal training such as that offered by the IMF in regional BOP and national accounts courses (usually about 2-3 weeks), nor do they have strong qualifications in accounting. It is recommended that MCIT-IT staff attempt to gain places on suitable IMF courses (the GICT and the author could make representations on this) and seek to undertake some accounting training.

Chapter Four: Recommendations and next steps

This project has provided an opportunity for the MCIT-IC team to work alongside an international team of experts in together tackling a complex set of problems. The MCIT-IT staff members, and on this occasion, Heba Yousuf and Ehab Alayaby, are to be congratulated for achieving a remarkable outcome in a very short timeframe. The experienced gained, both by MCIT-IC and the respondents, will facilitate better data collection in future.

Recommendation 1: The results published in this report, modified on the basis of any additional data received, should be published in the near future.

Recommendation 2: Data on FDI stocks and flows continued to be collected and that DIE operations data collected in respect of FY2011, or earlier if possible.

Recommendation 3: Continued efforts should be made to improve response in the FDI survey and overtime steps be taken to obtain data, on say a three or four yearly cycle, from smaller DIEs in the ICT sector.

Recommendation 4: In respect of each individual DIE:

- a) Profiles ought to be updated each year to take account of restructures, mergers and demergers, any major events affecting the companies.
- b) Annual reconciliations should be undertaken of FDI survey data and data available from other sources such as the financial survey, published accounts, and GAFI.
- c) The results of profile reviews and annual reconciliations, and reviews of data reported in the FDI survey should be discussed with appropriate DIE staff with a view to obtaining a better understanding of the factors behind reported numbers and generally improving data quality.

Recommendation 5: The treatment of Orascom should be discussed with national accounts compilers to ascertain their view on the appropriate sector to include this company. This

recommendation assumes that Weather will continued to be treated as a DI. **The treatment of reinvested earnings should be changed only to record reinvested earnings between the DIE and its immediate DI.** This would bring the treatment of reinvested earnings into line with that recommended by *BPM6*.

Recommendation 6: Inconsistencies between the approach taken in the financial survey and FDI survey measurement of the operations of DIEs be reviewed and resolved.

Recommendation 7: Should data collection from DIEs continue to meet with insufficient co-operation, that considering should be given to providing a stronger legal basis for the survey of FDI.

Recommendation 8: MCIT seek opportunities for MCIT-IT staff involved in data collections to receive training on IMF regional courses on BOP and national accounts and training in accountancy.

Annex A: Profiles of DIEs in the ICT sector

(a) Etisalat Misr

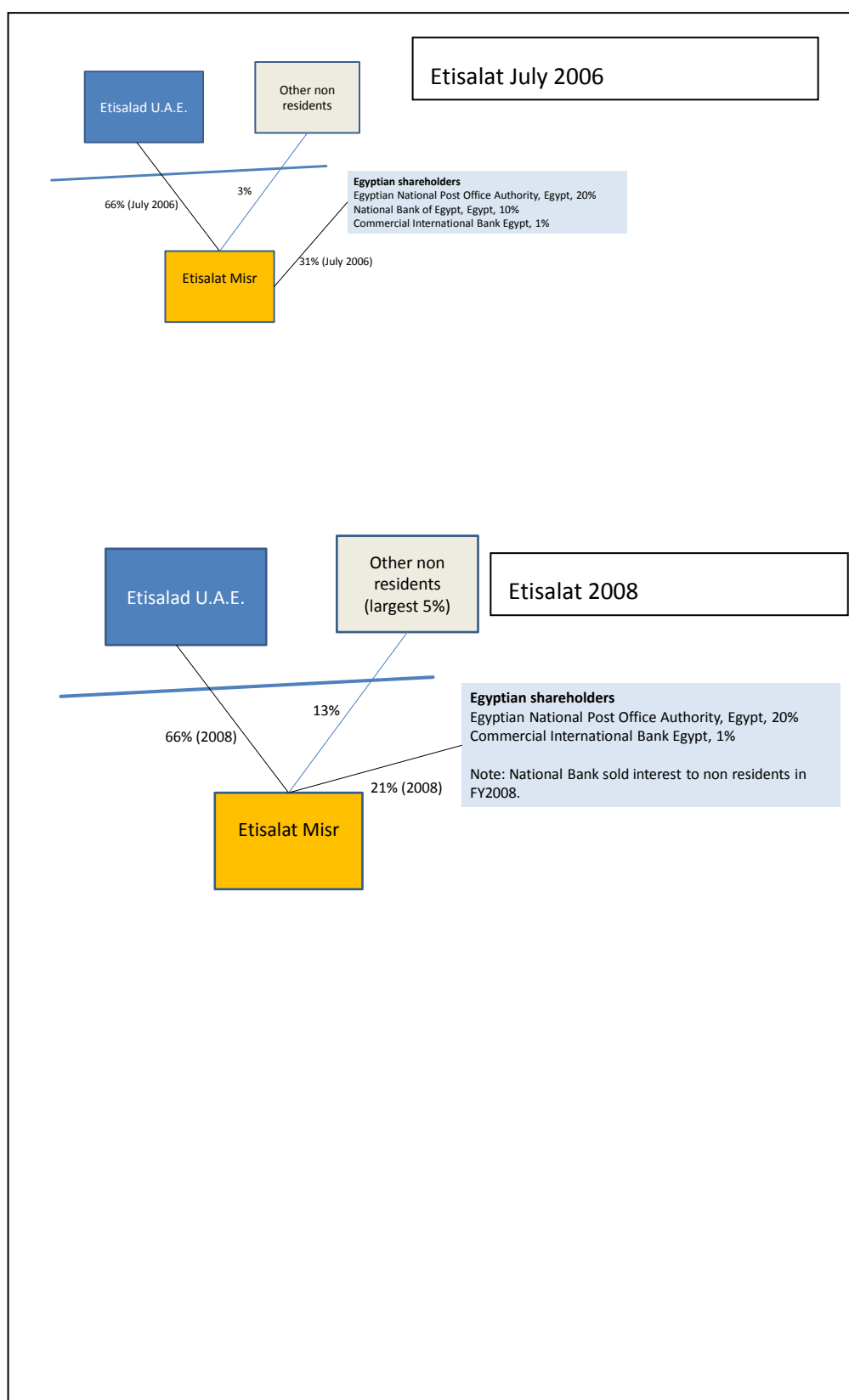
In July 2006, Etisalat Misr was established with Etisalat U.A.E as the DI (holding 66%), with portfolio investors holding 3%. (This assumes that these foreign shareholders are not related to Etisalat U.A.E.) Resident shareholders held 31%. Etisalat is a subsidiary and DIE of Etisalat U.A.E.

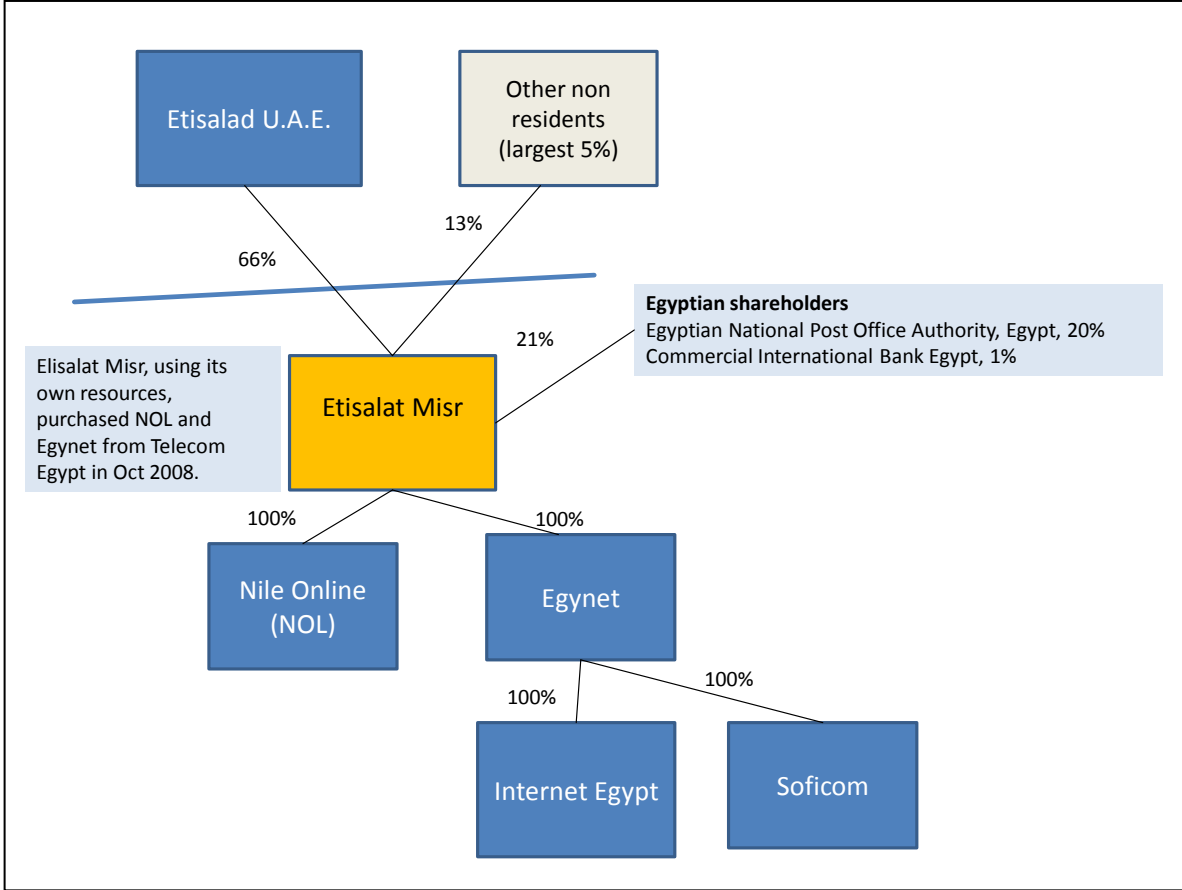
Note, a portfolio investor does not have influence in the management of the DIE and therefore can be ignored for purposes of calculating FDI.

In FY2008, the National Bank of Egypt sold its 10% shareholding to foreign shareholders. Apart from the DI, none of the foreign shareholders holds 10% or more of the shares, nor is any related to the DI, and so they are regarded as portfolio investors and hence are not included in FDI.

In October 2008 Etisalat Misr acquired 100% ownership in NOL and Egynet and Egynet's subsidiaries (see diagram next page). Each is a subsidiary and DIEs of Etisalat U.A.E. As these purchases were financed from Etisalat Misr's own resources, no FDI took place.

Etisalat has advised that NOL, Egynet, Internet Egypt and Soficom remain as separate legal entities and their operations are not merged with Etisalat. Therefore, for national accounts and operations of DIEs statistics, each should be approached separately.





(b) Mobinil

Mobinil has two shareholders, Orange and Orascom. Mobinil is a subsidiary of Orange and therefore its DIE. As Orascom is a subsidiary of Weather (50% + one share), a DI, and Mobinil is an associate of Orascom, Mobinil is an associate and DIE of Weather.

Weather is a DI because it is incorporated outside of Egypt (Italy), even though it is majority owned by Egyptian residents. Note there is a major

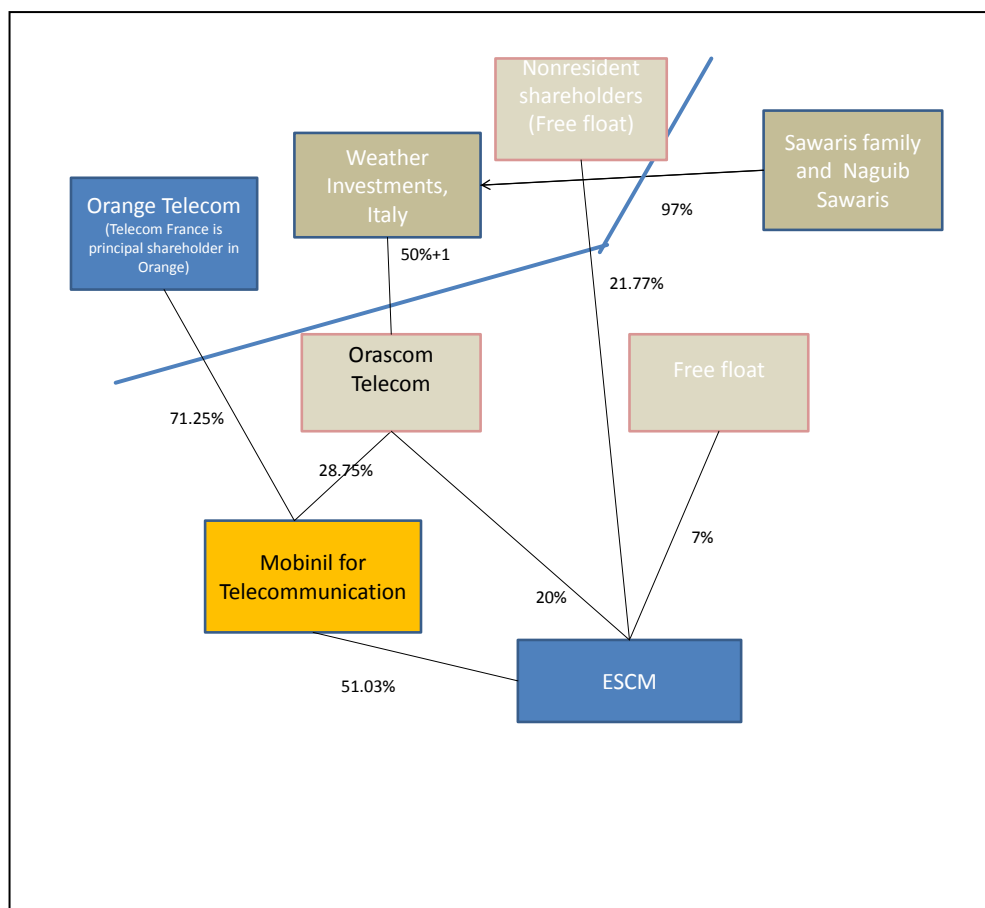
restructuring of Orascom’s shareholding possibly about to occur.

ESCM is a subsidiary of Mobinil and therefore a DIE of Orange. It is also a DIE of Wether as it is a direct associate of Orascom and an indirect associate of Orascom through Mobinil.

For measuring FDI in Mobinil and ESCM, only immediate investment by Orange in Mobinil is of relevance, as Mobinil’s and ESCM’s links to Weather and ESCM’s links to Orange are not immediate links. The 21.77% foreign shareholding in ESCM is thought to be portfolio investment (because, as far as we know, no individual or group of shareholders holds 10% or more of the shares, and none of the foreign shareholders is related to Orange or Weather) and therefore does not enter into the calculation of FDI.

For operation purposes, Mobinil and ESCM are consolidated and therefore should be treated as one unit in national accounts and operations of DIEs statistics.

Orascom is a DIE of Weather, but it is not regarded as an ICT company and hence is outside the scope of the FDI survey.



(c) Vodaphone

The shareholders in Vodaphone in FY2006 were the Vodaphone group holding 50% and Telecom Egypt holding 50%. The Vodaphone group was therefore a DI and Vodafone Egypt an associate and a DIE.

In FY2007, the Vodaphone group purchased a further 5% from Telecom Egypt, giving it a 55% shareholding. Vodaphone therefore becomes a subsidiary of the DI.

In June 2007, Vodaphone Egypt purchased Raya (100%) and in April 2008 Sarmady (100%). These acquisitions therefore become subsidiaries of the DI and DIES.

These purchased were financed from Vodaphone Egypt's own resources and so no FDI was involved.

Raya and Sarmady remain separate legal entities and Vodaphone Egypt has indicated that their accounts will be kept separate. Therefore, for purposes of compiling national accounts statistics and statistics on the operations of DIES, the subsidiaries would need to be approached separately.

