

TWINNING CONTRACT

Institutional Capacity Building for the Central Agency for Public Mobilisation and Statistics (CAPMAS) and Developing the Legal Framework for Statistics in Egypt

EG/07/AA/F106



MISSION REPORT


on

Data processing: quality change, missing observations, seasonal products, treatment of rents, special cases and electronic price collection

Component no 5.4.4

Mission carried out by Ms Christina Telasuo and
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List of Abbreviations

CAPMAS	Central Agency for Public Mobilisation and Statistics
CAA	Central Agency for Accounting
CBE	Central Bank of Egypt
CPI	Consumer Price Index
EU	European Union
GDP	Gross Domestic Product
HICP	Harmonised Index of Consumer Prices
HICP-CT	Harmonised Index of Consumer Prices - Constant tax
IMF	International Monetary Fund
IT-	Information Technology
MOED	Ministry of Economic Development
MEDSTAT	EU Statistical Co-operation with Mediterranean Countries
MOA	Ministry of Agriculture
MOF	Ministry of Finance
NA	National Accounts
PPI	Producer Price Index

Executive Summary

This mission report was prepared within the Egyptian-Danish Twinning Project “Institutional capacity building for the central agency for public mobilisation and statistics”. This was the second mission to be devoted to Assessment of the State of the Egyptian Consumer Price Index within Component 5.4. “Development of certain statistical areas” of the project.

This mission 5.4.4 was aimed at improving CPI methods in the field of data processing, namely quality adjustment and other special circumstances and at facilitating the planning of adopting electronic price collection. During this second action the following aspects of CPI methodology were studied carefully, with an aim of improving the quality of Egyptian CPI compilation:

- **Quality change and methods of quality adjustment**
- **Missing price observations**
- **Seasonal products**
- **Treatment of rents**
- **Special cases**
 - **Insurances**
 - **Discounted prices**
- **Electronic price collection**

During the visit EU experts obtained a good overview of the treatment of replacements, seasonal products, missing prices, rents and some special cases. An interesting discussion was also conducted about electronic price collection. The Terms of reference of the mission and the agenda of the mission are given in the annexes to this report.

1. General comments

The purpose of the mission was to have a workshop where EU experts and CAPMAS officials could work together and discuss the possibilities of new methodologies. The aim was to define further improvements in the Egyptian CPI methodology in the field data processing. The aim was also to discuss the possibilities and challenges of electronic price collection.

1.1 Expected Results

Proposals for new methodology or improvements in the area of quality change, missing observations, seasonal products, treatment of rents and specific products including also a tentative plan on how CAPMAS could change the CPI production system from the present partly manual one to one using hand held computers.

In general the Egyptian Consumer Price Index procedures are well in accordance with international standards. No major problems showed up in the subjects of this mission. Methodological improvements are, of course, always most welcome despite of this fact.

The consultants would like to thank all officials and individuals they met for the kind support, valuable information and interesting discussions during their visit in Egypt, which highly facilitated the work of the consultants.

2. Assessment and results

2.1 Egyptian CPI methods concerning quality adjustment, seasonal products, missing observations, treatment of rents, special cases and electronic price collection

The main topics of mission 5.4.4 were the treatment of replacements and the quality adjustment methods connected with them. The treatment of seasonal products, missing prices, rents and special cases were other main subjects of the mission. A whole day was dedicated to a discussion of electronic price collection. The Egyptian counterpart actively informed the EU experts about the methods in use in compiling the Egyptian CPI.

2.1.1 Quality adjustment

An introduction of quality adjustment methods was given by the EU experts. This introduction was based on the CENEX handbook on quality adjustment methods produced by Eurostat. The starting point was the basic concept of replacements. The methods of option pricing, bridged overlap and supported judgemental quality adjustment were presented. A brief overview of hedonic methods was also given. Furthermore, the problematics of replacements were discussed in general.

CAPMAS officials presented their treatment of replacements. No explicit quality adjustment methods are in use at the moment. In the case of replacements, the price collectors are instructed to find as identical a product as possible. Direct comparison is the most common way to deal with replacements. Only in very few cases is the method of 'link-to-show-no change' used. In most of the cases of missing products the price collectors are instructed to wait for one or two months if the same product offer will pop up again.

2.1.2 Seasonal products

CAPMAS officials presented the methods in which seasonal products are treated in the Egyptian CPI. All seasonal products are included in COICOP group 01, food and beverages. The method presented by Egyptian officials was to impute the out-of-season prices with on-season prices belonging to the same COICOP subgroup. This method is well in line with international recommendations. No further improvements are needed at the moment.

2.1.3 Missing observations

Missing prices in the Egyptian CPI are treated in the same way as seasonal products, i.e, they are imputed with other price observations from the same COICOP subgroup. This is done for a maximum of two months, after which a replacement is done. In some cases the missing price of the product offer is collected from another outlet. A spare list of equivalent outlets in the same region is provided to the price collectors by CAPMAS.

2.1.4 Treatment of rents

A labour survey is conducted every three months in Egypt. In this survey questions are also made of actual rents paid by the consumers. This information is then used to compile the sub-index of rents. The base of the sub-index of rents is made up of 200 price observations.

2.1.5 Special cases

The special cases of insurances, mobile calls and discounted prices were also discussed. Only health care insurances are included the Egyptian commodity basket and there are no repayments connected. Mobile call prices are provided by the operators, already calculated as average prices.

In the Egyptian CPI discounted prices are ignored. No sales prices, special offer prices or the like is included in the index. The price collectors are instructed to collect only normal prices. Only very long-term discounted prices are entered into the index, when they are seen to have become normal prices.

2.1.6 Electronic price collection

Wednesday was devoted to the case of electronic price collection. The EU experts shared their knowledge in the area. The entire process of changing paper sheets for electronic devices was discussed. All the aspects of data transfers, data security, help desk functions, application design, choice of device, etc., were presented and discussed.

2.1.7 Summary

During the last mission day the EU experts and CAPMAS officials discussed and summarized all the subjects and aspects and that had been presented earlier during the visit. The first preliminary results and findings were also presented by the EU experts.

3. Conclusions and recommendations

3.1 Proposals concerning an assessment of the current Egyptian CPI methods

Proposal 1: Quality adjustment

CAPMAS should consider beginning to use explicit quality adjustment methods in at least some item categories, most preferably in household appliances, cars and household electronics.

Responsible institute: CAPMAS

Deadline: During the project, before September 2010

Proposal 2: Missing prices

CAPMAS should consider changing their treatment of missing prices in some aspects. Replacements should be made earlier, there is no need to wait for product offers to come re-enter the market for two months, if they do not represent a well known brand which is likely to always be on the market. This is particularly true in the case of household appliances and household electronics where the models change frequently.

The imputation of missing prices is perhaps also problematic. Often the real price change is lost in CPI calculation. The way to avoid this problem is to exclude the missing prices from index calculation. When a replacement has taken place, the comparison could be made directly between the old and new product, either through direct comparison or through quality adjustment methods. If the replacement product offer is not comparable with the replaced product a 'link-to-show-no-change' procedure should be used.

Responsible institute: CAPMAS

Deadline: During the project, before September 2010

Proposal 3: Treatment of rents

The Labour Survey is conducted quarterly and gives data also on rents. The number of price or rent observations is only 200. CAPMAS should consider increasing the number of price observations considerably. Furthermore, it is important to cover all market segments of the rental market in the CPI calculation, i.e., the regulated, old and the new contracts according to their consumer expenditure weights.

Responsible institute: CAPMAS

Deadline: During the project, before September 2010

Proposal 4: Special cases

The special cases that came up in discussion were insurances and discounted prices. As regards discounted prices, CAPMAS should include them in the CPI calculation. By this we mean only those discounted prices which are available for all consumers. What we refer to are temporary price reductions and clear-stock sales.

As regards insurances, CAPMAS should study if the consumption expenditure of other than health care insurances is high enough to be included in the consumer price index basket.

Responsible institute: CAPMAS

Deadline: During the project, before September 2010

Proposal 5: Electronic price collection

CAPMAS should start planning for changing the price collection system to an electronic one. The starting point would be to ensure financing for all parts of such a project.

The current paper questionnaire will be replaced with an electronic questionnaire. All the price data will be sent directly after the price collection to Cairo via e-mail or internet and directly to the CPI database. All the validation work will then take place at CAPMAS, partly with automatic checking by computer.

Responsible institute: CAPMAS

Deadline: During the project, before September 2010

3.2 Summary

The use of quality adjustment methods and checking all replacements requires a high awareness of consumer market developments. It seems that the responsibility of choosing replacement product offers relies heavily on

price collectors. This could be a problem with products with short life cycles and rapid technological change. Such items are, in general, household appliances and household electronics. Perhaps CAPMAS should consider building up some routines for market development surveillance to ensure the representativeness of replacement product offers.

Finally, there are some general comments on the change to electronic price collection. This is a major change in the way of producing the Consumer Price Index monthly. A high awareness of all different components is required in order to make for a successful project. Financing of all parts of the electronic price collection, i.e., devices, application, education, help desk services, virus control, data administration, etc., should be guaranteed before starting the project.

Annex 1

Terms of Reference

*for a short-term mission to the Central Agency for Mobilisation and Statistics
On*

*Activity 5.4.4
Workshop on data processing*

Background

CAPMAS and Statistics Denmark with partners have established a fruitful co-operation in the framework of Twinning. This twinning project is EG/07/AA/F106.

This activity is part of component 5, *Development of certain statistical areas* in the subcomponent dealing with Consumer Price Index (CPI). The objective for this component is Development of Consumer Price Index (CPI).

This activity will contribute to this objective and especially to the benchmark set out in the contract: *By the 18th month, a new methodology to collect and process consumer price data and to calculate and publish CPI is in place.*

Purpose of the mission

The mission is a workshop where the MS and BC experts will work together to draft new methodology to account for quality change, missing observations, seasonal products, treatment of rents and specific products.

Expected Results

- Proposals for new methodology or improvements in the area of quality change, missing observations, seasonal products, treatment of rents and specific product including a tentative plan on how CAPMAS could change the CPI production system from the present partly manual one to one using hand held computers.

Activities

A tentative schedule for the mission is:

Sunday 10th May

Introduction to CAPMAS and overall discussion on the activity with RTA

Meeting with component leader and the relevant staff within CAPMAS

Determining the agenda for the mission

Status of the subcomponent

Presentation of MS experiences within the subjects of the mission

Monday 11th May

CAPMAS treatment of quality change, missing observations and seasonal products

Tuesday 12th May

CAPMAS treatment of rents and specific products

Wednesday 13th May

An automatic system based on handheld computers for data collection

Thursday 14th May

Final discussions and clarifications with CAPMAS

Presentation of preliminary results and findings

Tasks to be done by CAPMAS to facilitate the mission

The beneficiary will arrange meetings with the relevant staff in CAPMAS.

Consultant and counterpart

The mission will be carried out jointly by:

Ms Christina Telasuo, Statistics Finland

and

Mr Juhani Pekkarinen., Statistics Finland

The beneficiary's counterpart will be:

Ms Awatef Emam

and

Ms Magda Mahmoud

Timing

The mission will be carried out during 10 - 14 May 2009 in Cairo.

Report

A final report from the mission should be made available not later than two weeks after the termination of the mission.