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USE OF PRICE AND QUANTITY INDEXES IN NATIONAL ACCOUNTS CALCULATIONS IN LATIN AMERICA

I. INTRODUCTION

The object of this paper is to make a comparative analysis of how various Latin American and Caribbean countries use price and quantity indexes to calculate the domestic product at constant prices.

Its preparation has been made possible by the valuable assistance furnished by the offices responsible for preparing national accounts in the countries listed in the detailed tables presented in statistical annexes I and II, which have sent in information on the methods they use in response to an extensive questionnaire circulated to them. The data they give are supplemented by a detailed methodology of national income and product accounting in Jamaica.[1/]

In view of the number of countries furnishing information and the variety of methods they follow, a fairly sound idea can be obtained of the practices current in all the countries of the region. In nearly all of them, the gross domestic product at constant prices is calculated annually, since these figures are essential for appraising the countries' economic growth, as the effects of the high rates of inflation that have prevailed in many of the countries, especially since the post-war period, are virtually eliminated.

The increasing use of planning techniques by the governments of the region as an effective device for speeding up development has led to a constant and growing demand for macroeconomic series, and in particular for data at constant prices with which to analyse economic trends over time, and to make quantitative projections of the goals set in development plans isolating the variations in prices from the price system.

The calculations at constant prices are usually limited to flows of goods and services and, above all, to the gross domestic product by sectors of economic activity and type of expenditure, since the definition of other concepts in constant values is hampered by serious theoretical problems that are still unsolved. Moreover, the statistics available for the calculation of these other variables are sadly limited.

1/ This methodology is described in the publication issued by the Department of Statistics, National income and product of Jamaica, Revised estimates 1959-1962 ... 1963 (Kingston, March 1965).

/It is

It is evident that the supply of information for social accounting has improved considerably in the last twenty years or so, as the technicians in this field are now being given better training, and more efficient techniques are continually being devised and put into use. In many cases, however, progress has been slowed down for want of the basic statistics that should be the normal accompaniment of this development in social accounting, or, where they exist, by their shortcomings.

Table 1, which has been prepared with data based on national publications, shows the current supply of product series at constant prices in the Latin American and Caribbean countries. It will be seen that, with few exceptions, all of them now have data of this kind which are usually computed by the Central Banks, although the Departments of Statistics have traditionally undertaken this work in the English-speaking countries of the Caribbean.

As a rule, the benchmark year adopted for the respective calculations has been 1960 or thereabouts, in some cases because international recommendations to adopt the year 1958 have been followed, and in others because detailed information from the economic and population censuses carried out round 1960 has been drawn upon. In view of this fact, studies should clearly be made as soon as possible to calculate new bases for more recent periods. Many countries have already made a start on these, and are at the same time applying the latest United Nations recommendations.[2/]

The experience of the reporting countries indicates that product accounting at constant prices is based on the calculations of value added by sectors of economic activity. This is the method followed more or less in all the countries of the region, as a growing volume of increasingly reliable production statistics is becoming available, and quantity series on the production of goods and services can thus be compiled more easily.

2/ See United Nations, A system of national accounts, Studies in Methods, Series F, N° 2, Rev. 3 (New York, 1968).

Table 1

LATIN AMERICA AND CARIBBEAN: CALCULATIONS OF THE PRODUCT AT CONSTANT PRICES

	Total gross domestic product		Gross domestic product by sector of economic activity		Base year	Responsible agency
	By sector of economic activity	By type of expenditure	At factor cost	At market prices		
Argentina	x	x	x	-	1960	Central Bank
Bolivia	x	x	-	x	1958	Planning Office
Brazil	x	x a/	x b/	-	1949-1953 c/	Research Institute
Chile	x	x	x	x	1965	Planning Office
Colombia	x	x	x	x	1958	Central Bank
Costa Rica	-	-	-	-	-	Central Bank
Dominican Republic	x	x	-	x	1962	Central Bank
Ecuador e/	-	-	-	-	-	Central Bank
El Salvador	x	-	-	x	1962	Central Bank
Guatemala	x	x	-	x	1958	Central Bank
Haiti	x	x	-	x	1955	Statistical Office
Honduras	x	x	x	-	1948	Central Bank
Mexico	x	-	x	x	1960	Central Bank
Nicaragua	x	x	-	x	1958	Central Bank
Panama	x	x	x	x	1960	Statistical Office
Paraguay	x	x	x	x	1962	Central Bank
Peru	x	x	-	x f/	1963	Central Bank
Uruguay	x	x	x	-	1961	Central Bank
Venezuela	x	x	-	x	1957	Central Bank
Barbados	-	-	-	-	-	Statistical Department
Guyana	x	-	x	-	1960	Statistical Department
Jamaica	x	x	x	-	1960	Statistical Department
Trinidad and Tobago	-	-	-	-	-	Statistical Department

a/ Brazil uses the concept of gross real national income.

b/ Net of depreciation.

c/ The system of chain indexes is used, which gives a movable base. For purposes of comparison, the year 1949 was chosen for the product by sector of activity and 1953 for gross real national income by type of expenditure.

d/ For about a year they were prepared by the Statistical Office, but the Planning Office is now responsible for them, as it has been during the years of most intensive research.

e/ The official figures include only a single deflator index for all the macro-economic aggregates, which are expressed in current values.

f/ Gross national product.

/The total

The total gross domestic product is usually determined by sectoral calculations, and, when broken down by type of expenditure, its components are calculated separately, with the exception of private consumption, which is obtained as a residual and thus closes the table. However, several countries, such as Chile, Honduras, Jamaica and Panama, make specific calculations of private consumption at constant prices by the flow-of-goods method, which acts as a check on the figures obtained as a residual. The lack of periodic family income and household expenditure surveys in the region makes it virtually impossible to calculate private household consumption expenditure separately.

Table 2 summarizes the general method used by the countries included in the analysis to express the product at constant prices. The product by sectors of economic activity is usually obtained by extrapolating the quantity indexes of production of goods and services from the base year. Chile and Uruguay are the only countries which use the method of double deflation, for the agricultural sector. However, in nearly every country, exceptions are made for one or more sectors or groups, depending on the gaps in the statistical data available, and, in many cases, on the difficulty of making accurate measurements of homogenous units in certain categories of services. In Paraguay both methods are applied, since production indexes are used to measure the basic goods producing sectors, while the other sectoral products are calculated by deflating the current values.

For the items corresponding to the product by type of expenditure calculated separately,[3/] the normal practice is to deflate current annual values. This is mainly because the figures available are based on current values which can more reliably be deflated by an overall price, cost or wage index. Some of the figures included in the calculation of capital formation, such as those for the gross value of construction or for domestic production of equipment, are derived from the calculations of the product and gross production at constant prices in the corresponding sectors of activity, and thus link up both types of calculations.

3/ General government consumption expenditure, gross domestic fixed capital formation, increase in inventories and imports of goods and services.

/Table 2

Table 2

GENERAL METHOD USED TO EXPRESS THE PRODUCT AT CONSTANT PRICES IN VARIOUS COUNTRIES OF THE REGION

Method \ Countries	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Panama	Paraguay	Uruguay	Venezuela
A. Sectoral gross domestic product											
1. Extrapolation from the base year	x	x	x	x	x	x	x	x	x a/	x	x
2. Deflation of current values									x a/		
3. Double deflation				x						x b/	
B. Gross domestic product by type of expenditure											
1. Extrapolation from the base year	x		x					x d/		x	x
2. Deflation of current values	x	x		x	x	x	x	x	x		x

a/ Extrapolation is used for agriculture, mining and quarrying and manufacturing. For the other sectors, which account for about 50 per cent of the total product, deflation of current values is used.

b/ For the agricultural sector only.

c/ Basically for the items calculated separately, and not as a residual.

d/ Specifically for the calculation of private consumption.

II. CALCULATION OF THE GROSS DOMESTIC PRODUCT AT CONSTANT PRICES BY SECTOR OF ECONOMIC ACTIVITY

Annex I contains a set of tables providing a detailed comparison of the methods, bases, periodicity, sources, coverage and weighting of the indexes used for calculation purposes by various countries in the region. It may be useful, however, to describe certain aspects of this comparison.

As indicated earlier in table 2, the method generally used is to extrapolate the figures of the base year by using suitable indexes, as demonstrated in the tables in annex I, which also show that the indicators used in the various countries for each sector of economic activity are reasonably similar.

The similarities are most evident with the goods-producing sectors, for which as a general rule either quantum indexes of production are applied or the volume of production is valued at base-year prices. Instead of using production quanta for the mining and quarrying sector, some countries use the export quanta for ores which are not used domestically on any scale. In some branches of the manufacturing sector, figures for the volume of raw materials used and other indirect indicators are used to supplement incomplete production figures.

The construction sector is a special case since all countries have to use a great variety of methods to measure performance. The most common method is to use indirect indicators such as the production and import of inputs, or to deflate figures at current prices by means of wage and salary indexes, which is clear evidence of the lack of statistical data for the sector. The figures for building permits, which are frequently used to measure the development of private construction, are not wholly adequate, owing to the absence of data on subsequent progress and completion of construction work. For this reason, countries are increasingly tending to use the data for apparent consumption of construction materials as a more accurate indicator, despite all the errors resulting from fluctuations in inventories and certain alternative uses for materials.

/The system

The system of deflating current prices is used chiefly for public construction, since the basic data, which are generally taken from government budget records or the accounts of public enterprises, are expressed in current prices.

Commercial activities are usually measured by working out goods production and import indexes, which are adjusted to reflect as far as possible the volume of transactions in goods. The accuracy of the figures depends on the amount of detail with which flows of goods and their corresponding marketing channels and margins are considered.

The tables covering services show all the various indexes used and the many combinations needed to calculate figures for the services sector. This is due to shortcomings in the basic statistics, which make it necessary to use indirect indicators with a considerable margin of error, and this is one reason why the figures for this sector are one of the least reliable components of the estimates of the product at current prices.

Some specific service activities, for example electricity generation and distribution and some forms of transport, do not present any great problems since the indicators available are generally considered representative of the services furnished and are in widespread use.

It appears that, during the nineteen-sixties, services have become much more diversified and also based on partial data, that they have markedly increased their share of the total product; this brings home the need to improve basic statistics so that an idea of the current magnitude of service activities can be obtained and their growth can be measured. As an example of the efforts made in one country in this respect, a special table has been included showing how Panama calculated the figures for "other services", annex I, table 13.

The indexes used to express the product at constant prices are very often prepared by the offices which prepare the national accounts specifically for use in these calculations. As a general rule, the basic data come from statistical departments, ministries with their own statistical services, other public agencies, private bodies, producers' associations and, in some cases, from direct surveys undertaken in establishments or other primary data sources.

/Nevertheless, many

Nevertheless, many of the basic statistical series produced by statistical departments and other agencies are not suitable for direct incorporation into calculations of the product and therefore have to be reformulated and often have to be compiled entirely by the national accounts offices themselves. This constitutes a constant and increasing burden on the officials of these offices and very much limits the possibility of improving the methods of social accounting which are applied or of developing new studies in relatively untouched fields, for example financial accounts or capital stocks.

Hence, if the figures produced by the offices presenting the national accounts, are to be improved, the statistical work must be better co-ordinated. This is clear from the tables in annex I analysing the sources of the indexes and of the primary hypothesis used in preparing them; as noted in the introduction, most national accounts offices do not come under statistical departments, as is the case in other regions of the world, but under other bodies, chiefly Central Banks.

This institutional difference is in itself an obstacle to co-ordination which should be eliminated by promoting close contacts between the various officials responsible for preparing statistics. It should be borne in mind that national accounts systems are an excellent frame of reference for over-all statistical planning, and also that the accuracy of calculations of macroeconomic series largely depends on the reliability and availability of the basic data required.

As a result of the fact that national accounts offices have a great deal to do with preparing the indexes, the base years used for the indexes are generally the same as those used for calculating the product, since they have been prepared or reformulated with this specific end in view.

The indexes currently being used usually cover a one-year period, although virtually all countries have incomplete indexes or data with reduced coverage, for quarterly or monthly periods. In some cases, Argentina for instance, quarterly estimates of the product are already being used.

/As far

As far as possible, the various sub-indexes used in each sector of activity are weighted on the basis of the gross value added, especially in the manufacturing sector, for which the index for each group is weighted using the value for the base year. In other sectors, methods vary and usually depend on the amount of data available.

The tables in annex I show the coverage of the indexes for the goods-producing sectors (agriculture, mining and quarrying, and manufacturing) and for commerce, which in a certain sense is derived from the performance of the goods-producing sectors.

III. ESTIMATE OF GROSS DOMESTIC PRODUCT BY TYPE OF EXPENDITURE AT CONSTANT PRICES

In the six tables in annex II the methods used in estimating the various components of the gross domestic product by type of expenditure at constant prices are compared. As has already been said, and according to the information available, none of the countries base their estimate of the over-all evolution of the real product on calculations of this kind; it is usually calculated when the product at constant prices by sectors of activity is being computed. Some of the figures are obtained also from the very production data and indexes used in that computation.

Although current values are deflated for most items, an optional or supplementary method is to extrapolate the values for a base year by quantum indexes of production, exports and imports.

For government consumption, six countries deflate the compensation received by government employees by the government wage and salary index, and two others extrapolate the base year figures by an index of persons employed, while they all, without exception, deflate purchases of goods and services by price indexes, some of which are based on the main government purchases, or by general indexes such as that of wholesale prices.

Data on gross domestic fixed capital formation at constant prices are obtained by a wide range of methods which vary in accordance with the different types of goods it comprises or with the institutional sector purchasing such goods. Thus, the method generally used for public construction is to deflate gross production values at constant prices obtained from estimates of the product for each branch of activity, through the use of indexes of construction costs, wholesale prices, material inputs, and wages and salaries paid to workers and employees in this sector, or a combination of the last two items. For private construction, on the other hand, some countries use extrapolation from the base year by indicators of the evolution of this sector, i.e., area of new construction or apparent consumption of the principal materials.

/Transport equipment,

Transport equipment, and machinery and other equipment are given different treatment depending on whether they are locally produced or imported. In the latter case, the indexes most frequently used for deflation are the unit import values, which are replaced in certain cases by the indexes of world prices of capital goods. For domestically-produced equipment and machinery, an insignificant item in many countries of the region, the base year values are extrapolated by production quantum indexes of the branches of industry producing them or, less frequently, the current values are deflated by price indexes for the products. It is not unusual to find both procedures for estimating constant values for different types of machinery or equipment in the same country.

The calculations of changes in the volume of inventories are the least satisfactory of all the calculations in the items for which independent estimates of the product by type of expenditure are made. This is primarily because of their inadequate coverage for want of systematic surveys of annual inventories in the producing units of wholesale and retail commercial establishments. Some countries have some information of this but it is incomplete and covers for example, only a specific type of industry, or enterprises organized as limited companies. These figures, obtained in terms of current values, are deflated by such general indexes as those for wholesale prices or the unit value of imports.

In other countries, estimates of this aggregate include only a specific group of goods, usually primary products or raw materials, on which information is available because the stocks are generally controlled by the government or because their marketing is in the hands of a special public or private agency. In these cases, the changes in inventories of this group of products are evaluated at base year prices.

Exports and imports of goods are generally deflated by indexes of unit value in the general foreign trade statistics. Sometimes quantum indexes are used, mainly in the case of exports.

The items included in transport services are deflated in some countries by freight cost and other indexes, according to the type of service, or in default of these, by general indexes which are assumed to indicate approximately the price variations in the services concerned.

/Most countries

Most countries have recourse to indexes of export and import unit values for want of better indicators, on the assumption that the cost of services follows the same trend as the prices included in these indexes. Private consumption is usually obtained residually, which is why it comes at the end of the table for the gross domestic product by type of expenditure at constant prices; however, this item, which would include all the cumulative errors in calculating the other items and the product by branch of economic activity, is checked by an estimate based on the estimated flow of goods and services for private consumption.

For those years in which representative of household income and expenditure surveys are available, other calculations and estimates are made from which the margin of error in the calculation of private consumption in the national accounts can be determined. This type of survey, however, is not often carried out in Latin America and many of those that are undertaken cover only the capital or major cities, or limited strata of the population, such as the families of industrial workers.

The tables in annex II give a general idea of the use of price and quantity indexes in estimating the gross domestic product by type of expenditure at constant prices. This annex also indicates the extent to which the countries of the region are preparing tables and accounts which can be fitted into the new system of national accounts.

ANNEX I

METHODS, BASE, PERIODICITY, SOURCES, COVERAGE AND WEIGHTING OF THE INDEXES USED IN THE CALCULATION OF THE GROSS DOMESTIC PRODUCT AT CONSTANT PRICES BY SECTORS OF ECONOMIC ACTIVITY IN VARIOUS COUNTRIES OF THE REGION

/General note

General note:

The information on Chile relates to gross production values and not to value added, because the method of double deflation is generally used there.

In Brazil a system of movable weights is used, in other words, each year is weighted by the values of the previous year. Consequently the base year 1949 which appears in the following tables is used only for purposes of reference and comparison.

The concept of the weighting of sectoral indexes (DI) refers solely to the weighting of the respective indexes by groupings or subsectors so as to arrive at an over-all index for each sector of economic activity.

Table 1

SECTOR: AGRICULTURE

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Jamaica	Panama	Paraguay	Uruguay a/	Venezuela
A. METHODS												
I. EXTRAPOLATION FROM BASE YEAR WITH INDEXES OF:												
1. Quantum of production	x	x	x	x	x	x	x	x	x b/	x	x	x
2. Export quantum		x c/				x d/						
3. Commodity consumption		x e/				x f/						
II. DEFLATION OF CURRENT VALUES BY INDEXES OF:												
Export prices									x g/			
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED												
1. Original base	1960	1958	1947	195557	1958	1958	1948	1960	1960	...	1961	1957
2. Base used	1960	1958	1949	1965	1958	1958	1948	1960	1960	...	1961	1957
II. PERIODICITY OF INDEXES												
1. Annual	x	x	x	x	x	x	x	...	x	x	x	x
2. Quarterly	x											
3. Monthly				x								
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x	x	x	x	x	x	...	x	...	x	x
1. Direct surveys						x h/						
2. Statistical Office		x	x	x	x	x	x		x			x i/
3. Ministry of Agriculture	x	x		x	x	x j/					x	x
4. Agricultural development organizations					x k/							
5. National Meat Board	x l/											
6. Producers' associations, co-operatives, etc.						x m/	x n/				x o/	
7. Ministry of Natural Resources							x p/					
8. Other unspecified sources		x										
II. PREPARED BY OTHER OFFICES												
Statistical Office	x q/											
D. WEIGHTING AND COVERAGE												
I. WEIGHTING OF SECTORAL INDEXES		...						...	...	...		
1. Gross production value			x	x	x							
2. Value added	x					x	x				x	x
II. COVERAGE OF INDEXES								...	...	...		
1. Number of products included	220 r/	64 s/	68 t/	129 u/		92 v/						47 w/
2. Representativity (percentage)		90-95		90	100		100				100 x/	
(a) According to production value		x		x	x						x	
(b) According to value added							x					

a/ Uruguay uses the system of double deflation because, as in Chile, the information relates to the "gross production value". b/ Crop farming for domestic consumption, forestry, stock farming and fishing. c/ Only for certain forest products. d/ For fruit, honey and wax. e/ For fishery products. f/ For fruit consumed locally. g/ Agricultural export commodities (bananas and cocoa). h/ For poultry and eggs. i/ For industrial crops and livestock production. j/ For fishing. k/ For livestock production. l/ For cattle, pigs, sheep and other livestock. m/ For industrial crops and agricultural export commodities. n/ For fruit. o/ Private Milk Producers' Co-operative and Wool Marketing Board, for milk and wool respectively. p/ Ministry of Natural Resources for forestry and fishing. q/ For Poultry farming. r/ Covers 85 products for crop farming, 43 for stock farming, and 92 for fishing and hunting. s/ Covers 27 products for crop farming, 20 for forestry, 16 for stock farming and 1 for fishing. t/ Covers 50 products for crop farming, 2 for forestry, 16 for stock farming, and 1 for fishing. u/ Covers 75 products for crop farming, 14 for forestry, 13 for stock farming, and 27 for fishing and hunting. v/ Covers 78 products for crop farming, 3 for forestry, 10 for stock farming, and 1 for fishing and hunting. w/ Covers 35 products for crop farming, 5 for forestry, and 7 for stock farming. x/ Except milk, for which the coverage is smaller.

/Table 2

Table 2

SECTOR: MINING AND QUARRYING

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Jamaica	Panama	Paraguay	Uruguay	Venezuela
A. METHODS												
I. EXTRAPOLATION FROM BASE YEAR WITH INDEXES OF:												
1. Quantum of production	x		x		x	x a/	x	x	x b/	x	x	x
2. Export quantum		x				x c/						
3. Number of persons employed								x d/				
4. Tax on sand extracted									x			
5. Length of highway (kms)									x e/			
II. DEFLATION OF CURRENT VALUES WITH INDEXES OF: f/												
1. Wholesale prices				x								
2. Export prices				x g/								
3. Retail prices				x								
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED												
1. Original base	1960	1958	1947	h/	1958	1958	1948	1960	1960	...	1961	1957
2. Base used	1960	1958	1949	1965	1958	1958	1948	1960	1960	...	1961	1957
II. PERIODICITY OF INDEXES								...				
1. Annual	x	x	x		x	x	x		x	x	x	x
2. Quarterly	x											
3. Monthly				x								
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x	x		x	x	x	..	x	...	x	x
1. Direct surveys							x					
2. Statistical Office		x				x			x			
3. Ministry of Mines	x	x	x i/		x							x
4. Mining Bank		x										
5. National Petroleum Council			x j/									
6. Ministry of Industry and Labour											x	
II. PREPARED BY OTHER OFFICES								...		...		
1. Statistical Office				x								
2. Central Bank				x								
D. WEIGHTING AND COVERAGE												
I. WEIGHTING OF SECTORAL INDEXES		...		...				...	...	...		
1. Gross production value			x		x						x	
2. Value added	x					x	x					x
II. COVERAGE OF INDEXES								...	...	...		
1. Number of products included	80 k/	12 l/	34 m/	133	-	9 n/						
2. Representativity (percentage)		90		96	100		100				100	
(a) According to production value		x		x	x						x o/	
(b) According to value added							x					

a/ Stones, sand and salt. b/ Salt. c/ Other non-metallic mineral products. d/ Only for stones and sand. e/ Stones. f/ The indexes are weighted according to use. g/ Specific index calculated for mining products. h/ Wholesale prices of mining products, 1968; consumer prices, 1958; and mining export prices, 1947. i/ Ministry of Agriculture, Production Statistics Service. j/ For petroleum and natural gas. k/ Covers coal, 17 metal ores, petroleum and natural gas, and 60 non-metallic mineral products. l/ Covers 9 metal ores, petroleum, and 2 non-metallic mineral products. m/ Covers 19 metal ores, petroleum and natural gas, stones, sand, and 10 non-metallic mineral products. n/ Covers stones and sand, and 7 other non-metallic mineral products. o/ Covers nothing but stones and sand, the only important mineral products.

/Table 3

Table 3

SECTOR: MANUFACTURING INDUSTRY

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Jamaica a/	Panama	Paraguay	Uruguay a/	Venezuela
A. METHODS												
I. EXTRAPLATION FROM BASE YEAR WITH INDEXES OF:												
1. Quantum of production	x	x b/	x		x	x	x	x	x	x	x	x
2. Quantum of inputs	x					x	x	x	x c/		x	
3. Sales at constant prices	x d/											
4. Export quantum	x e/											
5. Commodity consumption	x f/											
6. Number of persons employed								x				
7. Import quantum								x				
8. Number of vehicles in circulation									x g/			
9. Hours worked											x	
II. DEFLATION OF CURRENT VALUES BY INDEXES OF:												
1. Producer prices	x h/							x				
2. Wholesale prices				x								
3. Prices of another product or group of products				x i/								
4. Export prices								x				
5. Import prices								x				
6. Consumer prices									x j/			
7. Wages and salaries										x k/		
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED												
1. Original base	1960	1958	1947 l/	1962	1957	1958	1948	1960	1960	...	1960	1957
2. Base used	1960	1958	1949	1965	1958	1958	1948	1960	1960	...	1961	1957
II. PERIODICITY OF INDEXES								...				
1. Annual	x	x	x	x	x	x	x		x	x	x	x
2. Quarterly	x											
3. Monthly			x									
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x	x	x	x	x	x	...	x	...	x	x
1. Direct surveys	x	x									x	x m/
2. Statistical Office	x	x	x	x	x	x	x		x			x
3. Chamber of Industry		x	x n/									
4. Ministry of Economic Affairs						x o/						
5. Municipalities						x p/						
6. Customs Department							x q/					
II. PREPARED BY OTHER OFFICES								...		...		
1. Statistical Office	x r/											
D. WEIGHTING AND COVERAGE												
I. WEIGHTING OF SECTORAL INDEXES		...						...	...	...		
1. Gross production value				x								
2. Value added	x		x		x	x	x				x	x
II. COVERAGE OF INDEXES												
1. Number of products included	399	240	459	190								204
2. Representativity (percentage)		95	90		75		100 60 s/					
(a) According to production value		x	x									
(b) According to value added				x	x		x					

a/ It is not specified to which group each index is applied, because different combinations of indexes are used for each and because it would involve too much detail for purposes of this table. b/ Only for the "registered manufacturing" level; production from unregistered manufacturing and artisan-type establishments is calculated separately. c/ Only for ISIC group 206, manufacture of bakery products; and major groups 24, made-up goods; and 28, printing. d/ Only for major group 20, food, and combined with indexes of production and volume of inputs. e/ Only for major groups 28, printing, and 29, leather, and combined with indexes of production and/or volume of inputs. f/ For major groups 33, non-metallic mineral products, and 35, metal products, and combined with indexes of production and volume of inputs. g/ Only for group 384, repair of motor vehicles. h/ Only for motor vehicles and tractors. i/ Only for major groups 26, furniture, and 39, miscellaneous industries. j/ Only for major group 26, fixtures. k/ For major groups 37, electrical machinery and apparatus, and 39, miscellaneous industries. l/ In general 1947, except: 24, made-up goods, 1956; 25, manufactures of wood, 1953; 36, machinery, 1955; 37, electrical machinery and apparatus, 1955; 38, transport equipment, 1955. m/ For major groups 28 and 34. n/ National Petroleum Council for major group 32. o/ For major groups 20, 27 and 30. p/ For major groups 25 and 33. q/ For major groups 20, 21 and 22. r/ For major groups 20, 23, 25, 28, 30, 31, 33 and 35. s/ 100 per cent representativity for major groups 21, 22 and 23, and 60 per cent for the rest.

/Table 4

Table 4

SECTOR: CONSTRUCTION

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Jamaica	Panama	Paraguay	Uruguay	Venezuela
A. METHODS												
I. EXTRAPOLATION FROM BASE YEAR WITH INDEXES OF:												
1. Quantum of inputs	x a/	x	x b/			x a/			x			
2. Quantum of production		x			x						x a/	x
3. Number of persons employed		x										
II. DEFLATION OF CURRENT VALUES BY INDEXES OF:												
1. Producer prices	x			x								
2. Wages and salaries						x c/	x					
3. Prices of imported inputs								x				
4. Prices of domestic inputs								x				
5. Wholesale prices										x		
6. Construction costs											x c/	
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED												
1. Original base	1960	1958	...	1962	1958	1958	1948	1960	1960	1938	1961	1957
2. Base used	1960	1958	1949	1965	1958	1958	1948	1960	1960	1967	1961	1957
II. PERIODICITY OF INDEXES			...					...				
1. Annual	x	x		x	x	x	x		x	x	x	x
2. Quarterly	x											
3. Monthly												
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x	x	x	x	x	x	...	x		x	x
1. Direct surveys	x d/	x				x e/	x d/					x
2. Statistical Office	x		x	x	x				x			x
3. Ministry of Public Works												x
4. Ministry of Agriculture			x f/									
5. Ministry of Finance							x e/					
6. Chamber of Construction				x							x e/	
7. Municipalities						x d/					x d/	
8. National Association of Cement Manufactures			x									
II. PREPARED BY OTHER OFFICES								...				
1. Statistical Office	x											
2. Central Bank										x		
D. WEIGHTING AND COVERAGE												
I. WEIGHTING OF SECTORAL INDEXES		...	...					...	...	...	x	...
1. Gross production value				x	x						x	
2. Value added	x					x	x					

a/ For private construction only.
b/ Apparent consumption of sheet glass, cement and wood.
c/ For public construction only.
d/ For private construction.
e/ For public construction.
f/ Production Statistics Service of the Ministry.

/Table 5

Table 5

SECTOR: ELECTRICITY, GAS, WATER AND SANITARY SERVICES

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Jamaica	Panama	Paraguay	Uruguay	Venezuela
A. METHODS												
I. EXTRAPOLATION FROM BASE YEAR WITH INDEXES OF:												
Quantum of production of Services	x	x	x		x	x	x	x	x		x	x
II. DEFLATION OF CURRENT VALUES BY INDEXES OF:												
1. Producer prices				x a/								
2. Consumer prices				x b/								
3. Wages and salaries										x		
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED												
1. Original base	1960	1958	1947	c/	1958	1958	1948	1960	1960	1938	1961	1957
2. Base used	1960	1958	1949	1965	1958	1958	1948	1960	1960	1967	1961	1957
II. PERIODICITY OF INDEXES												
1. Annual	x	x	x	x	x	x	x		x	x	x	
2. Quarterly	x											
3. Monthly				x b/								x d/
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x	x	x e/	x	x	x	...	x			x
1. Direct surveys							x					
2. Statistical Office		x			x f/	x			x			x
3. Ministry of Mines and Power			x g/									
4. State enterprises	x											
5. Specialized agencies					x							
6. Producer enterprises				x e/								
7. Municipalities						x h/						
II. PREPARED BY OTHER OFFICES								...				
1. Statistical Office				x								
2. Central Bank										x		
3. Public and private producer enterprises											x	
D. WEIGHTING AND COVERAGE												
I. WEIGHTING OF SECTORAL INDEXES			...		...			...	...	...		
1. Gross production value				x								
2. Value added	x					x	x				x	x i/

a/ For electric power generation only.
b/ Gas, water and sanitary services.
c/ Producer prices in 1958, and consumer prices in 1965.
d/ For electric power only.
e/ For electric power.
f/ For gas.
g/ Water and Power Council.
h/ For water.
i/ For electric power only.

/Table 6

Table 6

SECTOR: TRANSPORT AND STORAGE

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Jamaica	Panama	Paraguay	Uruguay	Venezuela
A. METHODS												
I. EXTRAPOLATION FROM BASE YEAR WITH INDEXES OF:												
1. Quantum of services rendered	x		x		x	x	x	x	x		x	
2. Quantum of production carried	x a/											x b/
3. Quantum of production marketed		x										
4. Number of vehicles			x c/				x d/	x c/	x c/			x d/
5. Export quantum						x e/						
6. Number of tickets sold								x f/				
7. Volume of maritime freight								x g/				
8. Number of passengers								x h/	x i/			x b/
9. Gross tonnage of registered shipping									x e/			
10. Foreign trade traffic handled in ports											x j/	
11. Agricultural commodities warehoused or kept in cold storage chambers											x k/	
II. DEFLATION OF CURRENT VALUES BY INDEXES OF:												
1. Producer prices or rates	x l/			x m/								
2. Consumer prices				x n/					x k/	x c/		
3. Prices of another product or group				x k/								
4. Wages and salaries										x c/		
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED												
1. Original base	1960	1958	1947	p/	1958	1958	1948	1960	1960	1938	1961	1957
2. Base used	1960	1958	1949	1965	1958	1958	1948	1960	1960	1967	1961	1957
II. PERIODICITY OF INDEXES												
1. Annual	x	x	x	x	x	x	x	...	x	x	x	x
2. Quarterly												
3. Monthly	x			x								
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x	x	x q/	x	x	x	...	x		x	x
1. Direct surveys	x r/		x s/			x t/	x u/				x v/	
2. Statistical Office	x r/	x	x w/		x	x	x x/		x			x
3. Ministry of Transport and Public Works	x y/			x q/								
4. State enterprises	x	x s/										
5. Ministry of Finance			x z/								x a'/	
6. Merchant fleet					x a'/							
7. Civil Aeronautics Department		x v/	x v/									
8. Ministry of Agriculture											x b'/	x c'/
9. Central Bank											x b'/	
II. PREPARED BY OTHER OFFICES												
1. Statistical Office				x u/								
2. Central Bank										x		
3. State enterprise											x d'/	
4. Municipalities											x e'/	
D. WEIGHTING AND COVERAGE												
I. WEIGHTING OF SECTORAL INDEXES		...						...	...	...		...
1. Gross production value				x								
2. Value added	x		x			x	x				x	
3. Revenue					x							

/Table 6 (conclusion)

Table 6 (conclusion)

a/ For indicating the trend for "lorries" only.
b/ Used for rail and road freight transport and air cargo.
c/ For overland transport by motor vehicle.
d/ For taxis only.
e/ For maritime and inland waterway transport only.
f/ For "buses" only.
g/ Used for "maritime transport" (combined with number of passengers) and for "storage".
h/ Used for maritime transport (combines with maritime freight), for air transport and for allied services (combined total of passengers carried by sea and air).
i/ For air transport only.
j/ For "allied services" only.
k/ For "storage" only.
l/ For deflating current income from "taxis" only.
m/ Used for rail, lorry and maritime freight transport.
n/ Used for passenger transport by rail, bus, taxi and air, and for allied services.
o/ For inland waterway and air transport only.
p/ Base of consumer price index for 1958 and of producer price index for 1965.
q/ For rail freight transport, over lorry and transport, and maritime transport and storage.
r/ For overland and air transport.
s/ For railways.
t/ For taxis.
u/ For other items in the sector.
v/ For air transport.
w/ For overland transport and allied services.
x/ For overland transport.
y/ For allied services.
z/ For maritime and inland waterway transport.
a'/ For maritime transport.
b'/ For lorries.
c'/ For rail and lorry freight transport.
d'/ For rail transport.
e'/ For overland transport by motor vehicle, in taxis, buses and trams.

Table 7

SECTOR: COMMUNICATIONS

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras a/	Jamaica	Panamá	Paraguay	Uruguay	Venezuela
A. METHODS												
I. EXTRAPOLATION FROM BASE YEAR WITH INDEXES OF:												
1. Quantum of services rendered	x	x	x		x			x			x	x
2. Number of telephones installed	x b/		x b/		x b/				x c/			
3. Number of letters carried					x d/			x e/				
4. Number of words transmitted					x f/							
5. Number of persons employed					x g/							
6. Number of cablegrams								x g/				
7. Revenue at constant prices								x b/				
II. DEFLATION OF CURRENT VALUES BY INDEXES OF:												
1. Consumer prices				x h/								
2. Wages and salaries							x					
3. Wholesale prices										x		
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED												
1. Original base	1960	1958	1947	1958	1958		1948	1960	1960	1938	1961	1957
2. Base used	1960	1958	1949	1965	1958		1948	1960	1960	1967	1961	1957
II. PERIODICITY OF INDEXES									...			
1. Annual	x	x	x		x		x		x	x	x	x
2. Quarterly	x											
3. Monthly				x							x	
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x	x		x	...	x	...	x		x	x
1. Direct surveys	x						x				x	
2. Statistical Office		x			x				x			
3. Ministry of Communications			x									x i/
4. State enterprises	x											
5. Telephone Company												x j/
6. Private cable companies												x k/
II. PREPARED BY OTHER OFFICES						...		...				
1. Statistical Office				x								
2. Central Bank										x		
D. WEIGHTING AND COVERAGE												
I. WEIGHTING OF SECTORAL INDEXES		...				...		...	...	...		...
1. Gross production value			x	x								
2. Value added	x				x		x				x	

a/ Included in government sector. b/ Used for the telephone service subsector. c/ Used for the whole communications sector. d/ Used for the postal service. e/ Used for the postal service, jointly with indexes of the number of telegrams and postal orders. f/ Used for the telegram service. g/ Used for the cablegram service. h/ The item "miscellaneous" is used from that index. i/ For mail and telegrams. j/ For telephones. k/ For cablegrams.

Table 8

SECTOR: COMMERCE

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Jamaica	Panamá	Paraguay	Uruguay	Venezuela
A. METHODS												
I. EXTRAPOLATION FROM BASE YEAR WITH INDEXES OF:												
1. Quantum of production marketed	x	x		x	x	x	x	x a/	x		x b/	x
2. Combination of commodity consumption indexes			x c/						x d/			
II. DEFLATION OF CURRENT VALUES BY INDEXES OF:												
1. Wholesale prices										x		
2. Import prices							x e/					
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED												
1. Original base	1960	1958	1949	1965	1958	1958	1948	1960	1960	1938	1961	1957
2. Base used	1960	1958	1949	1965	1958	1958	1948	1960	1960	1967	1961	1957
II. PERIODICITY OF INDEXES								...				
1. Annual	x	x	x	x	x	x	x		x	x	x	x
2. Quarterly												
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x	x	x	x	x	x	...	x		x	x
1. Direct surveys	x											
2. Statistical Office	x f/				x		x		x			x
3. Ministry of Agriculture												x
4. Central Bank												x
II. PREPARED BY OTHER OFFICES								...				
1. Central Bank										x		
D. WEIGHTING AND COVERAGE												
I. WEIGHTING OF SECTORAL INDEXES		...						...		...		...
1. Gross production value				x								
2. Value added									x			
3. Gross marginal product	x		x		x	x	x				x	
II. COVERAGE OF INDEXES			...					...		...		
1. Number of products marketed and considered	403 g/											
2. Representativity (percentage)	100 h/	75-80		100	100	100			100			
(a) According to production value	x	x		x	x i/	x						
(b) According to value added	x											
(c) According to value of imports and exports					x j/							
(d) According to value of sales									x			

a/ Volume of production bought and sold, deflated by a combination of consumer price indexes and export and import indexes. b/ For domestic industrial goods the trend of the index for the quantum of manufacturing production is used, while for domestic and imported primary commodities calculations are made of production apparently bought and sold (or imports). c/ Weighted combination of agricultural and industrial product indexes and the index of the quantum of imports. d/ For wholesale and retail imports marketed. e/ Used to deflate the value of imports marketed. f/ For imports and exports. g/ Including domestic goods only. h/ For marketing of imported goods. i/ For marketing of domestid goods. j/ For marketing of imported goods.

/Table 9

Table 9

SECTOR: BANKING, INSURANCE AND REAL ESTATE

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Jamaica	Panamá	Paraguay	Uruguay	Venezuela
A. METHODS												
I. EXTRAPOLATION FROM BASE YEAR WITH INDEXES OF:												
1. Quantum of production of services	x a/	x b/	-		x	x		x	x c/		x d/	...
2. Number of persons employed	x e/											
II. DEFLATION OF CURRENT VALUES BY INDEXES OF:			-									...
1. Wages and salaries							x			x		
2. Consumer prices (general level)											x f/	
3. Deflator implicit in expenditure				x								
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED			-									...
1. Original base	1960	1958		1965	1958	1958	1948	1960	1960	1938	1961	
2. Base used	1960	1958		1965	1958	1958	1948	1960	1960	1967	1961	
II. PERIODICITY OF INDEXES			-					...				...
1. Annual	x			x	x	x	x		x	x	x	
2. Semestral	x											
3. Monthly												
4. Semestral		x e/										
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x	-	x	x	x	x	...	x		x	...
1. Direct surveys	x					x	x				x g/	
2. Statistical Office									x			
3. Banking Authority		x										
4. Central Bank											x h/	
5. Specialized agencies					x							
II. PREPARED BY OTHER OFFICES			-					...				...
1. Statistical Office											x i/	
2. Central Bank		x								x		
D. WEIGHTING AND COVERAGE												
I. WEIGHTING OF SECTORAL INDEXES		...	-					...	...	...		...
1. Gross production value				x								
2. Value added	x					x	x				x	

a/ Insurance. b/ Only for banks, the estimate being completed by evolution of "commerce". c/ Banks: balances of loans and deposits at 31 December each year. Insurance: index of sales of gross premiums. d/ Banks and insurance. e/ Banks. f/ Real estate and other. g/ Insurance. h/ For banks. i/ For real estate and other.

/Table 10

Table 10

SECTOR: OWNERSHIP OF DWELLING

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Jamaica	Panamá	Paraguay	Uruguay	Venezuela
A. METHODS												
I. EXTRAPOLATION FROM BASE YEAR WITH INDEXES OF:												
1. Quantum of production of services						x	x				x	
2. Urban population growth												x
3. Rural population growth									x a/			
4. Total population growth		x										
5. Apparent consumption of construction materials									x b/			
6. Combination of indexes	x											
II. DEFLATION OF CURRENT VALUES BY INDEXES OF:												
1. Consumer prices				x c/						x		
2. Rents					x			x	x d/			
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED												
1. Original base	1960	1958		1958	1958	1958	1948	1960	1960	1958	1961	1957
2. Base used	1960	1958		1965	1958	1958	1948	1960	1960	1967	1961	1957
II. PERIODICITY OF INDEXES												
1. Annual	x	x			x	x	x	...	x	x	x	x
2. Quarterly	x											
3. Monthly				x							x	
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x				x	x	...	x		x	x
1. Direct surveys												
2. Statistical Office		x					x		x			x
3. Municipality						x						
4. State electricity enterprise											x e/	
II. PREPARED BY OTHER OFFICES												
1. Statistical Office				x	x							
2. Central bank										x		
D. WEIGHTING AND COVERAGE												
I. WEIGHTING OF SECTORAL INDEXES		...			...			...	...	...	...	...
1. Production value				x								
2. Value added	x					x	x					

a/ For rural areas. b/ For construction of new dwellings in urban areas (excluding Panama City).
c/ "Housing" component of consumer price index. d/ Panama City. e/ Estimated stock of housing units, based mainly on the number of electricity connexions for housing units reported by the enterprise concerned.

Table 11

SECTOR: GOVERNMENT

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Jamaica	Panama	Paraguay	Uruguay	Venezuela
A. METHODS												
I. EXTRAPOLATION FROM BASE YEAR WITH INDEXES OF:												
1. Quantum of production of services		x	-									
2. Number of persons employed	x								x a/			x
3. Population growth											x	
II. DEFLATION OF CURRENT VALUES BY INDEXES OF:			-									
Wages and salaries				x	x	x	x	x		x		
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED			-									
1. Original base	1960	1958		1959	1958	1958	1948	1960	1960	1938	1961	1957
2. Base used	1960	1958		1965	1958	1958	1948	1960	1960	1967	1961	1957
II. PERIODICITY OF INDEXES			-					...				
1. Annual	x	x			x	x	x		x	x	x	x
2. Quarterly	x			x								
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x	-		x	x	x	...	x		...	x
1. Direct surveys												
2. Statistical Office		x			x				x			
3. Finance Ministry	x					x	x					
4. Public Administration Committee												x
II. PREPARED BY OTHER OFFICES		-						...			...	
1. Statistical Office				x								
2. Central Bank										x		
D. WEIGHTING AND COVERAGE												
I. WEIGHTING OF SECTORAL INDEXES		...	-		...			...	...	...	...	...
1. Gross production value												
2. Value added	x			x		x	x					

a/ Persons engaged only in administrative activities.

b/ The population growth index is used on the assumption that general government services per inhabitant are constant, for want of employment series or wage indexes for the public sector. This will be changed shortly for a system of deflation by a recently calculated index of wages and salaries paid by the government.

Table 12

SECTOR: OTHER SERVICES

CONCEPTS	Argentina	Bolivia	Brazil	Chile	Colombia	Guatemala	Honduras	Jamaica	Panama a/	Paraguay	Uruguay	Venezuela
A. METHODS												
I. EXTRAPOLATION FROM BASE YEAR WITH INDEXES OF:												
1. Quantum of production of services	x b/	x				x	x c/				x	x
2. Number of persons employed	x d/				x e/		x f/					x g/
3. Number of spectators					x h/							x h/
4. Number of doctors							x i/	x				
5. Number of students								x j/				
6. Number of careers								x k/				
7. Constant tax values								x c/				
8. Number of passengers								x l/				
9. Number of establishments											x m/	
10. Number of tourists											x l/	
11. Population growth											x n/	
12. Number of beds												x i/
II. DEFLATION OF CURRENT VALUES BY INDEXES OF:												
1. Consumer prices			x	x o/						x	x p/	
2. Wages and salaries				x q/	x q/		x q/	x r/				
3. Unit rates					x /							
4. Wholesale prices				x q/								
B. BASE AND PERIODICITY												
I. BASE YEAR OF INDEXES USED												
1. Original base	1960	1958	1947	s/	1958	1958	1948	1960	1960	1938	1961	1957
2. Base used	1960	1958	1949	1965	1958	1958	1948	1960	1960	1967	1961	1957
II. PERIODICITY OF INDEXES								...				
1. Annual	x	x	x		x	x	x		x	x	x	x
2. Quarterly				x								
3. Monthly				x							x	
C. SOURCES												
I. PREPARED BY THE NATIONAL ACCOUNTS OFFICES WITH BASIC DATA FROM:	x	x			x	x	x	...		...	x	x
1. Direct surveys							x t/				x u/	
2. Statistical Office	x	x			x	x	x v/					x w/
3. Universities and professional associations	x x/											
4. Ministry of Economic Affairs and Finance							x y/					
5. Pension Fund for University-Trained Professionals											x z/	
6. Ministry of Education												x a'/
7. Ministry of Health and Social Welfare												x b'/
8. Central Bank												x c'/
9. Ministry of the Interior											x d'/	
10. News agents											x e'/	
II. PREPARED BY OTHER OFFICES												
1. Statistical Office				x					x		x f'/	
2. Statistical and Econometric Centre i'/			x									
3. Ministry of the Interior											x g'/	
4. Tax Revenue Office											x h'/	
5. Educational units											x i'/	
D. WEIGHTING AND COVERAGE												
I. WEIGHTING BY SECTORAL INDEXES	...	...	...		...			...	...	...		...
1. Gross production value				x								
2. Value added						x	x				x	

/Table 12 (conclusion)

Table 12 (conclusion)

a/ Different indicators are used in this sector because the detailed form in which they are reported by Panama is considered to be of particular interest.
b/ Used for cinemas, football and personal services.
c/ Only for cinemas.
d/ Radio, television and professionals.
e/ Used for public education, hotels and domestic service.
f/ For private education and personal services.
g/ Only for domestic service and other personal services.
h/ Only for entertainment services.
i/ Only for private medicine.
j/ Only for private education.
k/ Only for race-courses.
l/ Only for hotels.
m/ Only for bars and restaurants.
n/ Only for hair-dressing establishments and laundries.
o/ Used for private medical and educational services, services to enterprises, and entertainment and personal services.
p/ Only for sporting activities.
q/ For public educational and health services.
r/ For services to enterprises and personal services.
s/ Bases for indexes of: consumer prices, 1958; wages and salaries, 1959; and wholesale prices, 1968.
t/ For private medical services, cinemas, and personal services.
u/ For private medical services.
v/ For private educational services and domestic service.
w/ For entertainment services.
x/ For professional services.
y/ For medical and public educational services.
z/ For services to enterprises.
a'/ For public educational services.
b'/ For medical services.
c'/ For domestic and other services.
d'/ Belonging to the Getulio Vargas Foundation.
e'/ For domestic service.
f'/ For sporting activities, laundries, and hair-dressing establishments.
g'/ For cinemas and football.
h'/ For restaurants and bars.
i'/ For private educational services.

Table 13
OTHER SERVICES (PANAMA)

Method	Private services															Public services					
																			Entertainment		
	TOTAL	Medical services	Nursing services	Hospital services	Educational services	Hair-dressing establishments and beauty-parlours	Legal services	Commercial services	Accounting and auditing	Hotels and guest houses	Films and public shows	Entertainment: horse racing	Domestic services	Restaurants and bars	Other services	Medical and health services	Protection services	Educational services	Race-course: horse racing	Lottery	Casinos
I. Extrapolation from base year values by indexes of:																					
1. Number of doctors in practice		X																			
2. Number of practising nurses			X																		
3. Number of patients attended at public and private hospitals				X												X					
4. Enrolment in public and private schools					X													X			
5. Quantum of imports of perfumery and toilet articles						X															
6. Number of divorces before the courts							X														
7. Real gross value of construction								X													
8. Number of unexpired licences									X												
9. Quantum of tourist spending in Panama										X											
10. Household expenditure on domestic services a/													X								
11. Gross product at constant prices in private services															X						
12. Combination of indexes b/														X							
II. Deflation of current values by indexes of:																					
1. Consumer prices											Xc/	Xd/							Xd/	Xd/	Xd/
2. Wages and salaries paid by the government																	X				

a/ Based on the rate of increase in household expenditure on domestic services, estimated on the basis of 1952 and 1962 cost-of-living surveys in Panama City.

b/ Weighted index of tourist spending in Panama and of the quantum of imports and of production of food and beverages.

c/ Index of consumer prices under the head of entertainment.

d/ Index of consumer prices for low- and middle-income families in Panama City.

ANNEX II

METHODS USED IN CALCULATING THE GROSS DOMESTIC PRODUCT AT CONSTANT PRICES BY TYPE OF EXPENDITURE, IN VARIOUS LATIN AMERICAN COUNTRIES

/TABLES

TABLES

/General note

General note:

In the following tables, (D) denotes the indicators used in deflating current values, and (E) those used in extrapolating values from a base year.

/Table 1

Table 1

PRIVATE CONSUMPTION EXPENDITURE

Country		Method
Argentina		Obtained residually
Bolivia		Obtained residually
Brazil		Obtained residually
Chile	(D)	Cost-of-living index, for the main items
	(D)	Producer price index, for electricity
	(D)	Deflator implicit in expenditure, for financial services
	(D)	Index of unit value of imports, for imported goods
Colombia		Obtained residually
Guatemala		Obtained residually and compatibilized by estimated flows of goods and services
Honduras	(D)	Import price index, for imported goods
	(D)	Retail price index, for clothing, tobacco and beverages
	(D)	Import price index, for fuel
	(E)	Quantum index of production a/
	(E)	Quantum index of services rendered b/
	(E)	Index of gross value added c/
Jamaica	(D) and (E)	Detailed indexes by main items of consumption
Panama	(E)	Detailed indexes which express private consumption in terms of flows of goods and services
Paraguay		Obtained residually
Uruguay		Obtained residually
Venezuela	(D)	Wholesale price indexes for imported goods and services and personal services
	(E)	Quantum index of domestic consumer goods production

a/ For foodstuffs.

b/ For rent and electric power.

c/ For furniture and household effects; household operation; health and personal care; transport and communications; recreation and miscellaneous services.

/Table 2

Table 2

GENERAL GOVERNMENT CONSUMPTION EXPENDITURE

Country	Total	Compensation of employees	Purchase of goods and services
Argentina		(E) Persons employed	(D) Wholesale prices
Bolivia		(D) Wages and salaries	(D) Prices implicit in sectoral product (D) Cost of living
Brazil			
Chile		(D) Wages and salaries	(D) Combination of indexes: cost of living, wholesale prices, unit value of imports, deflator implicit in expenditure
Colombia		(D) Wages and salaries	(D) Prices of government purchases
Guatemala		(D) Wages and salaries	(D) Wholesale prices
Honduras		(D) Wages and salaries	(D) Cost of living
Jamaica		(D) Wages and salaries	(D) Combination of retail price indexes for imports and exports
Panama		(E) Persons employed	(D) Combination of price indexes for imported and domestic products purchased by the government
Paraguay	(D) Manual worker's wage		
Uruguay		(E) Population growth index	(D) Wholesale prices of government purchases
Venezuela		(E) Persons employed	(D) Wholesale prices

/Table 3

Table 3

GROSS DOMESTIC FIXED CAPITAL FORMATION

Country	Total	Construction		Transport equipment			Machinery and other equipment	
		Public	Private	Domestic	Imported	Repairs	Domestic	Imported
Argentina		(D) Construction costs	(D) Construction costs (E) Volume of inputs	(D) Producer prices (E) Volume of production	(D) World prices	(E) Volume of production	(D) Volume of production	(D) World prices
Bolivia		(D) Construction costs (D) Prices of inputs (D) Wages and salaries		(D) Unit value of imports			(D) Unit value of imports	
Brazil		(E) Apparent consumption of construction materials		(E) Volume of production	(E) Quantum of imports		(E) Apparent consumption of raw materials	(E) Quantum of imports
Chile		(D) Producer prices		(D) Wholesale prices	(D) Unit value of imports, adjusted according to exchange rate		(D) Wholesale prices	(D) Unit value of imports, adjusted according to exchange rate
Colombia		(D) Construction costs		(D) Producer prices (ISIC Major groups 35-38)	(E) Quantum of imports		(D) Producer prices (ISIC major groups 35-38)	(E) Quantum of imports
Guatemala		(D) Prices of inputs (D) Wages and salaries	(D) Construction costs	(D) Producer prices	(D) Unit value of imports	(D) Producer prices	(D) Producer prices	(D) Unit value of imports
Honduras		(D) Wages and salaries		(D) Unit value of imports			(D) Unit value of imports	
Jamaica	(D) Combination of indexes a/							
Panama		(D) Prices of inputs		(D) Unit value of exports of machinery in supplier countries				
Paraguay	(D) Wholesale prices							
Uruguay		(D) Construction costs	(E) Area of construction (m^2)	(E) Volume of production	(E) Quantum of imports		(E) Volume of production	(E) Quantum of imports
Venezuela		(D) Wholesale prices of inputs		(E) Volume of production	(D) Wholesale prices	(E) Volume of production	(E) Volume of production	(D) Wholesale prices

a/ Weighted combination of price indexes for domestic and imported machinery and equipment and construction materials.

Table 4

INCREASE IN INVENTORIES

Country	Method	
Argentina	(E)	Quantity changes in the inventories of products in agriculture, manufacturing and the extractive industries
Bolivia	(D)	Index implicit in gross fixed investment
Brazil	(D)	Wholesale prices
Chile	(D)	Wholesale prices for domestic products
	(D)	Unit value of imports for imported products
Colombia	(D)	Wholesale prices for limited companies
	(E)	Quantities at base year prices for livestock and coffee
Guatemala	(E)	Volume of production for livestock
	(D)	Retail prices for "other items"
	(E)	Volume of production for "other items"
Honduras	(D)	Unit value of imports
Jamaica	(E)	Changes in the volume of stocks of bauxite, aluminium and gypsum
Panama	-	
Paraguay	(D)	Producer prices
Uruguay	(E)	Changes in the volume of stocks of wool and livestock
Venezuela	(D)	Wholesale prices

/Table 5

Table 5

EXPORTS OF GOODS AND SERVICES

Country	Total	Goods	Services			
			Sub-total	Transport	Fares	Travel Abroad
Argentina		(D) World prices in dollars		(D) World prices in dollars	(D) Combination of indexes	
Bolivia	(D) Unit value of total exports					
Brazil	(E) Quantum of exports	(E) Quantum of exports				
Chile		(D) Unit value of exports, adjusted according to exchange rate	(D) Unit value of exports, adjusted according to exchange rate			
Colombia		(D) Unit value of exports		(D) Cost index	(D) Cost index	
Guatemala	(D) Unit value of exports					
Honduras		(D) Unit value of exports		(D) Cost of living		
Jamaica		(D) Export prices	(D) Retail prices			
Panama		(D) Unit value of exports		(D) Prices of petroleum products [a/] (D) Prices of selected imports [b/]		(D) Unit value of imported articles purchased by foreign visitors
Paraguay	(D) Unit value of exports					
Uruguay		(E) Quantum of exports		(D) Freight rate index	(D) Combination of indexes: hotel prices, cost of living and free exchange rates	
Venezuela	(E) Quantum of exports					

a/ For fuel and sales to vessels in transit.

b/ For expenditure by crews, comprising the main articles they purchase on land.

Table 6

IMPORTS OF GOODS AND SERVICES

Country	Total	Goods	Services			
			Sub-total	Transport	Fares	Travel abroad
Argentina		(D) World prices in dollars			(D) World wholesale and retail prices	
Bolivia	(D) Unit value of total imports					
Brazil						
Chile		(D) Unit value of imports, adjusted according to exchange rate	(D) Unit value of imports, adjusted according to exchange rate			
Colombia		(D) Unit value of exports		(D) Unit value of exports	(D) Unit value of exports	
Guatemala	(D) Unit value of imports					
Honduras		(D) Unit value of imports		(D) Unit value of Imports		
Jamaica	(D) Import prices					
Panama		(D) Unit value of imports		(D) Unit value of imports	(D) Unit value of sales of rail tickets	(D) Index of parity and consumer prices in countries visited by Panamanian nationals
Paraguay	(D) Unit value of imports					
Uruguay		(E) Quantum of imports		(D) Freight rate index	(D) Combination of indexes: hotel prices, cost of living and free exchange rates	
Venezuela	(D) Unit value of imports					