THE MAIN METHODOLOGICAL ELEMENTS REGARDING THE COMPARABILITY OF THE RESULT INDICATORS

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Abstract

The assessment of a country's economic and social evolution can be made on the basis of the actual results obtained in dynamics but, and very importantly, of the way a country's economy evolves compared to other countries in different geographic areas or groups International economic structures. Ensuring real comparability is through the use of data that become comparable only after the deflation of the macroeconomic indicators and aggregates, as well as by considering the concrete levels obtained by these countries. In the structural analysis of an economy, every element must be considered, which becomes comparable, opposable, giving certainty in comparable international analyzes. The authors focus in this article on studying the elements that ensure the construction and suitability of the macroeconomic indicators of results so that they become internationally comparable. We distinguish between comparability in dynamics and territorial comparability. Even in a country, economic analysis can also be made taking into account the territorial structure. The authors emphasize recalculating global comparable prices using deflation, then calculating the indicators in the same currency, and ultimately setting these macroeconomic outcomes in line with some demographic or geographic criteria. In international comparability, it is important to know the size of the population, the geographical area of the country so that we can express for example the gross domestic product indicator per inhabitant or the population density per km² or if we want the share of the employed population and then the share of the employed population Of the employed population. In this context, the authors highlighted the main methodological elements that ensure the correct international comparability of the result indicators.

Keywords: *trend, current prices, indicator, deflation, comparability.*
JEL Classification: *E31, P42*

Introduction

The judgments on the evolution and trend of the economy are expressed and analyzed mainly on the basis of macroeconomic indicators: GDP, GNP, NN, etc. In order to correctly and accurately highlight changes over time, the volume of these indicators should be expressed in comparable or constant prices.

Indicators expressed in current prices, in the prices of the calculation period, are also called nominal value indicators, and those in comparable prices - in real terms.

For the calculation of comparable price indicators (ie in real terms), it is necessary to eliminate the influence of price changes from the value indicators expressed in current prices (nominal indicators). For this purpose, price indices (Ip) are calculated, which express the change in the prices of the goods that make up the aggregate. The price index is further used in calculating the value indicator in compa rable prices by reporting the current price indicator to the most appropriate price index as a structure and calculation method.

Literature review

Heathcote, Storesletten and Violante (2008) analyze three effects of welfare, on the basis of a model with certain risk-aversion preferences. Anghelache, Mitruţ and Voineagu (2010, 2013), Anghelache (2004), Anghelache (2006), Anghelache et.al. (2007), Capanu, Wagner and Mitruţ (2004) develop on the use of National Accounts System in macroeconomic statistics, they approach both the theoretical and practical aspects concerning this instrument. Chetty (2009) reviews the literature regarding the advantages of structural and reduced-form methods and demonstrates that certain topics labor economics, industrial organization, and macroeconomics can be statistically approached. Chen and Nordhaus use the data regarding night light amount measured from space in correlation with the Gross Domestic Product, and show that light information is valuable in countries with lower qualities of statistical systems. Ftiti (2010) is preoccupied with the inflation targeting policy, specifically with the effects it carries at macroeconomic level, measured from the performance viewpoint. Fernandez-Villaverde, and Rubio-Ramirez (2007) approach the durability over time for structural parameters used in dynamic stochastic general equilibrium models. Anghelache and Anghel (2015), Anghelache (2008), Biji et.al. (2010), Biji, Biji, Lilea and Anghelache (2002), Anghelache et.al. (2007) are reference works in theoretical and practical statistics applied in micro and macroeconomy. Goodwin (2008) has presented a new theoretical framework for modern macroeconomics. Anghelache and Capanu (2003), Capanu and Anghelache (2000) have

presented the calculation and analysis methodologies for indicators used in microeconomic and macroeconomic statistics. Piroi and Paunica (2015) were preoccupied by the usefulness of technological progress benefits in reducing the deficit of the Romanian budget, which is an important macroeconomic indicator of performance and outcome.

Research methodology and data

Recalculation in comparable expression can be performed either globally or analytically. Thus, for the Gross Domestic Product indicator, real-time recalculation can be performed by deflation:

Recalculation in global comparable prices, corrected by global price index or GDP deflator, D:

$$PIB^{comp} = \frac{PIB^{crt}}{D} \quad (1)$$

• By components, by reporting each element of GDP in current prices at price indices corresponding to the sphere of each component. These calculations are carried out on branches:

$$PIB^{comp} = \frac{VAB_{ind}^{crt}}{I_P^{ind}} + \frac{VAB_{agr}^{crt}}{I_P^{agr}} + \cdots + \frac{VAB_{ar}^{crt}}{I_P^{ar}} \quad (2)$$

where:

$VAB_{ind,agr,...,ar}^{crt}$ = Gross added value in industry, agriculture, ..., other branches in current prices;

$IP^{ind,agr,...,ar}$ = price indices of products and services created in each branch.

• on structural elements (gross and intermediate consumption):

$$PIB^{comp} = \frac{PB^{crt}}{I_P^{PC}} - \frac{CI^{crt}}{I_P^{CI}} \quad (3)$$

where:

PB^{crt} – the value of gross output in current prices;

CI^{crt} – the value of the intermediate consumption in current prices;

I_P^{PiCi} – the price index for products and services included in gross output and intermediate consumption respectively.

• per end-use destination of GDP:

$$PIB^{COMP} = \frac{CP_{pv}^{crt}}{I_P^{CP}} + \frac{CP^{crt}}{I_P^{CPL}} + \frac{FBC^{crt}}{I_P^{FBC}} + \frac{EXN^{crt}}{I_P^{EXN}} \quad (4)$$

where:

CP_{pv}^{crt} = private consumption in current prices;
CP_{pb}^{crt} = public consumption in current prices;
FBC^{crt} = gross capital formation in current prices;
EXN^{crt} = net export in current prices;
$I_P^{CP,CPL,FBC,EXN}$ he price index for the goods that make up each item of GDP.

After calculating PIB^{comp} by one of the methods presented above, it is possible to determine the dynamics (evolution) of the aggregate by calculating the Gross Domestic Product Index (IPIB):

$$IPIB = \frac{PIB_1^{comp}}{PIB_0^{comp}} \tag{5}$$

It can be seen that this is an „index of the physical volume of GDP", not influenced by the price change. Therefore, it expresses the real evolution of gross domestic product.

Economic growth studies, based on output aggregates (mainly GDP), should also be accompanied by the analysis of global per capita indicators. They have a special significance, highlighting the average size per person and the evolution of this indicator:

$$PIBL = \frac{PIB}{P} \tag{6}$$

respectively the dynamics of this indicator:

$$IPIBL = \frac{PIBB_1^{comp}}{P_1} : \frac{PIB_0^{comp}}{P_0} = \frac{IPIB}{IP},$$

where:

PIBL = gross domestic product per capita;

P = average population (as a rule, population on July 1 of the year of calculation as a mean value substitute);

IPIBL = gross domestic product index per capita;

IP = average population index.

Gross Domestic Product per capita (PIBL) highlights the level of economic development more clearly than the size and evolution of total gross domestic product. GDP per capita dynamics is more significant as it correlates GDP dynamics with population dynamics. It is a requirement, for economic development and for raising living standards, that GDP growth (measured by the IPIB real index) should outstrip the population (IP):

$$IPIB > IP \tag{7}$$

Results and assessments

Firstly, the main concepts related to inflation and the actual expression of different indicators will be defined.

Except for some variables related to population, labor, production in natural expression, all flows and stocks presented in the system of accounts are expressed in monetary terms. For monetary operations and assets, respectively cash liabilities, the required values are directly available from primary data sources. In most other cases, the valuation method, which takes into account the market price for goods, services or similar assets, is preferred. This method is suitable, for example, for trot operations and housing services by owner-occupiers. Where such types of information are not available, for example in the case of non-government services, the valuation must be based on production costs. If none of the two methods can be applied, it is appropriate to record the flows and stocks at the present value of future earnings. The stock size should be valued at the current prices in force at the time of the heritage account, not at the date of production or acquisition of the goods or assets that are stored. In some cases, inventories need to be valued on the basis of their production costs or an accounting estimate of their current purchase prices.

Some expenditures, such as transport costs, trade add-ons, and taxes, minus subsidies on product, usually cause the manufacturer and user of a given product to have a different perception of its value. To bring the views of economic agents as close as possible, the system records all uses at the purchase price, ie taking into account the above elements, but registers output at the basic price, which excludes these items. Imports and exports of products are counted at the border. All imports and exports are valued „free on board" (FOB), which means the customs value at the exporter's frontier. Transport and insurance services provided by foreign enterprises between the exporter's border and that of the importer are not included in the value of the good but are recorded as services. Since it is not possible to obtain the FOB value for all product subdivisions, the detailed foreign trade tables first show the import frontier values (i.e., CIF values). All transport and insurance services up to the importer's customs frontier are included in the value of the imported goods. To the extent that these services are provided by national enterprises, a global adjustment is made on the basis of a coefficient equal to the FOB / CIF ratio in the accounts.

Expression in constant prices consists in determining the flows and stocks of a period at the prices of the previous period, the purpose being to break down the variations in the value of flows and stocks over time in „price variations" and „volume variations". The expression „in volume" is synonymous with „in constant prices". Many flows and stocks, such as income, taxes, government transfers etc., do not have their own size in terms of price

and quantity. The purchasing power of these variables can be obtained by deflating current values with an appropriate average price index, such as the price index of national end-uses, excluding stock changes. Flows and stocks thus deflated are called „in real terms". In a system of economic accounts, all flows and stocks are denominated in monetary units. Monetary unit is almost the only common element that can serve in assessing operations of various kinds that are also recorded in the calculation of significant balances. Recourse to a monetary unit, as a unit of measure to ensure comparability, is nevertheless a substitute, not a perfect solution. An essential concern of economic analysis is to measure economic growth in terms of volume, and therefore a distinction must be made in the variation in the value of certain economic aggregates, those expressing the mere variation in price from those that are due to a component of „volume," „Volume variation". At the same time, the economic analysis also envisages making comparisons in space, thus between different national economies. Although it is essentially about making international comparisons of production and income levels in terms of volume, the price level is also of interest. The differences in values observed between the economic aggregates of a group of countries must be decomposed so as to allow for the separation of volume and price differences. All comparisons of flows or stocks over time require that equal importance be given to a measure appropriate to the evolution of prices and volume developments. In the short term, especially in moderate inflation conditions, the observation of price variations is of less interest than the measurement of supply and demand. In the long run, economic development studies can not disregard the evolution of prices for different categories of goods and services. In principle, a comparison over time requires that the volume and prices of economic aggregates be measured in as precise a manner as possible. The difference between the Laspeyres and Paasche weights is often important when it comes to this type of comparison, in which case the Fischer formula is recommended.

Economic accounts have the advantage of providing a framework to build a system of volume and price indices and to ensure the consistency of statistical data. The advantages of the method of accounts in the evaluation issue are summarized below:

- in the conceptual field, the use of a framework covering the entire economic system requires a consistent specification of prices and volume for different products and flows of the economic system. In such a context, for example, for a given product group, it is indispensable that both in terms of resources and uses, the concept of price and volume should be defined identically;

- on a statistical basis, the use of the economic accounts framework imposes restrictions that must be respected, both in current and constant prices, which are necessary to ensure price-volume consistency;

- in the methodological plan, it is necessary to develop an integrated system of price and volume indices within the system of economic accounts, which gives the analyst an additional possibility of control. Assuming the establishment of a balanced set of tables of resources and uses in current prices, building such tables at constant prices allows the automatic deduction of a system of default price indices. A control of the veracity of these indices may lead to revision and correction of data in constant prices and, where appropriate, of values in current prices;

- in the measurement field, the SCN method allows the price and volume evolution of certain accounting balances to be determined, which are, by definition, derived from other items of the accounts.

Contrary to the advantages of an integrated system based on the global and branch balance of goods and services operations, it must be recognized that the price and volume indices thus obtained do not meet all the needs and do not meet all the restrictions related to the assessment and construction of indices. There is also the need to have information for shorter, month or quarter periods.

In the flows that appear in the economic accounts in current prices, there are some, in principle, referring to products for which the distinction between price variations and volume changes is identical to that made at microeconomic level. For many other streams, this distinction is much more difficult to conceive. In the first case, we are in the presence of a flow covering a set of elementary operations with goods and services, the value of each being equal to the product of a given number of physical units and their respective unit price. It is sufficient, in this case, to know the decomposition of the flow in question in elementary operations to determine its average variation in price and volume. In the second case, which refers both to a certain number of distribution and financial intermediation operations and to certain balances such as value added, it is difficult, even impossible to decompose directly the current values in the components Their price and volume. Specific solutions must then be adopted. At the same time, it is necessary to measure the real purchasing power of a certain number of aggregates, such as compensation of employees, disposable income of households or national income. This can, for example, be done by deflating these aggregates by a price index of the goods and services that can be purchased. It has to be underlined that the objective and the method of calculating the actual purchasing power differ fundamentally from those proposed for the depreciation of the value of

goods and services , As well as account balances. For the latter, an integrated system of price and volume indices can be established, which will be useful in measuring economic growth, various analyzes and comparisons.

Systematic separation of the change in values in its components: ‚price variation' and ‚volume change' are limited to flows representing operations recorded in goods and services accounts (0) and production accounts (I); The breakdown is performed for both branch and total data. Flows representing the balances of various accounts, such as value added, can not be directly converted into price and volume components; This can only be done indirectly, starting from the flows of the corresponding operation.

Using the framework of accounts requires a double restriction on the data production process, thus:

- the balance of the goods and services account must, for each consecutive two-year period, be achieved in both constant and current prices;
- each flow in relation to the total economy must be equal to the sum of the corresponding flows for the different branches;
- all transaction value variation must be attributed to either a price variation or volume variation, or a combination of the two.

Responding to this triple requirement, valuation of goods and service accounts and production accounts at constant prices allows for an integrated set of price and volume indices. The sizes considered for building such an integrated assembly are presented below. It is necessary in the various analyzes that other aggregates be separated in their own price and volume components such as:

- Stocks at the beginning and end of the period can be valued at constant prices to estimate their volume changes over the period considered.
- Stocks of fixed assets produced must be valued at constant prices to estimate capital ratios (capital / production ratios) and have a basis for estimating fixed capital consumption in constant prices.
- Employee compensation must be calculated in constant prices to measure productivity: it is also the case where production was estimated using data on inputs expressed in constant prices.
- Remuneration of employees is an element of income. Purchasing power can be measured in real terms by deflation, using an index that reflects the price of products purchased by employees. Other income concepts, such as household disposable income and national income, can also be measured in real terms using the same general method.

The composition of an integrated system of price and volume indices is based on the assumption that for a given homogeneous good or service, its value (v) is equal to the unit price (p) multiplied by the number of units (q), ie:

$$v = p * q \quad (8)$$

The price is defined as the value of a unit of product whose quantities are perfectly homogeneous not only in the physical sense but also in terms of a certain number of qualitative characteristics. In order to be added in economic terms, these quantities must be the same and have the same unit price. For each aggregate of transactions in goods and services presented in the accounts, the price and quantity values must be set so that:

$$\left(\begin{array}{c}\text{indice}\\ \text{de}\\ \text{valoare}\end{array}\right) = \left(\begin{array}{c}\text{indice}\\ \text{de}\\ \text{preţ}\end{array}\right) \square \left(\begin{array}{c}\text{indice}\\ \text{de}\\ \text{volum}\end{array}\right) \quad (9)$$

which means that each variation in the value of a given stream must be attributed either to a price variation or to a variation in volume or a combination of two. In the case of goods operations, it is relatively simple to define the physical unit undergoing the operation and, consequently, the unit price. In some cases, however, such as single capital goods, this is more difficult and specific solutions need to be adopted. In the case of service operations, it is often more difficult to distinguish the characteristics that determine physical unity and so there may be divergences over the criteria that can be applied. This may occur in some important branches, such as financial intermediation services, wholesale and retail trade, business services, education, research and development, health, defense, public order. Given the increasing importance of service industries, it is essential to find common solutions in the choice of physical units, even if some of them are relatively conventional.

Alongside the physical characteristics that are taken into account for identifying products, product quality plays an important role and at the same time raises statistical problems of relative difficulty. For many goods and services intended for a particular consumption, there are several variants of different qualities and obviously characterized by different unit prices. Given the given physical characteristics, the differences affecting other factors make physical units not the same in economic sense, and their value changes from one unit to another. These differences in unit value are considered as volume differences, not as price differences. In fact, the payment made when a good is purchased does not only cover the price of the good but also the services associated with the supply of that product. Thus, identical goods are sold at different prices and under different conditions. This conclusion is clearly reflected in the accounts, through the table of resources and uses at basic prices, where the value of the commercial additions and the addition of transport - which are the main services associated with the supply of goods - are recorded separately.

Within a given market and for the same period, the coexistence of several unit values can be considered as an index of qualitative differences. For example, models of the same vehicle range have to be treated as different products, as a distinction has to be made between rail journeys if they are performed in Class I or II. Establishing price and volume measurements imposes a product nomenclature to the fullest possible level so that each product identified in this way exhibits a maximum of homogeneity, whatever the disaggregation level used in presenting the results. The qualitative dimension must also be taken into account when it is subject to variations in time and variations in quality due, for example, to changes in the physical characteristics of a product. It should be considered as a variation in volume, not as a price variation. It is equally necessary to take into account the effects of aggregation: a variation in the formation of a flow, for example, an improvement in average quality, will have to be considered as a volume increase, not as a price increase. In some situations, such as lack of information or price differentiation, both reflecting a limited choice of freedom or the existence of a parallel market, it is necessary to consider that the differences in unit value do not represent differences in quality but price differences. There are price differences when sellers find themselves in a situation that allows them to charge different prices to different categories of buyers, and for identical goods and services, sold under similar conditions. The freedom of choice of a buyer belonging to a particular category is, in this case, limited or even non-existent.

Achieving a global price and volume index covering all uses and resources of goods and services is having some difficulty when it comes to measuring non-market service output. The latter differ from market services by not being sold at market price and that their value in current prices is by convention considered equal to the sum of the costs incurred, making it almost impossible to obtain satisfactory estimates of Variations in price or volume of production; In this case, value added in constant prices can be estimated by the variation in employee remuneration using constant wage rates and a fixed capital consumption in constant prices. Thus, by their very nature, even the volume and price indices used to estimate value added are clearly different from the corresponding indices used for the flow of goods and services. The application of price and volume principles to different system streams requires the adoption of solutions to certain issues that may arise. The need to know which factors, among the ones described above, explain price differences, arises each time the chronological series of value added are studied and when price variations have to be differentiated from volume changes. This implies that, at a detailed analysis level, the quantitative data series can only be one of those approximate measures of volume variation because they do not satisfactorily

reflect the variations that may occur in the composition of the different types of quality. Thus, for example, a constant number of physical units recording a given stream will in fact lead to underestimation of volume variation, if the composition changes in favor of units that are of superior quality. Changes made to an average quality must be recorded as an increase in the volume index. Generally, the best way to estimate volume changes in the flows of goods and services is to deflate data that represents value using price indices. Any change in the average quality being correctly reflected in the value series, the division by a representative price index, adjusted to take account of the qualitative variations, allows us to obtain a correct volume index.

But deflation with price indices is not one of the best solutions in practice, so other methods need to be applied. Valuable series can be obtained, for example, by multiplying prices and quantities, and data in constant prices can thus be obtained by resorting to the base year price. There may be certain series of value, of inferior quality, or difficult to obtain reliable price indices; In these cases, estimation can be made from quantitative indicators. This ensures that the quantities of products are reported as homogeneous. If none of the methods described is applicable, data in constant production prices should be determined from the estimation of constant price inputs.

For revenue flows, decomposition into a price component and a volume component is not possible. For this reason, the measurement of price and volume can not be defined in the same way as the flows and stocks described above. Income streams can not be measured in real terms unless choosing baskets of goods and services for which revenue is generally affected, the price index of a particular basket being the deflator of current revenue. Such a choice is relatively arbitrary, meaning that income is only rarely affected in a specific way by purchases during that period; One part can be saved for subsequent purchases; Conversely, purchases during the reference period may be partly made from previous savings. The Gross Domestic Product in constant prices measures the total output (less intermediate consumption) of the national economy in terms of volume. The real real income of residents is influenced not only by the volume of production but also by the course where exports can be exchanged with imports from the rest of the world. If the terms of trade improve, then a lower volume of exports will be needed to pay a certain volume of imports, thus allowing some of the goods and services obtained in domestic production to be removed from exports and diverted to consumption or capital formation . Real Gross National Income can be obtained by adding up the trade surplus and the gross domestic product volume figures. In order to reflect the various aggregates of national income in real terms, it is advisable to deflate revenues and transfers received from the rest of the world and paid

to the rest of the world with an index of gross domestic final expenditure. Actual real national income may also be expressed in net form by deducting from its gross value of fixed capital consumption in constant prices

Obtaining an integrated system of price and volume indices implies the deliberate choice of the types of indices to be used. The best way to measure one-year volume variations over one another is to choose a Fisher volume index, which is defined as a geometric mean of the Laspeyres and Paasche indices. Volume variations over longer periods can be obtained by linking the volume indices of one year to another. The best way to measure one year's price variations over another is to use a Fisher price index. Price variations over longer periods can be obtained by linking price variations of one year to another. Mobile-based indices calculated on the basis of Laspeyres volume indices and used to measure variations in volume and Paasche price indices to measure one year's price variations over another may be an acceptable substitute for the Fisher indexes. Although chain indexes are the best measurement of volumes and prices, it should be admitted that the absence of additivity can be a serious inconvenience for many analyzes. An aggregate is defined as the sum of its components. Additivity property requires that this identity be respected when the values of an aggregate and its components over a given reference period are extrapolated over time through a series of volume indices. For the main aggregates, it is advisable to further calculate chain data indices in disaggregated constant prices, which means directing a current valuation of the base year prices. The estimation of data in constant prices should take place at the most detailed level if it is desired that these data be coherent within an integrated price and volume measurement system. Tables of resources and uses constitute the central, conceptual and statistical framework of all valuations in constant prices. For regular price series it is necessary to change the base year on a regular basis. Since 1995, the SEC has adopted the principle of changing the base year every five years. When the base is changed, it is especially recommended to link old and new data to new ones rather than making a retrospective rebate. In case of base change, chaining of indices may have the effect of suppressing additivity. Nonadjusted „constant" data are, as a rule, published without any adjustment. This method ensures transparency and allows users to deepen the importance of the problem.

In order to achieve price and volume comparisons at international level, the difficulty of having different national currencies needs to be overcome. Given that exchange rates are insufficiently stable for this purpose and the fact that they do not correctly reflect the differences between purchasing power, it is necessary to resort to a method similar to that used

for time comparisons within the same country . Therefore, price and volume indices need to be established for pairs of countries, applying the same type of index formulas, as in the case of measuring variations from one period to the next. One or two of the two countries (A or B) can be used to determine the weighting factors: it will be possible, from the point of view of country A, to establish a Laspeyres-type index with weighting coefficients corresponding to country A, Or a Paasche-type index, using weighting coefficients obtained in country B. If the national economies of the two countries that are the subject of comparison are clearly different from one another, the difference between the two indices may be very important, but in this case The results will depend too much on the country that has been chosen as the base. To resort to such binary comparisons, the SEC requires that an average be established between the two countries in the form of a Fisher index.

Direct quantitative comparisons between economic situations with few common points are, in essence, difficult to achieve, and the method of deflating current values using price indices will in this case constitute the best solution. This principle applies, moreover, to spatial comparisons than to time comparisons. A correct specification and identification of products will allow the calculation of price coefficients based on price surveys organized in each country. Prices being recorded in national currencies, the interpretation of these price factors determines the consideration of the purchasing power parity (PPC) concept.

For non-quoted services, international comparisons are experiencing the same problems as comparisons over time, which means that the sum of inputs is used to measure outputs. The method currently used in international comparisons consists in calculating PPPs based on the characteristic price coefficients of the main components of these inputs. This method, which requires comparisons of input volumes, does not take into account the productivity differences that characterize the production of non-market services in the countries under comparison.

The SEC recognizes the need for international price and volume comparisons. The main objective is to make volume comparisons of GDP and its uses; The transitivity criterion must be respected in this respect, which means that the index directly established for country C, starting from country A, should be equal to the indirect index obtained by multiplying the direct index for country B and determined by To country A with the country-specific C country reference and established from country B. The method adopted by the ERA for the calculation of a multilateral volume and PPP series series starts from binary comparisons between all pairs of countries considered. Although the Fisher indices used for this purpose are not transitive, it is possible to derive a series of transitive indices very close to the initial Fisher

indices, using the traditional least squares technique. In order to minimize the difference between the initial Fischer indices and the transitions obtained, it is recommended to apply the formula called EKS.

Conclusion

The study on which the disseminated article was based leads to the separation of some theoretical and practical conclusions. Firstly, the comparability of the result indicators, either in an internal or international structure, can only be made after they have been brought to a certain level of comparability. This is ensured by deflating aggregates and result indicators. In other news, the systematic separation of variations in values, price variation and volume variation is limited to transactions recorded in goods and services accounts and production accounts each country records in the system used according to the methodology System of national accounts. Making international comparability can only be done by constructing an integrated system of price and volume indices based on the assumption that, for a given homogeneous good or service, its value is equal to the unit price multiplied by the number of units obtained . Another conclusion is that besides the physical characteristics that are taken into account for the identification of the products, their quality plays an important role and therefore we determine by market price what is their real value. Another conclusion is that the implementation of a global price and volume index covering all uses and resources of goods and services usually encounters some difficulties when it comes to measuring non-market service output. These are usually done through statistical surveys through the comparability of market goods with non-market goods. We can appreciate that making a comparison of price and volume at international level must be achieved by matching national models to an internationally recognized and universally recognized model. From this point of view, we consider that purchasing power parity is an indicator that gives meaning and ensures realism in making international comparisons.

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