THE FISCAL-BUDGETARY POLICY MIX AND GENERAL EQUILIBRIUM IN THE CONTEXT OF THE ECONOMIC-FINANCIAL CRISIS

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Abstract:

The existence of fiscal theories in economic activity was perceived differently from one historical stage to another, from one state to another or from one community to another, depending on the economic and social development of each of them. Therefore, the development of fiscal policy theories has contributed to the growth and development of the economic potential of the society in general and to meet the social needs of the population in particular.

The research theme "The fiscal-budgetary policy mix and general equilibrium in the context of the economic-financial crisis" encompasses a wide range of the fiscal domain, with implications for social stability and economic development that allows to identify key elements, among which saving, investment and the existence of budget revenues and expenditures, which analyzed together will participate to the "general equilibrium" model in the work of J. M. Keynes and his P. A. Samuelson.

Keywords: *savings, investments, demand, fiscal policy*

1. Introduction

Major changes in the global economic system were mainly due to the economic development of states. Thus, over time, state's right to collect taxes from persons inside its territory or outside it, was a concern, a topic not only for the legal doctrine and the constitutionalists, but for the economic doctrine also.

Under these circumstances, taxes became the main financial resource of the state, and therefore any change in their content and structure could become a factor

disrupting state activity, which would generate a possible imbalance in the economy.

In this context, there is the concern of specialists to find solutions to maintain overall macroeconomic balance, avoiding the worldwide economic and financial crises and increasing the economic development pace in some countries with globalized economies.

2. General equilibrium theory in the works of J. M. Keynes

In different studies, many meanings have been awarded to the concept of fiscal policy, but in this paper the use of fiscal policy is analyzed in terms of the general equilibrium between goods / services consumed and financial flows, namely as an instrument of state intervention for macroeconomic stabilization purposes, depending on the needs to balance market supply and demand.

Equilibrium theory in the Keynesian approach uses the simple model of a closed economy without government fiscal activity, with aggregate demand having a central role and using investment and real savings as variables.

To explain and interpret his theories, J. M. Keynes takes a different approach than his predecessors, arguing: "Our criticism against the accepted classical economic theory is not so much to find cracks in the logic of its analysis as to reveal that the premises from which it tacitly starts are met rarely or never,"[12] given that all the research conducted by Keynes corresponds to the economic reality of that period.

However, in Keynes's approach, the use of discretionary fiscal policy will directly affect current income when the market faces price rigidity, overcapacity and the existence of liquidity constraints for economic entities and households, and the impact of changing discretionary fiscal measures and the degree of crowding out being described in the IS-LM model.

Similar to the supply multiplier following budget expenditure, due to taxation (taxes and fees) an income multiplier phenomenon takes place. In this context, state intervention is to control the "size" of fiscal instruments in order to achieve GDP stability.

To build the fiscal multiplier model, its assumptions are taxation, tax rate and government spending, and the new level of income (derived from levies) is given by:

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[12] Keynes J. M., *„Teoria generala a folosirii mainii de lucru, a dobanzii si a banilor”*, Editura Stiintifica, Bucuresti, 1970, pg. 66;

$$V = Qxi \quad (1)$$

where:

V –public income;

Q – production

i – tax.

Based on the initial relationship, using fiscal instruments the equilibrium equation for production can be determined, as follows:

$$GDP = \frac{1}{1-c(1-t)+i_i} \times \underbrace{\left(Cpa - c \times V}_{} + c \times Tr + Ch_{bug} + \alpha_E + E\right) \quad (2)$$

The multiplier effect of the initial state intervention[13]

where:

GDP - Gross Domestic Product;

Cpa - autonomous private consumption;

c - marginal propensity to consume;

V - fiscal income;

Tr - transfers to households;

α_E - volume of household saving;[14]

Ch_{bug} - budget expenditure;

E - export.

be compatible with equilibrium, since any other level will lead to a disparity between supply's global price for overall production and demand's global price."[15]

Therefore, the general equilibrium condition is the equality of "savings buyers - consumers make and the investment made by buyers - investors."[16]

Keynes's general theory on general equilibrium is based on the rejection of the classical paradigm that confirms the existence of "an automatic From the point of view of a policy of state's intervention in the economy, policy promoted and

[13] This remains the same regardless of changes in the tax revenue from fixed amount taxation, transfers to the population or the amount of public spending.

[14] "According to Keynesian theory, investment must equal population savings and having a productive purpose, their approach is specific to manufacturing companies", Duca A., *„Miraculosul triunghi al impozitelor",* Editura ASE, Bucuresti, 2007, pg. 227;

[15] Keynes J.M., *„Teoria generala a folosirii mainii de lucru, a dobanzii si a banilor",* Editura Stiintifica, Bucuresti 1970, p. 63-64;

[16] Popescu Gh., *„Evolutia gandirii economice"*- ed. III, Editura Academiei Romane - Bucuresti, Editura Cartimpex – Cluj, 2004, p. 644;

supported by Keynes, *"general equilibrium"* can be obtained using *fiscal-budgetary policy instruments*, namely:

• *Taxes*, modifying them reduces or increases productive economic activity;
• *Government expenditure* are used to purchase public goods, it influences directly the aggregate demand curve;

• *Budget deficit*.

Using these fiscal and budgetary instruments directly affects unemployment, savings and investments, three elements on which the entire Keynesian analysis was concentrated.

When he correlated them Keynes said that "savings and investments are made by different population groups and are not necessarily automatic and in equilibrium-state"[17] and therefore only "when the marginal propensity to consume and the size of investment are given, only one level of labor force employment will mechanism" to ensure full employment and economic activity recovery after each stage of economic downturn.

According to the opinion of Darrel Cohen and Glenn Follette, discussed in *"The automatic fiscal stabilizer: quietly doing their thing"* Keynes' model of automatic stabilizers leaves from the uncertainty of future income from work correlated to the impossibility of the state to pay a comprehensive insurance for the private and financial tools that help maintain the general equilibrium.

Interventionist state policy, achieved through tax has as a hypothesis the idea that changing the income tax by setting a higher tax rate will cause a change in labor income, which will generate a downward trend in savings or reduction of current consumption.

Arguing against this paradigm, Keynes analyzes employment concluding that in the short term it is determined by the level of production, which in turn depends on the amount of individual consumption expenditure and of investment, i.e. actual demand. Therefore the actual demand is "determinant of employment and income, unemployment represents only a consequence of total aggregate demand."[18]

His new model of analysis is developed based on two principles:

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[17] Popescu Gh., *„Evolutia gandirii economice"*- ed. III, Editura Academiei Romane - Bucuresti, Editura Cartimpex – Cluj, 2004, p. 635;
[18] Finkenstein J., Timm A., *„Economists and society . The development of ecomonic thought from Aquinas to keynes"*, Editura Haper & Row, USA, 1973, p. 290;

1. the balance between savings and investment depends on income evolution and variation;

2. savings have investment as the active element.

In this context it is necessary to address consumption, savings and investment as a "circular flow" of income and expenditure for the whole economy.

The income paid by firms (wages, rents, interest, profits)[19] flow to the consumers as labor and property income; then households spend these revenues buying from producers their goods and services shown as market supply and therefore, at that moment, firms' revenue is population's expenditure, and in the same time a part of this amount goes to the state as taxes, which will return them, but not entirely, to consumers (households and firms) in the form of transfers. But sales to consumers can not be equivalent to the payments they make to the population as wages, rents, interest, etc., because the economic behavior of consumers makes them to save a portion of their disposable income. Therefore, the savings can be found out of the circular flow.

To understand its particular relevance in the context of the general equilibrium (Economic and Financial) McConnell and Campbell in "Microeconomics: Principles, Problems and Policies" represent the income circular flow as the diagram in Figure 1.

Analyzing, economic - financial flows belonging to the Keynesian doctrine, the conclusion is drawn that equilibrium is achieved when the sum of consumption demand, investment and public spending equals production, while maintaining a certain price level, and if "savings vary from investment, global supply and global demand are not equal, firms revenues are not equal to the costs of population and household income is not equal to the income of companies," the economy is in a state of imbalance.

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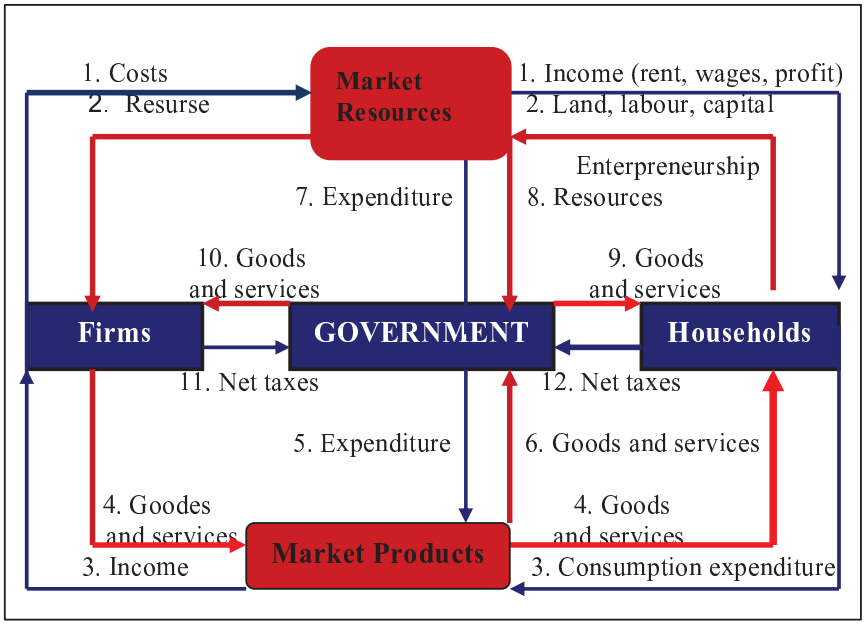
[19] Emilia Vasile, Daniela Mitran, Popescu Marin *Logistics Framework In Mass Customization Manufacturing,* Revista Metalurgia International, nr.3/2009, Cotata ISI, pg. 58-61, ISSN 1582-2214

Figure 1. Keynesian income circular flow diagram



Source: McConnell, Campbell R., *„Microeconomics:priciples, problems and policies"*, Published by McGraw- Hill, New York, 2012, pg. 337;

Looking from another angle, the British economist believes that national income, consisting of two components: consumption and investment, when demand is in excess relative to potential production, determines an inflationary phenomenon, otherwise, if they remain under economy's possibility of production will lead to the emergence of unemployment, moment when the national economy is not in equilibrium, imbalance that can be corrected through government action.

This is achieved through fiscal and budgetary policy instruments, as it follows:

1. *Changing tax rates:*

• increasing taxes on personal income, leads to a reduced consumer spending, and also to a decrease in total demand;

• reducing taxes on personal income, generate increased consumer spending and aggregate demand respectively.

2. *Increased government spending* for procurement of public goods.

However, these tools must be used rationally and prudently according to the phase of the economic cycle in order to mitigate the adverse effects of economic recessions, economic crises and economic booms.

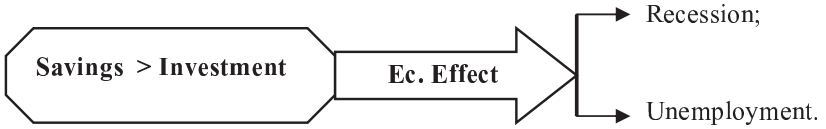
3. General equilibrium theory in P. A. Samuelson's approach

In general equilibrium theory, Samuelson continues Keynes' analysis based on two components: savings and investments.

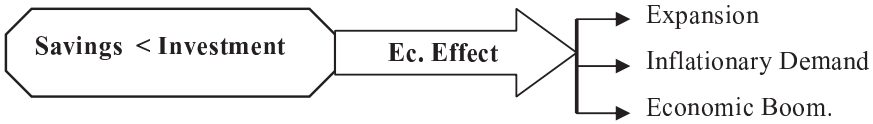
According to P. A. Samuelson's equilibrium theory "the most important thing about savings and investment - is that in our industrial society the two operations are largely determined by different individuals and for different reasons."[20] Thus he makes the distinction between savings – as a result of households' activity and of business investment, which is in most situations the work done the economic entity, "based on the rational calculation of the decision-making process."[21]

As a result of Nobel laureate's research, he notes that economic life can face two situations for the relationship between savings and investment, as it follows:

1. Situation when,



2. Situation when,



The accelerator principle considered by P. A. Samuelson as a powerful economic stability factor, can be used during the period of major increases or decreases in sales to counter amplifying their fluctuations. However, using the accelerator leads to increased net investment in times of economic boom, but incites equal disinvestment in times of crisis.

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[20] Samuelson P. A., Nordhaus W. D., *„Economics"*, 15th edition, McGraw-Hill, USA, 1995, pg 299;

[21] Popescu Gh., *„Evolutia gandirii economice"*- editia a III-a, Editura Academiei Romane - Bucuresti, Editura Cartimpex – Cluj, 2004, pg. 729;

Therefore, no matter in which of the two situations would be the economic society, government intervention is needed to correct the imbalance and restore a steady state. To this end, the measures proposed by Samuelson relate to the use of fiscal and budgetary policy instruments. In other words, "state interference is necessary for, on one hand, to ensure the amount of savings required for "full use", and on the other hand, to widen the "investment opportunities" until full employment. Tax decisions and budget expenditure may in Samuelson's opinion "alter the balance of national income"."[22]

The privileged role of fiscal policy as stabilization policy consists in "setting out the resources, the methods of levy and the income of public funds"[23] budget policy with the task "hierarchical sizing and public expenditure through actions and instruments."[24]

Samuelson believes the measure to reduce taxes will generate a lower tax revenue and lead to the fractionation of national income, with consequent increases in personal consumption; budget revenues from taxation will be reduced while reducing the national income and will record an upward trend if it increases. This is the multiplier effect on national income of public spending.

Based on these correlations, steady state is achieved when public expenditure is equal to public revenue from taxes and fees to the state budget.

Samuelson's evolving view on saving is reflected in the analysis of government budget deficits. In countercyclical terms, government budget must remain balanced throughout the business cycle. Thus, according to this reasoning, deficits are justified; though offering few clues about when and how could occur surpluses that would lead to budget rebalancing.

P. A. Samuelson's approach in his work of public debt shows that associated expenditure - at the expense of the budget deficit, was not a major problem, but he concludes, after the formulation of this hypothesis, that a higher value of public debt can be a clear impediment to long-term economic growth.

The results of its research over time helped the American economist "to define the three major economic functions of the budget,"[25] namely:

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[22] Ibidem, pg. 730;
[23] Vacarel I., *„Politici economice si financiare de ieri si de azi"*, Editura Economica, Bucuresti, 1996, pg. 708;
[24] idem
[25] Samuelson P. A., Nordhaus W. D., *„Economie politica"*, Editura Teora, Bucuresti, 2000, pg. 743;

1. "sharing the national product between consumption and investment, public and private;

2. direct spending and indirect tax incentives, have an impact on labor and capital inputs and outputs to and from various sectors of the economy;

3. fiscal policy or state budget plays an important role in reaching the main macroeconomic objectives."[26]

But these formulations of the budget functions do not represent the peak of P. A. Samuelson's research on "general equilibrium," he is known for elaborating some theories and models of economic dynamics, arguing that only if when using a dynamic analysis can be highlighted the laws establishing economic equilibrium.

4. Conclusions

Analyzing the fiscal theories formulated by ideologists is observed that economic theories have been in a continuous process of adjustment to the economic and social development.

The development of basic components such as savings and investments highlighted the role of demand in a market economy. Theoretically, aggregate demand problems are alleviated with the development of dynamics analysis of national and global economies. Thus, the important directions of Keynesian growth and general equilibrium theory concern the long term role of fiscal policy and the implications of government's policy of increased public investment.

In this context, I appreciate that public investments have effects not only on aggregate demand but on aggregate supply through: changing the rate of technological change, the interaction of financial factors – the financial system reacts differently to changes in economic cycles, and last but not least the interaction between the growth and the distribution of government revenue.

Based on these findings I believe that Keynesian models have opened a new chapter for future research in terms of government policy, including tax policy "especially in regard to the expansion of government investment, financial regulation, policies to change the income distribution." [27]

In terms of Samuelson's research contribution, notably the automatic fiscal stabilizers, it can be said that this mechanism allows civil, economic and political

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[26] Duca A., *„Miraculosul triunghi al impozitelor"*, Editura ASE, Bucuresti, 2007, pg. 72

[27] Arestis P., Sawyer, *„21st Century Keynesian Economics"*, International Papers in Political Economics, Library of Congress Cataloging-in-Publication Data 21st century Keynesian economics / edited by Philip Arestis and Malcolm Sawyer. Printed and bound in Great Britain by CPI Antony Rowe, Chippenham and Eastbourne, 2010, pg. 75-76;

society to change its decisions to reduce negative externalities, depending on the economic development in different periods. Therefore, automatic stabilizers can increase the welfare of the state, reduce the tax burden, create flexible markets able to react positively to potential economic shocks.

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