

MONTHLY ESTIMATE OF GDP – PERU- SUMMARY

METHODOLOGY OF CALCULATION OF THE MONTHLY INDEX OF THE NATIONAL PRODUCTION

I. INTRODUCTION

The elaboration of a Monthly Estimate of GDP, responds to the necessity to have economic indicators of short term, that facilitate the process of analysis and the decision making, as well as, of the measurement and evaluation of the effects of the economic policy in the conjuncture. Evaluating production therefore is fundamental in monitoring the behavior of the economy.

This indicator has as framework, the System of National Accounts, incorporating in its elaboration different statistical tests, procedures of calculation correction of seasonal factors and maintaining its coherence with the methodology of measurement of annual and quarterly Gross Domestic Product (GDP).

The Monthly Estimate of GDP is made through monthly index of national production, using information available supply by the Statistics Offices of Ministers, and public and private institutions, that conform the National Statistical System, whose central head is the National Institute of Statistic and Informatics (INEI).

The INEI, has improved the methodology of the monthly index, when incorporating direct measurements. The technological advance has allowed greater availability of information in opportune form, to measure the economic activity in the sectors: Governmental, finances and Insurances, Services, Transport and Communications using administrative registers. Also, implementing surveys to the economic units of the Commercial Activity, to Restaurants and Hotels, as well as, Served to Companies. Each producing unit one asks to the value of sales, and the number of personnel occupied registered in the month of the survey.

Given the nature of the indicator we must indicate that the monthly results have the preliminary character, reason why are subject to a revision process, this indicator is spread to the 45 days of finalized the month of analysis, on the basis of an advance calendar of public diffusion.

II. METHODOLOGY OF THE MONTHLY INDEX OF THE NATIONAL PRODUCTION

The adopted methodology procedures in the calculation of the indices of global and sector production, have as conceptual frame the System of National Accounts, those that permanently are evaluated based on the update of the directories, as well as of the availability of the basic information.

To elaborate the global and sector indices, the Index of Laspeyres is applied, considering as it bases year 1994, The Laspeyres method values quantities of the current period at the prices of a base year, this method reflect changes in the volume of output and assume that relative price movements are fixed, like is used in Annual National Accounts.

2.1. GENERAL CHARACTERISTICS

1. The productive sectors are grouped according to the Industrial Classification the Uniform International (CIIU – Rev. 3), in order to facilitate the comparability with the system of National Accounting.

2. The basic flow of information is canalized essentially through the Offices of National Statistical System, with monthly regularity. To this System, all the Ministries and Institutions of the National Public Sector belong.

3. The performance of the production of each sector is determined in function to the behavior of a subgroup of selected variables in each branch of economic activity. These variables are quantified through nonannual surveys directed to the main productive agents of the sector.

4. The basic rule is that changes in outputs reflect changes in value added, so monthly estimates of GDP can be derived using outputs as indicators. In constant prices the supposed that value added moves similar with output seems reasonable, since technological advances which permit a different amount of output to be produced from the same amount of inputs do not change in the short term. In the monthly GDP, to the sectors we assumed that changes in value added are proportional to the changes in output.

5. In the calculation of the Sector Services, there are substantial improvements in the procedures using administrative registries, as well as specialized surveys in the sector Services that have allowed to a greater consistency and robustness in the data. Sectors with Indirect estimations have been reduced, from 45.56%, to effective 31.72% .

6. The sector Financial Services is calculated with monthly information provided by the Supervisor of Banks and Insurances (SBS) with 30 days delay. The Government sector is calculated with the direct information of the execution of the

originating budgetary which allows obtaining data of the remunerations paid by the State and the purchases of goods and services, current expenditures.

7. The activities of the Sector Transport and Communications are diverse, its estimations are made using administrative registries of private and public organisms, such as: railway companies (transport of passengers and load by railroad), Perupetro S.A. (transport by pipe) airlines (transport of passengers and load by air), ENAPU (complementary and auxiliary activities of marine transport and: manipulation of load, storage and deposit), Postal Services of Peru S.A. - SERPOST S.A. and other companies of mail (mail), Telephone of Peru, TELMEX S.A., Telephonic Mobil S.A., Movable America Peru S.A.C., Nextel of Peru S.A. (telecommunications).

8. The calculation of the trade sector is directly from the results of the Monthly Economic Survey of the INEI, applied to a sample of retail and wholesale companies. This information, are available one week previous to the publication of the Report of the Monthly Index of the National Production. The Restaurants and Hotels, is calculated from the information of the Monthly Economic Survey to Restaurants that the INEI applied and using the Monthly Survey to establishments of Lodging that executes the MINCETUR (Ministry of Tourism).

9. The sectors with great complexity in the task to obtain data of short term of their productive units due to the little development of their informative infrastructure, are considered by means of indirect methods

9. The valuation of the production of each sector is obtained from the application of the prices average of the year bases **P0** of products of the corresponding sector, to its respective volumes of production **Qn**. So we have **GVPn= P0 Qn**. Then, the index sector is calculated trough the comparison of the Gross Value of Production (**GVPn= P0 Qn**) in the investigated period with the (**GVP0= P0 Q0**) of the period bases (1994=100,0).

11. The Monthly Index of the National Production, is obtained by means of the aggregation weighted of the indexes of each sector that are included in the conjuncture investigation, The percentage variation of the monthly GDP is obtained of the comparison the no annual indices of similar periods in the original series and by comparison of consecutive periods in the deseasonalized series.

12. The conjuncture measurement of the Monthly Index of the GDP is realized monthly, and the results are presented after 45 days to the month of analysis.

13. The preliminary calculations are reviewed and updated by the sectors, when the results corresponding to the months of March, June are analyzed, September and December.

2.2. STRUCTURE OF WEIGHTS

Weights correspond to the values of the Gross Domestic Product of National Accounts of 1994, based on the valuation of the production to “prices basic”, excluded all the taxes that appear in the end like a “additional sector” with the Rights of Import.

MONTHLY INDICATOR OF GDP
Percent Distribution of GDP

Sector	Weights ^{1/}		
	Total	Direct Method	Indirect Method
TOTAL	100.00	68.28	31.72
DI-Otros Impuestos a los Productos	9.74	9.74	
Imports Rights	1.74	1.74	
Taxes to the products	8.00	8.00	
Agricultural	7.60	7.60	
Fishing	0.72	0.72	
Mining	4.67	4.67	
Manufacturing	15.98	15.98	
Electricity and Water	1.90	1.90	
Construction	5.58		
Obras de Concreto			5.22
Obras de No Concreto			0.10
Avance Físico de Obras		0.26	
Trade	14.57		
Empresas Grandes y Medianas		8.81	
Empresas Pequeñas			5.76
Transport and Comunicatios	7.52		
Ferroviario, aéreo, acuático y comunicaciones		2.54	
Carretera			4.98
Gubernamental Services	6.33	6.33	
Financial and insurance	1.84	1.84	
Restaurants and Hotels	4.17	4.17	
Real estate, renting and business activities	7.10		
Empresas Grandes y Medianas		3.73	
Empresas Pequeñas			3.37
Others Services	12.29		
Servicios Personales			9.72
House rent			2.57

1/ Correspond to Base Year 1994 of National Accounts

III. ADJUSTMENT AT THE ANNUAL LEVELS

The annual GDP and the yearly totals of the produced monthly estimates are usually different. However, this difference between the two estimates is eliminated by integrating the annual benchmark values into the monthly GDP estimates when the annual data of National Accounts are available, this process is called benchmarking and generates a series which moves closely with the original monthly series and sums to the annual data. It is desired generally that the adjustment that is realized, distorts the less possible changes month to month of the original series.