

---

# AICEI PROCEEDINGS

---

## “MACROECONOMIC INDICATIVE PLANNING IN THE REPUBLIC OF MACEDONIA – A WAY FORWARD?”

**Sasho Kosev**

**Faculty of Economics, University “Ss. Cyril and Methodius”, Republic of Macedonia**

### **Abstract**

The macroeconomic planning is a basic precondition for preparation and efficient realization of the socio-economic development strategic goals and targets in the Republic of Macedonia. But, this approach requires preparation and application of an adequate institutional, analytical, methodological and modelling framework of the system of indicative macroeconomic planning. The institutional framework of the system of indicative macroeconomic planning is identified through: State Statistical Office of the Republic of Macedonia, the Agency for macroeconomic models, analyses and studies (non-existent at the moment) and the Ministry of Finance (Macroeconomic Department). The most adequate analytical framework for macroeconomic analysis and planning is the elaboration, preparation and implementation of an input-output table, a social accounting matrix (SAM) and a macroeconomic CGE human sustainable development model.

**Keywords:** *macroeconomic planning, institutional and methodological framework, Republic of Macedonia*

## **1. Why Republic of Macedonia needs macroeconomic planning?**

The 1990s were years of significant changes. In front of our eyes a world disappeared, a world that everybody thought to be stable, long-lasting and practically indestructible. The transformation of the socialist into market-based economies is basic task of the policy-makers, the international community and the economic profession. The economic reforms implemented in the ex-socialist economies are something new in the world economic history, having in mind its enormous complexity. The reason for this is quite simple: these reforms are not aimed at the reform and modification of the existing economic system, but at its complete transformation and replacement. Such ambitious goal asks for revolutionary changes in the institutional infrastructure and in the way one implements economic policy.

These significant material, institutional and intellectual changes significantly affected the attitude towards the role and the significance of the macroeconomic planning. There were tendencies to consider macroeconomic planning as the only reason for the destruction of all socialist socio-economic systems. After the independence and the start of the transition process, Republic of Macedonia left the system of economic planning of its economic development. It started creating and implementing a market-based economy. Thus, Macedonia neglected the experiences of many of the market-based economies, which point out to the significant importance of the economic planning in managing the economic development processes in those countries. In other words, the market-based economies use economic planning as an instrument for preparation of development strategies and implementation of coherent and coordinated economic policies. Moreover, the transition countries experiences impose necessity to implement economic planning as one of the instruments for creation and implementation of economic policies that will enable and provide stable and continuous economic development in these countries.

Changes are basic characteristics of the socio-economic development in the Republic of Macedonia. They should provide affirmation to the new paradigms of the socio-economic development, basically through the democratic/pluralistic socio-political system and the democratic/pluralistic socio-economic relations.

The need for implementation of macroeconomic indicative planning is much more visible in Macedonia, as a transition country, where the Government should implement managerial activities in the public sector, public finances, etc. A basis for such indicative economic planning is the macroeconomic policy document of the Government, which provides instruments necessary for the realization of the predetermined medium and long-term development goals.

The macroeconomic planning document of the Government should be a programme for the Government medium-term economic and social policy, with clearly specified activities for the: public investments, public enterprises, local economic development, social assistance, public revenues and expenditures, etc.

This system of indicative economic planning is compatible with those already existing in the market-based economies and enables realization of the Government medium and long-term goals of the socio-economic development.

## **2. Institutional aspects of the economic indicative planning in the Republic of Macedonia<sup>1</sup>**

The institutional aspects of the macroeconomic indicative planning are the most important issue when it comes to the organization of the future system of macroeconomic planning in the Republic of Macedonia. Here, one should have in mind the experiences of the institutional organization of economic planning systems and processes in the developed market economies. So far, there are no suggestions for the economic planning system institutional arrangements in Macedonia. In our opinion, the most significant part of the institutional arrangements of the future economic planning system in Macedonia should be the so called “*economic triangle*”, representing the close relations between the:

- State Statistical Office;
- Agency for macroeconomic models, analyses and studies; and
- Ministry of Finance (Macroeconomic Department).

Their relations and interdependence is of key importance for efficient functioning of the future institutional organization and inter-relations in the system of macroeconomic indicative planning (see picture 1).

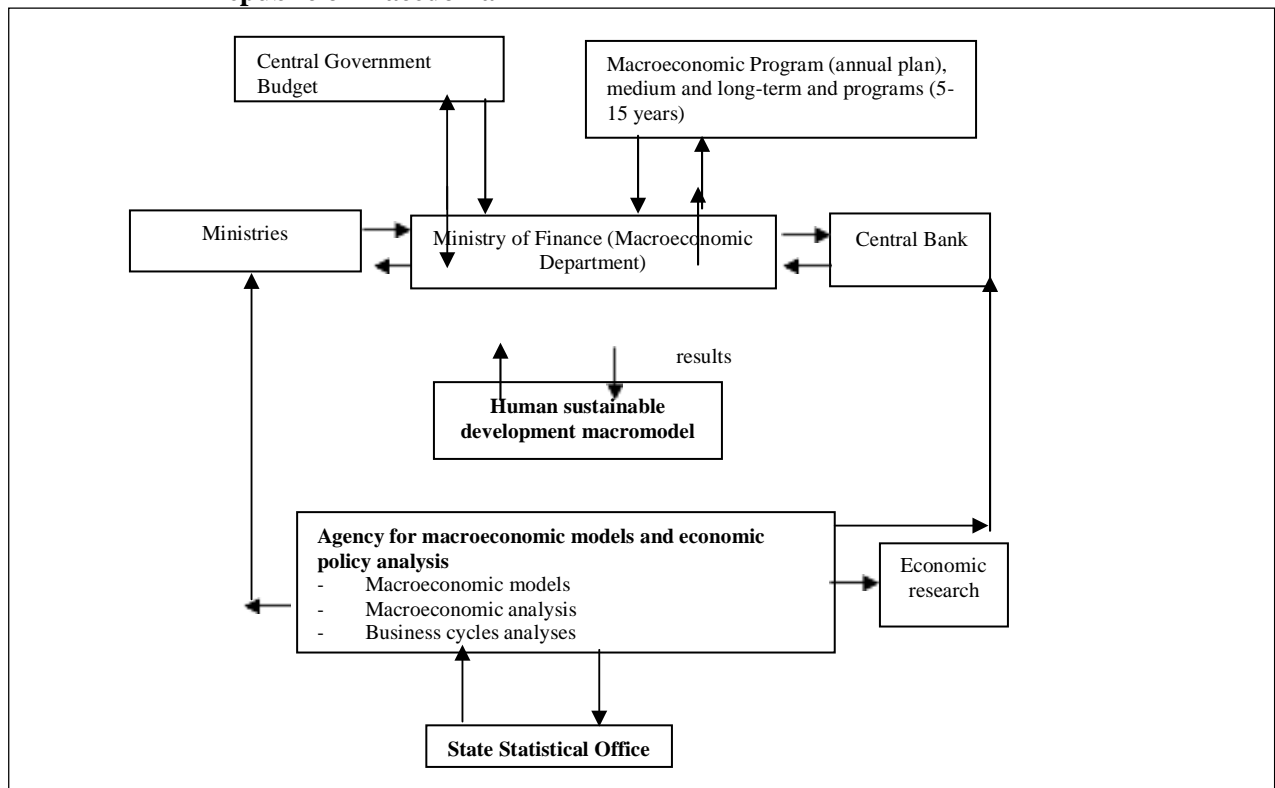
The **State Statistical Office** collects, processes, analyses and publishes statistical data, studies’ results and analyses related to the numerous socio-economic aspects in the society. It realizes great number of research activities and surveys within the companies, households, public and private institutions in the Republic of Macedonia. All the statistical activities and surveys are realized using statistical methodologies harmonized and comparable with the international standards and classifications. The results from these research activities provide wealth of information about the Macedonian economy, for preparation of a scientifically and practically based efficient macroeconomic policy and planning.

The most significant role in the process of preparation, elaboration and harmonization of the macroeconomic development plans and programs rests with the **Agency for macroeconomic models, analyses and studies** (Agency in the rest of the text). The Agency would have two basic tasks: economic data collection and preparation of macroeconomic studies, analyses and forecasts. The Agency should be the basic institutional and organizational Government unit responsible for preparation and operational use of macroeconomic models for preparation of macroeconomic development policy and planning documents and programs. Its basic tasks should also include:

<sup>1</sup> Kosev Sasho, Macroeconomic Planning in the Developed Market Economies and in the Republic of Macedonia (Master thesis - unpublished, in Macedonian), Faculty of Economics, Skopje, 2001, pp. 136-167

- analysis of the sectoral and structural effects of the EU integration processes in the Republic of Macedonia;
- analyses of the global macroeconomic effects of the EU integration processes in the Republic of Macedonia; and
- econometric evaluation/estimation of the economic content of the political parties' electoral programs in the Republic of Macedonia. This will increase the democratic responsibility of the political parties.

**Picture 1 Institutional framework of the indicative macroeconomic planning system in the Republic of Macedonia**



**Macroeconomic Department** (within the Ministry of Finance), cooperating with the Central Bank and other Ministries in the Government, would be a institution responsible for preparation and realization of the macroeconomic and the development strategy and policy. Its basic tasks should be:

- preparation and elaboration of the macroeconomic policy and development strategy and policy documents, which would be operationalization of the basic tasks and goals determined by the Government and the National Parliament;
- preparation of a medium and long-term development program (medium and long-term

macroeconomic plan for the next 5-15 years);

- preparation of analyses on the conditions, development, the problems and the perspectives of the country on national and local level, for the main economic sectors and fields of economic activity;
- implementation of the economic policy measures; and
- drafting plans and programs for cooperation with the international development organizations and institutions, etc.

The Macroeconomic Department should use the macroeconomic models and macroeconomic analyses prepared by the Agency for macroeconomic models, analyses and studies in the process of preparation of the Government macroeconomic policy and development strategy and policy documents (also, immensely using the macroeconomic models prepared for the Macedonian economy by the OECD, IMF, the World Bank and other international institutions).

### **3. Methodological aspects of the economic indicative planning in the Republic of Macedonia<sup>2</sup>**

Indicative planning methodology has a significant importance on the coherency, complexity and consistency of the national planning system in the country. It enables the consistency during the process of obtaining information about the development conditions and problems, adjustment of the policy-makers' tasks and goals, as well as the preparation and realization of the socio-economic development plans and programs.

In order to satisfy the abovementioned, it is necessary the effort of the scientists and experts in our country to be focused on preparation of a complex analytical framework, consisting of:

- a) preparation of an input-output table;
- b) preparation of a highly disaggregated Social Accounting Matrix – SAM
- c) preparation of a macroeconomic CGE human sustainable development model.

#### **a) Preparation of an input-output table**

The input-output tables became vital parts of the national accounts in many countries worldwide. Today, they provide consistency of the data from different data sources for calculation of the basic macroeconomic aggregates – national income and the national product.

---

<sup>2</sup> Kosev Sasho, The Social Accounting Matrix and the Macroeconomic Analysis (in Macedonian), Faculty of Economics, Skopje, 2004, pp. 208-243

The last input-output table for Republic of Macedonia was prepared in 1987 as a benchmark year. For this table, the system of material production was used (official statistical methodology of the ex-socialist countries). In 2000, the State Statistical Office of the Republic of Macedonia implemented a project on preparation and elaboration of supply and use tables for 1997 and 1998, but without any visible results.

Nevertheless, there is a need for construction a input-output table according to the SNA methodology. It will enable analyses and planning of the creation and distribution of the GDP and the national income, as well as the rest of the macroeconomic aggregates. This will significantly improve the analytic-accounting framework which will be used for the preparation and implementation of the Government macroeconomic and development policy. The basic objectives of the utilisation of the input-output table are as follows:

- a) Provide a conceptual and coherent framework to integrate the production data;
- b) Provide a tool to test the coherence, consistency and quality of the various censuses and surveys for agriculture, industry and manufacturing censuses, service, trade, etc. surveys, SNA and other relevant information;
- b) Provide a tool for the analysis of the production structure, its integration and links within and with the formation of factorial income (value added) and final demand;
- c) Provide an analytic-accounting framework to study interactions regarding economic growth, employment and capital requirements and price formation, economic growth and factorial income distribution;
- d) Serve as database for the partial updating of the sustainable human development model system.

#### **b) Preparation of a highly disaggregated Social Accounting Matrix – SAM**

There is no Social Accounting Matrix (SAM) for the Republic of Macedonia at the moment. But, there is data time series with a set of sectoral accounts (from the production to the capital account, for five domestic institutional sectors and rest of the world sector), for the period 1994-1996. Moreover, there is a high quality data time series for the national accounts for the period 1997-2000.

Hence, it is a due time the State Statistical Office, together with the relevant ministries in the Government and experts from the scientific and educational institutions in Macedonia, as well as with institutions and experts from the developed market economies to start the preparation and construction of a highly disaggregated SAM for the Republic of Macedonia, based on the positive experiences of the developed market and transition economies. Table 1 is a schematic presentation of a highly aggregated Social Accounting Matrix.

**Table 1 Schematic presentation of the SAM**

<b>Account</b>	<b>1. goods/services</b>	<b>2. production</b>	<b>3. generation of income</b>	<b>4. allocation of primary income</b>	<b>5. secondary distribution of income</b>	<b>6. use of income</b>	<b>7. capital</b>	<b>8. rest of the world</b>	<b>TOTAL</b>
<b>1. goods/services</b>		intermediate consumption				final consumption	gross fixed capital formation	exports of goods/services	<b>Total demand</b>
<b>2. production</b>	output and taxes less subsidies on products								<b>Total output</b>
<b>3. generation of income</b>		<i>Net domestic product</i>						compensation of employees from the rest of the world	<b>Generated income</b>
<b>4. allocation of primary income</b>			compensation of employees, taxes on products and imports, subsidies, net operating surplus/net mixed income	property income				property income from the rest of the world	<b>Total primary income</b>
<b>5. secondary distribution of income</b>				<i>Net national income</i>	current taxes on income and wealth and current transfers			current taxes on income and wealth and current transfers from the rest of the world	<b>Total secondary income</b>
<b>6. use of income</b>					<i>Net disposable income</i>	adjustment for change in net equity households on pension funds		adjustment for change in net equity households on pension funds from the rest of the world	<b>Disposable income</b>
<b>7. capital</b>		consumption of fixed capital				<i>Net savings</i>	capital transfers and acquisitions less disposals of non – produced assets	capital transfers receivable (+)/payable (-) and acquisitions less disposals of non – produced assets from the rest of the world	<b>Income from capital</b>
<b>8. rest of the world</b>	imports of goods/services		compensation of employees to the rest of the world	property income to the rest of the world	current taxes on income and wealth and current transfers to the rest of the world	adjustment for change in net equity households on pension funds to the rest of the world	net lending (+)/net borrowing (-) of the national economy		<b>Total outflows to the rest of the world</b>
<b>TOTAL</b>	<b>Total supply</b>	<b>Total input</b>	<b>Allocation of generated income</b>	<b>Distribution of primary income</b>	<b>Distribution of secondary income</b>	<b>Distribution of disposable income</b>	<b>Capital expenditures</b>	<b>Total inflows from the rest of the world</b>	

The SAM for the Republic of Macedonia would mainly have two basic tasks:

- a) to enable presentation of information about the economic and social structure of the national economy; and
- b) to provide analytic-accounting framework as a basis for construction of macroeconomic models for analyzing the national economy and the effects from the implementation of the macroeconomic and development policy measures.

The SAM for the Republic of Macedonia would be a matrix presentation of the transactions in the socio-economic system. The SAM is a comprehensive, flexible, and disaggregated framework which elaborates and articulates the generation of income by activities of production and the distribution and redistribution of income between social and institutional groups. A principle objective of compiling a SAM is, therefore, to reflect various interdependencies in the socioeconomic system as a whole by recording, as comprehensively as is practicable, the actual and imputed transactions and transfers between various agents in the system. Hence, couple of activities are of significant importance for our country:

- creation, harmonization and implementation of an integrated analytic-accounting framework as a basis for planning, programming and decision-making for the future socio-economic development of the Republic of Macedonia, based on the United Nations SNA and harmonized with the system and methodology for planning, analyses and decision-making in the developed market economies;
- affirmation of the role and the importance of the SNA and the SAM for the methodology for preparation, adjustment and implementation of the macroeconomic and development policy and planning documents in the national economy;
- construction of a SAM for the Republic of Macedonia, based on a comparative analysis of the SAM construction and implementation experiences in the developed market and transition economies.

**c) Preparation of a macroeconomic CGE human sustainable development model**

The unemployment (unemployment rate is over 30% since the independence) is one of the most complex problems faced by the Republic of Macedonia in the transition period. This imposes some difficult decisions to be made by the country which has to increase the productive employment and decrease the number of unemployed in the country. One of the possible solutions is to pay special attention (in the theory, methodology and practice) to the concept of „human capital“, which presents the totality of knowledge, skills, innovation, creativity, personal abilities and other characteristics of the labour force.

Consequently, there is a need to construct a CGE sustainable human development model, based on alternative human development strategies, which construction, implementation and maintenance should



become a permanent process. The model is necessary for the National Parliament, the Government and to other institutions in the Republic of Macedonia as a tool for a scientific and analytic support to the decision-making process, in order to integrate the sustainable human development issues within the overall socio-economic development process. It will be based on the input-out table and the SAM for the Republic of Macedonia. Such a model will have to provide answers to many questions in the field of economic policy:

- d) poverty reduction in the country;
- e) reduction of the income disparities among the regions;
- f) the impact of the economic growth on the poverty reduction;
- g) boosting the job creation and employment of men and women;
- h) securing continuous flow of the incomes, expenditures, investments and savings in the national economy.

The sustainable human development model is a dynamically linked set of components, presented on picture 2, consisting of.

1. Economic (CGE) model;
2. Demography (population) model;
3. Education and health protection model; and
4. Household income distribution and consumption structure model.

The **economic (CGE)** model presents the well known basic macro economic feedback mechanism, which depicts from production, powered by factors labour and capital along with technology and import, generating income which is used for consumption and the balance is saved. Then foreign saving plus domestic saving are mapped to investments and capital formation and back to production.

The **demography (population) model** can be disaggregated according to the sex, age structure and the urban/rural migrations. It will enable:

- i) Map population to the household categories considered;
- j) Refine the specification of labour supply to include labour force participation decisions by household category;
- k) Allocate available labour supply to labour demand in various production activities depending on wage rates and other labour market characteristics;
- l) Derive income and income distribution by household category;
- m) Link an education and health protection model with the demographic model to compute the persons with primary (formal and non-formal); secondary and adult education; and thereby the literacy rate. This may further extend to labour by skill categories and refinements in specification of production functions.

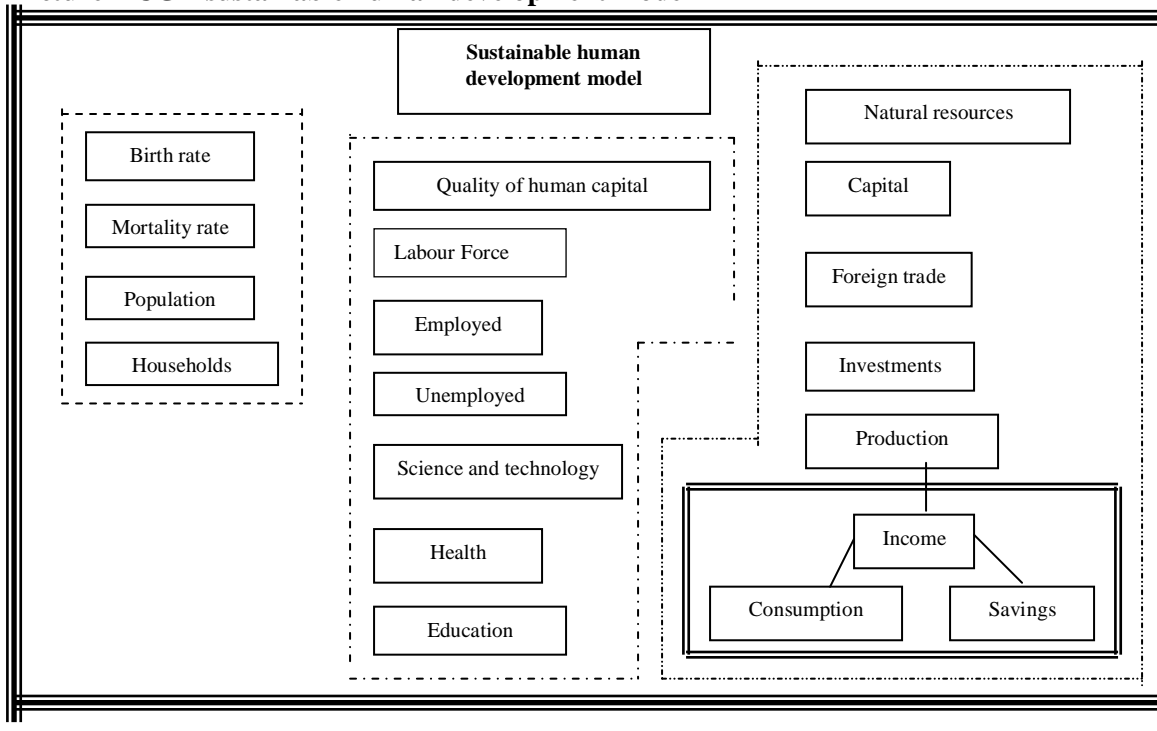
The **education and health protection model** is a model that includes at least education and health. There are at least two important links from education: *first*, to quality of the skilled labour force and refinement in the production function; and *second*, to more informed choices and decisions about family size and child survival.

The **household income distribution and consumption structure model** provides wealth of information on the income distribution (calculation of the GINI coefficient), the level of satisfaction of the basic needs (the BASIC NEEDS concept), the poverty levels according to the household categories and the total population, etc.

Of course, the final result of the interdependencies and interrelations presented in each of the four sub-components of the CGE sustainable human development model will be the increase of the human development general level in the Republic of Macedonia.

The utility of this model is that it provides a system capable of supporting consistent and disciplined analysis over time of concerns related to the sustainable human development issues of income distribution, poverty alleviation, economic growth, population dynamics, education outcomes and productivity, and gender equity.

**Picture 2 CGE sustainable human development model**



**Legend:**

- ===== CGE sustainable human development model
- Demography (population) model
- Education and health protection model
- Economic (CGE) model
- ===== Household income distribution and consumption structure model

This model provides many other benefits to the Government of the Republic of Macedonia:

- n) *Policy justification and effectiveness*: The model can serve as a solid background for the Ministries in the Government of the Republic of Macedonia to support their decision making, justify their policies, and make sure these policies are consistent;
- o) *International relations*: Using a model based approach in national planning will strengthen and enhance the position of the Government of the Republic of Macedonia in dealing with international donors and agencies, and earn respect from other countries;
- p) *Efficiency*: With a good, transparent model, it is possible to identify differences among opinions and test them, so that consensus can be reached. The model will provide a new, participatory tool to facilitate substantive, consistent, and disciplined dialogue among ministries, development partners, and interest groups;
- q) *Comprehensiveness*: With an interactive computer model, it is possible to think through the vitally important connections among economic development, social development, and potentially environmental development in ways that become increasingly apparent, actionable, and effective.

The institutions in the Government of the Republic of Macedonia can use these integrated analytic-accounting framework (consisting of an input-output table, SAM and a CGE sustainable human development model) for:

- preparation of macroeconomic analyses for the economic, social and regional development;
- preparation of a macroeconomic policy document (as a type of a yearly macroeconomic plan for the national economy), which is a operationalization of the tasks and goals set in the medium-term planning document;
- preparation of medium and long-term planning documents (for the next 5-15 years);
- preparation of studies and strategies for the national and regional/local economic development in the country;
- preparation of analyses for the situation and problems of the socio-economic development in the country;
- planning and implementation of the Government macroeconomic and development policy and strategy;
- implementation of cooperative activities with the international development organizations and institutions.

### **Concluding remarks**

The state in the transition countries, also in the Republic of Macedonia, is responsible for the preparation and realization of efficient macroeconomic and development policies, thus creating conditions for stable functioning of the market and for dynamic economic development processes. Such macroeconomic and development policies are true basis for the implementation of the macroeconomic indicative planning in the Republic of Macedonia. Hence, the market economy in the Republic of Macedonia creates possibilities in which the macroeconomic planning and policy present consistent set of targets, parameters, measures and tools of the macroeconomic and development policy.

Consequently, we should free ourselves from our attitudes towards the economic planning from the so called „socialist planning syndrome“. Namely, it is necessary to accept in theory and in practice the modern concept of economic indicative planning. No matter whether we will accept the explicit or implicit institutional type of economic planning, it is really necessary to provide developed tools for managing the development processes (like those in the developed market economies). It implies utilisation of modern planning and forecasting techniques, as well as a developed information system as a basis for an efficient macroeconomic and development policy. It also implies that all Government institutions, in parallel with the specialised planning institutions, should use the economic planning as an instrument for a more efficient management of the economic development processes, as well as to provide a highly qualified personnel and modern equipment and information technologies that will meet the requirement of the economic indicative planning in the national economy. In other words, one needs a transformation/transition and reaffirmation of the economic indicative planning in its modern meaning and implementation.

All abovementioned shows that economic planning and the market are complementary mechanisms in the new socio-economic system of the Republic of Macedonia. The successful combination of the „market's invisible hand“ and the „plan's visible hand“ will provide a more rational utilisation of the production factors and more dynamic economic development of the national economy. This will lead to a continuous improvement of the economic policy instruments, as well as the other types of planning and programming of the national economy development.

**Bibliography:**

1. Alarcón Jorge, van Heemst Jan, Keuning Steven, de Ruijter Willem and Rob Vos, The Social Accounting Framework for Development - Concepts, Construction and Applications, Ashgate Publishing Ltd, London, 1990
2. Chowdhury Anis and Colin Kirkpatrick, Development Policy and Planning-an Introduction to Models and Techniques, Routledge, London and New York, 1994
3. Griffin Keith, Alternative Strategies for Economic Development, second edition, St. Martin Press, 1999
4. Kosev Sasho, The Social Accounting Matrix and the Macroeconomic Analysis (in Macedonian), Faculty of Economics, Skopje, 2004
5. Kosev Sasho and Gjorgji Chepunoski, Macroeconomic Planning in the Republic of Macedonia during the Transition Period (in Macedonian), Annual of the Faculty of Economics, Skopje, 2002
6. Kosev Sasho, Macroeconomic Planning in the Developed Market Economies and in the Republic of Macedonia (Master thesis-unpublished, in Macedonian), Faculty of Economics, Skopje, 2001
7. Sadoulet Elisabeth and Alain de Janvry, Quantitative Development Policy Analysis, John Hopkins University Press, Baltimore and London, 1995
8. Pyatt Graham and Jeffery Round, Social Accounting Matrices - a Basis for Planning (World Bank symposium), World Bank, Washington, D.C., 1985