

Statistical Compilation of the ICT Sector and Policy Analysis Project Orbicom



a research project funded by Canada's
International Development Research Centre

EGYPT

Statistical Compilation of the ICT Sector and Policy Analysis

ORBICOM - ICT sector project, Montreal Workshop,
May 20-22, 2009

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ICT Measurement in Egypt

- During the World Summit on the Information Society (WSIS) (Geneva 2003 – Tunis 2005) “Measuring the Information Society” – It was called upon all countries and regions to develop tools to provide statistical information on the information society.
 - Since then, many international organizations have worked on developing ICT indicators and setting statistical standards to measure ICT infrastructure, usage and impact in countries.
 - In this regard, The Ministry of Communication and Information Technology (MCIT) in Egypt has conducted a number of projects in cooperation with international organizations for “ICT measurement in Egypt”.
 - Egypt’s ICT indicators follow the international standards set by international organizations but more importantly, it also cater to the local conditions in Egypt. There are two sets of indicators both hard indicators and soft indicators.
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ICT Measurement in Egypt

Vision

Developing and improving the measurement of ICT use and impact in Egypt, following international standards; so as to show the progress witnessed in ICT sector.

ICT Measurement in Egypt

Goals

- Building a database for ICT indicators within MCIT to measure and analyze the ICT sector in Egypt according to international standards.
 - Monitoring ICT usage in Egypt within different sectors and across the country; targeting lagging regions behind in order to bridge the digital divide between urban and rural areas.
 - Providing decision makers with up-to-date and accurate ICT indicators to help them in setting the policies and strategies pertaining to ICT sector.
 - Providing international organizations with data on the required indicators reflecting the image of the information society in Egypt.
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ICT Measurement in Egypt

Sample of ICT Measurement

Impact

- “The impact of the ICT sector on the Egyptian economy”, a project that measures the impact of ICT on economic growth, employment and exports.

Intensity

- "Information and Communication Technology Indicators Project“, in cooperation with the Central Agency for Public Mobilization and Statistics (CAPMAS) with the aim of measuring ICT usage within different sectors of the Egyptian society.

Readiness

- Measuring ICT infrastructure, skills, performance, cost and prices.

ICT Value Added Measurement

Background

- Egypt is following the value added method in calculating ICT GDP.
- In 2007; MCIT has suspected that the real ICT component of GDP released by Ministry of Economic Development (MOED) underestimates the sector performance for two reasons:
 1. Their figures were not based on actual financial figures of ICT companies, instead it was based on a roughly estimates.
 2. MOED used an overestimated deflator for communication prices based on Consumer Price Index (CPI) to calculate ICT value added at constant prices.

CALCULATION OF EVA. FORMULA

The basic formula for calculating EVA is:

Net Sales
- Operating Expenses

Operating Profit (EBIT)
- Taxes

Net Operating Profit After Tax (NOPAT)
- Capital Charges (Invested Capital x Cost of Capital)

Economic Value Added (EVA)

ICT Value Added Measurement ..

Correcting the calculation method

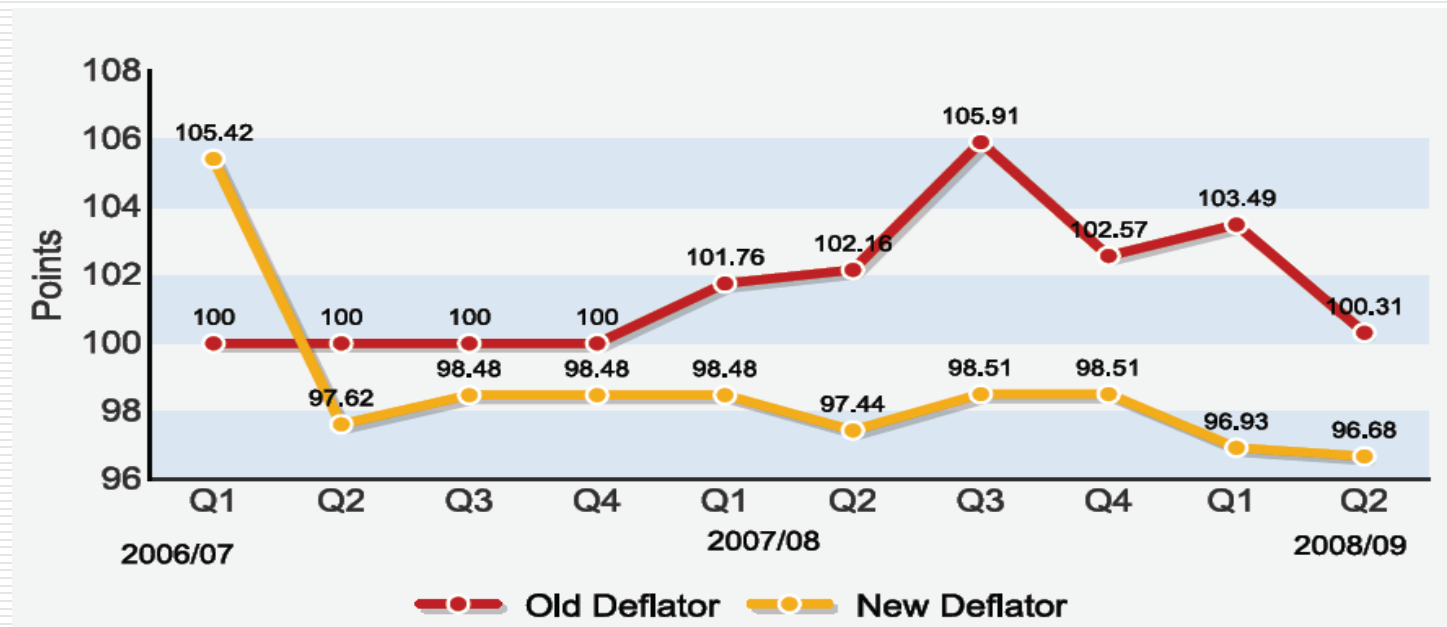
- In 2008; MCIT has conducted a project with the World Bank to develop and correct the calculation method of ICT value added at fixed prices to better reflect the tremendous growth in Egypt's ICT sector.
 - The correction method depends on:
 - Cooperation with ICT companies to provide Ministry of Economic Development with actual financial data of ICT sector on quarterly basis.
 - Developing a New Price Index (Deflator) for the ICT Component of GDP in Egypt to calculate ICT value added at constant prices.
 - A quarterly price index for ICT services has been developed, based on a representative basket of the telecommunication services available in Egypt, starting from first quarter of the year 2002 to the present.
 - The new index has four subcomponents:
 - Fixed line telecommunication services.
 - Mobile telecommunication services.
 - Internet services.
 - Postal services.
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ICT Value Added Measurement ..

Correcting the calculation method

Continued

1. Correcting the trends of ICT services' prices in Egypt:

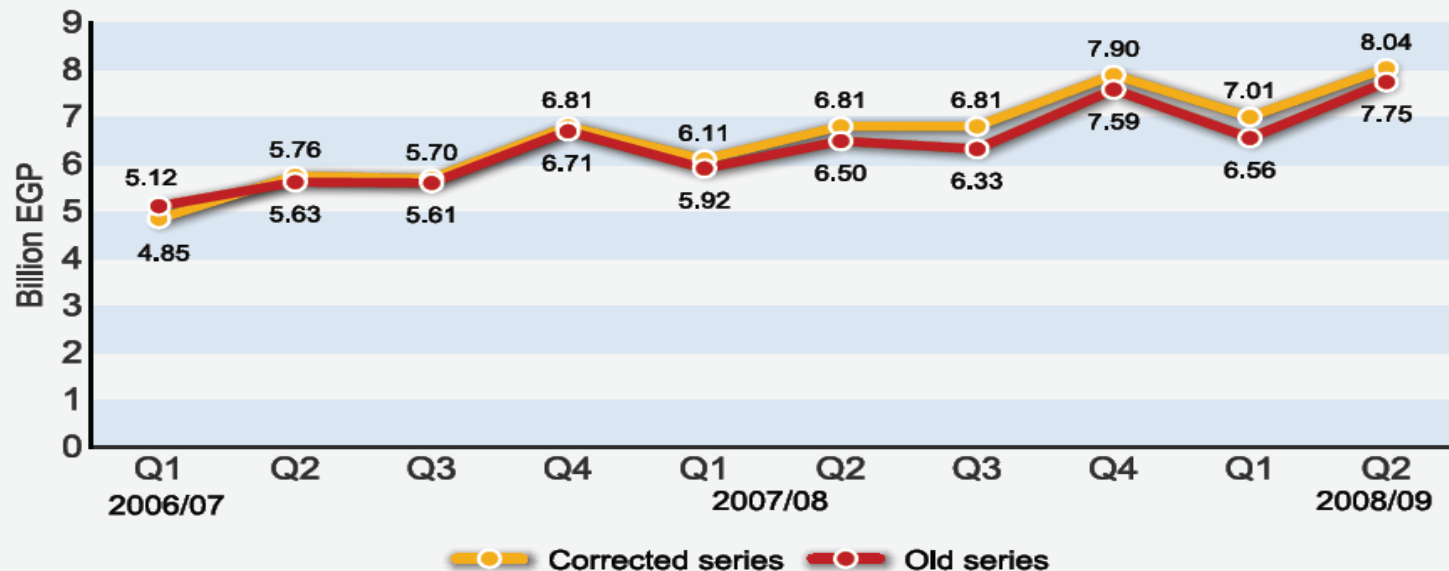


ICT Value Added Measurement ..

Correcting the calculation method

Continued

2. Correcting the ICT Component of GDP at constant prices in Egypt:



Classification Concordance

- Until 2003/2004; ICT sector was included within transportation and storage sector in Egypt's national account, the sector has been emerged as a separate sector in the national accounts started from 2004/2005.
 - Based on the latest recommendations of United Nations; Egypt has followed ISIC Rev. 4 as the adopted classification in "The Latest Establishments Census".
 - This census is conducting once every 6 years and includes ICT companies in addition to other companies work in other economic activities.
 - Egypt is facing some challenges in this regard as:
 - The coverage of ICT companies in this census is not quite comprehensive as it doesn't include many newly established ICT companies after 2006.
 - It is highly needed to reconsider and validate the application of ISIC Rev. 4 on ICT companies to reflect and include the most active segments in ICT sector.
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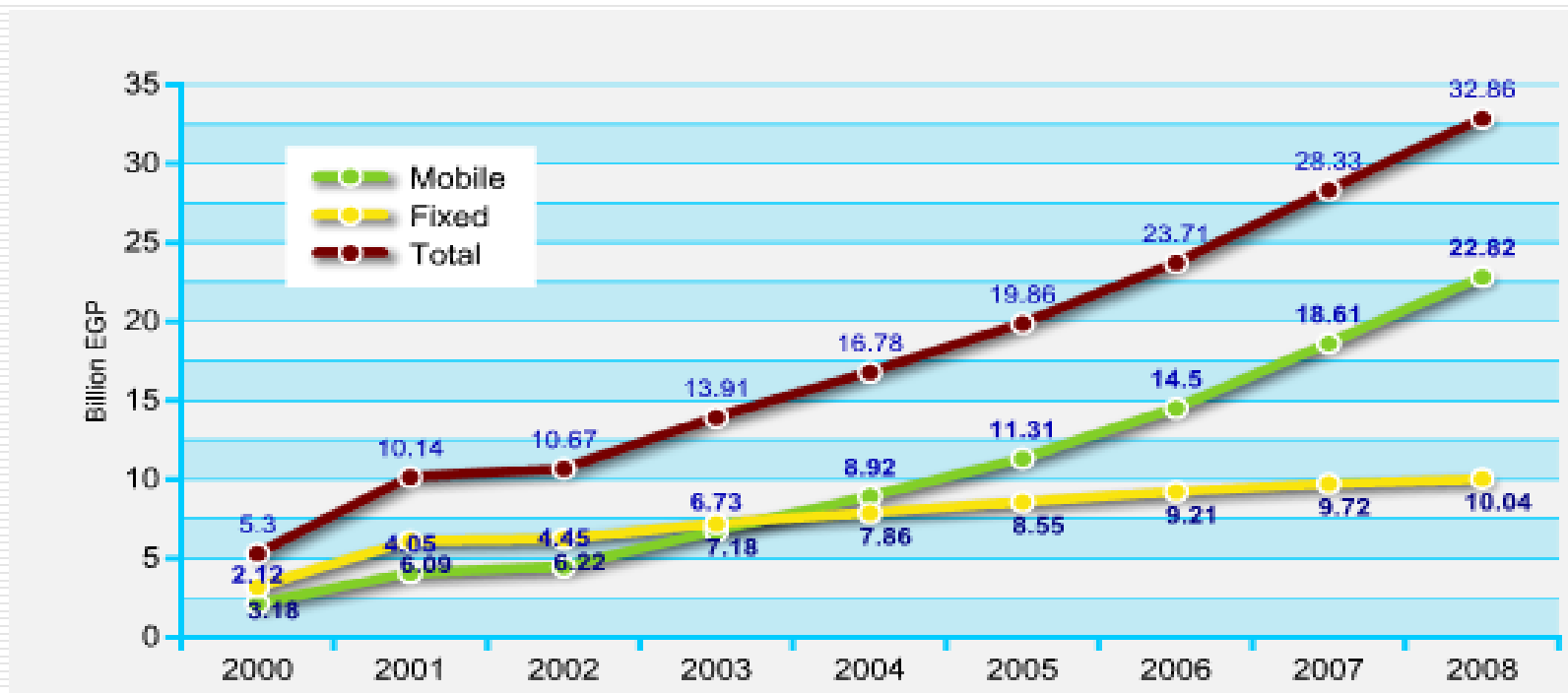
Classification Concordance

Continued

- In order to face the abovementioned challenges; MCIT is adopting an ambitious project to classify 50 of the most active and promising ICT companies -according to their contribution in ICT value added and employment- using ISIC Rev. 4.
- This representative sample of ICT companies will facilitate the process of calculating many important ICT indicators through field surveys.
 - These indicators include:
 - ICT value added.
 - ICT employment.
 - ICT investment (Local and foreign).
 - Innovation in ICT sector.
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Variables and years to be used in the statistical compilations

1. ICT Revenues

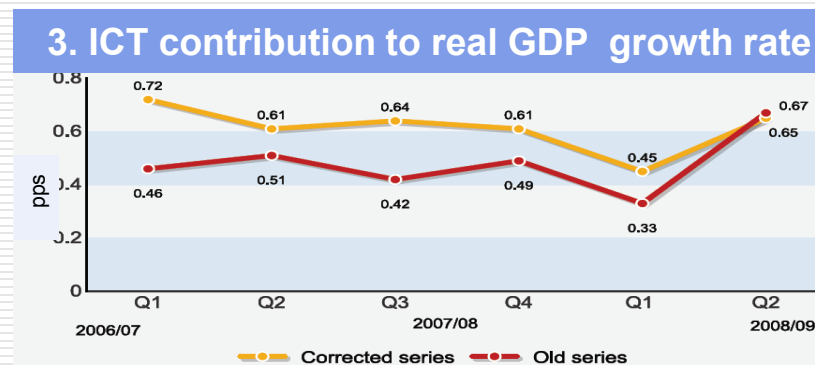
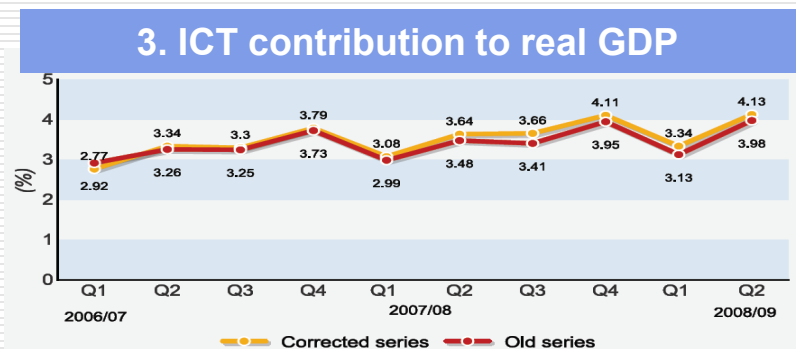
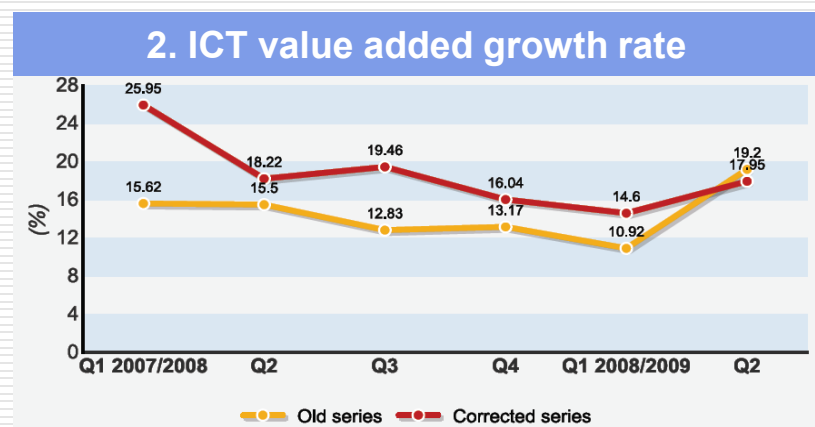
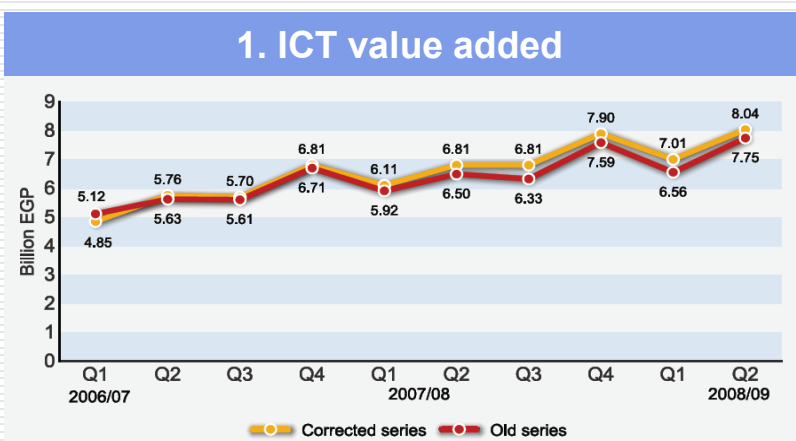


Source: MCIT

Variables and years to be used in the statistical compilations

Continued

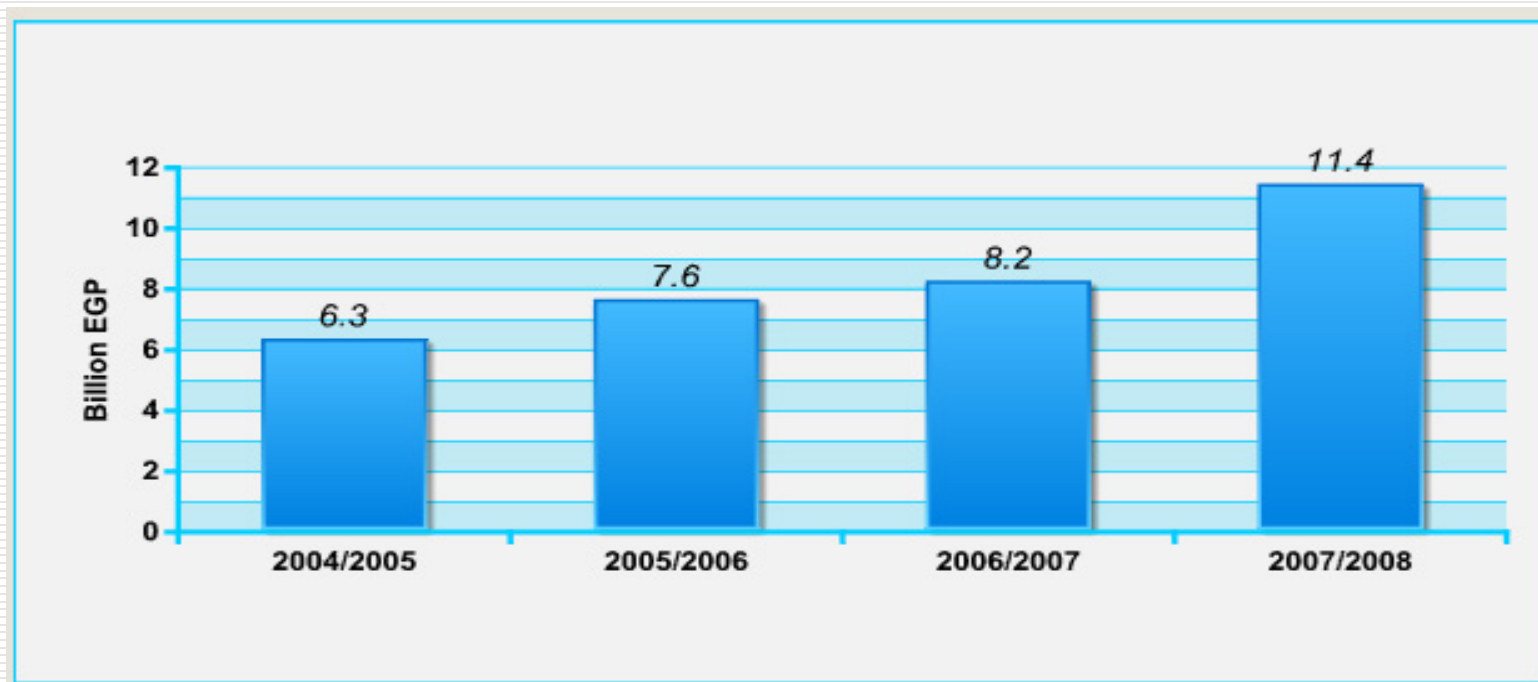
2. ICT value added



Variables and years to be used in the statistical compilations

Continued

3. ICT Implemented Investments

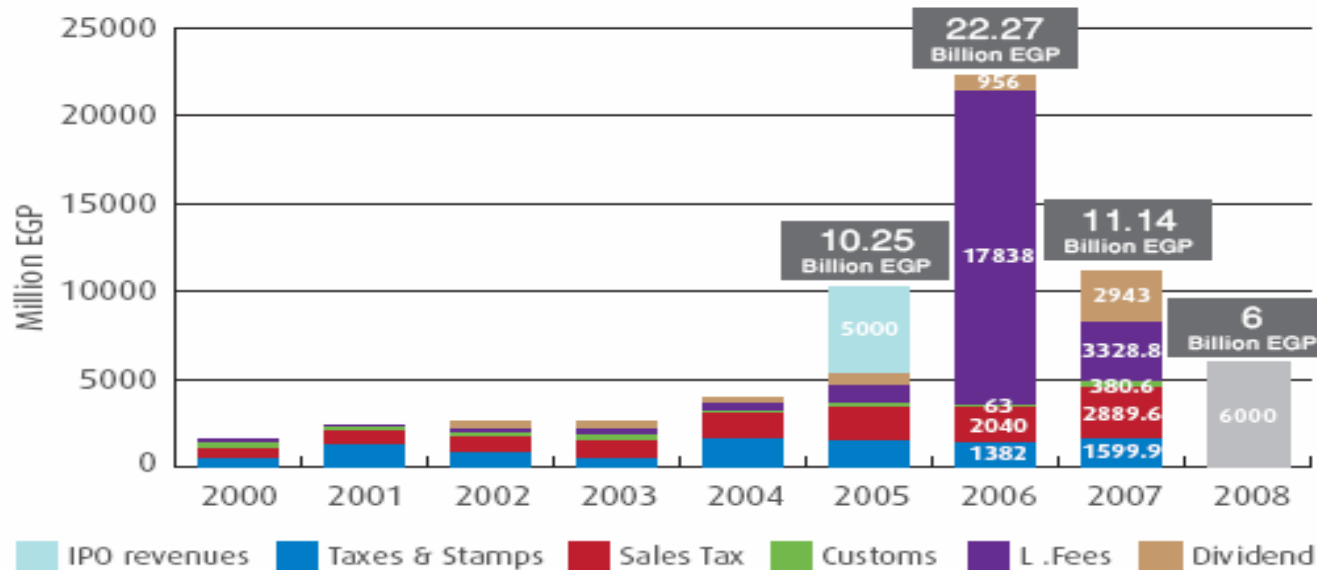


Source: MOED.

Variables and years to be used in the statistical compilations

Continued

4. ICT contribution to the treasury

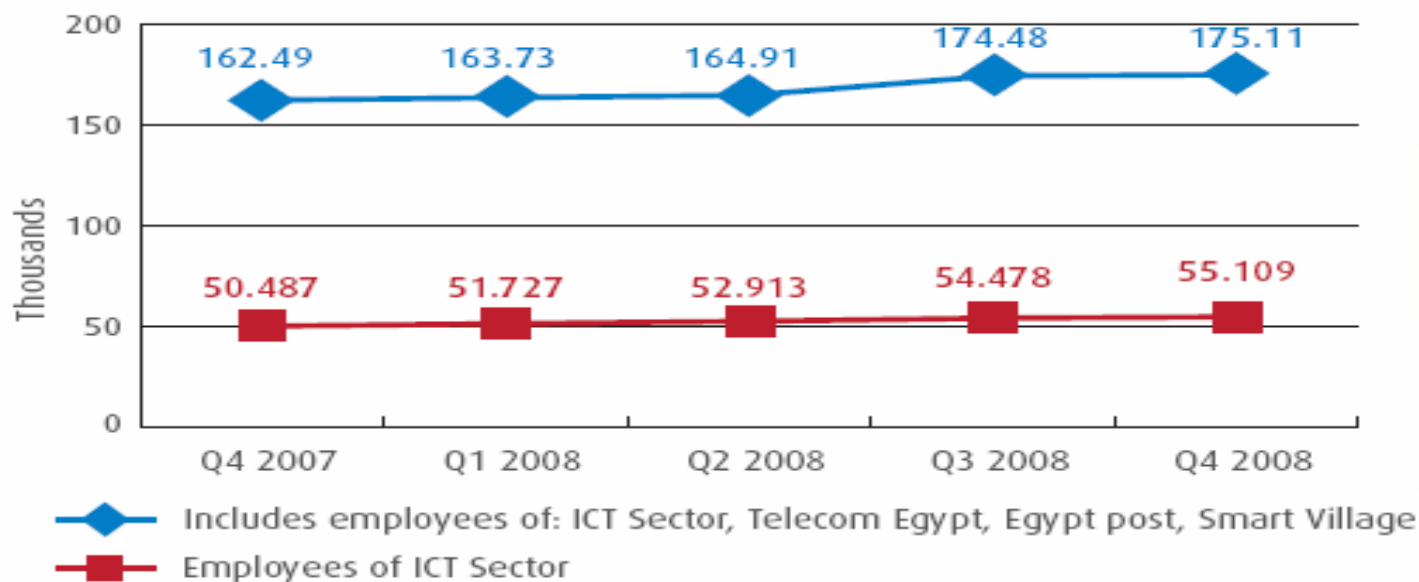


Source: Ministry of Finance

Variables and years to be used in the statistical compilations

Continued

5. ICT Direct Employment



Source: Ministry of Investment, General Authority Investment and Free Zones

Variables and years to be used in the statistical compilations

Continued

6. R&D in ICT sector

- Centers of Excellence * :
 - Data Mining and Computer Modeling Center .
 - Wireless Communication and Electronic Design Center.
 - Technology Incubation Program (TIP)**
 - Number of Technology incubators 20 incubators.
 - Technology Development Fund***:
 - Provided funds 50 Million.
- Planned funds 150 Million.
- IBM will establish a nanotechnology research center in Egypt, developing a services science university curricula and launching a Global Service Delivery Center based in Egypt. Egypt's first Nanotechnology Center is also the first in North Africa.

* The **R&D Centers of Excellence** are created in the form of consortiums consisting of leading local and multinational industrial organizations operating in Egypt from both the private and public sectors, as well as Egyptian universities and research institutions. Creating mechanisms for collaboration between academic and industrial institutions on the local and international levels is a key feature and goal of MCIT's R&D centers

** **Technology Incubation Program (TIP)** aim at leveraging innovation in Technology to create a new tier of seed companies & startups that contribute towards economic development, create wealthy job opportunities, increase Egypt patent recognition and as a result increase exports of ICT products

The Technology Development Fund (TDF) is the Middle East pioneer in providing venture capital to innovative, early-stage Egyptian IT companies. TDF was founded in 2004 with the mandate of driving the growth of innovative Egyptian startups in the Communications and Information Technology fields through providing them with the most comprehensive set of venture capital financing and venture development services.

Data sources

Hard Indicators:

■ Local Sources:

- National Telecommunication Regulatory Authority (NTRA).
- Telecom Egypt.
- Mobile Operators.
- Egypt Post.
- General Authority for Free zones and Investment.
- Ministry of Finance.
- Ministry of Economic Development.
-

■ Foreign Sources:

- ITU.
- WB.
- UNCTAD.
- Comtrade.
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Soft Indicators:

■ ICT usage surveys:

- ICT usage by households and Individuals.
- ICT usage by businesses.
- ICT usage by government.
- ICT usage in IT clubs.
- ICT usage in Internet Cafes.
- ICT usage in education.
- ISP s survey.

■ This surveys are conducted annually within a project aim at measuring the information society in Egypt”.

■ The project has the largest scope in the Arab region.

Denominators

■ Hard Indicators:

e.g. ICT value added:

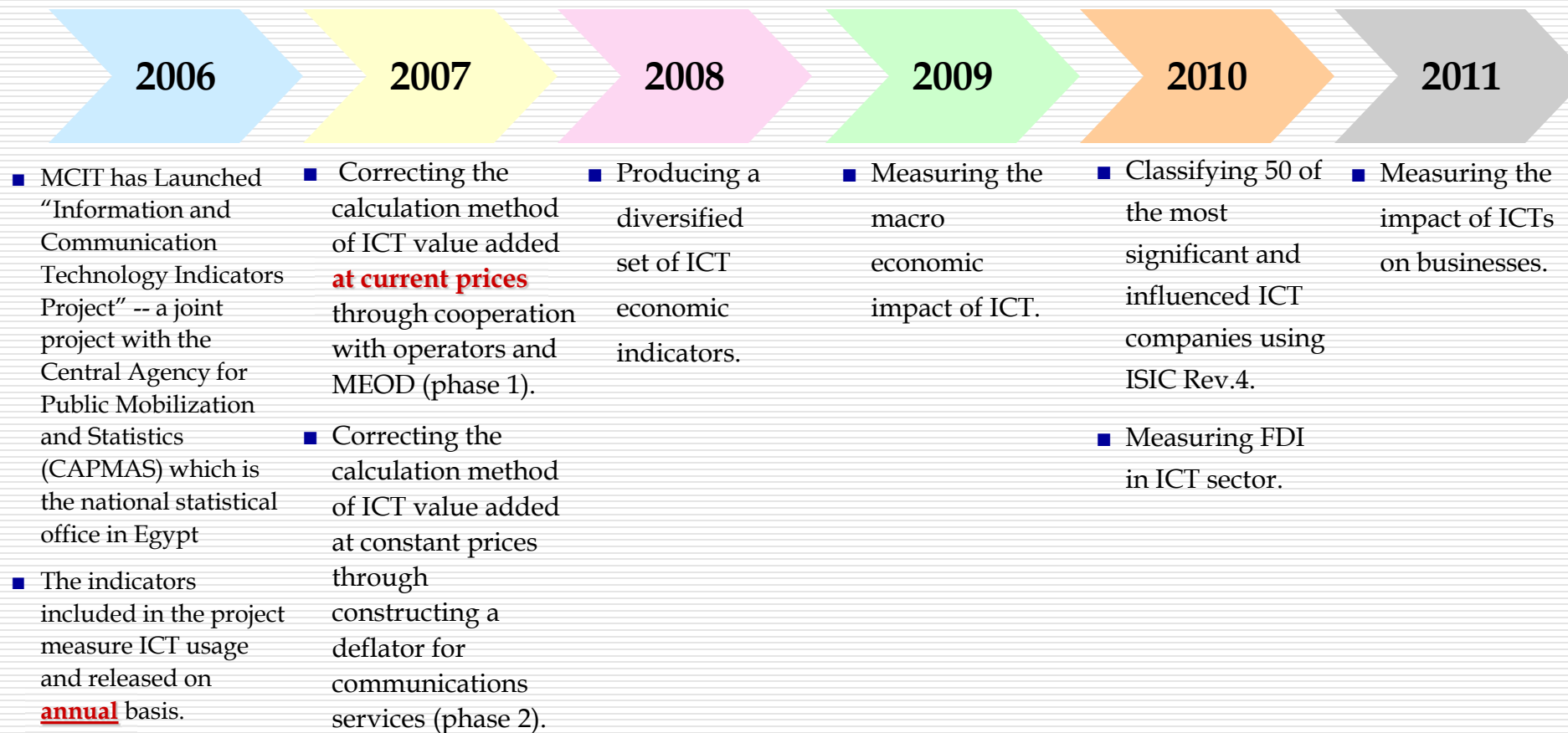
- Total GDP.
- Private sector GDP (as a denominator for ICT private value added).
- Government sector GDP (as a denominator for ICT government value added).
- Services sectors GDP.
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■ Soft Indicators:

e.g. ICT usage by households and Individuals:

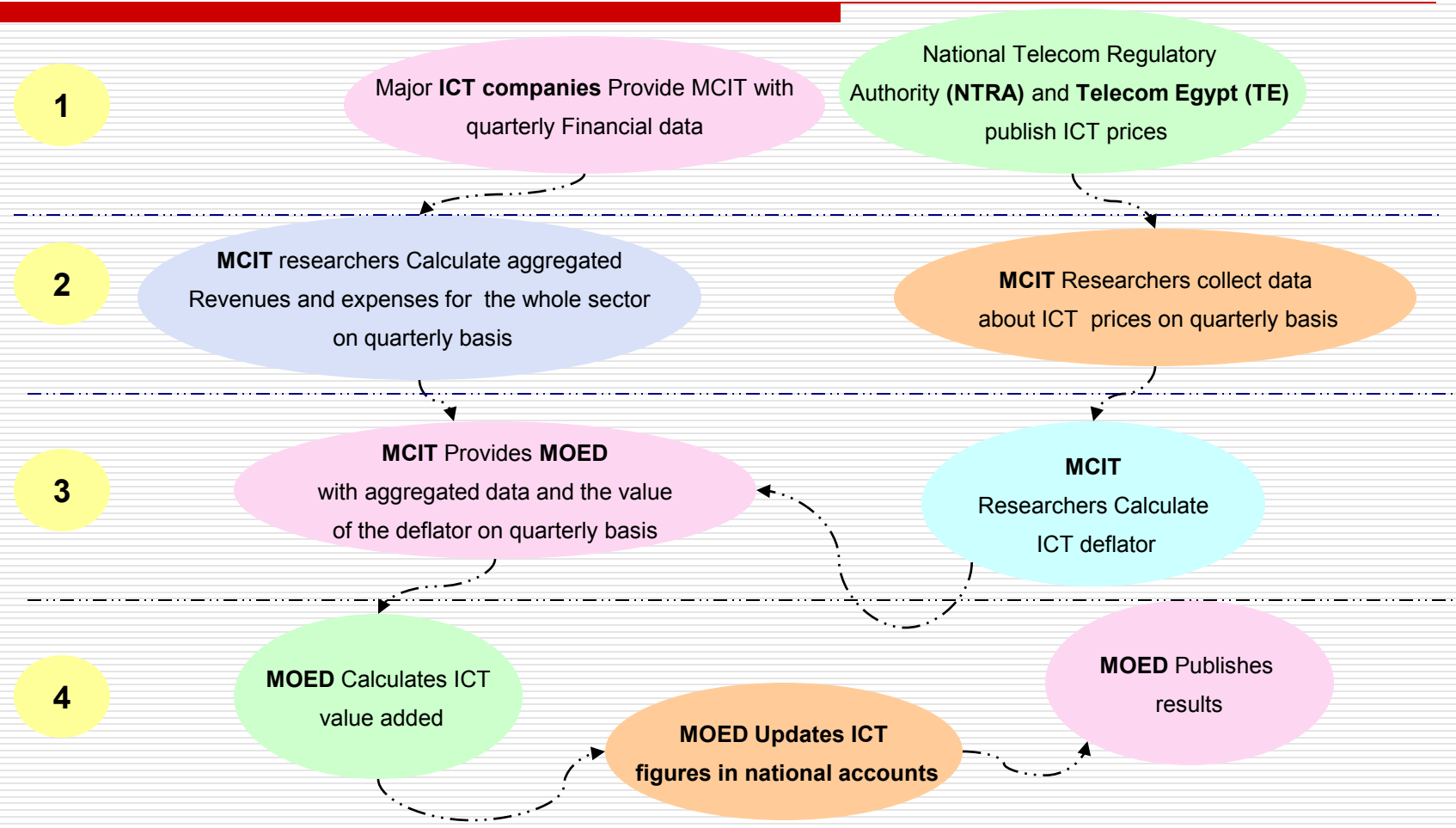
- Total households/individuals in scope.
 - Total households/individuals using computer.
 - Total households/individuals using internet.
 - Total households/individuals using mobile.
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Timetable of the project plan



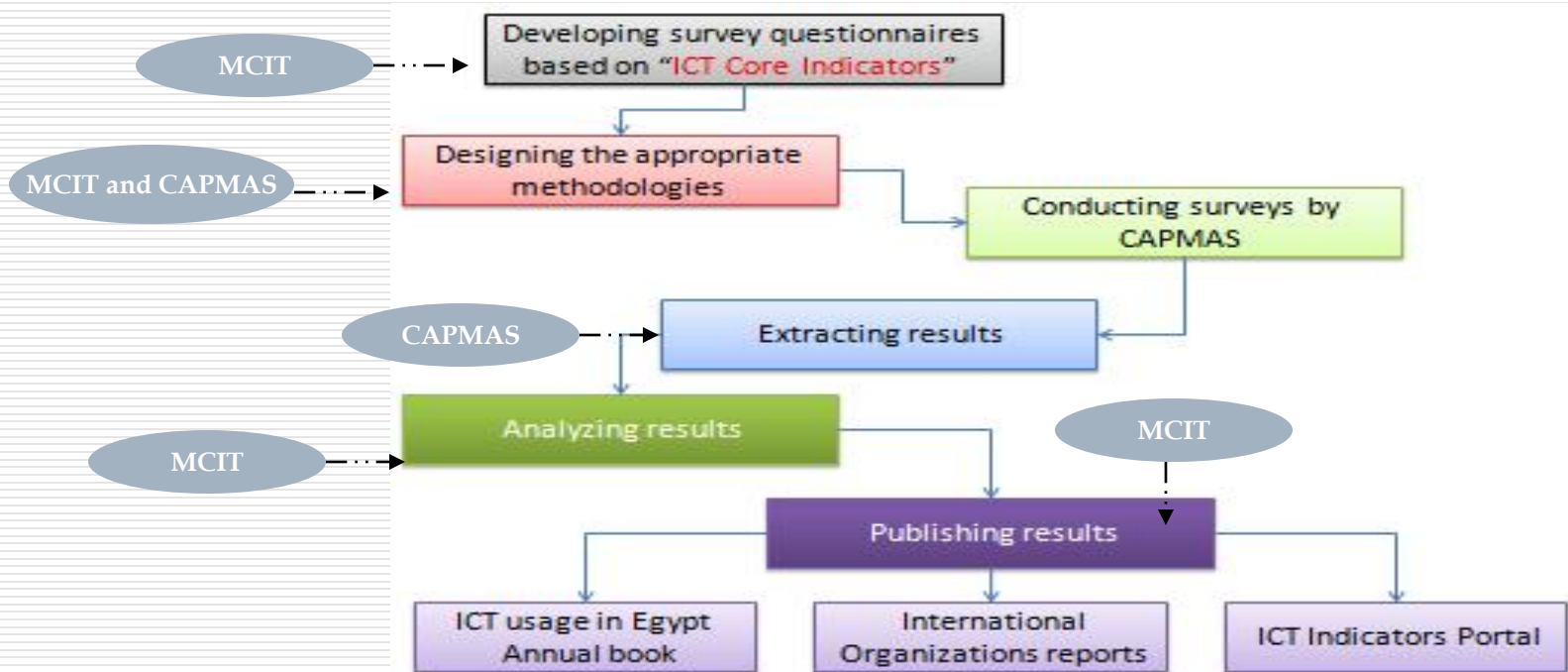
Communication issues

Hard Indicators .. e.g. ICT value added



Communication issues

Soft Indicators .. e.g. ICT usage surveys



- ❑ A joint high level committee from MCIT and CAPMAS meets monthly to follow up the progress of the project, which is formalized through an protocol signed annually between the two parties.
- ❑ This success story has been achieved through continuous and sincere cooperation between MCIT and CAPMAS, which is considered to be one of a kind in the MENA region.

Thanks
