

THE MODELS OF PRESENTATION OF ENSEMBLE CIRCULAR FLOW OF THE NATIONAL ECONOMY FROM THE PROVISIONAL SCIENCE

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ABSTRACT: *The paper presents the main presentation models of the national economy circuit from the provisional science as following: the circuit presentation as an equation and matrix forms presents the state place and of the “foreign” in the economic circuit. The main model used in the provisional science represents by the National system Account that link together the national economy into six institutional sectors/levels that include the main add of the aggregate results.*

KEY WORDS: *prevision, economic circuit, National Accounts System, institutional sectors, gross domestic product, net domestic product, net national product, national income, personal income, disposable personal income of house-holds.*

JEL CLASSIFICATION: *M.*

Forecasting- in its various types and modalities of implementation – is a product of human thought and experience. It is an expression of rationality, manifestation of the capacity of man and society to encounter with scientific methods the faced social and economic problems. The science of forecasting arose and it is developing on the one hand under the impetus of social practice requirements as a reflection of it in theory, a knowledge act of economic reality and its orientation in the desired direction. On the other hand it was born (and mostly develops) of internal motion of the science that pushes the thought and human knowledge into new areas of investigation , gradually accumulating a number of pertinent observations and conclusions that are legitimized as autonomous, constituting it self as **a knowledge system of with independent research object .**

In this meaning, the forecasting science represents a systematic ensemble of knowledge and concepts having the purpose of studying the laws that generate the need for forecasting works , the principles for achieving them under the general and

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particular conditions in which critical analysis of the way of making concret forecasts in terms of time and space .

The forecasting science grew gradually as a theoretical system in which the following components are distinguished:

- a) knowledge of factual material submitted to the observations (namely significant information the dynamics of economic and social phenomena and processes) and the results of their study ;
- b) assumptions made on future development in economic and social life, and desired degree of probability , taking into account the objective conditions and function (functions) –end;
- c) conclusions resulted from the generalization of retrospective and prospective analyses undertaken , expressed by concepts, laws and theories , confirmed by practice;
- d) utilised methods.

An economic circuit flow is found in every society, because the life maintenance is tied with the obtaining of goods destined to the consumption or destined to the accumulation for the purpose of continuous and expanded renewal of the process with the help of which are obtained the goods and services necessary to life and accumulation. According to the manner of interpretation of the production, the economists are grouped in three big categories: One and the same circular flow can be presented, as a rule, in four modes: graphically, under the form of accounts, by an equations system and under the matrix form.

The presentation of circular flow under the equations form. Since in every closing circular flow the inputs of flows must be equal of value point of view with the output flows, the equations can be built which express the equality between the amount of inputs and the amount of outputs.

$$V = C + I$$

$$V = C + E$$

$$I = E$$

Although the equations are the favourite means of presentation in mathematics and economic theory, together with the increase of number of equations, the synthetic links are difficult to be interpret.

The presentation of circular flow under the matrix form . The matrix is presented under the form of a schedule where in the ends of columns and lines appear the sectors of economy (chess table).

The place of the state in the economic circular flow. The state (public sector, government), as the economy sector, collects taxes from households and companies and utilizes these sources for the work payment of the employees and for the purchase of goods from companies; there aren't included the goods for the investments necessary to the production of goods and services. In addition the state attends the transfers to the companies and to the households. The savings of the state represent the balance between the current incomings and the current expenses.

The place of foreign countries in the economic circular flow. As a rule the transactions are realized also with the foreign countries. Implying the foreign countries as a sector, it results of an open economy. The typical transactions with the foreign

countries comprise the exportation (E_X) and the importation (I_M) of goods. In the case of exportation are registered incomings for of goods sold to foreign countries and on the occasion of importation there are flows in opposite direction. If $E_X = I_M$, the composition of flows of goods will be influenced, but not their value. The modification of the macroeconomic patrimony of the country is presented in this way: $E_M + E_F + E_{ST} + E_{STR} = I$. If, $E_{STR} > 0$ then the economies of foreign countries are placed at disposal for the financing of the internal material patrimony. In exchange, if $E_{STR} < 0$, of internal economies is utilized for financing of the material patrimony of the foreign countries or the consumption.

One of the presentation models of the national economy circuit used in the provisional science field represents the National System Account. The National Accounts System facilitates the description of the national economy by representation of links between the participants in the social and economic life of a nation. National Accounts System realizes the following functions:

- It allows the elaboration of national macroeconomic politics, on the basis of the resulted indicators as a result of drawing up the national accounts and the economic schedule as ensemble.
- It provides the data and norms system of more partners. The elaboration of national accounts permits the informing of the citizens of the march of national economy, it ensure providing of data for some units categories and provides the data for the international committees for effectuation of comparison.
- It ensures the harmonization of economy and state activity.
- It ensures the harmonization the establishment of structures of macroeconomic and even microeconomic informing systems.
- It describes systematically the macroeconomic interdependence. The National Accounts System has a proper research object and a method of realization of this object. The research object of macroeconomic accounting consists in value reflection of all transactions of economy as well as national patrimony at one time. The microeconomic accounting has as study object the economical entity belonging to a natural or juristical person, as well as the relations which are established between them and other legal juristical person.

The statistics object consists in the study of quantitative aspects of the qualitative determinations of mass phenomena, which are submitted to the actions of the statistical laws which appear in concrete conditions, variables in time, space and social and economic organization. Both macroeconomic accounting and microeconomic accounting study "richness", at the different levels of representation and transactions or relations which appear between the participants in the economic and social life. The microeconomic accounting studies the proper relations of the enterprises with other enterprises or natural persons with whom it enters in economic, financial or social relations, while macroeconomic accounting studies the transactions between the economic agents who belong to national and international systems.

In NAS there are two modes of approach of the grouping of economic agents in representative sectors, on the one hand, the grouping of institutional units, named institutional outlook and on the other hand the grouping of economic agents according

to the carrying on of activities and to the activity branch, named the outlook of economic activities.

In Romania, the national accounting utilizes for the grouping of institutional units the following institutional sectors: *non-financial companies and quasi-companies; financial institutions; insurance companies; public administration; private administration; house-holds of population.*

Non-financial companies and quasi-companies. This sector regroups the institutional units residents according to the principal function, the production of goods, works and services of non-financial market and according to the utilized resources, the acquirement of incomes for the renewal of production and acquirement of profit destined to the accumulation and remuneration of the participants factors. The institutional units controlled by state (public) are organized juridically under the form of autonomous corporations and are controlled by state or local administration. The private institutional units (private enterprises) are different from the public units by the fact that they aren't controlled by state or local administration.

Financial institutions. This sector regroups the institutional units which have the principal function the financing. They collect the financial resources available in society and they redistribute them to other institutional units under the form of credits. The principal resources of this sector consist in interest and commissions received for the effected services. The principal activities of the financial institutions of whom are acquired the resources of this sector refer to the management of sight and term deposits, of negotiable orders and of financial titles for long term.

Insurance companies. Insurance companies have as principal function the roll of transformation of individual risks in collective risks and of guarantee to grant an allowance in case of realization of the risk. The principal resource of them forms the contractual bonus or social voluntary fees. The insurance companies differ from companies providing services by the fact that they possess the financing function have which they realize as a result of fact that they form the compulsory insurance reserve.

Public administration. This sector regroups all the units with the principal function to realize unbusinesslike services destined to other institutional sectors in view of redistribution of income in the economy. The principal resources of this sector are the taxes and compulsory taxes from other institutional sectors. This sector comprised:

- Public central administration;
- Public local administration;
- The administration of social insurance.

Private administration. The institutional sector "Private administration" comprises the private organisms without lucrative aim which realize the unbusinesslike services destined especially to the sector "house-holds of population ". In this sector are comprised the associations, trade-unions, political parties, foundations. The resources of private administrations proceed from:

- voluntary contributions of the sector "house-holds of population";
- incomes from property;
- payments from the sector "Public administration" for foundations, politic parties;

- public subsidies gathered by different foundations and associations.

House-holds of population are comprised the institutional units whose principal function being the consumption (familial associations, individual entrepreneurs). The principal resources of the sector constitute the remuneration of production factors (wages, capital investments, income of land) and the transfers paid by other institutional sectors. Individual entrepreneurs and familial associations have as resources also the incomes obtained from the sale of goods and produced services.

The main aggregates that lay out from the National System Account are:

1. Gross Domestic Product (GDP). They represent the synthetical expression of economic activity results produced inside the economic territory during a period indifferently of contribution which the internal subjects have brought out the subjects of foreign countries. GDP measures the value of goods and final services produced inside during a period of time (as a rule during an year or a quarter), respectively it is the value of merchandises or services produced inside the country after the subtraction of the value of consumed goods during the production process (intermediary consumption) and it can be established by three methods: the method of production, the method of utilization of final production or expenses method and the method of incomes.

2. Gross National Product (GNP). It represents the value of goods produced during the period of calculation created by the production factors which belong to the subjects residents in the country indifferently if they were created in the country or in the rest of the world. GNP has in view the factors incomes which have reverted to the internal subjects confronted by GDP which considers the factors incomes created in the country. The incomes created in the country but ceded to the rest of the world (interest, dividends, etc.) are not comprised in GNP, but are included the factors incomes created in the rest of the world which revert to the internal subjects. GNP is firstly an indicator which measures the incomes and not the production afferent to some period. It serves particularly in the analyses which refer to the availability, repartition or utilization of incomes. It is also the indicator according to its volume is established the contribution of member countries of EU. The Gross National Product (GNP) is named also Gross National Income, if it is evaluated of factors or Gross National Expenses if it is evaluated in the market prices. It is also defined as current market value of all the goods and final services produced by the national agents during an year, $GNP_{pp} = GIP_{pp} + SVAB_{pp}$.

3. Net Domestic Product (NDP). It is defined as net total market value of final goods and services produced by internal agents during a determined period of time. If NDP is expressed in the factors prices, it renders evident the net value of final product of point of view of the producer, and the market prices reflect the same production of point of view of consumer. Net Domestic Product is estimated usually starting of GDP, of whose are subtracted the allocations for consumption of fixe capital (ACFC):

$$NDP_{pp} = GDP_{pp} - ACFC, \text{ respectively: } NDP_{pf} = NPP_{pp} - IIN$$

4. Net National Product (NNP). It expresses the net final goods and services produced by national economic agents in a determined period of time. It is calculated

starting of NDP which is corrected with the balance between the incomes of economic activity and of patrimony of economic national agents which carry on the activity in the foreign agencies countries and those of foreign agents on the territory of the country (SVAES).

$$\text{NNPpf} = \text{NDPpf} + \text{SVAES}$$

Evaluated in the price of factors NNP it is named also the national income.

5. **National Income (NI)**. It renders evident the received incomes by the owners of production factors in exchange of delivered resources to productive units of economy or work and property incomes, which result from the goods and services production as part of economy, it reflects the utilization of incomes from productive activity for buying of goods and services and for saving. The volume of national income is calculated starting of incomes flows and expenses flows or applying either the method of totalization of production factors incomes engaged in the producing of goods or services, or the method of totalization of expenses. In the national accounting, the national income is estimated the most frequently by totalization of production factors incomes.

6. **Personal Income (PI)**. The assessment of personal income and its grading in the analysis of economy flows are determined by the fact that the house-holds incomes represent the source of consumption of goods and services and of house-holds savings, thus it has implications upon the dimension of final demand of goods and services of consumption and goods of investments.

7. **Personal Available Income of House-Holds (PAI)**. It represents the aggregate which measures the volume of possible incomes utilized by the population to satisfy different needs. The indicator PAI is calculated by decreasing the personal income elements which don't belong directly to the population: taxes and taxes paid by the population to the government - TTPD. Indicator PAI characterizes better the availabilities for consumption of population and for savings.

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