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Purchasing Power Parities; Volume and Price Level Comparisons for the Middle East, 1993

**Results of the International
Comparison Programme (ICP)
for the ESCWA Region**



UNITED NATIONS

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Acknowledgment

This report presents the results of the ESCWA regional comparison of the International Comparison Programme (ICP). Nine countries from the region participated in the programme, Bahrain, Egypt, Jordan, Lebanon, Oman, Palestine, Qatar, the Syrian Arab Republic and Yemen.

The ESCWA Comparison Programme (ESCWA CP) was supported by the World Bank and was executed according to a work plan adopted by the first session of the ESCWA Statistical Committee, held 6 to 9 November 1995. This work plan constituted a joint activity covering the participating countries, the World Bank and the ESCWA secretariat. The Statistics Division in ESCWA played a coordinating central role for the execution of all phases of the ESCWA CP. The computation of the results was undertaken by using the MOSAIC software developed by the European Center for Worldwide Cost of Living Comparisons (EuroCost).

This report was prepared by an ESCWA consultant, Mr. Kamil Al-Adhadh, who is presently working as resident expert at the Central Statistical Organization (CSO) of Qatar. In preparing the report, the consultant benefited from the facilities extended to him by the CSO and from the support of its president.

Thanks are due to the staff of the central statistical organizations of ESCWA members who carried out the national price surveys and to the United Nations Statistics Division in New York, which provided technical assistance in the preparation phase of the ESCWA CP. Acknowledgment is particularly due to Mr. Ahmed Sultan of the World Bank for his valuable contribution in the preparation, execution, processing and analysis phases of the Project.

Executive summary

Background

This report presents the results of the International Comparison Programme (ICP) survey for the ESCWA region for the reference year 1993. Nine countries participated in this survey: Bahrain, Egypt, Jordan, Lebanon, Oman, Palestine, Qatar, the Syrian Arab Republic and Yemen. Two more countries-Saudi Arabia and the United Arab Emirates-completed the surveys after the report was written. The ESCWA regional exercise forms part of a global effort consisting of seven other regional surveys and encompassing about 120 countries. The ESCWA data will be incorporated in a global report by the World Bank in which all the regional data will be linked together in a consistent framework.

The surveys were conducted by national statistical authorities and coordinated by the Statistics Division of ESCWA in Amman. Financial assistance was provided by the World Bank and technical assistance by EuroCost and the United Nations Statistics Division as well as by the World Bank.

The objective of the ICP is to develop a system of international comparison of gross domestic product (GDP) and its components by converting them to a standard currency using purchasing power parities (PPPs) rather than exchange rates. The PPP is defined as the number of units of a country's currency required to buy the same amounts of goods and services in the domestic market as, say, one US dollar would buy in the United States. Since exchange rates do not usually reflect purchasing power in domestic markets, comparisons based on them can yield misleading results. This is reflected by the fact that the same amount of money converted at exchange rates buys different amounts of goods and services in different countries. PPP conversion, by establishing equivalence in purchasing power, ensures that GDP accounts are compared across countries on the basis of the volumes of goods and services embodied in national currency estimates.

PPP-based data improve the basis for comparing standards of living, as well as relative price and quantity structures across national boundaries. They are useful in any analysis or policy that is based on a comparative assessment of real income.

ICP methods

Total GDP expenditure as compiled under the United Nations System of National Accounts (SNA) is divided into a number of components called "basic headings". Under each basic heading, a sample of items is selected for pricing in each country. The items must be comparable and representative of the expenditure pattern as closely as possible. PPPs may be viewed as weighted averages of price ratios of matched items. The weights are the GDP expenditures at the basic heading level.

The PPPs and the associated quantity or volume indices are multilateral rather than binary; they are transitive and base-country invariant. Depending on the method chosen, they can be more characteristic (that is, comparison between two countries is less affected by third countries) but not additive (that is, components will not add up to totals), or additive but less characteristic. The EKS formula is more characteristic but not additive, while the Geary-Khamis formula is additive but less characteristic (see chapter five for more details). Price and volume comparisons are best viewed as indices where proportions matter rather than the absolute values, which may be arbitrary. In the ICP, values converted at exchange rates are called "nominal"; those converted at PPP are called "real".

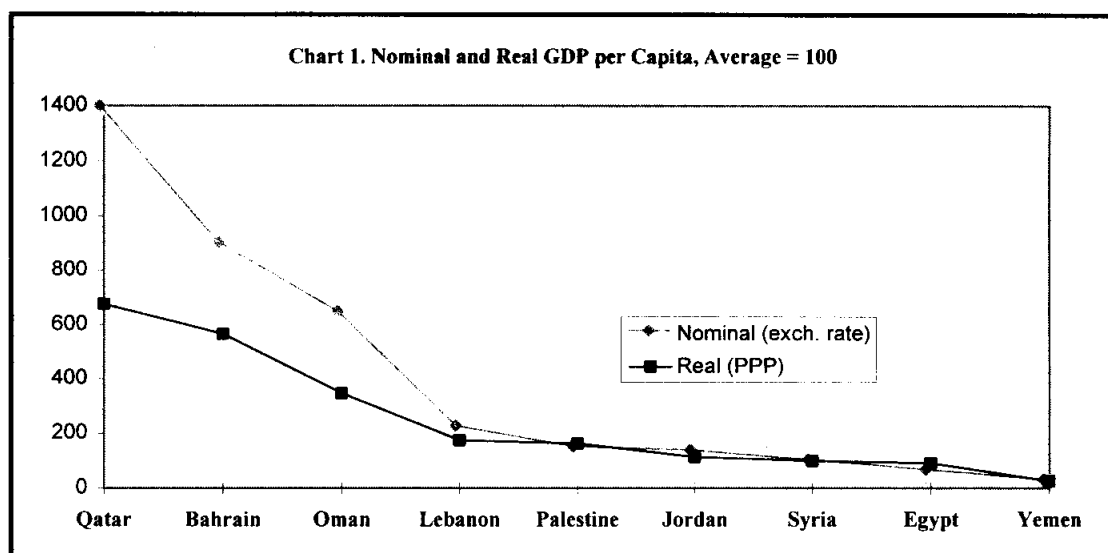
The results would be the same no matter which currency was used as the base currency. Here the results are expressed in ESCWA dollars, which is a synthetic concept meaning that the average

PPP per US dollar for the region as a whole is equal to the region's average exchange rate. This is obtained by setting the total value of the region's GDP in PPP terms equal to the total in US dollars at official exchange rates. To convert ESCWA dollars to US dollars, one has to establish the PPP of a regional currency to the US dollar. This will be done by the World Bank when the results are integrated into a global framework.

Main results

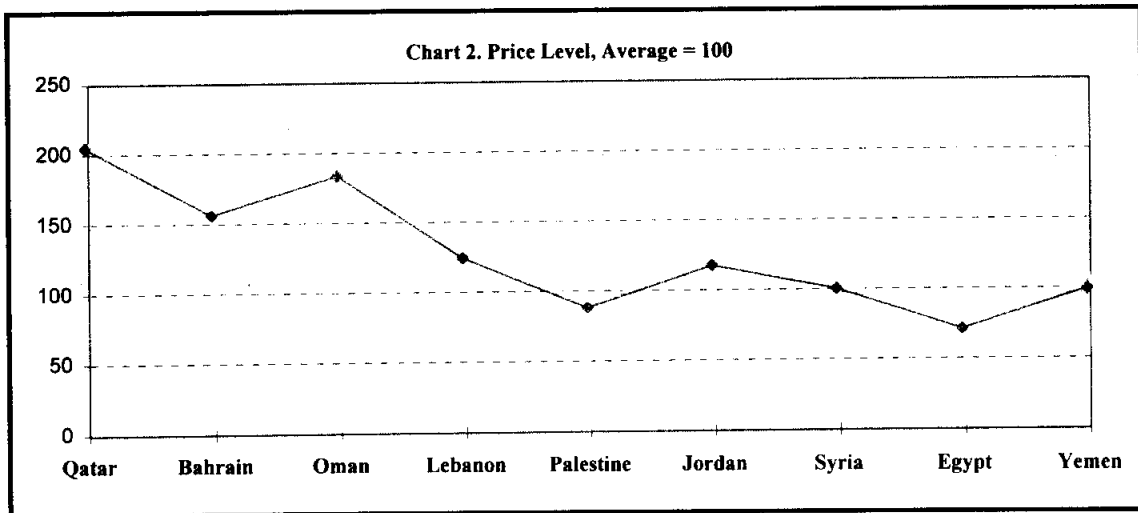
The results of the ESCWA region, presented in the table and the accompanying charts, are quite consistent with those in other regions. The main findings can be summarized as follows:

- *Economic disparity among nations as measured by per capita income is less pronounced in PPP terms than in exchange rate terms.* This is observed in chart 1, which presents the countries in order of per capita income.

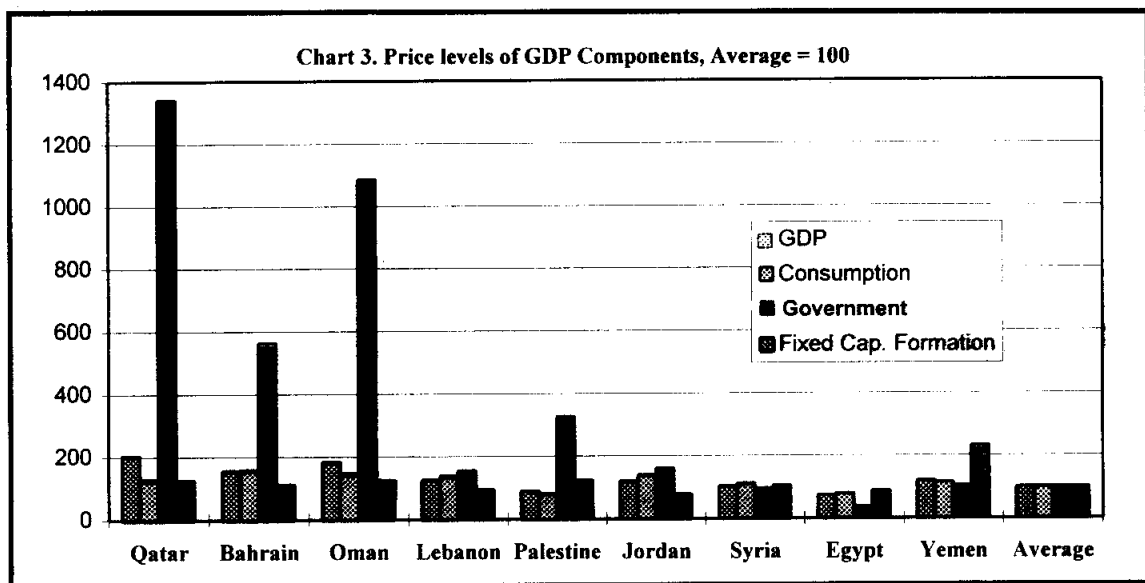


The line representing PPP income is noticeably flatter than the one representing income in terms of exchange rates. Real per capita income in Qatar, the richest country in the region, is only about seven times higher than the average for the region, and not fourteen times as nominal values would indicate.

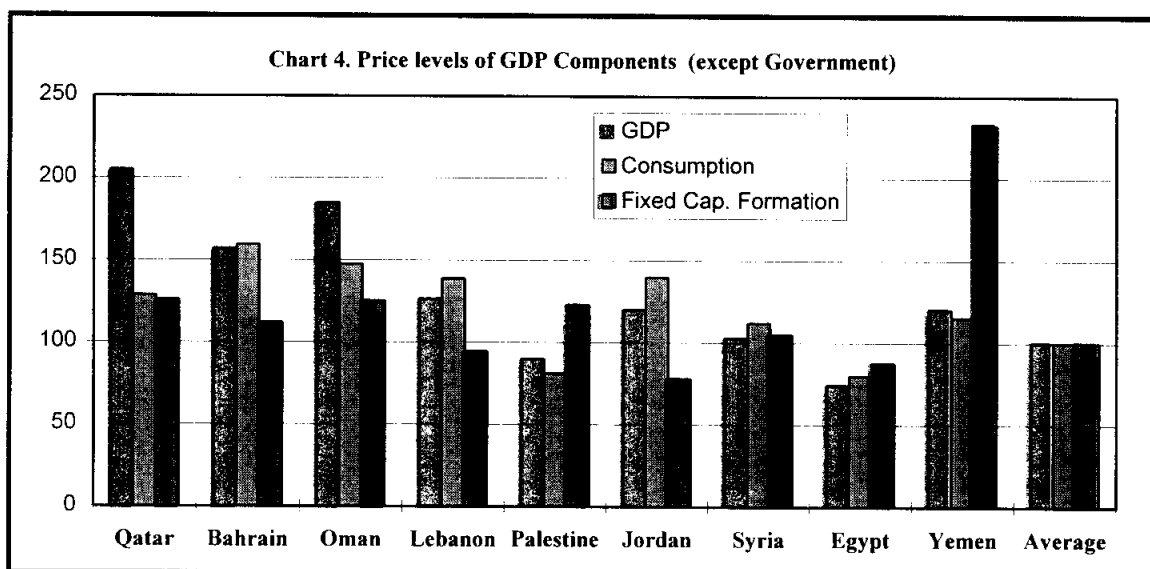
- *This is because the overall price level, as measured by the ratio of PPP to the exchange rate, is generally higher for richer countries.* Yemen is clearly an exception (chart 2).



- Higher prices in the higher-income countries are the result of the relatively high price of services, especially government. Chart 3 shows this very clearly. However, Palestine does not seem to fit the pattern.



- For investment goods, although the price level generally varies inversely with per capita income, the relative price level for Yemen seems unusually high. This is shown in chart 4, which is actually chart 3 without government. It brings out the differences in price levels of total GDP, consumption and investment more clearly than chart 3.



The ESCWA exercise was carried out on the basis of a reduced sample (see main report). Consequently, the results are subject to greater sampling error than usual. In addition, this was the first exercise of its kind, and the system of price and expenditure data to support this kind of work has yet to be developed fully in the region. Readers are therefore advised to use the results with caution.

Main results, EKS method^{1/}

Country	Total GDP (in millions)			Population (in thousands)	Per capita GDP			Per capita GDP Index, average = 100		Exch. Rate (US\$ = national currency)	Purchasing power parity (1 PPS = national currency)	General price level index (average = 100)
	National currencies	Nominal (US dollars)	Real (PPP) (ESCWA dollars)		National currency	Nominal dollars	ESCWA dollars	Nominal (exch. rate)	Real (PPP)			
Yemen	170,298	4,257	3,547	13,196	12,905	323	269	33	27	40.000	48.017	120
Syrian Arab Republic	413,755	13,764	13,380	13,696	30,210	1,005	977	103	100	30.060	30.923	103
Qatar	26,183	7,193	3,507	529	49,495	13,598	6,630	1388	677	3.6400	7.4651	205
Oman	4,803	12,476	6,750	1,992	2,411	6,263	3,389	640	346	0.3850	0.7116	185
Lebanon	10,608,487	6,092	4,816	2,806	3,780,644	2,171	1,716	222	175	1,741.4	2,202.8	126
Jordan	3,811	5,500	4,586	4,095	931	1,343	1,120	137	114	0.6930	0.8311	120
Egypt	134,108	40,273	54,330	60,319	2,223	668	901	68	92	3.3300	2.4684	74
Bahrain	1,754	4,665	2,969	535	3,279	8,720	5,550	890	567	0.3760	0.5908	157
Palestine	8,845	2,962	3,298	2,064	4,285	1,435	1,598	147	163	2.9860	2.6822	90
Total/Average		97,183	97,183	99,232		979	979	100	100			100

Source: Table 5. All values have been normalized by setting total real value equal to total nominal value for the region.

^{1/} All values have been normalized by setting total real GDP equal to total nominal GDP for the region.

I. INTRODUCTION AND OBJECTIVES

A. INTRODUCTION

This final report echoes some of the main suggestions and points raised by the participants of the Seminar on the International Comparison Programme (ICP) in the ESCWA Region, held in Amman 21 to 23 October 1996. In this Seminar, a preliminary report with provisional results was submitted. Palestine was excluded from the results owing to some data problems. However, the present report incorporates Palestine and includes various extensions and improvements. It also includes a description of the methodology used.

As a background to this final report, it may be useful to outline briefly the development of the International Comparison Programme (ICP) which has now been extended to the ESCWA region. The ICP was initiated in 1965 and since 1968 has been carried out in six phases, under the auspices of the United Nations Statistics Division. The Programme is organized at regional levels, in close cooperation with regional commissions and other organizations such as the Organization for Economic Co-operation and Development (OECD), Eurostat and the World Bank. The latter contributed effectively towards financing some of the programme activities and dissemination of the results of the comparisons at a global level.

The present activity represents an extension of the ICP to the ESCWA region. The initiation of this activity took place in the ESCWA Workshop on the 1993 SNA in December 1994, when the World Bank presented proposals for extending the ICP to the ESCWA region using the Reduced Information Method¹.

Participants of that workshop representing members of ESCWA supported the proposals, and a recommendation for holding a special workshop on the ICP in Amman, to be financed by the World Bank, was approved.

During the period 25 to 28 June 1995, the ESCWA Region Workshop on the ICP was held in Amman, with full cooperation between the World Bank and ESCWA. The World Bank not only financed the workshop but also provided, together with the United Nations Statistics Division, technical literature and guidance and participated actively in the workshop.

In the Workshop the representatives of the World Bank and the United Nations Statistics Division reviewed and discussed in detail with representatives of the statistical offices of most member countries of ESCWA, together with some ESCWA experts, the Reduced Information Method of the ICP. A list of specifications for some 220 goods and services which were thought to be comparable internationally had been reviewed and discussed and adopted for application with some modification. There was general consensus in the workshop that the region would have to draw up its own list of specifications for the items related to construction and building, in order to take into full consideration the special characteristics and circumstances of these unique goods and services in the region, (for example, "bill of quantities"). All other matters of preparation and implementation were left to the ESCWA Statistics Division, although the Workshop recommended a time schedule for implementation and proposed that the year 1993 be the year of reference. A set of specifications for items related to construction that had been prepared by Jordan was later adopted for the region.

¹See the World Bank, "The Reduced Information Initiative", a presentation of the World Bank's proposals presented in the ESCWA Workshop on the 1993 System of National Accounts, 12-19 December 1994, Amman.

The recommendations of the workshop were submitted later on, in November 1995, for the consideration of the Statistical Committee of ESCWA, which is composed of all heads of statistical offices of ESCWA members. The Committee accepted the recommendations.

Nine of the 13 members of ESCWA consented to full participation and eventually received some financial support from the World Bank for carrying out the special price surveys needed for computing country purchasing power parities and other indicators. The participating members of ESCWA, Bahrain, Egypt, Jordan, Lebanon, Oman, Palestine, Qatar, the Syrian Arab Republic and Yemen.

This final report is therefore a redraft of the aforementioned preliminary report.

B. OBJECTIVES

The International Comparison Programme (ICP) seeks to make comparisons of gross domestic product and its components between countries, on the basis of the volume of the goods and services embodied in it. The United Nations System of National Accounts (SNA) establishes standards to make the accounts internally consistent; the ICP makes them internationally comparable by country.

This is effected through comparisons of GDP and its detailed components—expressed most often in national currencies—between countries, while avoiding the use of market and official exchange rates, which have been found misleading, largely because they do not very often reflect the purchasing power parities (PPPs) of the respective currencies of the countries under comparison.

These PPPs are computed through specified price ratios of comparable items of goods and services of the countries being compared. On the basis of the computed PPPs, “real” rather than “nominal” values for the GDP or for any level of disaggregation can be obtained.

By eliminating differences in prices across national boundaries, PPP conversion permits comparison of incomes based purely on real goods and services embodied in national account aggregates. It thus provides a better basis for comparing levels of income across countries.

The ICP provides a better measure of the economic size of nations, with implications related to market potential, for prospective investors and exporters.

On the basis of these general objectives of the ICP, the ESCWA Comparison Programme (ESCWA CP) seeks similarly to effect comparisons of “real” values of the GDPs and the components of the GDPs of the participating member countries, that is, the respective economic sizes of the countries under comparison.

It also aims to derive some illuminating comparative indicators to reflect differences in volume and price level indices which have implications for differences in economic performances.

The ESCWA CP provides other indicators to reflect partially some social achievements related to living standards, medical care, etc.

Chapter five provides a comparative analysis of results with regard to economic size, volume and price structures at different levels of aggregation across the nine member countries of ESCWA, under comparison, that is, Bahrain, Egypt, Jordan, Lebanon, Oman, Palestine, Qatar, the Syrian Arab Republic and Yemen.

C. SUMMARY OF MAIN RESULTS

It might be useful here to give a summary of the main results obtained in chapter five. Detailed tables containing the MOSAIC computer results are included in the annexes at the end of the report. Illustrative graphs are included in chapter five, wherever relevant.

The computations of the comparative relations of the main economic aggregates and components are carried out in the following terms:

(a) Real values (PPs: purchasing parities);

(b) Real per capita volume indices;

(c) Relative volume indices;

(d) Price level indices;

(e) Relative price level indices;

(f) Volume and price level of basic headings belonging to household consumption, which is the most important component of GDP.

It is important to begin by defining the following terms, which are used extensively in the text:

(a) PPP is the number of units of a country's currency required to buy the same amount of goods and services as, say, one US dollar could buy in the United States;

(b) PPS stands for purchasing power standard, which in the ESCWA region is expressed in terms of ESCWA dollars. PPS is used interchangeably with PPP;

(c) ESCWA dollars have the same purchasing power as the average of the exchange rates in the participating countries. This purchasing power is obtained by setting the total value of GDP of all the countries in PPP terms equal to the value in US dollars in exchange rate terms;

(d) Real values are defined as national currency values converted by PPS (or PPP);

(e) The volume index is real values expressed as an index;

(f) Nominal values are national currency values converted at exchange rates;

(g) The value index is nominal value expressed as an index;

(h) The price level is PPS divided by the exchange rate;

(i) The relative price level index is the price level of a component expressed as $GDP = 100$.

It is convenient to spell out here very briefly the main results of the report in these terms. The analysis in this report is not exhaustive of course, and researchers are therefore free to refer to the various annexes or tables to extend and deepen the scope of the present analysis of the results.

(a) Results in terms of PP computations reveal that Egypt, followed by the Syrian Arab Republic and Oman respectively have achieved the highest GDP; Palestine and Yemen show the lowest GDP;

(b) In terms of per capita values, however, the Gulf States (Qatar, Oman and Bahrain) are highest, owing to the small size of their population;

(c) Since volume indices generally reflect the level of output or income, these indices show in per capita terms that the Gulf States (Qatar, Bahrain and Oman), have the highest level, whereas the Syrian Arab Republic, Egypt and Yemen respectively reveal the lowest level;

(d) The relative per capita indices reveal that, except in the case of Egypt, trade is the highest contributor to the size or GDP volume index of each country. Second comes gross capital formation, excluding Yemen, Egypt and Palestine. Household consumption comes third and government consumption fourth in their impact on the size of the GDP index of all countries under comparison;

(e) On the basis of price level indices, Egypt has the lowest price level, followed by Palestine, then the Syrian Arab Republic, then Jordan. The Gulf States and to a lesser extent Lebanon and Yemen are recognized as having the highest price levels;

(f) In terms of relative price level indices, the following pattern is identified:

(i) Household consumption items seem to be more highly priced than other items in Jordan and Lebanon;

(ii) Government consumption items are more highly priced in the Gulf States than other items;

(iii) Capital formation items are more highly priced in Yemen, Palestine, Egypt and the Syrian Arab Republic in comparison with the other items of their respective GDP components;

(g) The analysis of results at the level of the basic headings belonging to household consumption reflect varying ranking positions in terms of both volume and price levels. In general, however, a low level of prices is usually associated with high a level of volume, although this is not always true because of the role of subsidies and government intervention;

(h) It may be useful to remind readers that Egypt could be considered as a category by itself, because it comprises over 60% of the total population of the countries under comparison and over 41% of the total GDP (in US dollars) of the countries of the ESCWA region. Hence, it has great influence on the magnitudes of the economic indicators of other countries.

II. BASIC CONCEPTS AND METHODS

A. SNA AND ICP CONCEPTS OF GDP AND ITS COMPONENTS

The new System of National Accounts (1993 SNA)¹ improved, extended and developed further the definitions, concepts and accounts of the 1968 SNA, while at the same time retaining the powerful basic accounting rules and identifying the relationships of the latter.

Like its predecessor the 1968 SNA, the 1993 SNA adopts three approaches for estimating GDP and its components: the output (value added), the income and the expenditure approach. The 1993 SNA, however, has articulated the accounting relationship of the flows and stocks of the economy into integrated and comprehensive economic accounts.

The expenditure approach has been found to be the most suitable approach and the one easiest to use for computing parities and other values and indices in the system of the International Comparison Programme (ICP), after some modifications which are described below.

In the 1968 SNA, GDP, in accordance with the expenditure approach, is the sum of the major components: household consumption plus government consumption plus gross fixed capital formation plus net exports.

Most countries worldwide and all countries in the ESCWA region still follow this system for estimating their GDPs and the components of GDP.

The 1993 SNA, however, adopted the same modifications to the GDP composition as did the ICP (using the expenditure approach)².

The modifications here involved the introduction of two new concepts:

Actual household consumption versus final household consumption
Actual government consumption versus government final consumption.

This means that in order to arrive at the total **actual** consumption of the household, one has to add to the value of household final consumption all the Government's expenditure on the goods and services which were offered free or almost free to household consumers.

Similarly, in order to calculate the actual consumption of the Government, the Government's expenditures on household goods and services should be subtracted from the government total expenditure.

GDP is finally classified as follows:

(a) Household consumption (including health and education services provided by Government to households);

^{1/} United Nations, *System of National Accounts 1993* (Sales No. E.94. XVII.4).

^{2/} United Nations, *Handbook of the International Comparison Programme* (Sales No. E.92.XVII.12), pp. 13-23.

(b) Government consumption (excluding health and education services provided by Government to households);

(c) Gross fixed capital formation;

(d) The balance of exports over imports of goods and services.

Accordingly, all GDP data received from the countries participating in the programme had to be modified along the lines recommended by both the 1993 SNA and the ICP. The method of modification will be elaborated upon below.

B. METHODS OF THE ICP SYSTEM

For ICP use, GDP is broken down into smaller components usually called “basic headings”. Basic headings are technical categories where dispersion of price relatives is smaller than at higher aggregations. They represent strata required more for computational and analytic purposes than for publication.

Basic headings are therefore the smallest categories for which data might be estimated reasonably well in all participating countries. In the ESCWA Comparison Programme (ESCWA CP) some 33 basic headings were identified and were estimated wherever country data were not available. If data had permitted greater detail, this would have helped to reduce conversion errors.

Since purchasing power parities (PPPs) were determined on the basis of the prices of selected specifications, countries were requested to submit national average prices for each specification that they were able to price.

PPPs are calculated for each basic heading as the unweighted geometric mean of the individual price relatives, where weights are not available, whereas PPPs for higher levels of aggregation are obtained in terms of weighted averages of the PPPs of respective basic headings.

Specifications of products are made to satisfy three basic requirements:

(a) Identity, i.e., typically alike in all (or almost all) countries under comparison;

(b) Characteristicity, i.e., the products are used in substantial quantities;

(c) Representativeness, i.e., specified products should be large enough to capture the price structure of the basic headings.

These criteria are necessary to ensure maximum similarity of products. However, overly detailed specifications might reduce comparability, so small differences in quality might be allowed.

It follows that the prices of a sample of representative items of each basic heading are collected and classified under the relevant basic heading to which they belong. Basic headings are then aggregated up to a major GDP component, such as household consumption. Average national prices for items like meat, rice, fish, cheese etc. are collected, then classified under the basic heading of food. This last category (a technical category) along with other categories will fall under the “household consumption” component of GDP. Problems of selection and pricing will be indicated later on.

Usually, the collection of average prices for most marketed items should not be difficult. Some problems might be faced, however, when the items are not widely marketed, as is the case with most of the government consumption items, or when the items are unique, so that no market prices are available for each one of them, as can be the case for construction and building items.

In the case of government consumption items such as health, education, defence and so forth, the general treatment of the ICP system can be summarized as follows: Whenever it is possible to find a private or marketed item equivalent to any Government activity, for example education or health, then the market prices of those equivalent items are used for pricing purposes.

For items of government consumption such as defence, administration, public education and so forth, the ICP employs for pricing purposes the total annual wages of important and carefully selected occupations within those government activities, e.g. teachers, policemen, etc. This is largely acceptable because the wage elements in the total value added of these activities are the most important aspects.

Regarding the construction and building units, no direct observation of price is possible, so a selected "bill of quantities" is built up in cooperation with an expert engineer, specifying the price (cost plus all other margins) of specified construction and building works, e.g., square metres of walls, number of stainless steel sinks, etc.

The other two components of GDP are change in stocks and net exports. These are not disaggregated further, and national accounts values are used. In addition, for the computation of their PPPs, the exchange rates are directly used.

III. DATA REQUIREMENTS, CLASSIFICATIONS AND DATA COLLECTION

In light of the ICP guidelines, this chapter gives an indication of the data requirements of the ESCWA CP and the classifications and the method of data collection employed.

A. BASIC DATA

There are two basic types of data requirements: GDP data, broken down to the basic headings, and price data for a sample of well-specified, characteristic and representative items of goods and services, classified under the basic headings to which they belong. Both types of data are similarly well-defined and classified in both systems the 1993 SNA and the ICP.

B. CLASSIFICATION SCHEMES

In the second section of the last chapter, indication was made of the hierarchy of GDP disaggregation into GDP components, basic headings and then individual items. The various levels of disaggregation or aggregation are governed by classification schemes, so that each level would serve one or more of the following purposes: computation, analysis, tabulation or publication.

From a statistical perspective, the breakdown of each of the aggregates into homogeneous groups provides a stratification such that the variance of the ratios of prices within the basic heading can be minimized. Practically, such breakdown has the additional advantage of providing a convenient means for the selection of items to be priced for the computation of PPPs and a weighting pattern for the aggregation of basic parities.

In the full-scale ICP, such as the one implemented in the Africa region¹ or in the ESCAP region² about a thousand or more individual items at the lowest level were involved, while at the basic-heading level between 91 to 168 groups were used.

In the ESCWA region, the Reduced Information Method is used, whereby the number of individual items is limited to around 200, while the number of basic headings is limited to 33. The obvious purpose here is to minimize the cost and time involved, but at the risk of increasing the margin of error in the final results.

Between the individual items at the lowest level and any higher aggregation, it is possible to classify groups of goods and services into what is called analytical categories, and this serves certain analytical purposes.

^{1/} Michel Mouyelo-Katoula and Kantilal Munnsad, *Comparison of Price Levels and Economic Aggregates 1993: the Results of 22 African Countries* (Luxembourg: Eurostat, 1996).

^{2/} United Nations Economic and Social Commission for Asia and the Pacific, *Purchasing Power Parity and Quantity Comparison for the ESCAP Region*, 1985. (ST/ESCAP/1128, 1992).

The classification schemes adopted by the ESCWA CP are as outlined in table 1.

Table 1. Expenditure classification schemes

Code	Heading	Number of basic headings
1	<u>Household consumption</u> ^a	
11	Food, beverages and tobacco	10
12	Clothing and footwear	2
13	Gross rents, fuel and power	1
14	Furniture, household equipment and operation	3
15	Medical care and health services	3
16	Transport and communication	3
17	Recreation, entertainment and education services	4
18	Miscellaneous goods and services	2
2	<u>Government consumption</u>	
21	Government consumption ^b	1
3	<u>Gross fixed capital formation</u>	
31	Machinery and equipment	1
32	Construction	1
4	<u>Change in stocks</u>	1
5	<u>Net exports</u>	
51	Net exports	1
	Grand total	33

^a Including government expenditure on education, health and services minus central administration cost.

^b Mainly compensation of employees.

The main items (at the second digit) of table 1 are used as analytical categories in the analysis of results.

C. LISTS OF PRODUCTS

The ICP, through its accumulated experience, has prepared a list of well-specified items (around 2,000 items) which are recognized as internationally comparable goods and services. To ensure comparability, each product included for price collection has been defined in terms of physical and technical characteristics of the product. Over 200 of those specified products were selected from the ICP list to be included for price collection in the ESCWA region.

1. Household consumption

Table 2 shows the number of products included for each of the major expenditure categories under household consumption.

Table 2. Number of products in household consumption

Sub-aggregates	Number of products
Food	35
Beverages	4
Tobacco	1
Clothing and footwear	13
Gross rents, fuel and power	8
Furniture, household equipment and operation	22
Medical care and health services	10
Transport and communication	21
Recreation, entertainment and education services	16
Miscellaneous goods and services	8
TOTAL	138

2. Government consumption

The final consumption of the Government is composed of:

Compensation of employees
plus purchase of goods and services
plus consumption of fixed capital
minus sale of goods and services and own
fixed capital formation valued at cost

Ideally all these elements must be represented by prices of characteristic products, but owing to the dearth of data in some participating countries with respect to the government purchase and sale of goods and services and the government consumption of fixed capital, it was decided to concentrate on the most important item of government consumption, and that is the compensation of employees.

In this respect some 13 occupations were carefully selected from the most important government services, for example administration, civil service, welfare and security. The price ratios of those occupations (together with total government consumption expenditure excluding expenditure on health and education offered to the household, as a weight) were then used to work out the parities of government Consumption.

3. Gross capital formation

Two principal components of gross capital formation are involved here: equipment, transport equipment and machinery items on the one hand and construction and civil engineering on the other hand.

Table 3. Number of products in gross capital formation

Sub-aggregates	Number of products
Machinery and equipment	20
Construction of:	
a. Buildings	28
b. Roads	7
Total	55

In the ESCWA CP, prices were collected for 20 representative items of equipment and machinery (including transport vehicles), whose importance depended on the relative importance of each of the basic headings to which they belong in terms of total expenditure and the degree of homogeneity of the basic heading concerned. Owing to the relative rigidity of the technical specifications of those products, some difficulties in data collection and editing were faced as will be pointed out later on.

As for the construction component of capital formation, bills of quantities were compiled on the basis of Jordanian practice, in cooperation with a Jordanian civil engineer who provided specifications for standard construction components for buildings (residential and non-residential) on the one hand, and for civil engineering and infrastructural works, e.g. roads and sewerage, on the other hand.

In the ESCWA CP, some 35 items for both building and civil engineering were collected from participating countries; some difficulties were also faced here, as will be indicated below.

D. PRICE SURVEY

In the ESCWA Region Workshop on the ICP, held 25 to 28 June 1995 in Amman, the issue of price collection and sampling of groups of products, etc., was discussed, but it was generally agreed to leave this to the responsibility of the statistical offices of the participating countries. Since all participating countries usually collect price data for the compilation of their consumer price indices, they already have statistical frame works as well as tried and tested samples of outlets and markets; they can therefore use them to collect prices of products for the purposes of the ESCWA CP.

The representatives of the statistical offices of the participating countries took part in making the final choice of products to be included in their price surveys. Specifications of all products were made clear in the Workshop, though some further training could have been provided to improve efficiency in data collection.

The statistical offices of the participating countries selected on their own responsibility, the cities and the markets from which to collect the price data. As shown in table 4, however, no rural areas were included for this purpose. Most participating countries collected prices from their capital cities without specifying the types of markets, shops or stores from which data were collected. Some countries collected prices from several markets without specifying the type of shops and stores involved. Since PPs are computed from price ratios, the practice of collecting prices for the capital city or the city chosen by the

country assumes that the dispersion of prices between the city prices and the national average was the same in every country.

Table 4. Cities from which price data were collected by country, type of city and number of markets

Country	City	Type of city	Number and type of markets (outlets)
Yemen	Sana'a	Capital	Not specified
Syria	Homs	Large urban city	Not specified
Qatar	Doha	Capital	Five markets; types not specified
Oman	Muscat	Capital	Not specified
Lebanon	Beirut	Capital	Not specified
Jordan	Amman	Capital	Not specified
Egypt	Shebain Alkum	An urban city	Not specified
Bahrain	Manama	Capital	Not specified
Palestine	Nablus	An urban city	Not specified

The ESCWA coordinators dealt very critically with the data received. However, the problems of sampling and selection of outlets by type and geographical distribution were not examined, since these matters were left to the respective statistical offices. The coordinators worked on the assumption that the data were representative (see chapter six for further details).

In checking and verifying price data, two major considerations were taken into account:

(a) Specifications of items. These were used to check whether data reported by the participating countries were consistent with them or not.

(b) Compatibility criteria. This expression means all the criteria that make the comparison meaningful, that is, comparison of "like with like". They involve three basic criteria:

- (i) **Characteristicity.** The items must be common and typical in the consumption pattern of the consumers;
- (ii) **Representativeness.** The items must be important in the expenditure budget of the consumers, that is they must constitute an important proportion of the total budget;
- (iii) **Identity.** Items must be alike in most if not all aspects of brand, size, quality, package form, etc.

Though it is known that these criteria often conflict and that it is rare to obtain goods and services which satisfy all these criteria and comparability principles, at the same time, some very close approximation to them is possible if some core commodities (which are regionally and internationally comparable) are selected carefully.

The price data were verified and checked under these stringent rules. This is particularly important in the ESCWA region because the number of items is very small, that is, minimally sufficient to give reliable results.

To ensure temporal adjustment to the reference year 1993, all prices collected in 1995 were deflated by various country deflators (see annex 5). Eventually a cleaned-up price matrix of 200 rows by 9 columns (the rows representing items and the columns representing countries) was obtained.

IV. DATA PROCESSING AND COMPUTATION OF PARITIES AND THEIR AGGREGATION

A. PROCESSING OF DATA

In this section we shall review very briefly the procedures adopted by the ESCWA coordinator to check and verify price data on the one hand, and to check, modify and complement the GDP estimates supplied by the statistical offices of the participating countries, on the other hand.

1. Review of price data

Various procedures and methods were employed for the examination and verification of all price data received from participating countries in the early months of 1996. A brief exposition of the major steps would include the following:

- (a) Gaps and incompleteness in the data received from each country were identified;
- (b) All the relevant standard quantity units of various goods and services for each country were checked and then corrected;
- (c) Standard quantity units were unified across the countries;
- (d) Prices of the unified items in terms of standard quantity units were then checked in two complementary phases. In phase one, prices were checked in the light of given specifications, certain tests or other supporting data for each country separately. Then, in phase two, prices were compared across countries. For this purpose price data (filtered in phase one) were converted to US dollars, and then average prices for each row of the price matrix (i.e., across the countries) were calculated. The deviations of the country prices of the items from their "regional" averages were computed;
- (e) In the light of some international and regional prices in other parts of the world, it was possible to determine roughly the maximum and minimum deviations within which it was possible to accept the country price of each item. Prices outside this range were further investigated. Sometimes, even prices within the range were investigated, if their reliability was doubtful;
- (f) For the correction of faulty or unreliable price data two main methods had to be employed:
 - (i) Carrying out the correction in the office, using various methods of "desk" investigations (studying explanatory notes, comparing with specifications, recalculation, etc.), including some econometric methods which might help to deduce more reliable price data for certain products of certain countries;
 - (ii) Resorting to the statistical offices of the participating countries directly by telephone or through official correspondence to request either re-collection of the price of a particular item or that any corrections which the office considered reasonable be supplied. Though expensive and time-consuming, this method was extensively employed by the ESCWA coordinator. It can be considered more reliable than the first method and helped to achieve consistency of price data within and across countries;
- (g) To allow objective decisions about the nature of corrections to be made, errors in price data were classified broadly into the following types:

- (i) Clerical and calculation errors, which could be corrected directly in the office;
- (ii) Errors stemming from failures to collect price data in accordance with specifications;
- (iii) Unexplained errors, meaning that prices would have to be re-collected from the field.

2. Checking and modifying estimates of the country GDPs and their components

As stated in section A of chapter two, the GDP components of each participating country had to be modified or adjusted along the lines recommended by both the 1993 SNA and the ICP.

Besides, most of the data received suffered from various gaps in details and were not uniform in terms of reference year, coverage and reliability. Hence, it was the coordinator's task to fill in the gaps, unify the reference year of the estimates of all countries to the year 1993 and correct the coverages of some items, as well as attempt to improve the reliability of some basic headings within certain GDP components.

To achieve these ends, various estimation and imputation methods were tried. Only some of the main methodological steps are mentioned hereunder:

(a) Where estimates of GDP components for the reference year (1993) were not available, the structural percentages of GDP components of an adjacent year were used to redistribute the GDP aggregate of 1993, which might be available from the country concerned or extrapolated on the basis of a certain acceptable growth rate;

(b) To modify the GDP components of government consumption and household consumption in accordance with the new concept of **actual** consumption, various methods were tried. Whenever the data of government expenditure were detailed enough, that is they gave expenditures on health and education separately, the task became easy. These latter expenditures would be subtracted from government total expenditure and then added to the household final consumption. Problems emerged, however, when the government total expenditure was not detailed enough; in this case, various methods were applied. Data on health and education provided by government ministries or agencies of the country concerned were collected from other sources; if their time reference was different, then an extrapolation to the year 1993 was necessary. In addition,, methods of relative relations and proportionalities were used to estimate the "magnitude" of those services;

After reviewing the structure of the data of all countries in this respect, it was decided as a rule of thumb that a percentage of 10% could be accepted to represent roughly the central administration cost of each government, which had to be deducted from the Government expenditure on health and education offered to the household consumers;

(c) Where certain basic headings, such as food, were not disaggregated into items such as rice, meat, fish, etc., which are essential for PPP computations, the coordinator would resort to the latest family budget survey of the country concerned to extract certain ratios that could be used to disaggregate the basic heading or any higher aggregation of the GDP components required;

(d) Estimates were usually compared with those from different sources, so as to assess the acceptability or reliability of any aggregate or basic heading;

(e) After checking and adjusting the GDP estimates of the participating countries, a GDP component matrix of 33 basic headings (rows) by 9 countries (columns) was constructed in national currencies;

(f) The above matrix was then converted into US dollars, using official or average exchange rates for each country;

(g) Both the matrices in national currencies and in US dollars were then expressed in per capita terms by dividing all items by the mid-year population of each country.

B. COMPUTATION AND AGGREGATION OF PARITIES

In this section a brief outline of the main methods of computing and aggregating parities is given. The different methods used in this field have varying points of strength and weakness. There is a sizeable body of literature available on the subject, and those interested in the details may consult the *Handbook of the International Comparison Programme*¹.

The methods of computation involve a large number of calculations, so the ICP developed, in cooperation with EuroCost, a special software package, MOSAIC, to carry out the required computations employing sets and matrix methods of calculation.

1. Basic principles

The ICP system aims basically at calculating the purchasing power parities (PPPs) for each of the countries under comparison. These PPPs are calculated on the basis of the price ratios of the items of each pair of the countries being compared. The first step is therefore to construct a pairwise price ratios matrix. Using the GDP components at basic-heading levels as weights, the next step is to derive the volume and price level indices in absolute and relative magnitudes.

At the basic-heading level of the pairwise price ratios matrix, the parity is computed as an unweighted average of the individual item price ratio of the specifications belonging to a given basic heading.

There are several approaches to estimating these basic heading parities: the Country-Product Dummy (CPD), Geary-Khamis (G-K) and the Elteto-Koves-Szulc (EKS); the latter is used in the present work. At the country level, a certain country is usually taken as the numeraire, and price ratios between all pairs of countries are given in rows.

When the price matrix has no holes, the results of both CPD and EKS are equivalent to the geometric mean of the individual item price ratios for each basic heading. When there are missing prices, both CPD and EKS can estimate transitive PPPs, but the results would be slightly different. In our present exercise, the price matrix was almost complete, so there was no important use of this method at this stage. In other words, the ESCWA coordinator endeavoured to obtain prices that adhere as much as possible to specifications and comparability criteria. Uncharacteristic items were largely eliminated.

The Selection of the numeraire

Although quantity comparison of the GDP and its components between countries is not dependent on the existence of a numeraire or on which country's currency is selected as a numeraire, it is nevertheless convenient to express the level of GDP or per capita level of GDP of the individual countries in absolute terms using the currency unit of a selected country. The MOSAIC software was not able to present the results in terms of one of the region's currencies (Jordanian dinar), so it computed the results in terms of a

¹ United Nations Statistics Division, *Handbook of the International Comparison Programme*, (ST/ESA/STAT/SER.F/62, 1992) especially chapter IV and annex II.

normalized or notional currency; this can be called the “ESCWA dollar” and is equivalent to the average exchange rates of the countries used for the conversion of the PPs into US dollars.

The consequence of this situation is that quantity comparison in terms of the size in absolute levels of GDPs could not be very meaningful. Comparisons in relative terms are not affected, however, and therefore remain meaningful.

At a later stage this situation will be remedied by using a common currency unit such as the Arab dinar or the US dollar or any one of the currencies of the countries of the region.

2. Computation of parities

At the basic heading level, two methods are used to obtain transitive PPPs. They are the Country-Product Dummy (CPD) method and the Elteto-Koves-Szulc (EKS) method. The CPD method, which has not been used here, sets up a regression with the logarithm of the price of the items as the dependent variable and two sets of dummies-country and product-as independent variables. If the basic heading matrix contains m items and n countries, there are m product dummies and $(n-1)$ country dummies, which take the value of 1 if the criteria match, and 0 otherwise. The base country is dropped. The predicted ratio of this regression gives the estimate of PPP.

In this exercise, the EKS method was used. EKS was also used to aggregate basic heading parities to higher levels. This is described in the following steps:

(a) The calculation of the Laspeyres parities. For each pair of countries the Laspeyres index is the weighted arithmetic average of ratios of basic parities corresponding to a given level of aggregation. Weights are the nominal values of basic headings for the base country. The Laspeyres-type index is evaluated as follows:

$$L_{jk} = \sum_{i=1}^m W_{ki} \times \frac{iPPP_j}{iPPP_k}$$

where the summation is over m basic headings and W_{ki} expresses the relevant nominal values in terms of national currency used as weights;

(b) The calculation of Paasche-type parities for each pair of countries at various levels of aggregation. Paasche indices are obtained as the reciprocals of the transposed Laspeyres matrices;

(c) The derivation of the Ideal Fisher index; this is the square root of:

$$F.Q.I. = \sqrt{L.Q.I. \times P.Q.I.}$$

where F = Fisher, L = Laspeyres, P = Paasch, Q.I. = Quantity Index;

(d) Fisher parities should then be made transitive through the EKS method. The EKS index is evaluated as follows: The EKS index of a country j relative to country k is the geometric mean of two direct Fisher indices between j and k and all the indirect indices that can be computed from the rest of the n minus 2 countries.

$$EKS_{jk} = \left[F_{jk}^2 \prod_{l=1}^n \frac{F_{jl}}{F_{kl}} \right]^{\frac{1}{n}} \dots \text{for } l \neq j, k$$

where:

F_{jk} = Fisher price index for country j relative to country k

F_{jl} = Fisher price index for country j relative to country l

F_{kl} = Fisher price index for country k relative to country l

For EKS quantity indices, all Fisher price indices are replaced by Fisher quantity indices;

(e) Parities are then standardized. The standardized vector of parities is obtained by dividing this vector by its geometric average and multiplying by the geometric average of exchange rates;

(f) The calculation of real values. At the basic-headings level this is obtained by dividing the nominal values expressed in national currencies for each country by the PPPs.

3. G-K aggregation method

The method of aggregation of parities, according to the EKS method, as already indicated, can be contrasted to the method of aggregation through the G-K method. Both methods have some advantages and some disadvantages. Here, the discussion is limited to the main differences.

The EKS method is more likely to reflect the principles of consumer behaviour. Countries are compared in pairs and then made transitive; they are less influenced by third countries. However, the results are not additive (the GDP components do not tally with total GDP).

The G-K method, on the other hand, is based on national accounting rather than on economic theory. Its results are additive and are based on a common structure of average prices or "international prices". GDP parity is computed through weights based on each country's share of the total quantity for each basic heading, so the results reflect the relative importance of economic size of each country.

However, the use of average prices tends to inflate the estimates of real values of countries with price structures different from the average price structure. This is known as the Gerschenkron effect.

The G-K system involves the following steps:

(a) The valuation of the country's output in international prices, which are the international prices for each of the basic headings, defined consistently with prices to produce an overall PPP for a country, that is:

$$\pi_i = \sum_{j=1}^n [(PP_{ij} / PPP_j) \times q_{ij}] / \sum_{j=1}^n q_{ij} \quad \text{and} \quad PPP_j = E_{ij} / R_{ij}; R_{ij} = q_{ij} \times \pi_i$$

$i = 1, 2, \dots, m$ basic headings

$j = 1, 2, \dots, n$ countries; $PPP_1 = 1.0$

where: π_i are the international prices, PPPs are the parities, and E_{ij} is the expenditure in national currency on the basic heading by country; R is the real value;

(b) It is therefore shown that the GDP of country j valued at international prices would equal expenditure in national currency divided by PPP. To compute international prices PPP is needed and to compute PPP international prices are needed;

(c) Eventually the system will solve itself simultaneously using the system of $(m + n - 1)$ equations. This is summarized in the following derived equation:

$$\sum_{j=1}^n \pi_j \times q_{ij} = \sum_{j=1}^n [(PP_{ij} / PPP_j) \times q_{ij}]$$

The MOSAIC software of the system then gives detailed tables by basic heading in both methods, EKS and G-K, containing the following:

- GDP relative nominal values
- Per capita nominal values in national currencies
- Purchasing Power Parities
- Per capita real values in purchasing power standard
- Per capita volume indices
- Price level indices

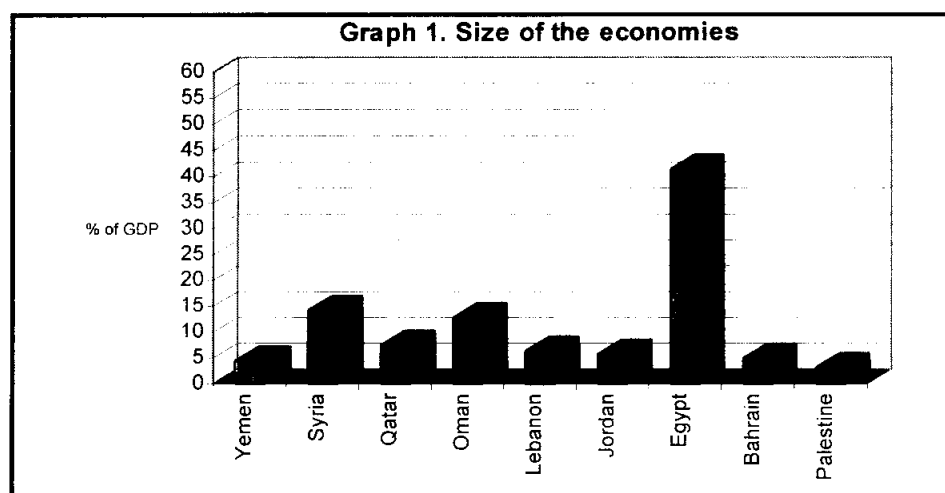
On the basis of all these tables, comparative analysis can be pursued, and, perhaps with the aid of further derived tables, economic performances and disparities as well some social achievements can be systematically and fruitfully compared and analyzed.

V. ANALYSIS OF RESULTS

1. On the basis of the MOSAIC results, some comparative analysis can be attempted here at the country level and, to a lesser extent, at the basic-headings level.
2. The comparative analysis starts with the comparison of the size of the economies of the compared countries. This is effected through the comparative analysis of the global and per capita GDP in terms of nominal values (national currencies and/or US dollars) and real values (in purchasing parities, PPs), and in absolute and relative magnitudes. This also involves the comparison of volume and price level indices at the country level.
3. At a lower level of aggregation, some comparative analysis of price level and volume indices is carried out; that is, at the level of the main GDP components.
4. At a more detailed level of aggregation, that is, at the basic-headings level, some limited aspects of certain socio-economic variables are compared between countries in terms of price and volume magnitudes.
5. The analysis is carried out on the basis of a set of tables (tables 5 to 15) compiled from the standard MOSAIC output tables produced 5 November 1996. Needless to say, the analytic comparisons made here are not exhaustive.

A. SIZE OF THE ECONOMIES

1. If the gross domestic product (GDP) is accepted as an indicator of the total size of economic activity, and the per capita GDP as a reflector of general economic performance (not as an indicator of welfare), then some useful and largely objective comparisons can be drawn from a comparative analysis of these indicators.
2. Table 5 shows that the global GDP (the total for all countries under comparison) in US dollars amounted to around 97,183 billion in 1993. The share of Egypt in this total is the highest and constitutes about 41% of the total. Next is the Syrian share at about 14%. The shares (or relative sizes) of the other countries in the total regional GDP range from about 13% (Oman) to about 3% (Palestine) the latter being the lowest (see graph 1).



Source: Table 5 GDP, exchange rates and population by country, 1993.

**Table 5. Gross domestic product (GDP), exchange rates and population by country, 1993
(PPs in EKS and G-K Methods)**

Country	Code	National currency	Exchange rate	Population		GDP (in millions)				GDP (percentage)		
				In thousands	%	National currency	USD	PPs * EKS	PPs G-K	USD	PPs EKS	PPs G-K
Yemen	2	Yemeni Riyal	40.000	13196	13.3	170298	4257.450	4431.839	2106.879	4.4	3.6	2.2
Syria	29	Syrian pound	30.060	13696	13.8	413755	13764.305	16719.659	11488.362	14.2	13.8	11.8
Qatar	62	Qatar Riyal	3.640	529	0.5	26183	7193.132	4382.819	3970.058	7.4	3.6	4.1
Oman	74	rial Oman	0.385	1992	2.0	4803	12476.104	8434.874	6873.983	12.8	6.9	7.1
Lebanon	115	Lebanese pound	1741.380	2806	2.8	10608487	6092.000	6017.950	4202.276	6.3	4.9	4.3
Jordan	125	Jordanian dinar	0.693	4095	4.1	3811	5499.855	5730.684	3635.675	5.7	4.7	3.7
Egypt	167	Egyptian pound	3.330	60319	60.8	134107	40272.552	67889.697	51996.822	41.4	56.0	53.5
Bahrain	218	dinar Bahrain	0.376	535	0.5	1754	4665.426	3710.566	2740.290	4.8	3.1	2.8
Palestine	238	New Shekel	2.986	2064	2.1	8844	2962.033	4120.592	10168.512	3.0	3.4	10.5
Total				99232	100.0		97182.857	121438.680	97182.857	100.0	100.0	100.0

* PPs = Purchasing Parities.

3. When the respective country GDPs are computed in terms of the values of purchasing parities (PPs) (for both methods EKS and GK), it can be seen (from the last two columns of table 5) that the percentage shares of all countries, except Egypt and Palestine, have become smaller. This means that the measurement in terms of PPs reflects real values (not nominal values), and that the real size of economic activity in Egypt and to a lesser extent in Palestine is higher in these terms than when measured in nominal values. The percentage share of Egypt accordingly rises to 56% (EKS method) and to around 54% (G-K method) of the total, causing other countries' percentage shares to become smaller.

4. It also appears from this table that while the percentage shares of the respective countries in PPs (for both the EKS and G-K methods-the last two columns-are close to each other, except those of Palestine, the totals of each method (in absolute PP values) are different. This is due to a certain methodological difference between the two methods. On the one hand, the G-K (Geary-Khamis) method gives additive values of parities (that is, country values are forced to tally with the total (regional) GDP in US dollars), and thus it reflects more closely the relative economic sizes of the countries being compared, although this approach, by achieving additivity, could distort individual country values in terms of purchasing parities through the structural weighting system which it employs. On the other hand, it can be seen that the global (regional) total of the GDP (in PPs terms) in the EKS method is greater than the global GDP in US dollars and that the total is not additive. The respective country PP values are affected here by differences in the initial sizes of the economies and eventually by the different levels of wealth of the countries under comparison.

Table 6. GDP and per capita GDP; values in US dollars and in real values (PPs) and their rankings by country

Country	GDP		Ranking		Per Capita GDP		Ranking	
	Value in millions of US dollars	In PPs* (Millions of units)	Value	In PPs	Value in US dollars	In PPs units	Value	In PPs
Yemen	4257.45	4431.84	8	6	323	336	9	9
Syria	13516.10	16719.66	2	2	1005	1221	7	7
Qatar	7193.13	4382.82	4	7	13598	8285	1	1
Oman	12476.10	8434.87	3	3	6263	4234	3	3
Lebanon	6092.00	6017.95	5	4	2171	2145	4	4
Jordan	5499.86	5730.68	6	5	1343	1399	6	6
Egypt	40272.55	67889.70	1	1	668	1126	8	8
Bahrain	4665.43	3710.57	7	9	8720	6936	2	2
Palestine	2962.03	4120.59	9	8	1435	1996	5	5

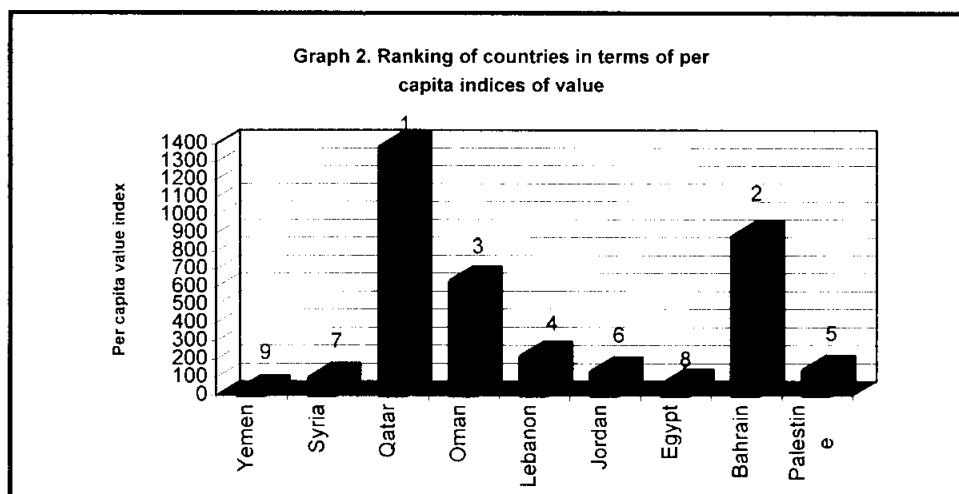
* PPs = Purchasing parities.

5. If respective country GDPs (in terms of nominal and PP values) are compared with their per capita magnitudes, as shown in table 6, some interesting results can be observed. From this table it can be seen easily that in terms of absolute values (nominal and PPs), the ranking is identical for the top-ranking countries; Egypt, the Syrian Arab Republic and Oman. However, while the ranking of Qatar and Bahrain has come down, the ranking of Yemen, Jordan and Palestine moves up slightly. This might be due to some overvaluation in

the national currencies of Qatar and Bahrain and a slight undervaluation in the national currencies of the latter countries.

6. Comparing the per capita magnitudes of those two values for the respective countries, as shown in this table, the following results can be observed:

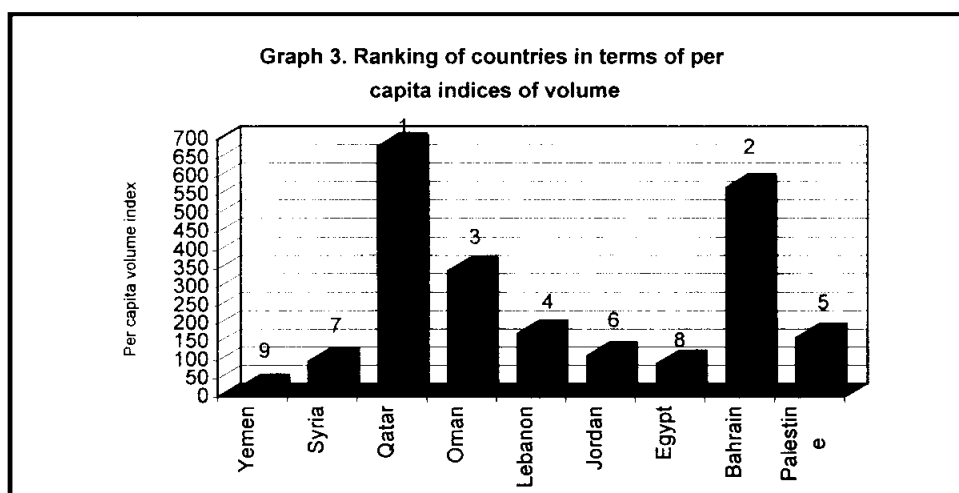
(a) The ranking changes for all countries, with the exception of Jordan and Oman, which retained the same ranking in terms of per capita value, though in terms of PPs, Jordan came down slightly (see graph 2);



Source: Table 7 Per capita indices of value, volume, price level and their rankings by country.

(b) The most obvious change of rank is that of Egypt; in terms of GDP nominal (US dollar) value, Egypt occupies the first rank, but in terms of per capita of this value, its rank goes down to eighth place. The obvious reason is the size of the Egypt's population, which constitutes about 61% of the total population of the nine ESCWA countries under comparison. For the same reason, although the rank of Qatar in absolute GDP nominal value is fourth, in terms of per capita for the same value it becomes first, because of the small size of its population;

(c) The pattern of ranking in terms of per capita PP values is identical with that of the per capita nominal value (see graph 3);



Source: Table 7 Per capita indices of value, volume, price level and their rankings by country.

(d) The general conclusion here is that the size of the economies is affected substantially in terms of economic performance, by the absolute and relative size of the population.

7. Table 7 presents the indices of per capita value, volume, price level, and the country rankings for these. To interpret the meaning of these rankings correctly, it might be useful to outline briefly the methods of derivation of each of these indicators.

(a) The value index is derived by dividing the per capita country value (in US dollars) of the GDP over the weighted average of this per capita value for all countries; this weighted average is set equal to 100.

(b) Volume index is calculated by dividing the country per capita value of the GDP in PPs terms over the weighted average of this per capita value for all countries; this weighted average is set equal to 100;

(c) The price level index is obtained by dividing the values of the country purchasing power parity (PPP) over the respective country exchange rate. This index reflects the deviation between the PPP of each country from its official or market exchange rate; hence, it reflects the general price level caused by this deviation.

8. The conclusion is that economic disparity among the countries is lower in PPP terms than in exchange rate terms. Considering first the rankings for the country value index, it will be observed that the Gulf States—Qatar, Bahrain and Oman—respectively are at the top. Lebanon comes fourth, Palestine fifth, Jordan sixth, the Syrian Arab Republic seventh, Egypt eighth and Yemen last. In terms of the per capita volume index, the order of ranking remains the same. It seems that the real volume index is positively correlated with the nominal value index. This means that disparities in real value output between countries mirror disparities in the initial nominal values of their outputs. However, this comparison could still be perverse, unless the order of country ranking in terms of the price level index is compared.

Table 7. Per capita indices of value, volume, price level and their rankings by country

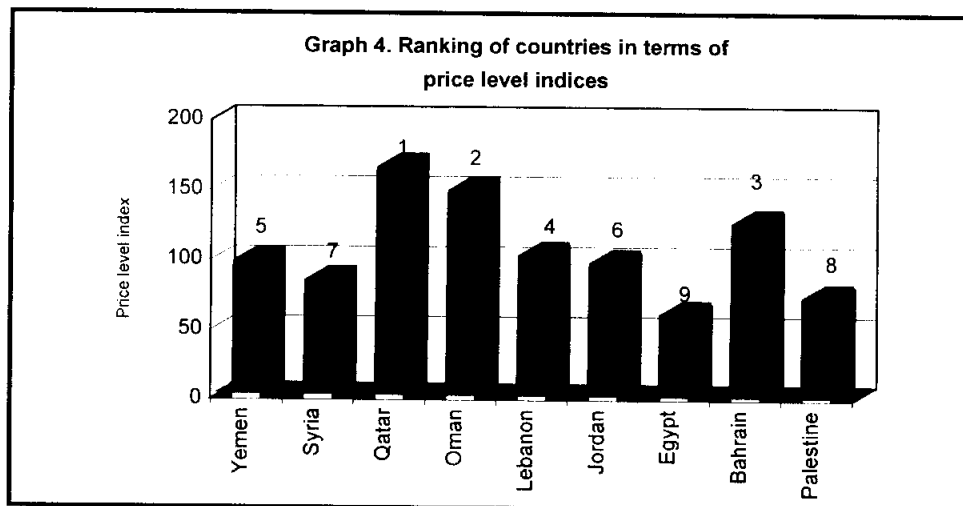
Country	Value index (Average = 100)	Rank	Volume index (Average = 100)	Rank	Price level index	Rank
Yemen	33	9	27	9	96	5
Syria	103	7	100	7	82	7
Qatar	1388	1	677	1	164	1
Oman	640	3	346	3	148	2
Lebanon	222	4	175	4	101	4
Jordan	137	6	114	6	96	6
Egypt	68	8	92	8	59	9
Bahrain	890	2	567	2	126	3
Palestine	147	5	163	5	72	8

9. The country ranking in terms of this last indicator can be summarized as follows:

(a) As observed from table 7 the order of country ranking in terms of price level index has changed almost radically compared with that of the per capita value and volume indices;

(b) It seems that this indicator (the price level index) helps to reveal the degree of nominality embedded in the values of economic magnitudes, owing to variations in price levels and exchange rates;

- (i) Table 7 shows the country rankings in terms of the price level index. It reveals that Qatar, Oman and Bahrain respectively occupy, the first three ranks, while Jordan, the Syrian Arab Republic, Palestine and Egypt occupy the bottom ranks, in a descending order. Thus, it seems that the lowest price level is in Egypt, and the highest in Qatar;
- (ii) The economic implication here is that the disparity in per capita income is less in PPP terms than in exchange rate terms. For example, Qatar's per capita income is about 7 times higher than Egypt's (in PPP terms) rather than 20 times (in exchange rate terms). The reason is that the price level in Qatar is about 3 times higher than in Egypt (see graph 4).



Source: Table 7 Per capita indices of value, volume, price level and their rankings by country.

B. STRUCTURAL COMPARISON

1. *GDP structures*

The absolute values of GDP (the expenditure approach) of the respective countries are given in terms of both national and US currencies, in table 8. From this table it can be calculated that, in terms of US dollars, the total household consumption for all the participating countries of the region constitutes over 66% of the regional total GDP for all countries under comparison, whereas the total percentage of government consumption (in US dollars) is around 14% of the regional GDP. However, the total proportion of capital formation in regional GDP, calculated on the same basis, is around 21%. This is a quite reasonable proportion as it approximates the country average of the region. But such a proportion is measured in nominal rather than real value terms. The total percentage share of change in stocks, however, is only about 4.6%, while the percentage of the net exports component of GDP is negative, approximately around -6%.

Table 8. GDP and main components in nominal values and in US dollars, 1993
(In millions)

Country	GDP, national currency	GDP, US\$	Household consumption, national currency	Household consumption US\$	Government consumption, national currency	Government consumption, US\$	Gross capital formation, national currency	Gross capital formation US\$	Changes in stocks in national currency	Changes in stocks, US\$	Net exports, national currency	Net exports, US\$
Yemen	170298	4257.450	181354	4533.9	31312	782.8	23798	594.9	2044	51.1	-68210	-1705.3
Syria	413755	13764.305	292988	9746.8	43395	1443.6	125298	4168.3	10948	364.2	-58874	-1958.5
Qatar	26183	7193.132	9433	2591.5	8540	2346.2	5100	1401.0	450	123.6	2660	730.8
Oman	4803.3	12476.104	2608.3	6774.8	1112.7	2890.1	849.1	2205.5	-6.8	-17.7	240	623.4
Lebanon	10608487	6092.000	9793421	5623.9	700494	402.3	2311589	1327.4	24400	14.0	-2221417	-1275.7
Jordan	3811.4	5499.855	2904.7	4191.5	673.6	972.0	1303.5	1880.9	119.2	172.0	-1189.6	-1716.6
Egypt	134107.6	40272.552	91323.1	27424.4	12208.0	3666.1	23066.5	6926.9	11399.1	3423.2	-3889.1	-1167.9
Bahrain	1754.2	4665.436	637.5	1695.5	303.2	806.4	505.0	1343.1	-108.8	-289.4	417.3	1109.8
Palestine	8844.63	2962.033	10356.33	3468.30	530.9	177.796	2574.4	862.156	0	0	-4617	-1546.216
Total		97182.857		66050.6		13487.296		20710.156		3841.0		-6906.22

Table 9. Percentage of GDP and main components in nominal national currencies by country, 1993

Country	GDP	Household consumption	Government consumption	Capital formation	Changes in stocks	Net exports
Yemen	100.0	106.5	18.4	13.9	1.2	-40.0
Syria	100.0	70.8	10.5	30.3	2.6	-14.2
Qatar	100.0	36.0	32.6	19.5	1.7	10.2
Oman	100.0	54.3	23.2	17.7	-0.1	4.8
Lebanon	100.0	92.3	6.6	21.8	0.2	-20.9
Jordan	100.0	76.2	17.7	34.2	3.1	-31.2
Egypt	100.0	68.0	9.1	17.2	8.5	-2.9
Bahrain	100.0	36.4	17.3	28.8	-6.2	23.8
Palestine	100.0	117.1	6.0	29.1	0	-52.2

If the GDP structure of each country is examined more closely, as depicted in table 9, the following picture emerges:

(a) On the one hand, the total expenditure of Palestine on household consumption exceeds its total GDP by about 17%. The implication is that the productive capacities of the Palestinian economy still have to grow much more. Various political, geographical and social factors are impeding the realization of a sustainable economic infrastructure. On the other hand, it can be observed that Yemen's expenditure on household consumption also exceeds its total GDP, by about 7%. In order to grow or invest in fixed capital formation, this country has to borrow from abroad; its net exports component is obviously negative and is around -40% of its total GDP;

(b) An examination of the structural pattern of the other countries reveals the extreme case of Qatar, which allocates only 36% of its GDP for household consumption (followed very closely by Bahrain), while other countries oscillate between 68% (Egypt) and 92.3% (Lebanon). It can easily be seen that, compared with the other countries, the oil-producing Gulf States of Qatar and Oman (Bahrain is excluded) devote less of their total GDP for household consumption and more of it on government consumption. It is also clear that all countries of the region, other than the three Gulf States, have a negative net exports component in both absolute and relative terms.

The foregoing comparison might be superficial since it is based on the nominal values of the GDPs and the GDP components of the respective countries. Perhaps a more realistic comparison could be obtained through the comparative analysis of volume and price level indices, based on the purchasing power parities of the countries under comparison.

2. Volume Structures

(a) Per capita volume indices (EKS method)

As stated above the per capita volume index is calculated by dividing the real values (PPs) of each country over the weighted average of real values for the whole region. Thus, these indices

seem to indicate real-value differentials compared with the regional average of each GDP component of each country. Though the real values in general correlate with the magnitudes of the nominal values of the GDP components, yet in per capita terms they seem to reflect a different order in magnitudes owing to the varying sizes of the populations of the countries concerned.

In this regard the following points may be noted from table 10.

- (i) With respect to GDP, the per capita volume index of Yemen in comparison with the other countries seems to show the smallest size (about 27% of the average regional index);
- (ii) The Syrian Arab Republic and Egypt are slightly smaller than the regional average;
- (iii) Per capita volume indices of other countries are higher than the regional average. The Gulf States (Qatar, Bahrain and Oman) show respectively the highest indices in this respect, i.e., several times higher than the regional average;
- (iv) The table reveals a more or less similar ordering of countries with respect to almost all of the other GDP components.

**Table 10. Per capita volume indices
(EKS method)**

Country	GDP	Rank	Household consumption	Rank	Government consumption	Rank	Gross capital formation	Rank	Change in stock	Net exports
Yemen	27.4	9	44.7	9	42.0	8	9.3	9	10.0	185.7
Syria	99.8	7	95.6	7	81.4	6	38.9	7	68.7	205.5
Qatar	677.0	1	571.5	1	243.1	1	1006.8	2	603.7	-1984.9
Oman	346.0	3	346.2	2	98.3	5	422.8	3	-22.9	-449.7
Lebanon	175.2	4	216.7	5	68.2	7	239.4	5	12.9	653.2
Jordan	114.4	6	110.0	6	108.4	4	282.5	4	108.5	602.3
Egypt	92.0	8	85.7	8	118.5	3	62.7	8	146.6	27.8
Bahrain	566.7	2	298.8	4	197.2	2	1073.3	1	-1397.3	-2980.7
Palestine	163.1	5	312.3	3	19.4	9	162.7	6	0	1076.4
Average	100.0		100.0		100.0		100.0		100.0	100.0

(b) Per capita relative volume indices

This indicator is calculated as the ratio of the per capita volume index of each GDP component of each country to the per capita GDP volume index of that country.

It can be said then that this indicator could be used to assess the magnitude of the contribution of each GDP component of each country to the size of the volume index of the GDP of the respective country.

**Table 11. Relative volume indices
(EKS method)**

Country	GDP	Household consumption	Government consumption	Gross capital formation	Change in stock	Net exports
Yemen	100.0	162.8	153.0	33.9	36.5	676.6
Syria	100.0	95.8	81.6	139.2	68.9	206.0
Qatar	100.0	84.4	35.9	148.7	89.2	-293.2
Oman	100.0	100.1	28.4	122.2	-6.6	-131.0
Lebanon	100.0	123.6	38.9	136.6	7.4	372.0
Jordan	100.0	96.2	94.8	247.1	94.9	526.7
Egypt	100.0	93.2	128.9	68.2	159.4	30.2
Bahrain	100.0	52.7	34.8	189.4	-246.6	-654.8
Palestine	100.0	191.4	11.9	99.7	0	659.8
Average	100.0	100.0	100.0	100.0	100.0	100.0

Accordingly, the results given in table 11 seem to reflect the following general picture:

1. For all countries other than Egypt, trade (through the net exports relative volume indices) can be considered the highest contributor to the size of the GDP volume index.

2. Gross fixed capital formation can be considered the second highest contributor to the GDP volume indices of all countries, excluding Yemen, Egypt and Palestine.

3. On the same basis, household consumption comes third and Government consumption fourth.

4. Comparing with the average relative volume indices for the whole region, it is observed that nearly less than half of the individual country indicators for each GDP component are higher than this "regional" average, with the following exceptions:

- (i) For household consumption the relative volume indices of this component are lower than the regional average with respect to the following countries (in descending order): Jordan, the Syrian Arab Republic, Egypt, Qatar and Bahrain;
- (ii) For government consumption the following countries (in descending order) show similarly lower relative volume indices than the regional average: Jordan, the Syrian Arab Republic, Lebanon, Qatar, Bahrain, Oman and Palestine;
- (iii) For gross fixed capital formation only Yemen, Egypt and Palestine show lower relative volume indices than the regional average for this item;
- (iv) For change in stocks only Egypt shows a higher relative volume index than the regional average;
- (v) For net exports again only Egypt shows a lower relative volume index than the regional average.

The general conclusion is that the per capita volume indices are helpful in reflecting the sizes of per capita GDP and components in real rather than nominal terms. One may say that higher country ranks in terms of these indicators could suggest higher output per person, but this is only a partial approach. To form a clearer idea about productivity performance, it might be necessary to examine relevant indicators of price structures.

3. Price structures

(a) Price level indices (EKS method)

Table 12 shows the price level indices for the respective country GDPs and their uses. The price level index is derived by dividing the country PPP over the country exchange rate. The following points are relevant here:

- (i) Regarding the price level indices (PLIs) relating to the GDP of the respective countries under comparison it can be seen that the average price level index for the whole region is about 80%. All countries excepting Egypt and Palestine reveal price indices higher than this average in varying points; ranging from a high in Qatar, with a PLI of 164.1 (higher than the average by 84.1 points), to a low in the Syrian Arab Republic, (with a PLI of 82.3, exceeding the average by only 2.3 points);

In this respect one can consider Egypt a category by itself since it shows a lower PLI for its GDP than the average by about 21 points and maintains lower PLIs for all the other GDP components than the regional averages (apart from those in the last two columns of the table).

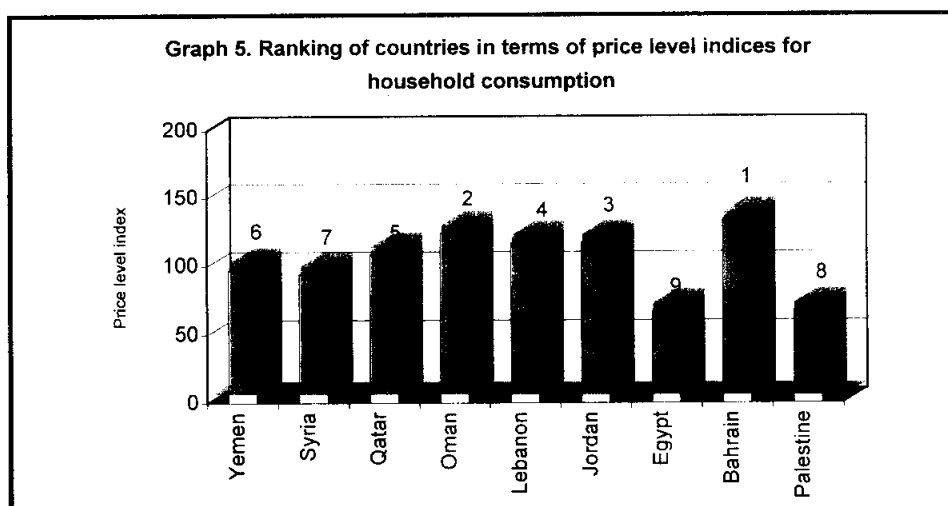
Palestine, however, reveals a PLI lower than the regional average by 8.1 points. This is mainly due to the composition of its GDP, where household consumption items are not only relatively cheaper but also proportionately greater in magnitude than the items of the other GDP components;

- (ii) As for household consumption, the same pattern is more or less shown here, except that the highest PLI for this GDP component is now in Bahrain and not in Qatar. Again, Egypt and Palestine show lower PLIs than the regional average;

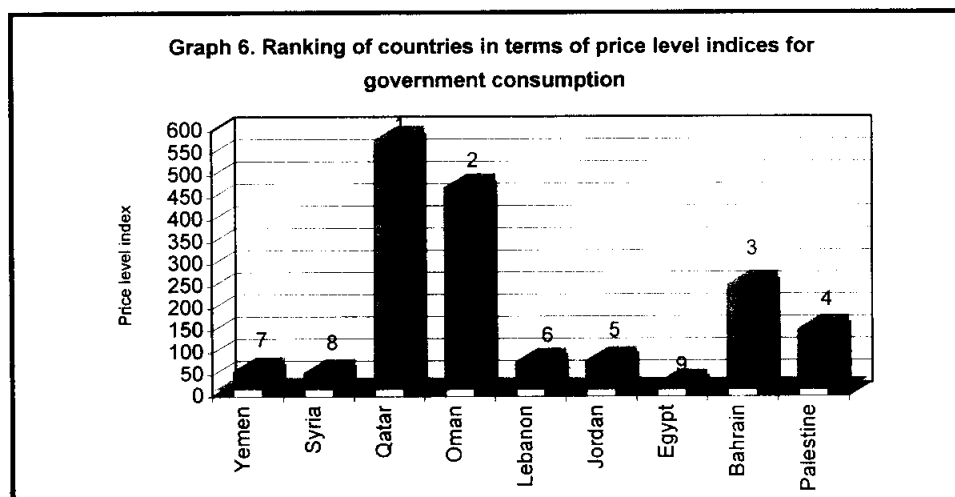
**Table 12. Price level indices: GDP and its uses
(EKS method)**

Country	GDP		Household consumption		Government consumption		Gross capital formation		Change in stocks	Net exports
	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Index
Yemen	96.1	5	96.8	6	43.6	7	202.7	1	100	100
Syria	82.3	7	93.8	7	40.0	8	91.5	6	100	100
Qatar	164.1	1	107.9	5	562.8	1	109.9	2	100	100
Oman	147.9	2	123.7	2	455.6	2	109.4	3	100	100
Lebanon	101.2	4	116.5	4	64.9	6	82.5	7	100	100
Jordan	96.0	6	117.1	3	67.5	5	67.9	9	100	100
Egypt	59.3	9	66.8	9	15.8	9	76.4	8	100	100
Bahrain	125.7	3	133.6	1	235.7	3	97.7	5	100	100
Palestine	71.9	8	67.8	8	137.1	4	107.2	4	100	100
Average	80.0		83.8		41.9		87.2		100	100

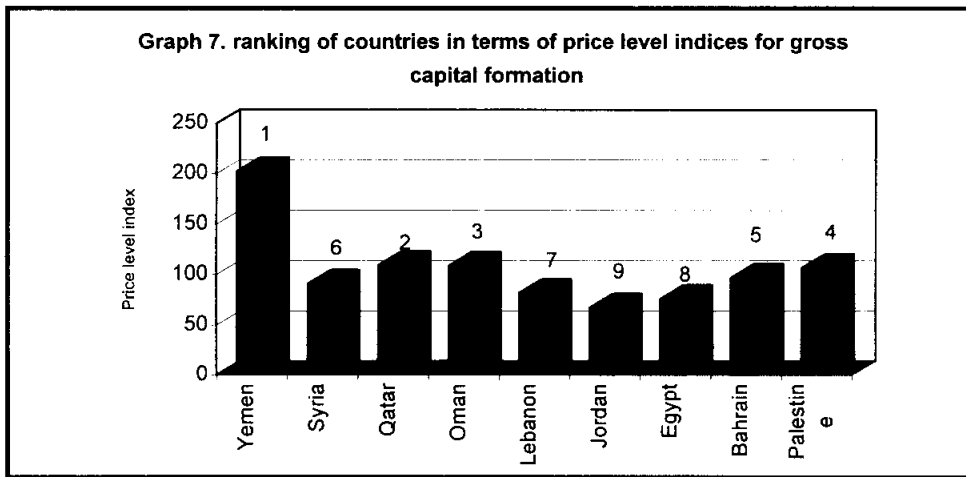
- (iii) With respect to PLIs for the government consumption components of the respective countries, it can be observed that while Egypt is below the average, the Gulf States (Qatar, Oman and Bahrain) show in a descending order PLIs several times higher than the average. Other countries have PLIs higher than the average, excepting the Syrian Arab Republic which shows a PLI slightly lower than the average;
- (iv) With regard to gross capital formation, Jordan and Lebanon show PLIs lower than the average, while the highest is shown for Yemen (more than twice the average) and the lowest (but still higher than the average) is shown for the Syrian Arab Republic. The three Gulf States (Bahrain, Qatar and Oman) followed by the Syrian Arab Republic and Palestine, reveal PLIs ranging from 91% to 109%, that is, a few points higher than the average (see graphs 5, 6 and 7);



Source: Table 12 Price level indices: GDP and its uses.



Source: Table 12 Price level indices: GDP and its uses.



Source: Table 12 Price level indices: GDP and its uses.

- (v) The general conclusion is that the Egyptian economy, as a category of its own, tends to reveal a lower level of prices for GDP generally and for most of the components of GDP components. Palestine and the Syrian Arab Republic followed by Jordan, Lebanon and Yemen, seem to form a category in terms of PLIs, which are higher than those of Egypt but lower than those prevailing in the Gulf States. In one respect, Yemen seems to form a second category by itself since its PLIs are highest for capital formation while its PLIs for other GDP components are higher than the regional averages.

If a preliminary deduction may be ventured here, it seems acceptable to say that countries like Egypt, the Syrian Arab Republic, Jordan and, to a lesser extent, Lebanon, possess more diversified economies, leading perhaps to lower units of production costs and hence lower general price levels. The Gulf States, which are major oil-producing countries, though they realize positive balances of payments, have economies that are not diversified enough to reflect a lower general level of prices than the regional average. The general level of prices in the Gulf States seems to be determined largely by the general level of international trade prices.

Yemen, on the other hand, is now partially oil-producing and has a geographically large economy, yet its PLIs for the GDP and especially for capital formation are very high. This phenomenon could be explained by the low level of productivity and by some fundamental structural problems. Additionally, the exchange rate used in the calculations may be unrealistic. These matters might be addressed by more specialized studies and can not be pursued further here.

The situation in Palestine is different; this is a country still striving for its independence. While its economy is largely agricultural, neither infrastructure nor industry are sufficient for sustainable development as yet. This is why its consumption exceeds its total GDP. Hence, the country depends heavily on transfers, grants and some loans from abroad.

b. Relative price indices

These indices, as shown in table 13 are calculated as percentage ratios of the PLIs of the GDP components to the PLI of the GDP of each country. Therefore, they tend to indicate the magnitudes

of price changes in the PLI of the GDP of each country, attributed to each of the GDP components of the respective country. In other words, they show which GDP component has the highest or lowest contribution towards the GDP general price level index. These relative price indices are compared with their averages on the regional level.

**Table 13. Relative price level indices
(EKS method)**

Country	GDP	Household consumption	Government consumption	Gross capital formation	Change in stocks	Net exports
Yemen	100	100.8	45.4	211.0	104.1	104.1
Syria	100	113.9	48.5	111.2	121.5	121.5
Qatar	100	65.8	342.9	67.0	60.9	60.9
Oman	100	83.6	308.0	73.9	67.6	67.6
Lebanon	100	115.1	64.1	81.5	98.8	98.8
Jordan	100	122.0	70.5	70.8	104.2	104.2
Egypt	100	112.6	26.7	128.9	168.6	168.6
Bahrain	100	106.2	187.5	77.7	79.5	79.5
Palestine	100	94.3	190.7	149.2	0	139.1
Average	100	104.7	52.4	109.0	125.0	125.0

In this regard it can be observed that the countries under comparison fall into three categories:

- (i) Yemen, Palestine, Egypt and the Syrian Arab Republic, as the category which has the highest relative price indices (RPIs) for gross capital formation. This means that this GDP component (capital formation) contributed highest to the GDP price level indices (PLIs) of these countries. In other words, prices of capital formation items are more expensive than other items in those countries;
- (ii) The second category is the three Gulf States (Qatar, Oman and Bahrain) and Palestine. They seem to show the highest relative price indices for government consumption—several times higher than the average. Thus, this GDP component (government consumption) contributed the most towards their respective GDP price level indices (PLIs). This means in general that the cost of Government services is high (largely caused by high wages for employees whose productivities are generally low).
- (iii) The third category is Lebanon and Jordan, which both reveal the highest RPIs for household consumption. It seems that consumption items in these two countries are relatively expensive compared with the prices of other items there.

C. A BRIEF COMPARISON OF SOME SELECTED SOCIO-ECONOMIC
VARIABLES BETWEEN COUNTRIES

The comparison between countries is held, here, for the household consumption and its major basic headings in terms of volume and price indices.

1. *Per capita volume indices*

Taking household consumption as a whole, first, it can be observed directly from table 14 that the per capita volume index for Yemen is the smallest in size, i.e., only about 45% of the regional average, which equals 100.

The Syrian Arab Republic and Egypt show per capita volume indices lower than the regional average.

In comparison other countries reveal per capita volume indices higher than the average. The Gulf States, except for Bahrain, top the ranks consecutively, revealing per capita volume indices several times higher than the regional average. Palestine shows a very high per capita volume index, in fact higher than Bahrain's, making it third in rank. Its index is over three times higher than the average. This could be explained by the large volume of food production in the Palestinian areas. For Lebanon this indicator is twice as high as the average, whereas for Jordan the per capita volume index exceeds the regional average by only 10 points.

With regard to the major basic headings of household consumption given by table 14—these items bear the codes 11 (Food, etc.), 12 (Clothing, etc.), 13 (Rents, etc.), 14 (Furniture, etc.), 15 (Medical Care), 16 (Transport, etc.), 17 (Recreation, etc.), 18 (Miscellaneous, etc.)—a general pattern seems to form in the following way:

(a) Yemen, as expected, reveals the lowest per capita volume indices for all these items (in fact much lower than the regional average);

(b) The Syrian Arab Republic and Egypt reveal per capita volume indices lower than those of all other countries, excluding Yemen;

(c) The Syrian Arab Republic shows lower per capita volume indices than the regional averages for the following items: (11) Food, etc., (12) Clothing, etc. (16) Transport, etc. and (18) Miscellaneous, etc. The Syrian indices of the other items, excluding 13 (Rent, etc.) and 14 (Furniture, etc.) exceed the regional averages only moderately. The Syrian per capita volume index for item (13), i.e., Rents and Fuel, is more than twice as high as the regional average; whereas that of item 14 exceeds the regional average by 70 points;

(d) Egypt, on the other hand, reveals per capita volume indices lower than the regional average for most items. There are only four items (codes 11, 15, 17 and 18), i.e., Food, etc., Medical Care, Recreation, and Miscellaneous Goods and Services, where the Egyptian per capita volume indices exceed the regional average by a few points, ranging from 3 to 21.

(e) The Gulf States Qatar, Oman and Bahrain form another category, as they have per capita volume indices much higher than the regional averages for all items. There is only one exception and that is the very low per capita volume index of Bahrain for item 18, Miscellaneous Goods and Services; this exception may call for further investigation. However, it is hardly surprising to

observe very high per capita volume indices in the Gulf States, since they enjoy very high incomes and have small populations;

(f) Lebanon and Jordan, though they differ in the magnitudes of their per capita volume indices (Lebanon being higher than Jordan and higher than the regional average for most items), seem to move up and down in the same direction across the household basic headings. Hence, they could be considered as a category of their own;

Table 14. Per capita volume indices for household consumption items
(EKS method)

Country	Household consumption	Food, beverages and tobacco	Clothing and footwear	Gross rents, fuel and power	Furniture and household equipment and operation	Medical care	Transport and communication	Recreation and entertainment	Miscellaneous goods and services
	1	11	12	13	14	15	16	17	18
Yemen	44.1	49.8	26.5	44.5	12.8	22.4	17.2	60.1	52.2
Syria	95.6	83.0	71.2	237.8	170.3	103.0	28.1	103.1	46.8
Qatar	571.5	277.4	826.9	345.2	801.0	301.2	1403.9	354.0	324.9
Oman	346.2	171.0	276.5	329.3	276.3	93.6	921.0	138.8	211.3
Lebanon	216.7	201.1	343.5	96.6	349.0	128.1	287.0	59.0	100.9
Jordan	110.0	95.0	91.6	162.6	103.9	61.3	115.2	112.3	69.7
Egypt	85.7	104.2	97.6	66.0	73.8	121.2	32.1	103.6	117.2
Bahrain	298.8	198.1	223.1	178.0	394.8	177.2	342.9	329.1	28.5
Palestine	312.3	142.6	127.8	108.9	183.5	193.7	1617.7	97.7	168.2
Average	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000

(g) Palestine generally shows per capita volume indices for most items higher than the regional average. The striking exception is that for the item of Transport and Communications: this index is nearly 16 times higher than the regional average, a situation which may call for further investigation.

2. Price level indices

In a similar fashion, table 15 presents price level indices (PLIs) for household consumption and its major basic headings. The table reveals the following general features:

(a) The lowest price level indices (PLIs) for all the items of the household consumption excluding item 16 (Transport, etc.) are shown for Egypt. Those indices are also much lower than the regional averages for all items, excepting item 16;

(b) As expected, the Gulf States Qatar, Oman and Bahrain reveal respectively the highest price level indices (several times higher than the regional averages). Since the three Gulf States seem to convey some striking common features, it may be useful to compare them separately through the following small ranking table of PLIs by basic headings:

	Ranks of items by codes								
	1	11	12	13	14	15	16	17	18
Qatar	3	2	3	3	1	3	3	3	1
Oman	2	1	1	2	2	1	2	1	3
Bahrain	1	3	2	1	3	2	1	2	2

From the table above one can conclude that Qatar is cheaper than Oman and Bahrain for most items;

Table 15. Household consumption: price level indices
(EKS method)

Country	Household consumption	Food, beverages and tobacco	Clothing and footwear	Gross rents, fuel and power	Furniture and household equipment and operation	Medical care	Transport and communication	Recreation and entertainment	Miscellaneous goods and services
	1	11	12	13	14	15	16	17	18
Yemen	96.8	105.0	95.5	60.7	104.7	68.8	118.3	41.0	62.1
Syria	93.8	102.3	97.6	35.7	84.2	38.1	131.1	50.3	81.2
Qatar	107.9	115.3	83.6	115.0	132.3	186.6	105.4	127.0	135.7
Oman	123.7	119.6	128.4	188.4	129.2	232.0	114.5	228.7	126.1
Lebanon	116.5	97.6	104.4	162.6	94.2	144.5	139.3	142.3	174.5
Jordan	117.1	101.0	123.8	87.6	105.2	99.0	158.5	90.6	103.6
Egypt	66.8	57.7	51.7	29.6	54.5	29.3	113.9	41.2	49.3
Bahrain	133.6	113.7	104.8	257.8	127.2	229.5	116.4	203.5	132.7
Palestine	67.8	104.3	142.8	196.0	96.6	91.4	18.2	154.5	97.9
Average	83.8	74.9	74.3	59.0	79.0	48.4	86.2	58.5	64.0

(c) After the Gulf States comes Lebanon with price level indices higher than the regional averages for all items. Jordan follows Lebanon;

(d) The Syrian Arab Republic and Yemen reveal PLIs which are close to each other for most items. Their indices are generally higher than the regional averages, with the exception of item (17), Recreation and Entertainment, for which both countries have lower PLIs than the regional average;

(e) The Syrian Arab Republic along with Egypt, shows a lower PLI for item 13 Rent, Fuel and Power, than the regional average;

(f) Palestine, however, shows PLIs generally higher than the regional average, with the exception of items 1 (household consumption as whole) and item 16 (Transport, etc.), the latter being much smaller than the regional average.

D. A GENERAL CONCLUSION

In the light of the foregoing comparative analysis, based on the results of the ESCWA Comparison Programme, a general conclusion can be made, pending further improvements in data inputs, coverage and method of processing.

1. In terms of size of economies it is clear that the Egyptian economy is by itself on one side, being the largest in population and absolute volume of GDP, and on the other side are the smaller countries, varying a good deal in sizes and incomes.

2. In absolute value and volume of GDP, the analysis shows that Egypt, the Syrian Arab Republic and Oman respectively top the ranks. Other countries seem to converge around a percentage of total GDP ranging between 5% and 8% for values and between 3% and 7% for volumes. In per capita terms, however, the situation changes radically for Egypt and the Syrian Arab Republic, which now move to the very bottom ranks because of their large populations, particularly for Egypt. The Gulf States Qatar, Bahrain and Oman respectively move to the top ranks.

3. The structural analysis shows the following:

(a) The Gulf States allocate around one third to one half of their GDPs for household consumption and between one third to one quarter of their GDPs for government consumption;

(b) Other countries, excluding Palestine and Yemen, allocate between 68% and 92% of their GDPs for household consumption and higher percentages for their capital formation than the Gulf States;

(c) Palestine alone seems to spend over 117% of its GDP for household consumption;

(d) Yemen's expenditure on household consumption exceeds its GDP by 6%. This leaves only 14% to be spent on capital formation, which has to be financed through deficit budgeting and external borrowing.

4. Regarding the price levels analysis the foregoing discussion conveys the following general picture:

(a) On the basis of price level indices, Egypt is diagnosed as having the lowest price level, followed by Palestine, then the Syrian Arab Republic, then Jordan. The Gulf States and Yemen respectively are recognized as having the highest price levels;

(b) In terms of relative price level indices, the following pattern is identified:

- (i) Household consumption items seem to be more highly priced than other items in Jordan and Lebanon;
- (ii) Government consumption items are more highly priced in the Gulf States than other items;
- (iii) Capital formation items are more highly priced in Yemen, Palestine, Egypt and the Syrian Arab Republic in comparison to the other items in their GDP components.

VI. LIMITATIONS

A. METHODOLOGICAL PROBLEMS

It is not intended here to discuss the theoretical constructs of the various computational methods that are employed or that could be employed in the ICP or the ESCWA CP systems, although some problems relating to the interpretation of results caused by methodological differences will be indicated. Also, some specific limitations pertaining to the application of the ICP system to the ESCWA region will be briefly mentioned.

Methodological differences:

For the aggregation of the basic heading parities, two major methods are employed, i.e. EKS and G-K, but these two methods adopt different approaches, giving different absolute values. However, their results in relative terms are very close. The reasons, as indicated in chapter four, relate to the fact that the G-K method is based on average international prices, deriving the weights from GDP components as proxies for quantities and subsequently forcing the values of the GDP components to tally with global GDP (for all countries). This is explained by what is called the Gerschenkron effect, that is, the values of some countries with price structures different from the average structure might be overestimated. With the EKS method, countries are given equal weights, which eliminate the Gerschenkron effect, but the values in this case would not be additive.

Now, since in the application of the two methods for the ESCWA region no specific country currency is used as a numeraire, specific normalization procedures are applied by the MOSAIC software for each method. This process could make comparison between the results of the two methods in terms of absolute values less meaningful.

The relative values given by the results of both methods still remain very close to each other. Since the present study focuses on the comparative analysis of relative values rather than absolute values of size indicators or income level, etc., the interpretations of the results would remain acceptable.

B. FIELD AND OFFICE DATA PROBLEMS

The initial list of specifications for the ESCWA region comprised 216 items, of which 157 are consumer goods and services, 23 are equipment goods and 36 items represent a set of standard buildings and civil engineering items. The difficulties and problems encountered by ESCWA at the stage of checking and compiling the survey data will be discussed below, separately for each category of the above-mentioned items.

Having in mind that the Reduced Information Method involves the selection of a smaller sample of items and that the standard error of the results is expected to be greater than in the case of a full-scale approach, it is important to ensure (a) the availability of data for each item of the list and for each participating country and (b) the extent of their conformity to the agreed-upon specifications. Another issue of concern to ESCWA was to make sure that the collected prices related to identical or equivalent products. In case of doubt, ESCWA managed to introduce the appropriate solution either by addressing inquiries to participating countries or by undertaking specific research to effect quality or quantity correction on a case-by-case basis.

1. *Consumer goods and services*

It is assumed that the list of items represent to a large extent the national expenditure GDP for the reference year. As such, the prices collected in each participating country should reflect the average national prices. The Reduced Information Method has made the following assumptions concerning this condition:

(a) The participating countries themselves select an average urban town for carrying out their price survey;

(b) All participating countries undertake their national survey during a short period of time instead of covering all the year. In the case of ESCWA, the month of December 1995 was chosen for the field work, and it was assumed that this month represented a normal period in 1995, except for Lebanon which adopted a different period (two weeks in January) to avoid the pricing effect of Christmas and the New Year;

(c) The selection of the outlets from which the prices were to be collected was left to the discretion of the participating country.

The main cases of price adjustment are the following:

(a) Subsidized products (bread, rice, oil)

The price correction was made by taking the weighted average of subsidized and non-subsidized prices of the product, the weights being the percentage of consumers benefiting from the subsidy and the percentage of non-benefiting consumers;

(b) International airfare

The price taken for comparison was obtained by dividing the normal airfare given by the countries for a flight from their capital city to London by the distance of this flight;

(c) Unavailable prices

If the good or service was non-existent in most of the participating countries (such as beer, locally produced cigarettes, etc.), it was deleted from the list of specifications. If the price was not available in one Gulf country (such as the daily rate in a private hospital) the average price of other Gulf countries was taken for its estimation. Nevertheless the rule adopted by ESCWA was to resort to the participating country any time the price was lacking or seemed to be abnormal or extreme (an outlier);

(d) Correction of weight and size

This quantitative price adjustment was mainly used in cases where the declared price did not follow the specifications of the required standard weight or size (for example, photographic film of 36 shots instead of 24, weight of processed cheese, size of bath towel, etc.);

(e) Quality correction

This may relate to the brand of the product, to its country of origin or to some other aspect of technical performance or characteristics. The price difference involved was dealt with on a case-by-

case basis. One striking case was that of passenger cars, where the ESCWA coordinator used various methods of adjustment, including a simple linear equation giving the price of a model as a function of the motor size in cubic centimetres. However, it should be mentioned here that, although the quality difference should in principle be priced, this adjustment should be avoided unless a significant difference is observed. For instance several items locally produced in Egypt and the Syrian Arab Republic were considered as having the same utility as the corresponding imported items in other countries. Consequently, the quality difference in such cases was neglected.

2. *Equipment goods*

The collection and comparison of prices of equipment goods proved to be more difficult than for other goods and services in the specifications list for the following reasons:

- (a) The identification of many of the required items in the field was complex;
- (b) The relation between technical characteristics and prices was usually not straight forward;
- (c) The needed expertise to conduct the survey was usually not available within the statistical departments;
- (d) The price survey should sometimes be accompanied by special research or discussion with outside experts;
- (e) The cost of price collection was higher than for other categories of goods.

In fact ESCWA has expended great efforts to effect the adequate price checking and adjustment for this category of items. Every single item has been scrutinized in order to improve the comparability of prices of the required items. The main difficulties faced by ESCWA and the way they were overcome are summarized below:

(a) Lack of data

This problem was addressed on a case-by-case basis. For some of the items (homogenizer, pushed barge, goods wagon) the percentage of non-response was so high that it was decided to delete the corresponding items. In other cases, the participating countries were called upon to provide the price of the item or of an equivalent one. In a few cases, the items were priced by ESCWA in comparison with the price of a proxy country or were left unpriced, to be dealt with by the ICP software;

(b) Price adjustment

It was observed, by checking the price matrix converted into US dollars, that the range of price variation was extremely large. This was mainly attributed to differences in technical characteristics of the products selected by the participating countries. In other instances, the price differences could be explained by a difference in the model and make of the product.

ESCWA dealt with this problem of price adjustment on a case-by-case basis. For some items such as photocopiers, research was made to collect a list of prices of all models and makes available on the market, and an adjustment by means of a coefficient drawn from this list was effected to

obtain comparable prices. For other items, the price correction was based on variables related to the performance of the equipment.

It should be mentioned here that, to improve price comparability, the countries were requested to state all technical characteristics of the selected items, in addition to providing information related to the costs included in the prices such as sales taxes, transport and delivery cost, installation cost and start-up cost if applicable. All this additional information assists ESCWA in matching the prices for this category of equipment goods in a better way.

3. *Construction*

The comparison of construction prices is an especially complex task for the following reasons:

(a) Price collection is not obtained by direct observation but through long interviews and research work;

(b) The specific expertise required is not usually available within national statistical departments.

In the full-scale approach of the ICP, a set of standard construction projects to be priced by the participating countries was proposed. An example of those projects was the following list adopted in the 1993 round of ICP by the Central and Eastern European countries:

- Single-storey one-family house without cellar
- Block of flats with access galleries, eight floors and 48 living units
- Factory, steel frame construction
- Office building with reinforced-concrete skeleton construction
- Agricultural shed, open on all sides, 15 meters long and 10 meters wide
- Road construction of 100 meters
- Concrete sewer main

For each project, a bill of quantities was given for all the operations covering this project. The comparison of each project across the countries is only made at the level of the overall price of the project.

In ESCWA, an engineer was consulted to find a list of items consistent with the available GDP expenditure data on one side, and with the existing databases on construction data in the national statistical departments, on the other side. It was decided to take only two projects, (a) building construction and (b) road construction. The various elementary components of each project were priced according to a standard unit of measurement chosen for each operation.

The construction survey was satisfactorily undertaken by all the participating countries. The expert thoroughly examined the collected data and gave the following comments:

(a) Some items were not representative in participating countries and should be deleted, such as stone walls and marble sills;

(b) Other items were not priced with the same requested unit, such as the ground slab priced in cubic metres instead of square metres and window protection steel given in square meters instead of kilograms;

(c) Specifications of items were sometimes different from those requested, for instance concrete for walls included, by error, the cost of reinforcement steel for certain countries;

(d) Some specifications listed in the questionnaire were not always precise and sometimes misleading, such as the specification related to excavations which did not mention, as required, the kind of soil.

VII. SUGGESTIONS FOR FUTURE ACTIVITIES OF THE PROGRAMME

One of the major findings of the present report may be the provision of evidence that regional and subsequently international comparison is very useful for the participating countries themselves in many ways. It helps to reveal the "real" rather than the "nominal" values of the GDP and its structure for respective countries.

The size of the economies and levels of performances of the respective countries would be measured comparatively on a more objective scale of measurement.

The indicators obtained through the ICP would help to encourage prospective investors and stimulate regional and international trade and economic cooperation between the countries under comparison.

Also, knowing the "real" size and economic standing on a regional or international level would be extremely beneficial for each participating country in guiding and monitoring its development plans and economic, financial and trade policies.

To promote further development in the present programme, it is hoped that with the cooperation already generously offered by the World Bank and the United Nations through ESCWA, the following suggestions for the future can be considered:

1. Since price data for the year 1995 for 10 ESCWA member countries are now available, it remains to complement these with data on GDP components for the same year. It then becomes possible to carry out the comparison programme again for the region in the light of the lessons learned in this first round of the ESCWA CP.

2. If a second phase of this programme is envisaged, the following points must be considered:

(a) Determination of a numeraire country from the region to make comparison of absolute values more meaningful and more perceptible;

(b) Country deflators should be extended and improved;

(c) The lessons of the present experience should be applied to the full benefit of the member countries of ESCWA, through improving their price statistics on the one hand, and speeding up the efforts to implement the 1993 SNA on the other hand;

(d) To secure efficient implementation of price surveys and unity of concepts, training on both price collection and the 1993 SNA concepts is highly needed;

3. It is also hoped that other member countries of ESCWA which did not participate in this first stage of the Comparison Programme will now join in to reap its benefits.

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ANNEXES

**EKS AGGREGATION METHOD
METHODE D'AGGREGATION EKS**

**TABLE A1 : GROSS DOMESTIC PRODUCT - Main results
TABLEAU A1 : PRODUIT INTERIEUR BRUT - Principaux résultats**

COUNTRIES	Total Value (in millions)		Population * (x 1000)	Per Capita Value		Per Capita Value Index (average = 100)	Exchange Rate ** (1 USD = ...n.c.)	Purchasing Power Parity (1 PPS = ...n.c.)	General Price Level Index (average = 83)
	in national currency (n.c.)	in US Dollars		in national currency (n.c.)	in US Dollars				
Yemen	170298	4257.45	4431.8396	12905.2743	322.6319	335.8472	40	38.426	96.0651
Syria	413755	13764.3047	16719.6593	30209.9153	1004.9872	1220.7695	30.06	24.7466	82.3241
Qatar	26183	7193.1319	4382.8186	49495.2741	13597.6028	8285.1013	3.64	5.974	164.1211
Oman	4803.3	12476.1039	8434.8742	2411.2952	6263.1044	4234.3746	0.385	0.5695	147.911
Lebanon	10608487	6092	6017.9504	3780643.977	2171.062	2144.6723	1741.38	1762.8073	101.2305
Jordan	3811.4	5499.8557	5730.6844	930.7448	1343.0661	1399.4345	0.693	0.6651	95.9721
Egypt	134107.6	40272.5526	67889.6967	2223.3061	667.6595	1125.511	3.33	1.9754	59.3206
Bahrain	1754.2	4665.4255	3710.5659	3278.8785	8720.4216	6935.6373	0.376	0.4728	125.7335
Palestine	8844.63	2962.0328	4120.5923	4285.189	1435.0934	1996.411	2.986	2.1464	71.8837

PAYS	Valeur Globale (en millions)		Population * (x 1000)	Valeur par habitant		Indice de Valeur par habitant (moyenne = 100)	Taux de Change ** (USD = ...m.n.)	Parité de Pouvoir d'Achat (1 SPA = ... m.n.)	Indice de Niveau Général des Prix (moyenne = 83)
	en monnaie nationale (m.n.)	en US Dollars		en monnaie nationale (m.n.)	en US Dollars				

**EKS AGGREGATION METHOD
METHODE D'AGGREGATION EKS**

**TABLE A2 : GROSS DOMESTIC PRODUCT - Main uses
TABLEAU A2 : PRODUIT INTERIEUR BRUT - Principaux emplois**

COUNTRIES	G.D.P.	Household Consumption	Government Consumption	Gross Fixed Capital Formation	Change in Stocks	Exports less Imports of Goods and Services
PAYS	P.I.B.	Consommation Finale des Ménages	Consommation Finale des Administrations Publiques	Formation Brute de Capital Fixe	Variation des Stocks	Excédent des Exportations sur les Importations de Biens et Services
Yemen	170298	181354	31312	23798	2044	-68210
Syria	413755	292988	43395	125298	10948	-58874
Qatar	26183	9433	8540	5100	450	2660
Oman	4803.3	2608.3	1112.7	849.1	-6.8	240
Lebanon	10608487	9793421	700494	2311589	24400	-2221417
Jordan	3811.4	2904.7	673.6	1303.5	119.2	-1189.6
Egypt	134107.6	91323.1	12208	23066.5	11399.1	-3889.1
Bahrain	1754.2	637.5	303.2	505	-108.8	417.3
Palestine	8844.63	10356.33	530.9	2574.4	0	-4617

**EKS AGGREGATION METHOD
METHODE D'AGGREGATION EKS**

**TABLE A3 : PRICE LEVEL INDICES : GDP and its uses
TABLEAU A3 : INDICES DE NIVEAU DES PRIX : P.I.B. et emplois**

COUNTRIES	G.D.P.		Household Consumption		Government Consumption		Gross Fixed Capital Formation		Change in Stocks	Exports less Imports of Goods and Services
	Index	Rank	Index	Rank	Index	Rank	Index	Rank		
Yemen	96.0651	5	96.8198	6	43.5958	7	202.6805	1	100	100
Syria	82.3241	7	93.773	7	39.9646	8	91.5132	6	100	100
Qatar	164.1211	1	107.9375	5	562.7749	1	109.8681	2	100	100
Oman	147.911	2	123.7052	2	455.5566	2	109.359	3	100	100
Lebanon	101.2305	4	116.4761	4	64.8508	6	82.5194	7	100	100
Jordan	95.9721	6	117.1328	3	67.5285	5	67.9024	9	100	100
Egypt	59.3206	9	66.8049	9	15.8198	9	76.441	8	100	100
Bahrain	125.7335	3	133.5575	1	235.7491	3	97.6845	5	100	100
Palestine	71.8837	8	67.7651	8	137.0722	4	107.2469	4	0	100
Average	80.0263	0	83.8203	0	41.932	0	87.1659	0	100	100
PAYS	P.I.B.		Consommation Finale des Ménages		Consommation Finale des Administrations Publiques		Formation Brute de Capital Fixe		Variation des Stocks	Excédent des Exportations sur les Importations de Biens et Services
	Indice	Rang	Indice	Rang	Indice	Rang	Indice	Rang		

EKS AGGREGATION METHOD
METHODE D'AGGREGATION EKS

TABLE A4 : RELATIVE PRICE LEVEL INDICES
TABLEAU A4 : INDICES DE NIVEAU RELATIF DES PRIX

COUNTRIES	G.D.P.	Household Consumption	Government Consumption	Gross Fixed Capital Formation	Change in Stocks	Exports less Imports of Goods and Services
PAYS	P.I.B.	Consommation Finale des Ménages	Consommation Finale des Administrations Publiques	Formation Brute de Capital Fixe	Variation des Stocks	Excédent des Exportations sur les Importations de Biens et Services
Yemen	100	100.7857	45.3816	210.9825	104.0961	104.0961
Syria	100	113.9072	48.5454	111.1622	121.4712	121.4712
Qatar	100	65.767	342.9022	66.9433	60.9306	60.9306
Oman	100	83.6349	307.9938	73.9357	67.6082	67.6082
Lebanon	100	115.0603	64.0625	81.5164	98.7845	98.7845
Jordan	100	122.0489	70.3627	70.7522	104.197	104.197
Egypt	100	112.6168	26.6683	128.8609	168.5756	168.5756
Bahrain	100	106.2227	187.499	77.6917	79.5333	79.5333
Palestine	100	94.2705	190.6861	149.1951	0	139.1137
Average	100	104.741	52.3978	108.9216	124.959	124.959

EKS AGGREGATION METHOD
METHODE D'AGGREGATION EKS

TABLE A5 : PER CAPITA VOLUME INDICES
TABLEAU A5 : INDICES DES VOLUMES PAR HABITANT

COUNTRIES	G.D.P.		Household Consumption		Government Consumption		Gross Fixed Capital Formation		Change in Stocks	Exports less Imports of Goods and Services
	Index	Rank	Index	Rank	Index	Rank	Index	Rank		
Yemen	27.4433	9	44.6875	9	41.9796	8	9.2905	9	10.0041	185.6775
Syria	99.7536	7	95.5684	7	81.3686	6	138.8961	7	68.699	205.4728
Qatar	677.006	1	571.5385	1	243.1314	1	1006.825	2	603.7457	-1984.8973
Oman	346.0063	3	346.2141	2	98.2564	5	422.8308	3	-22.9064	-449.6501
Lebanon	175.249	4	216.6914	5	68.1998	7	239.4339	5	12.9005	653.2243
Jordan	114.3529	6	110.0425	6	108.4433	4	282.5214	4	108.5145	602.32
Egypt	91.9696	8	85.7036	8	118.5278	3	62.7436	8	146.6124	27.8205
Bahrain	566.7364	2	298.8102	4	197.248	2	1073.3381	1	-1397.2878	-2980.7134
Palestine	163.1341	5	312.2667	3	19.3883	9	162.6687	6	0	1076.4004
Average	100	0	100	0	100	0	100	0	100	100

PAYS	P.I.B.		Consommation Finale des Ménages		Consommation Finale des Administrations Publiques		Formation Brute de Capital Fixe		Variation des Stocks	Excédent des Exportations sur les Importations de Biens et Services
	Indice	Rang	Indice	Rang	Indice	Rang	Indice	Rang		

EKS AGGREGATION METHOD
METHODE D'AGGREGATION EKS

TABLE A6 : RELATIVE VOLUME INDICES
TABLEAU A6 : INDICES DE VOLUME RELATIF

COUNTRIES	G.D.P.	Household Consumption	Government Consumption	Gross Fixed Capital Formation	Change in Stocks	Exports less Imports of Goods and Services
PAYS	P.I.B.	Consommation Finale des Ménages	Consommation Finale des Administrations Publiques	Formation Brute de Capital Fixe	Variation des Stocks	Excédent des Exportations sur les Importations de Biens et Services
Yemen	100	162.8355	152.9685	33.8534	36.4536	676.5857
Syria	100	95.8045	81.5696	139.2392	68.8688	205.9804
Qatar	100	84.4215	35.9127	148.7173	89.1788	-293.1876
Oman	100	100.0601	28.3973	122.2032	-6.6202	-129.9543
Lebanon	100	123.6477	38.9159	136.625	7.3613	372.7406
Jordan	100	96.2306	94.8321	247.0609	94.8944	526.7202
Egypt	100	93.1868	128.8772	68.2221	159.414	30.2496
Bahrain	100	52.7247	34.8042	189.3893	-246.5499	-525.9436
Palestine	100	191.4172	11.8849	99.7148	0	659.8256
Average	100	100	100	100	100	100

Annex 2

Tables of G-K results

G-K AGGREGATION METHOD
METHODE D'AGGREGATION G-K

TABLE A1 : GROSS DOMESTIC PRODUCT - Main results
TABLEAU A1 : PRODUIT INTERIEUR BRUT - Principaux résultats

COUNTRIES	Total Value (in millions)		Population * (x 1000)	Per Capita Value		Per Capita Value Index (average = 100)	Exchange Rate ** (1 USD = ...n.c.)	Purchasing Power Parity (1 PPS = ...n.c.)	General Price Level Index (average = 83)
	in national currency (n.c.)	in US Dollars		in national currency (n.c.)	in US Dollars				
Yemen	170298	4257.45	2106.879	12905.2743	322.6319	159.6604	40	80.8295	202.0738
Syria	413755	13764.3047	11488.3616	30209.9153	1004.9872	838.8114	30.06	36.0151	119.8109
Qatar	26183	7193.1319	3970.0582	49495.2741	13597.6028	7504.8359	3.64	6.5951	181.1845
Oman	4803.3	12476.1039	6873.9833	2411.2952	6263.1044	3450.7948	0.385	0.6988	181.4974
Lebanon	10608487	6092	4202.2762	3780643.977	2171.062	1497.6038	1741.38	2524.4621	144.9691
Jordan	3811.4	5499.8557	3635.6749	930.7448	1343.0661	887.8327	0.693	1.0483	151.2747
Egypt	134107.6	40272.5526	51996.8223	2223.3061	667.6595	862.0306	3.33	2.5791	77.4519
Bahrain	1754.2	4665.4255	2740.2898	3278.8785	8720.4216	5122.037	0.376	0.6402	170.253
Palestine	8844.63	2962.0328	10168.5119	4285.189	1435.0934	4926.6046	2.986	0.8698	29.1295
PAYS	en monnaie nationale (m.n.)	en US Dollars	en SPA	en monnaie nationale (m.n.)	en US Dollars	en SPA	Taux de Change ** (USD = ...m.n.)	Parité de Pouvoir d'Achat (1 SPA = ... m.n.)	Indice de Niveau Général des Prix (moyenne = 83)
	Valeur Globale (en millions)		Population * (x 1000)	Valeur par habitant			Indice de Valeur par habitant (moyenne = 100)	Indice de Volume par Habitant (moyenne = 100)	

G-K AGGREGATION METHOD
METHODE D'AGGREGATION G-K

TABLE A2 : GROSS DOMESTIC PRODUCT - Main uses
TABEAU A2 : PRODUIT INTERIEUR BRUT - Principaux emplois
In Millions national currency / En Millions monnaie nationale

COUNTRIES	G.D.P.	Household Consumption	Government Consumption	Gross Fixed Capital Formation	Change in Stocks	Exports less Imports of Goods and Services
PAYS	P.I.B.	Consommation Finale des Ménages	Consommation Finale des Administrations Publiques	Formation Brute de Capital Fixe	Variation des Stocks	Excédent des Exportations sur les Importations de Biens et Services
Yemen	170298	181354	31312	23798	2044	-68210
Syria	413755	292988	43395	125298	10948	-58874
Qatar	26183	9433	8540	5100	450	2660
Oman	4803.3	2608.3	1112.7	849.1	-6.8	240
Lebanon	10608487	9793421	700494	2311589	24400	-2221417
Jordan	3811.4	2904.7	673.6	1303.5	119.2	-1189.6
Egypt	134107.6	91323.1	12208	23066.5	11399.1	-3889.1
Bahrain	1754.2	637.5	303.2	505	-108.8	417.3
Palestine	8844.63	10356.33	530.9	2574.4	0	-4617

**G-K AGGREGATION METHOD
METHODE D'AGGREGATION G-K**

TABLE A3 : PRICE LEVEL INDICES : GDP and its uses

TABLEAU A3 : INDICES DE NIVEAU DES PRIX : P.I.B. et emplois

COUNTRIES	G.D.P.		Household Consumption		Government Consumption		Gross Fixed Capital Formation		Change in Stocks	Exports less Imports of Goods and Services
	Index	Rank	Index	Rank	Index	Rank	Index	Rank		
Yemen	202.0738	1	147.664	3	175.492	7	243.2475	1	100	100
Syria	119.8109	7	115.8153	7	160.8747	8	110.5768	6	100	100
Qatar	181.1845	3	136.4139	6	2265.4123	1	125.9553	4	100	100
Oman	181.4974	2	166.8005	2	1833.8121	2	107.6333	7	100	100
Lebanon	144.9691	6	136.7086	5	261.0525	6	110.9887	5	100	100
Jordan	151.2747	5	144.57	4	271.8315	5	97.7926	8	100	100
Egypt	77.4519	8	75.41	8	63.6815	9	90.9314	9	100	100
Bahrain	170.253	4	203.5312	1	948.9919	3	134.0662	3	100	100
Palestine	29.1295	9	31.1189	9	551.7747	4	160.4904	2	0	100
Average	100	0	90.7213	0	168.7944	0	106.4703	0	100	100

PAYS	P.I.B.		Consommation Finale des Ménages		Consommation Finale des Administrations Publiques		Formation Brute de Capital Fixe		Variation des Stocks	Excédent des Exportations sur les Importations de Biens et Services
	Indice	Rang	Indice	Rang	Indice	Rang	Indice	Rang		

**G-K AGGREGATION METHOD
METHODE D'AGGREGATION G-K**

**TABLE A4 : RELATIVE PRICE LEVEL INDICES
TABLEAU A4 : INDICES DE NIVEAU RELATIF DES PRIX**

COUNTRIES	G.D.P.	Household Consumption	Government Consumption	Gross Fixed Capital Formation	Change in Stocks	Exports less Imports of Goods and Services
Yemen	100	73.0743	86.8455	120.3756	49.4869	49.4869
Syria	100	96.6651	134.2739	92.2928	83.4649	83.4649
Qatar	100	75.2901	1250.3342	69.5177	55.1923	55.1923
Oman	100	91.9024	1010.379	59.3029	55.0972	55.0972
Lebanon	100	94.3019	180.0746	76.5603	68.9802	68.9802
Jordan	100	95.5679	179.694	64.6457	66.1049	66.1049
Egypt	100	97.3636	82.2206	117.4036	129.1123	129.1123
Bahrain	100	119.5463	557.401	78.7453	58.7361	58.7361
Palestine	100	106.8296	1894.2152	550.9558	0	343.295
Average	100	90.7213	168.7944	106.4703	100	100

PAYS	P.I.B.	Consommation Finale des Ménages	Consommation Finale des Administrations Publiques	Formation Brute de Capital Fixe	Variation des Stocks	Excédent des Exportation sur les Importations de Biens et Services
Yemen	100	73.0743	86.8455	120.3756	49.4869	49.4869
Syria	100	96.6651	134.2739	92.2928	83.4649	83.4649
Qatar	100	75.2901	1250.3342	69.5177	55.1923	55.1923
Oman	100	91.9024	1010.379	59.3029	55.0972	55.0972
Lebanon	100	94.3019	180.0746	76.5603	68.9802	68.9802
Jordan	100	95.5679	179.694	64.6457	66.1049	66.1049
Egypt	100	97.3636	82.2206	117.4036	129.1123	129.1123
Bahrain	100	119.5463	557.401	78.7453	58.7361	58.7361
Palestine	100	106.8296	1894.2152	550.9558	0	343.295
Average	100	90.7213	168.7944	106.4703	100	100

G-K AGGREGATION METHOD
METHODE D'AGGREGATION G-K

TABLE A5 : PER CAPITA VOLUME INDICES
TABLEAU A5 : INDICES DES VOLUMES PAR HABITANT

COUNTRIES	G.D.P.		Household Consumption		Government Consumption		Gross Fixed Capital Formation		Change in Stocks	Exports less Imports of Goods and Services
	Index	Rank	Index	Rank	Index	Rank	Index	Rank		
Yemen	16.3027	9	31.7128	9	41.9796	8	9.4555	9	10.0041	185.6775
Syria	85.6498	8	83.7503	7	81.3686	6	140.4078	6	68.699	205.4728
Qatar	766.3079	1	489.462	2	243.1314	1	1072.731	1	603.7457	-1984.8973
Oman	352.3556	4	277.9042	3	98.2564	5	524.7544	3	-22.9064	-449.6501
Lebanon	152.9181	5	199.8215	5	68.1998	7	217.4426	5	12.9005	653.2243
Jordan	90.6553	6	96.4986	6	108.4433	4	239.6138	4	108.5145	602.32
Egypt	88.0207	7	82.1747	8	118.5278	3	64.4264	8	146.6124	27.8205
Bahrain	523.0037	2	212.223	4	197.248	2	955.2661	2	-1397.2878	-2980.7134
Palestine	503.0484	3	735.9819	1	19.3883	9	132.7766	7	0	1076.4004
Average	100	0	100	0	100	0	100	0	100	100
PAYS	P.I.B.		Consommation Finale des Ménages		Consommation Finale des Administrations Publiques		Formation Brute de Capital Fixe		Variation des Stocks	Excédent des Exportations sur les Importations de Biens et Services
	Indice	Rang	Indice	Rang	Indice	Rang	Indice	Rang		

**G-K AGGREGATION METHOD
METHODE D'AGGREGATION G-K**

**TABLE A6 : RELATIVE VOLUME INDICES
TABLEAU A6 : INDICES DE VOLUME RELATIF**

COUNTRIES	G.D.P.	Household Consumption	Government Consumption	Gross Fixed Capital Formation	Change in Stocks	Exports less Imports of Goods and Services
PAYS	P.I.B.	Consommation Finale des Ménages	Consommation Finale des Administrations Publiques	Formation Brute de Capital Fixe	Variation des Stocks	Excédent des Exportations sur les Importations de Biens et Services
Yemen	100	194.5252	257.5012	57.9995	61.3646	1138.9374
Syria	100	97.7822	95.0014	163.9324	80.2092	239.8987
Qatar	100	63.8728	31.7276	139.987	78.7863	-259.0209
Oman	100	78.8704	27.8856	148.9275	-6.5009	-127.6126
Lebanon	100	130.6722	44.5989	142.1954	8.4362	427.1726
Jordan	100	106.4456	119.6215	264.3131	119.7001	664.4068
Egypt	100	93.3584	134.6591	73.1946	166.5659	31.6067
Bahrain	100	40.5777	37.7144	182.65	-267.1659	-569.922
Palestine	100	146.3044	3.8542	26.3944	0	213.9755
Average	100	100	100	100	100	100

Annex 3

GDP Components for the Year 1993
(National Currencies and US\$)

GDP components for the year 1993 in million national currencies *

Code	GDP headings	167	029	125	002	115	062	238	074	218
		EGP Value of GDP	SYP Value of GDP	JOD Value of GDP	YER Value of GDP	LBP Value of GDP	QAR Value of GDP	PAL Value of GDP	OMR Value of GDP	BHD Value of GDP
0	Gross Domestic Product	134107.6	413755	3811.4	170298	10608487	26183	8844.5	4803.3	1754.2
1	Household Consumption	91323.1	292988	2904.7	181354	9793421	9433.0	10356.2	2608.3	637.5
11	Food, Beverage & Tobacco	48547.1	140411	1094.1	110864	3851942	2473.1	3678.5	629.6	182.0
111	Food	44389.7	125922	984.1	85490	3338491	2292.0	3194.5	600.3	167.6
11101	Food	44389.7	125922	984.1	85490	3338491	2292.0	3194.5	600.3	167.6
111011	Bread And Cereals	9521.6	11933	92.1	28950	403122	263.0	581.0	106.0	23.9
111012	Meat	10862.7	22477	301.5	13113	725621	572.6	871.2	103.1	24.5
111013	Fish	2145.7	1387	18.4	6793	64712	138.8	97.0	48.6	17.2
111014	Milk,Cheese & Eggs	4962.0	17205	124	6320	363871	256.1	290.4	70.6	18.9
111015	Oils And Fats	3620.9	18282	98.9	6131	162310	67.3	193.5	29.2	5.7
111016	Fruits, Vegetables And Potatoes	7912.3	39098	169.3	11921	1353643	519.1	774.3	140.1	46.5
111017	Other Food	5364.5	15540	179.9	12262	265212	475.1	387.2	102.7	30.9
112	Beverages	268.2	6938	22	6130	196257	125.0	96.8	23.4	9.3
11201	Beverages	268.2	6938	22	6130	196257	125.0	96.8	23.4	9.3
112011	Beverages	268.2	6938	22	6130	196257	125.0	96.8	23.4	9.3
113	Tobacco	3889.2	7551	88	19244	317194	56.0	387.2	5.9	5.1
11301	Tobacco	3889.2	7551	88	19244	317194	56.0	387.2	5.9	5.1
113011	Tobacco	3889.2	7551	88	19244	317194	56.0	387.2	5.9	5.1
12	Clothing And Footwear	6973.6	19702	221.5	9196	1206185	916.6	774.0	187.4	32.4

GDP components for the year 1993 in million national currencies * (cont'd.)

Code	GDP headings	167	029	125	002	115	062	238	074	218
		Egypt Value of GDP	SYP Value of GDP	JOD Value of GDP	Yemen Value of GDP	Lebanon Value of GDP	Qatar Value of GDP	Palestine Value of GDP	OMR Value of GDP	BHD Value of GDP
121	Clothing	5498.4	14152	180.6	7323	1065092	776.9	627.3	157.4	26.3
12101	Clothing	5498.4	14152	180.6	7323	1065092	776.9	627.3	157.4	26.3
121011	Clothing	5498.4	14152	180.6	7323	1065092	776.9	627.3	157.4	26.3
122	Footwear	1475.2	5550	40.9	1873	141093	139.7	146.7	30.0	6.1
12201	Footwear	1475.2	5550	40.9	1873	141093	139.7	146.7	30.0	6.1
122011	Footwear	1475.2	5550	40.9	1873	141093	139.7	146.7	30.0	6.1
13	Gross Rent, Fuel And Power	5498.4	48839	565.1	19925	1073579	1069.3	1839.2	665.3	129.1
131	Gross Rent, Fuel And Power	5498.4	48839	565.1	19925	1073579	1069.3	1839.2	665.3	129.1
13101	Gross Rent, Fuel And Power	5498.4	48839	565.1	19925	1073579	1069.3	1839.2	665.3	129.1
131011	Gross Rent, Fuel And Power	5498.4	48839	565.1	19925	1073579	1069.3	1839.2	665.3	129.1
14	Household Equipment And Operation	4291.4	31357	164.8	3746	853983	1084.8	580.8	145.5	53.7
141	Furniture	1743.4	12765	76.9	44	259908	284.6	484.0	38.4	27.3
14101	Furniture	1743.4	12765	76.9	44	259908	284.6	484.0	38.4	27.3
141011	Furniture	1743.4	12765	76.9	44	259908	284.6	484.0	38.4	27.3
142	Household Appliances	268.2	9435	35.4	60	445556	294.0	85.6	39.3	22.6
14201	Household Appliances	268.2	9435	35.4	60	445556	294.0	85.6	39.3	22.6
142011	Household Appliances	268.2	9435	35.4	60	445556	294.0	85.6	39.3	22.6
143	Other Household Goods Incl. Household Textiles	2279.8	9157	52.5	3642	148519	506.2	11.2	67.8	3.8
14301	Other Household Goods Incl. Household Textiles	2279.8	9157	52.5	3642	148519	506.2	11.2	67.8	3.8

GDP components for the year 1993 in million national currencies * (cont'd.)

Code	GDP headings	167	029	125	002	115	062	238	074	218
		EGP Value of GDP	SYR Value of GDP	JOD Value of GDP	YEM Value of GDP	LEB Value of GDP	QAT Value of GDP	PAL Value of GDP	OMR Value of GDP	BHD Value of GDP
143011	Other Household Goods Incl. Household Textiles	2279.8	9157	52.5	3642	148519	506.2	11.2	67.8	3.8
15	Medical Care	4405.2	10783	114.8	5421	602562	721.1	727.2	110.9	54.5
151	Medical And Pharmaceutical Products	3434.5	2581	21.9	2854	238691	104.0	97.0	27.3	4.5
15101	Medical And Pharmaceutical Products	3434.5	2581	21.9	2854	238691	104.0	97.0	27.3	4.5
151011	Medical And Pharmaceutical Products	3434.5	2581	21.9	2854	238691	104.0	97.0	27.3	4.5
152	Health Services	970.7	8202	92.9	2567	363871	617.1	630.2	83.6	50.0
15201	Health Services-Household Expenditure	52.3	6023	38.9	40.5	264915	2.1	606.6	0.6	8.2
152011	Health Services-Household Expenditure	52.3	6023	38.9	40.5	264915	2.1	606.6	0.6	8.2
15202	Health Services-Government Expenditure	918.4	2179	54	2526.5	98956	615	24	83	41.8
152021	compensation of employees	918.4	2179	54	2526.5	98956	615	24	83	41.8
16	Transport And Communication	4291.4	8879	303.1	6301	1143595	1666.8	1064.1	473.4	47.0
161	Consumers' Transport Equipment	536.4	1111	106.7	49	289612	208.4	369.0	59.2	5.9
16101	Consumers' Transport Equipment	536.4	1111	106.7	49	289612	208.4	369.0	59.2	5.9
161011	Consumers' Transport Equipment	536.4	1111	106.7	49	289612	208.4	369.0	59.2	5.9
162	Operation Of Transport Equipment	1341.1	2774	114.5	5830	314011	520.7	403.3	147.9	14.7
16201	Operation Of Transport Equipment	1341.1	2774	114.5	5830	314011	520.7	403.3	147.9	14.7
162011	Operation Of Transport Equipment	1341.1	2774	114.5	5830	314011	520.7	403.3	147.9	14.7
163	Purchased Transport	2011.6	4162	49.9	164	510268	781.2	180.2	221.9	22.0
16301	Purchased Transport	2011.6	4162	49.9	164	510268	781.2	180.2	221.9	22.0

GDP components for the year 1993 in million national currencies * (cont'd.)

Code	GDP headings	167	029	125	002	115	062	238	074	218
		EGP Value of GDP	SYP Value of GDP	JOD Value of GDP	YEM Value of GDP	LBP Value of GDP	QAR Value of GDP	PAL Value of GDP	OMR Value of GDP	BHD Value of GDP
163011	Purchased Transport	2011.6	4162	49.9	164	510268	781.2	180.2	221.9	22.0
164	Communication	402.3	832	32	258	29704	156.5	111.6	44.4	4.4
16401	Communication	402.3	832	32	258	29704	156.5	111.6	44.4	4.4
164011	Communication	402.3	832	32	258	29704	156.5	111.6	44.4	4.4
17	Recreation And Education	8464.9	21084	284.9	12837	404910	853.8	918.1	240.3	133.0
171	Recreation And Culture	2011.6	4440	55.6	1184	64712	223.3	242.0	51.8	54.5
17101	Recreation And Culture	2011.6	4440	55.6	1184	64712	223.3	242.0	51.8	54.5
171011	Recreation And Culture	2011.6	4440	55.6	1184	64712	223.3	242.0	51.8	54.5
172	Education	6453.3	16644	229.3	11653	340198	630.5	676.1	188.5	78.5
17201	Education- Household Expenditure	2145.7	3330	95.3	8	113511	435.5	634.4	51.5	12.8
172011	Education- Household Expenditure	2145.7	3330	95.3	8	113511	435.5	634.4	51.5	12.8
17202	Education- Government Expenditure	4307.6	13314	134	11645	226687	195.0	41.7	137.0	65.7
172021	Education- Government Expenditure	4307.6	13314	134	11645	226687	195.0	41.7	137.0	65.7
18	Miscellaneous Goods And Services	8851.1	11933	156.4	13064	656665	647.6	774.3	155.9	5.8
181	Restaurants, Cafes And Hotels	1609.3	1110	8.6	12933	334167	582.9	193.5	140.3	3.8
18101	Restaurants, Cafes And Hotels	1609.3	1110	8.6	12933	334167	582.9	193.5	140.3	3.8
181011	Restaurants, Cafes And Hotels	1609.3	1110	8.6	12933	334167	582.9	193.5	140.3	3.8
182	Other Goods And Services	7241.8	10823	147.8	131	322498	64.7	580.8	15.6	2.0
18201	Other Goods And Services	7241.8	10823	147.8	131	322498	64.7	580.8	15.6	2.0

GDP components for the year 1993 in million national currencies * (cont'd.)

Code	GDP headings	167	029	125	002	115	062	238	074	218
		EGP	SYP	JOD	YER	LBP	QAR	PAL	OMR	BHD
		Egypt Value of GDP	Syria Value of GDP	Jordan Value of GDP	Yemen Value of GDP	Lebanon Value of GDP	Qatar Value of GDP	Palestine Value of GDP	Oman Value of GDP	Bahrain Value of GDP
182011	Other Goods And Services	7241.8	10823	147.8	131	322498	64.7	580.8	15.6	2.0
2	Government Consumption	12208.0	43395	673.6	31312	700494	8540.0	530.9	1112.7	303.2
21	Government Consumption	12208.0	43395	673.6	31312	700494	8540.0	530.9	1112.7	303.2
211	Government Consumption	12208.0	43395	673.6	31312	700494	8540.0	530.9	1112.7	303.2
21101	Government Consumption	12208.0	43395	673.6	31312	700494	8540.0	530.9	1112.7	303.2
211011	Compensation Of Employees	12208.0	43395	673.6	31312	700494	8540.0	530.9	1112.7	303.2
3	Gross Fixed Capital Formation	23066.5	125298	1303.5	23798	2311589	5100.0	2574.5	849.1	505
31	Machinery And Equipment	17165.8	75989	166.5	6436	789271	2915.2	331.2	683.9	144
311	Non Electrical and Electrical Machinery	13679.0	51986	175.6	3983	581345	1650.2	346.7	310.8	72
31101	Non Electrical and Electrical Machinery	13679.0	51986	175.6	3983	581345	1650.2	346.7	310.8	72
311011	Non Electrical and Electrical Machinery	13679.0	51986	175.6	3983	581345	1650.2	346.7	310.8	72
312	Producers' Transport Equipment	3486.8	24003	-9.1	2453	207926	1265.0	-15.4	373.1	72
31201	Producers' Transport Equipment	3486.8	24003	-9.1	2453	207926	1265.0	-15.4	373.1	72
312011	Producers' Transport Equipment	3486.8	24003	-9.1	2453	207926	1265.0	-15.4	373.1	72
32	Construction	5900.7	49309	1137	17362	1522318	2184.8	2243.1	165.2	361
321	Construction	5900.7	49309	1137	17362	1522318	2184.8	2243.1	165.2	361
32101	Construction	5900.7	49309	1137	17362	1522318	2184.8	2243.1	165.2	361
321011	Construction	5900.7	49309	1137	17362	1522318	2184.8	2243.1	165.2	361
4	Changes In Stocks	11399.1	10948	119.2	2044	24400	450.0	0	-6.8	-108.8

GDP components for the year 1993 in million national currencies * (cont'd.)

Code	GDP headings	167 029 125 002 115 062 238 074 218									
		EGP Egypt Value of GDP	SYP Syria Value of GDP	JOD Jordan Value of GDP	YER Yemen Value of GDP	LBP Lebanon Value of GDP	QAR Qatar Value of GDP	PAL Palestine Value of GDP	OMR Oman Value of GDP	BHD Bahrain Value of GDP	
41	Changes In Stocks	11399.1	10948	119.2	2044	24400	450.0	0	-6.8	-108.8	
411	Changes In Stocks	11399.1	10948	119.2	2044	24400	450.0	0	-6.8	-108.8	
41101	Changes In Stocks	11399.1	10948	119.2	2044	24400	450.0	0	-6.8	-108.8	
411011	Changes In Stocks	11399.1	10948	119.2	2044	24400	450.0	0	-6.8	-108.8	
5	Net Exports	-3889.1	-5887.4	-1189.6	-6821.0	-2221417	2660.0	-4617	240	417.3	
51	Net Exports	-3889.1	-5887.4	-1189.6	-6821.0	-2221417	2660.0	-4617	240	417.3	
511	Net Exports	-3889.1	-5887.4	-1189.6	-6821.0	-2221417	2660.0	-4617	240	417.3	
51101	Net Exports	-3889.1	-5887.4	-1189.6	-6821.0	-2221417	2660.0	-4617	240	417.3	
511011	Net Exports	-3889.1	-5887.4	-1189.6	-6821.0	-2221417	2660.0	-4617	240	417.3	

* Some items are estimated by ESCWA

GDP components for the year 1993 in million US\$ *

Code	GDP headings	167	029	125	002	115	062	238	074	218
		EGP	SYR	JOD	YEM	LBN	QAR	PAL	OMR	BHD
		Egypt Value of GDP	Syria Value of GDP	Jordan Value of GDP	Yemen Value of GDP	Lebanon Value of GDP	Qatar Value of GDP	Palestine Value of GDP	Oman Value of GDP	Bahrain Value of GDP
0	Gross Domestic Product	40272.6	13764.3	5499.9	4257.5	6092.0	7193.1	2962.0	12476.1	4665.4
1	Household Consumption	27424.4	9746.8	4191.5	4533.9	5623.9	2591.5	3468.3	6774.8	1695.5
11	Food, Beverage & Tobacco	14578.7	4671.0	1578.8	2771.6	2212.0	679.4	1231.9	1635.3	484.0
111	Food	13330.2	4189.0	1420.1	2137.3	1917.2	629.7	1069.8	1559.2	445.7
11101	Food	13330.2	4189.0	1420.1	2137.3	1917.2	629.7	1069.8	1559.2	445.7
111011	Bread And Cereals	2859.3	397.0	132.9	723.8	231.5	72.3	194.6	275.3	63.6
111012	Meat	3262.1	747.7	435.1	327.8	416.7	157.3	291.8	267.8	65.2
111013	Fish	644.4	46.1	26.6	169.8	37.2	38.1	32.5	126.2	45.7
111014	Milk,Cheese & Eggs	1490.1	572.4	178.9	158.0	209.0	70.4	97.3	183.4	50.3
111015	Oils And Fats	1087.4	608.2	142.7	153.3	93.2	18.5	64.8	75.8	15.2
111016	Fruits, Vegetables And Potatoes	2376.1	1300.7	244.3	298.0	777.3	142.6	259.3	363.9	123.7
111017	Other Food	1611.0	517.0	259.6	306.6	152.3	130.5	129.7	266.8	82.2
112	Beverages	80.5	230.8	31.7	153.3	112.7	34.3	32.4	60.8	24.7
11201	Beverages	80.5	230.8	31.7	153.3	112.7	34.3	32.4	60.8	24.7
112011	Beverages	80.5	230.8	31.7	153.3	112.7	34.3	32.4	60.8	24.7
113	Tobacco	1167.9	251.2	127.0	481.1	182.2	15.4	129.7	15.3	13.6
11301	Tobacco	1167.9	251.2	127.0	481.1	182.2	15.4	129.7	15.3	13.6
113011	Tobacco	1167.9	251.2	127.0	481.1	182.2	15.4	129.7	15.3	13.6
12	Clothing And Footwear	2094.2	655.4	319.6	229.9	692.7	251.8	259.2	486.8	86.2

GDP components for the year 1993 in million US\$ * (cont'd.)

Code	GDP headings	167	029	125	002	115	062	238	074	218
		EGP Egypt Value of GDP	SYP Syria Value of GDP	JOD Jordan Value of GDP	YER Yemen Value of GDP	LBP Lebanon Value of GDP	QAR Qatar Value of GDP	PAL Palestine Value of GDP	OMR Oman Value of GDP	BHD Bahrain Value of GDP
121	Clothing	1651.2	470.8	260.6	183.1	611.6	213.4	210.1	408.8	69.9
12101	Clothing	1651.2	470.8	260.6	183.1	611.6	213.4	210.1	408.8	69.9
121011	Clothing	1651.2	470.8	260.6	183.1	611.6	213.4	210.1	408.8	69.9
122	Footwear	443.0	184.6	59.0	46.8	81.0	38.4	49.1	77.9	16.2
12201	Footwear	443.0	184.6	59.0	46.8	81.0	38.4	49.1	77.9	16.2
122011	Footwear	443.0	184.6	59.0	46.8	81.0	38.4	49.1	77.9	16.2
13	Gross Rent, Fuel And Power	1651.2	1624.7	815.4	498.1	616.5	293.8	615.9	1728.1	343.4
131	Gross Rent, Fuel And Power	1651.2	1624.7	815.4	498.1	616.5	293.8	615.9	1728.1	343.4
13101	Gross Rent, Fuel And Power	1651.2	1624.7	815.4	498.1	616.5	293.8	615.9	1728.1	343.4
131011	Gross Rent, Fuel And Power	1288.7	1043.1	237.8	93.7	490.4	298.0	194.5	377.9	142.8
14	Household Equipment And Operation	523.5	424.7	111.0	1.1	149.3	78.2	162.1	99.7	72.6
141	Furniture	523.5	424.7	111.0	1.1	149.3	78.2	162.1	99.7	72.6
14101	Furniture	523.5	424.7	111.0	1.1	149.3	78.2	162.1	99.7	72.6
141011	Furniture	523.5	424.7	111.0	1.1	149.3	78.2	162.1	99.7	72.6
142	Household Appliances	80.5	313.9	51.1	1.5	255.9	80.8	28.7	102.1	60.1
14201	Household Appliances	80.5	313.9	51.1	1.5	255.9	80.8	28.7	102.1	60.1
142011	Household Appliances	80.5	313.9	51.1	1.5	255.9	80.8	28.7	102.1	60.1
143	Other Household Goods Incl. Household Textiles	684.6	304.6	75.8	91.1	85.3	139.1	3.8	176.1	10.1
14301	Other Household Goods Incl. Household Textiles	684.6	304.6	75.8	91.1	85.3	139.1	3.8	176.1	10.1

GDP components for the year 1993 in million US\$ *(cont'd.)

Code	GDP headings	167	029	125	002	115	062	238	074	218
		EGP	SYR	JOD	YER	LBP	QAR	PAL	OMR	BHD
		Egypt Value of GDP	Syria Value of GDP	Jordan Value of GDP	Yemen Value of GDP	Lebanon Value of GDP	Qatar Value of GDP	Palestine Value of GDP	Oman Value of GDP	Bahrain Value of GDP
143011	Other Household Goods Incl. Household Textiles	684.6	304.6	75.8	91.1	85.3	139.1	3.8	176.1	10.1
15	Medical Care	1322.9	358.7	165.7	135.5	346.0	198.1	243.5	288.1	144.9
151	Medical And Pharmaceutical Products	1031.4	85.9	31.6	71.4	137.1	28.6	32.5	70.9	12.0
15101	Medical And Pharmaceutical Products	1031.4	85.9	31.6	71.4	137.1	28.6	32.5	70.9	12.0
151011	Medical And Pharmaceutical Products	1031.4	85.9	31.6	71.4	137.1	28.6	32.5	70.9	12.0
152	Health Services	291.5	272.9	134.1	64.2	209.0	169.5	211.1	217.1	133.0
15201	Health Services-Household Expenditure	15.7	200.4	56.1	1.0	152.1	0.6	203.2	1.6	21.8
152011	Health Services-Household Expenditure	15.7	200.4	56.1	1.0	152.1	0.6	203.1	1.6	21.8
15202	Health Services-Government Expenditure	275.8	72.5	77.9	63.2	56.8	169.0	7.9	215.6	111.2
152021	compensation of employees	275.8	72.5	77.9	63.2	56.8	169.0	7.9	215.6	111.2
16	Transport And Communication	1288.7	295.4	437.4	157.5	656.7	457.9	356.4	1229.6	125.0
161	Consumers' Transport Equipment	161.1	37.0	154.0	1.2	166.3	57.3	123.6	153.8	15.7
16101	Consumers' Transport Equipment	161.1	37.0	154.0	1.2	166.3	57.3	123.6	153.8	15.7
161011	Consumers' Transport Equipment	161.1	37.0	154.0	1.2	166.3	57.3	123.6	153.8	15.7
162	Operation Of Transport Equipment	402.7	92.3	165.2	145.8	180.3	143.0	135.1	384.2	39.1
16201	Operation Of Transport Equipment	402.7	92.3	165.2	145.8	180.3	143.0	135.1	384.2	39.1
162011	Operation Of Transport Equipment	402.7	92.3	165.2	145.8	180.3	143.0	135.1	384.2	39.1
163	Purchased Transport	604.1	138.5	72.0	4.1	293.0	214.6	60.3	576.4	58.5
16301	Purchased Transport	604.1	138.5	72.0	4.1	293.0	214.6	60.3	576.4	58.5

GDP components for the year 1993 in million US\$ *(cont'd.)

Code	GDP headings	167	029	125	002	115	062	238	074	218
		EGP	SYP	JOD	YER	LBP	QAR	PAL	OMR	BHD
		Egypt Value of GDP	Syria Value of GDP	Jordan Value of GDP	Yemen Value of GDP	Lebanon Value of GDP	Qatar Value of GDP	Palestine Value of GDP	Oman Value of GDP	Bahrain Value of GDP
163011	Purchased Transport	604.1	138.5	72.0	4.1	293.0	214.6	60.3	576.4	58.5
164	Communication	120.8	27.7	46.2	6.5	17.1	43.0	37.4	115.3	11.7
16401	Communication	120.8	27.7	46.2	6.5	17.1	43.0	37.4	115.3	11.7
164011	Communication	120.8	27.7	46.2	6.5	17.1	43.0	37.4	115.3	11.7
17	Recreation And Education	2542.0	701.4	411.1	320.9	232.5	234.6	307.5	624.2	353.7
171	Recreation And Culture	604.1	147.7	80.2	29.6	37.2	61.3	81.0	134.5	144.9
17101	Recreation And Culture	604.1	147.7	80.2	29.6	37.2	61.3	81.0	134.5	144.9
171011	Recreation And Culture	604.1	147.7	80.2	29.6	37.2	61.3	81.0	134.5	144.9
172	Education	1937.9	553.7	330.9	291.3	195.4	173.2	226.4	489.6	208.8
17201	Education- Household Expenditure	644.4	110.8	137.5	0.2	65.2	119.6	212.4	133.8	34.0
172011	Education- Household Expenditure	644.4	110.8	137.5	0.2	65.2	119.6	212.5	133.8	34.0
17202	Education- Government Expenditure	1293.6	442.9	193.4	291.1	130.2	53.6	14.0	355.8	174.7
172021	Compensation Of Employees	1293.6	442.9	193.4	291.1	130.2	53.6	14.0	355.8	174.7
18	Miscellaneous Goods And Services	2658.0	397.0	225.7	326.6	377.1	177.9	259.3	404.9	15.4
181	Restaurants, Cafes And Hotels	483.3	36.9	12.4	323.3	191.9	160.1	64.8	364.4	10.1
18101	Restaurants, Cafes And Hotels	483.3	36.9	12.4	323.3	191.9	160.1	64.8	364.4	10.1
181011	Restaurants, Cafes And Hotels	483.3	36.9	12.4	323.3	191.9	160.1	64.8	364.4	10.1
182	Other Goods And Services	2174.7	360.0	213.3	3.3	185.2	17.8	194.5	40.5	5.3
18201	Other Goods And Services	2174.7	360.0	213.3	3.3	185.2	17.8	194.5	40.5	5.3

GDP components for the year 1993 in million US\$ * (cont'd.)

Code	GDP headings	167	029	125	002	115	062	238	074	218
		EGP Egypt Value of GDP	SYP Syria Value of GDP	JOD Jordan Value of GDP	YER Yemen Value of GDP	LBP Lebanon Value of GDP	QAR Qatar Value of GDP	PAL Palestine Value of GDP	OMR Oman Value of GDP	BHD Bahrain Value of GDP
182011	Other Goods And Services	2174.7	360.0	213.3	3.3	185.2	17.8	194.5	40.5	5.3
2	Government Consumption	3666.1	1443.6	972.0	782.8	402.3	2346.2	177.8	2890.1	806.4
21	Government Consumption	3666.1	1443.6	972.0	782.8	402.3	2346.2	177.8	2890.1	806.4
211	Government Consumption	3666.1	1443.6	972.0	782.8	402.3	2346.2	177.8	2890.1	806.4
21101	Government Consumption	3666.1	1443.6	972.0	782.8	402.3	2346.2	177.8	2890.1	806.4
211011	Compensation Of Employees	3666.1	1443.6	972.0	782.8	402.3	2346.2	177.8	2890.1	806.4
3	Gross Fixed Capital Formation	6926.9	4168.3	1881.0	595.0	1327.4	1401.1	862.2	2205.5	1343.1
31	Machinery And Equipment	5154.9	2527.9	240.3	160.9	453.2	800.9	110.9	1776.4	383.0
311	Non Electrical and Electrical Machinery	4107.8	1729.4	253.4	99.6	333.8	453.4	116.1	807.3	191.5
31101	Non Electrical and Electrical Machinery	4107.8	1729.4	253.4	99.6	333.8	453.4	116.1	807.3	191.5
311011	Non Electrical and Electrical Machinery	4107.8	1729.4	253.4	99.6	333.8	453.4	116.1	807.3	191.5
312	Producers' Transport Equipment	1047.1	798.5	-13.1	61.3	119.4	347.5	-5.2	969.1	191.5
31201	Producers' Transport Equipment	1047.1	798.5	-13.1	61.3	119.4	347.5	-5.2	969.1	191.5
312011	Producers' Transport Equipment	1047.1	798.5	-13.1	61.3	119.4	347.5	-5.2	969.1	191.5
32	Construction	1772.0	1640.4	1640.7	434.1	874.2	600.2	751.2	429.1	960.1
321	Construction	1772.0	1640.4	1640.7	434.1	874.2	600.2	751.2	429.1	960.1
32101	Construction	1772.0	1640.4	1640.7	434.1	874.2	600.2	751.2	429.1	960.1
321011	Construction	1772.0	1640.4	1640.7	434.1	874.2	600.2	751.2	429.1	960.1
4	Changes In Stocks	3423.2	364.2	172.0	51.1	14.0	123.6	0.0	-17.7	-289.4

GDP components for the year 1993 in million US\$ *(cont'd.)

Code	GDP headings	167	029	125	002	115	062	238	074	218
		EGP	SYP	JOD	YER	LBP	QAR	PAL	OMR	BHD
		Egypt Value of GDP	Syria Value of GDP	Jordan Value of GDP	Yemen Value of GDP	Lebanon Value of GDP	Qatar Value of GDP	Palestine Value of GDP	Oman Value of GDP	Bahrain Value of GDP
41	Changes In Stocks	3423.2	364.2	172.0	51.1	14.0	123.6	0.0	-17.7	-289.4
411	Changes In Stocks	3423.2	364.2	172.0	51.1	14.0	123.6	0.0	-17.7	-289.4
41101	Changes In Stocks	3423.2	364.2	172.0	51.1	14.0	123.6	0.0	-17.7	-289.4
411011	Changes In Stocks	3423.2	364.2	172.0	51.1	14.0	123.6	0.0	-17.7	-289.4
5	Net Exports	-1167.9	-1958.5	-1716.6	-1705.3	-1275.7	730.8	-1546.2	623.4	1109.8
51	Net Exports	-1167.9	-1958.5	-1716.6	-1705.3	-1275.7	730.8	-1546.2	623.4	1109.8
511	Net Exports	-1167.9	-1958.5	-1716.6	-1705.3	-1275.7	730.8	-1546.2	623.4	1109.8
51101	Net Exports	-1167.9	-1958.5	-1716.6	-1705.3	-1275.7	730.8	-1546.2	623.4	1109.8
511011	Net Exports	-1167.9	-1958.5	-1716.6	-1705.3	-1275.7	730.8	-1546.2	623.4	1109.8

* Some items are estimated by ESCWA

Annex 4
Population and GDP (1993)
for countries participating in the ESCWA ICP

Country	Total pop. mid year 1993 in thousands	Area (KM ²)	Population Density	Currencies Unit	GDP (National Currencies Million)	GDP (Mn. US \$)	Per capita GDP (US \$)	Exchange Rates
Bahrain	535	691	774.2	Dinar	1754.0	4664.9	8719.4	0.376
Egypt	60319	1001459	60.2	Pound	134107.6	40272.6	667.7	3.330
Jordan	4095	97740	41.9	Dinar	3811.4	5499.9	1343.1	0.693
Lebanon	2806	10400	269.8	Pound	10608487.0	6092.0	2171.1	1741.380
Oman	1992	300000	6.6	Rial	4803.6	12476.9	6263.5	0.385
Palestine	2064	6518	316.7	Sheqalim	8844.6	2962.0	1435.1	2.986
Qatar	529	6518	81.2	Riyal	26183.0	7193.1	13597.6	3.640
Syria	13696	185180	74.0	Pound	413755.0	13764.3	1005.0	30.060
Yemen	13196	536869	24.6	Rial	170298.0	4257.5	322.6	40.000

Annex 5
1995 Indices used for deflation of surveyed prices
(1993=100)

Items	Egypt	Lebanon(1)	Yemen	Syria	Jordan	Qatar	Oman	Bahrain	Palestine
Household Consumption									
Food, beverage & tobacco	1.1689	1.1945	2.1808	1.2423	1.8600	1.0432	0.9794	1.0354	1.1922
Food	1.1969	1.2344	2.4315	1.2302	1.0834	1.0548	1.0050	1.0510	1.2471
-Bread and cereal	1.1983	1.1850	2.2827	1.2594	1.0834	1.0491	1.0050	1.0510	1.2511
-Meat	1.2188	1.1262	1.9091	1.5288	1.0443	1.1020	0.9844	1.3008	1.2215
-Fish	1.2474	1.1013	1.9766	1.1502	1.0808	0.9352	0.9809	1.0190	1.2215
-Milk, cheese and eggs	1.0892	1.1555	2.3790	1.1502	1.0808	1.6312	1.0605	1.0829	1.2215
-Oils and fats	1.0960	1.0659	2.3790	1.1502	1.0423	1.0248	1.0184	0.9396	1.2215
-Fruits, vegetables and potatoes	1.4600	1.3263	2.2946	1.0543	1.0000	0.8756	1.0180	1.0086	1.2215
-Other food	1.1364	1.2576	2.5636	1.3116	1.1668	1.1199	0.9991	0.9987	1.3596
Beverages	1.0705	1.5125	2.5636	1.4504	1.1214	1.0167	1.0088	1.0066	1.2215
Tobacco	1.0000	1.0000	2.7576	1.7189	1.0210	1.1079	0.9913	0.9913	1.2215
Clothing and footwear									
Clothing	1.1796	1.0990	1.5115	1.2235	1.1144	1.0821	0.9990	1.0579	1.1460
Footwear	1.1796	1.0990	1.4580	1.2259	1.1131	1.0831	0.9990	1.0762	1.1460
Gross rent, fuel and power									
Household equipment and operation									
Furniture	1.1859	1.0990	1.6194	1.2291	1.0480	0.8962	0.8769	1.0000	0.9787
Household appliances	1.1859	1.0990	1.4142	1.1752	1.0480	1.0365	1.0040	1.0196	1.2243
Other household goods including household textiles	1.1859	1.0990	1.5789	1.4517	1.0480	1.0931	1.0040	1.0196	1.2243
Medical care									
Pharmaceutical-therapeutical prod.	1.1703	1.0990	2.1732	1.1060	1.0480	1.0642	1.0040	1.0196	1.2243
Health services	1.1703	1.0990	1.6387	1.3220	1.0472	1.0788	1.0046	1.0127	1.2673
Transport and communication									
Equipment	1.0958	1.0990	1.6387	1.3220	1.0472	1.0788	1.0046	1.0127	1.2673
Operation	1.0958	1.0990	1.8713	1.4534	0.9584	0.9776	1.0297	1.0203	1.1033
Purchased transport	1.0958	1.0990	1.8713	1.4534	0.9584	0.9345	1.0297	1.0203	1.1033
Communication	1.0958	1.0990	1.8713	1.4534	0.9584	1.0114	1.0297	1.0203	1.1033
Recreation and education									
Recreational and cultural services	1.1615	1.0990	1.8713	1.4534	0.9584	0.9345	1.0297	1.0203	1.1033
Education	1.1615	1.0990	2.3497	1.2177	1.1361	1.0373	1.0583	1.0278	1.0941
Miscellaneous goods and services									
Restaurants, cafes, etc.	1.1272	1.0990	2.3497	1.1940	1.1361	1.3716	1.0583	1.0355	1.0941
Other goods and services	1.1272	1.0990	2.3221	1.1966	1.0138	1.1760	1.0583	1.0095	1.0941
Government Consumption									
Government Services	1.1272	1.0990	2.3221	1.6949	1.0138	1.0095	1.1764	1.0259	1.2366
Gross Fixed Capital Formation									
Machinery and equipment	1.2100	1.4213	1.2000	1.3000	1.1342	1.0000	1.0000	1.0000	1.4712
Construction	1.0591	1.1945	2.4859	1.2477	1.1319	0.9990	1.0680	1.2935	1.1831
	1.0591	1.1945	1.9850	1.2477	1.1319	0.9990	0.9636	0.9950	1.2052

(1) Consumer price index (CPI) of Lebanon was estimated by ESCWA on the basis of official figures of CPI for food products submitted by the Central Administration for Statistics of Lebanon.