EFFICIENCY OF USING ECONOMIC POTENTIAL

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Abstract

The economic potential of a country is closely linked to the national wealth and especially to the way in which this national wealth is capitalized. The efficiency of capitalizing the economic potential is important because it is a complex economic category with implications on all aspects of socio-economic life, being the most useful indicator in assessing performance at the macroeconomic level, but also microeconomic. In general terms, the efficiency of the use of economic potential is a ratio between the effect of the profit obtained through the necessary effort.

The analysis of the efficiency of using the economic potential is made on the basis of a wide system of indicators, which are correlated and which highlight the efficiency of labor use, fixed funds, use of current material resources, material resources and their ability to capitalize. Thus, we can discuss the general indicators of social production and labor use, measured by the Gross Domestic Product or Net per capita, which reveals the level of satisfaction of the needs of the population. We can also discuss the relative level of material resources, financial and so on.

Another indicator that reveals the efficiency of the economic potential is the productivity of labor, which must express the way in which the production activity is carried out in the broadest sense of the word. At the same time, it is about the efficiency of the use of fixed capital, of the modernization of the industry through robotics and other modern forms, which can give the concrete expression of the efficiency with which the resources of a nation are used.

There are also indicators of the use of material goods, current and financial means, without which the economy of any country can not progress, but it is important to analyze how the correlation between these elements is synthesized in factors of production and which only by - a fair correlation and a proportionality of their use can bring economic growth and can reveal an efficient use of the economic potential that a country has.

Keywords: economic potential, national wealth, indicators, correlations, resources.

JEL classification: E10, E60

Introduction

The main objective of this article was to highlight from a theoretical point of view, with practical examples, the need to use the economic potential efficiently. At the same time, in the article we have precisely defined the indicators of the efficiency of using the human potential, in the sense of specifying the elements that underlie their value calculation.

It follows that three elements are important, namely: the use of labor, the use of fixed capital and the use of material and financial resources available to society at a given time. Of course, one by one, these economic categories were developed, presented and formalized from a statistical-mathematical point of view.

Using a broad statistical methodology, we defined the relationships underlying a complex analysis of the efficiency of using economic potential. The economic potential of a country is very important and that is why the quantities used highlight the way in which this accumulation of factors available to the national economy is used from one period of time to another.

I must specify that on this scheme of theoretical analysis can be taken data from the yearbook, which should reveal the significance of each indicator that is used in the formation of economic potential and especially in its use.

Statistical relationships can also be used to extend the analysis by statistical-econometric methods, such as regression, structural analysis, dynamic analysis and on the basis of them to obtain other estimated indicators that can be based on concrete assessments, precise opinions.

Of course, the analysis of economic potential can be done at macroeconomic level, but also microeconomic, because at the level of large multinationals, enterprises, such analyzes are usually used to identify whether the measures taken through strategies and programs of measures are well founded and have expected efficiency.

Literature review

Economic potential is the foundation on which any economic and social development strategy can be built. How to capitalize on this potential is the key to the success of macroeconomic management. A first emphasis is on the efficiency with which the components of economic potential are preserved and exploited. In this regard, statistics provide analysts with a system of indicators that can be used in the analysis of the efficiency with

which the economic potential is exploited. If we consider only agriculture, which in Romania represents a great natural potential and the way in which it is capitalized, of course in a negative way, we will more easily understand the meaning of the efficient exploitation of this potential. Due to the importance of the notion of efficiency of capitalizing on economic potential, a number of researchers and specialists in this field have paid attention to this issue in their studies. In this sense, Anghelache, C. and Anghel, MG (2016) dealt extensively in their study with the problem of efficiency with which economic potential is used, and Anghelache, C. in the Treatise on Theoretical and Economic Statistics, published in 2008 allocates a chapter analysis of the economic potential and the efficiency with which it is capitalized. Biji, M. in the Statistical and Economic Dictionary published in 1961 specifies the economic potential or the efficiency with which it is exploited. In turn Baron, T. and Biji, E.M. in 1966, they published extensively, in the published paper, aspects related to the economic potential and the efficiency with which it is capitalized. Clarifications are made about the system of indicators used in studies on the efficiency of valorization of economic potential, the basic principle of compliance with the theory of factors of production and economic growth. Barro, R. and Redlick, C. in 2011 published an extensive study on the role of governments in capitalizing on economic potential, especially in the context of using an attractive, stimulating system of taxes and duties. Also, in 2000 Capanu, I. and Anghelache, C, publish an extensive study on the economic potential and efficiency with which it is capitalized in order to ensure economic growth. At the same time, Vasilescu, N. and others, in 2003, made essential references to the efficiency of consuming the economic potential.

Methodology, data, results and discussions

► The concept and indicators of the efficiency of the economic potential

The production resources, the degree of their attraction in the economic circuit, their quality and mainly, the efficiency with which these resources are capitalized are factors that influence the performances of an economy, the economic state, the development and the rhythm of development.

Economic efficiency is a complex economic category with implications on all aspects of economic and social life, being an important indicator in assessing performance at the micro and macroeconomic level.

The efficiency of economic activity can be expressed through a ratio between the useful effect (result) obtained and the effort required to obtain it. Economic activity is considered efficient if it meets the following conditions:

- the result of the activity to be materialized in material or intangible goods (services) that satisfy the social needs;

- the value of the goods obtained from the economic activity to cover the expenses (efforts) made and to ensure a surplus;

- economic activity should not deteriorate the ecological balance.

The analysis of the efficiency of the use of economic potential uses a system of indicators, which expresses both the efficiency at the level of production factors and the efficiency at the global level, for the entire production activity.

From a statistical point of view, the measurement of economic efficiency (E) involves on the one hand the determination of the indicators expressing the results obtained (R) and on the other hand the determination of the effort indicators (Ef).

The first category of indicators usually includes value added (calculated at the level of economic units and branches) and gross domestic product (GDP) or net (PIN) calculated at the level of the national economy. For dynamic analyzes, in order to ensure comparability, it is necessary that these indicators be expressed in constant prices.

The category of indicators expressing efforts includes the costs of the factors of production (for synthetic analyzes), and the indicators of labor, indicators of fixed assets and indicators of consumption of current tangible goods

The correlation of the result indicators with the effort indicators, in view of the determination of the efficiency indicators can be done directly or indirectly.

Dynamic efficiency analysis involves the comparison over time of efficiency indicators for different periods.

Given the structure of the factors of production, the economy of social work or the decrease of the expenses with the factors of production per unit of product express the increase of the economic efficiency.

The system of indicators for calculating and analyzing economic efficiency includes general indicators of the efficiency of social production, indicators of labor efficiency; indicators of the use of fixed assets; indicators of the use of circulating material means.

► General indicators of the efficiency of social production and labor use

For measuring and analyzing the efficiency of social production, a dedicated system of indicators is used, the main indicators being.

- Gross or net domestic product (GDP, PIN) which amounts to 100 (1000) lei resources allocated and consumed (RC)

• Relative economy of resources. This indicator can be applied to all categories of factors of production: fixed assets (ERF), material consumption (ErM) and labor force (ErT).

The efficiency of the use of factors of production are expressed through productivity. The productivity of the labor factor is expressed as the ratio between the production obtained and the amount of labor employed during the analyzed period.

Production indicators (in physical or value units), gross value added, gross domestic product can be mentioned as result indicators. The measurement of labor consumption takes into account indicators such as the number of employed population, the average number of employees, working time expressed in man-hours or man-days. The latter indicator is considered to be the least distorted by the effects of discrepancies between existing employment relationships and the employee's actual presence at work.

Ensuring comparability to the calculations performed in dynamics, implies the expression of productivity in the two periods in comparable prices, by revaluing the gross domestic product of the current period, in base period prices (GDP), using price indices (gross domestic product deflator or deflator indices branch of gross value added).

Labor productivity in the base period is expressed by the relation:

$$\overline{W_0} = \frac{PIB_0}{\sum T_0} \tag{1}$$

For time analysis, labor productivity deflates, ie:

$$\overline{W_1} = \frac{PIB_1^{comp}}{\sum T_1}, \text{ unde } PIB_1^{comp} = \frac{PIB_1}{D} (D \text{ indică deflatorul PIB}) \tag{2}$$

The analysis of the change of the social productivity of the labor supposes the calculation of the impact of the influencing factors. Two methods of analysis can be applied to quantify this impact.

Deterministic analysis is based on factorial models. In this sense, depending on the influencing factors of interest, several models can be defined: the change in productivity (W) depending on the labor productivity at the branch level (Wi) and the changes that took place in the structure of the employed population by branches of the economy. national (YM; change in social labor productivity; relative change (variable structure index).

Stochastic analysis is based on the method of correlation and regression. Single or multifactorial regression models can be used, in which

labor productivity as a dependent variable is expressed in terms of an independent variable, respectively in terms of the set of independent variables, the general form of the multiple regression model being:

$$W = f(x_1, x_2, ..., x) + u, \quad (3)$$

where:

x_i= independent variable (i = i, n) ;

u = the random variable that expresses the influence of random factors.

►Indicators of the efficiency of using fixed capital

The economic efficiency of the use of fixed funds (yield), determined according to the effect / effort or effort / effect relationship, is a partial indicator of efficiency, which is given by the fact that the whole result of economic activity, obtained by combined use of factors of production, it is allocated only to fixed assets

To express the effect, one of the indicators of the results of the economic activity is used (GDP, PIN, GNP, GNP, NP), and the effort is expressed by the value of fixed funds (allocated, occupied or consumed).

Calculated as an effect / effort ratio, the indicator expresses the production at one lei or 1000 lei of fixed funds, and as an effort / effect ratio, the indicator highlights the need (consumption) of fixed funds to obtain a unit (one lei or 1000 lei) of production.

In order to be able to be used in economic analyzes, like the other indicators of labor use, the indicators that express the effects as well as those that express the efforts must be comparable in terms of the period to which they refer and the prices in which they are used. express

Outcome indicators are flow indicators and are expressed in current prices, as nominal indicators, as well as in comparable prices, as real indicators, in order to characterize the dynamics of the phenomenon. To calculate the efficiency of fixed funds and dynamics

A system of indicators is applied to characterize the efficiency of fixed funds, which includes: the efficiency of fixed funds at the level of the national economy and the efficiency of fixed funds at the level of a branch i.

The efficiency of fixed funds at the level of the national economy can also be determined as a weighted arithmetic average of the efficiency of the branches. The analysis of the change in the efficiency of fixed assets is expressed using indices

On this basis, the correlation between the dynamics of production and the change in fixed assets is extremely important in macroeconomic analyzes.

The efficiency of fixed assets is influenced, in dynamics, by several factors. The quantification of the impact of factors is mainly based on deterministic methods.

The main influencing factors are the efficiency of the fixed funds at branch level and the structure of the fixed funds by branches. Based on these indicators, a model can be built expressed by the relationship between the efficiency of fixed funds (RD) and the structure of fixed funds (YFi).

Like any structural indicator, the change in the structure of the fixed assets by branches influences the increase or decrease of the main indicator (average efficiency in the economy) depending on the branch in favor of which it took place. If the share of fixed assets increases in the highly efficient branches, this change will increase the average efficiency and vice versa. For this reason, in the macroeconomic analysis, changes in the structure of the branches must be taken into account in order to highlight their influence on the national economy as a whole and to take these influences into account in the adoption of economic decisions.

Another factor that influences the efficiency of fixed funds is the share of active (productive) fixed funds. Increasing this share will lead to increased efficiency in the economy. Thus, at branch level, an analysis model can be defined, expressed in terms of the structure of fixed funds and the efficiency of active fixed funds.

The higher the efficiency and branch structure of new fixed assets, the greater the influence it has on the overall efficiency of fixed assets.

As there are usually differences between the indicators of the efficiency of the various branches, it is advisable to calculate the average efficiency in the national economy on the basis of the efficiency indicators determined by branches of the economy, and not on the basis of global data. on production and fixed funds in its context.

Determining and analyzing the efficiency of fixed funds based on the relationship between effort and effect characterizes the need for fixed funds to obtain a unit of result.

The change of the structure by branches of GDP in favor of the branches in which NF is lower than the average level of this indicator will determine the reduction of the necessary fixed funds for obtaining one lei or 1000 lei GDP at the level of the national economy.

The required indicator of fixed funds is the reverse (mirror) of the efficiency of using fixed funds. This correlation can be expressed by the formula:

$$NF = \frac{1}{E} \tag{4}$$

The analysis of the dynamics of the efficiency of fixed funds aims to determine the influence of the efficiency of fixed funds at branch level and the structure by branches of fixed funds. By the chain substitution method, the following calculation relations are determined, in absolute and relative form.

- the influence of the change in the efficiency of fixed assets at the level of branches:

$$I\overline{R}(R) = \frac{\sum R_1 * YF_1}{\sum R_0 * YF_1} = \frac{\overline{R}_1}{\overline{R}_*}; \qquad (5)$$

$$\Delta\overline{R}(R) = \overline{R}_1 - \overline{R}_*.$$

- the influence of changing the branch structure of fixed assets.

$$I\overline{R}(YF) = \frac{\sum R_0 * YF_1}{\sum R_0 * YF_0} = \frac{\overline{R}_*}{\overline{R}_0}; \qquad (6)$$

$$\Delta\overline{R}(YF) = \overline{R}_* - \overline{R}_0.$$

Thus, the way in which the structural changes of the fixed funds and the efficiency of the fixed funds at the level of the economic branches influence the increase of the efficiency of the fixed funds in the national economy as a whole.

► Indicators of the efficiency of the use of material goods

Current material goods influence the performance of the national economy, as a result of the analysis of economic performance is concerned with the efficiency of material goods, which occurs through the level of consumption of materials in relation to production, the level of stocks compared to production, the level of actual consumption. .

The statistical analysis of the efficiency of the circulating material means is based on a system of indicators, in which synthetic and analytical indicators come together.

Measuring the efficiency of material goods as a ratio between effort and effect involves the use of the volume value indicator of current material assets consumed per 1000 lei GDP obtained (CMMC).

The above correlation is expressed by the formula:

$$CMMC = \frac{\sum CMMC_i * VAB_i}{\sum VAB_i} = \sum CMMC_i * YVAB_i \qquad (7)$$

The calculated indicators highlight the intensity of material consumption called and the material intensity of the national economy.

In order to increase the efficiency of material consumption at the level of the national economy, measures must be taken both to reduce unit material consumption at the level of all branches and to optimize the structure by material-consuming branches.

The analysis of the efficiency of materials consumption can be developed by using indicators that characterize the consumption of main raw materials, materials, energy, etc., expressed in physical or conventional units, which return per unit (1000 lei GDP or national income), of which the most important are:

- energy intensity, which expresses the consumption of primary energy (equivalent, coal) which returns to 1000 lei GDP or VN;
- electro-intensity, which expresses the electricity consumption expressed in kWh to obtain a unit (1000) of GDP or VN;
- metal intensity, which expresses the total consumption of metals per monetary unit of GDP or VN.

The differences between the branches of the national economy regarding these consumptions, mainly in the energy ones, require that in the analysis of these indicators on the economy, the structure of the branches by GDP be taken into account.

Constantly used in practice are the indicators of specific material consumption and current material costs per 1000 lei production, indicators calculated based on the statistical table of links between branches, respectively the coefficients of direct costs and total costs.

The reliability of research is also determined by the calculation and simultaneous analysis of indicators for fixed funds, labor and materials circulated, which produces a complete picture of national economic performance. This approach involves expressing all value indicators at comparable prices.

Thus, in order to be able to observe the evolution of a phenomenon over a certain period of time, the prices of the periods included in the statistical observation will be brought in the prices of the period considered as reference base, using the GDP deflator (D) and the price index of consuming products. (IPCM), as follows:

$$PIB_1^{comp} = \frac{PIB_1^{crt}}{D},\ CM_1^{comp} = \frac{CM_1^{crt}}{IPCM}, \tag{8}$$

indicators that allow the calculation of GDP dynamics (IPIB) and material consumption dynamics (ICM).

Based on the indices presented and the correlations between them, the efficiency of the use of production factors, of the capitalization of the economic potential can be highlighted.

Observance of the main correlations between:

- dynamics of gross value added and gross domestic product;
- dynamics of gross value added or gross domestic product and dynamics of fixed assets;
- he dynamics of production expressed by the index of gross value added or gross domestic product and the dynamics of material consumption; it is of great importance for the factors involved in the management of the economic activity in the substantiation of the decisions from the economic units, the economic branches and the national economy as a whole.

Conclusions

From the study carried out by the authors and presented in this article, a series of mainly theoretical conclusions can be drawn. First of all, it is about the country's national wealth, which is the most complex and important indicator in terms of analyzing the possibilities for the country's future evolution.

Starting from the elements accumulated in the research stage or in prospecting, we can conclude that national programs for capitalization of resources, efficient capitalization and so on can be drawn up.

Cobb Douglas's position is one that, in the current conditions, of course, suffers some adjustments in the sense that the human potential is not used properly, the correlation between training by professions, specializations, personnel and the needs of the national economy has disappeared, ensures a correlation of the way in which the investment is placed and many other quite important aspects.

On the other hand, the state of crisis and the cyclicality of the evolution of the national economy reveal that there are often many shortcomings in the way the national economy is managed.

At the level of the Romanian economy, there is no program that clearly finalizes some measures in the field of employment. In this way, everything being random, there is an increase in the number of unemployed population, increases the number and rate of active and passive unemployment and in other words there is no program, at least theoretically, to show the concrete possibilities of professional reconversion. To strengthen this opinion, we show that recently the issue of releasing a significant number of employees in the field of mining is raised again, and according to the governmental structure

it will pass among the unemployed population or unemployment. There is no concern for their conversion and transition, for example, in some areas that are conducive to economic activity and growth.

The efficiency of using the economic potential is of utmost importance, and its dynamic analysis shows the jumps or decreases that have occurred and therefore the indicators used as a system can reveal the places where the emphasis should be on harmonizing the national economy as much as possible maintaining macrostability. This is all the more so as the perspective of the health and economic-financial crisis will be extended in the next period.

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