THE INFLUENCE OF BUDGET POLICY ON ECONOMIC SECURITY AND SOCIO-ECONOMIC DEVELOPMENT OF THE UKRAINE

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Abstract. The consolidation of economic security of the state, its protection against all external threats should become one of the main directions in the realization of budget expenses in short-term and in long-term prospects. According to this conception, budget expenses are to finance top-priority components of economic security.

Some theoretical and methodological approaches concerning the analysis of the influence of budget instruments on parameters of economic security and socio-economic development of the country are suggested.

For conducting this investigation, certain econometric models with the best functional forms have been selected and analysed. The most important instruments in budget policy such as state buying, expenses for fundamental investigations, expenses for economic development and expenses for social sphere have been considered under the condition of the Ukrainian economy. The influence of budget instruments on certain parameters that characterize the economic security of the state has been worked out in detail. As a result of the investigation, the main threats for the Ukrainian economic security have been formulated and the ways out have been proposed.

The authors state that in the process of the investigation almost all budget instruments have a positive influence on the level of Ukrainian economic security, they stimulate economic development and increasing of social living standards of the population.

Keywords: economic security, econometric modelling, state expenses, investments.

Introduction

At the beginning of the XXI century every country faced the necessity of working out individual strategy of social and economic development due to the expansion of NATO, EU, more intensive influence of Russian Federation in regional aspect (Yasin, 2006).

Essential social and economic changes, which nowadays take place in the Ukraine,

are formed by foreign and internal factors, which may have both positive and negative consequences and can constitute danger for national interests of the country. The mechanism of budget regulation, using certain economic and financial instruments, should oppose to such treat and ensure national and economic security of the country in particular.

While considering the present state of the Ukrainian budget policy for medium-term perspective, one can admit its unforeseen character, some lack of coordination in tax and monetary policy, inconsistency of actions in choosing state priorities for socio-economic development of the country. Taking into account global tendencies, which lead to active intensification of the competition between countries, the existing situation in budget sphere represents danger for economic security of the Ukraine (Lunina, 2006).

It should be mentioned that methodological and law standards for medium-term budget planning in the Ukraine have fragmentary character. Such situation has a negative influence on the whole system of strategic documents in the country. A certain threat to economic security depends on the degree of social development of the country, its cooperation with geographical neighbours, international organizations and other factors, which can prevail in some situations.

Nowadays, by economic security of the state one means a certain combination of conditions and factors that provide independence of the national economy, its stability, capability for steady renovation and self-perfection (Draguhn W., Ash R., 1999). It goes without saying that the level of economic security changes under the influence of various factors. One of the most important directions of state regulation is the maintenance and the development of the social component of economic security, as it is perceived and appreciated by citizens first of all.

The guarantee of national and economic security in particular, is regarded top-priority of state function. For this reason, budget mechanism among other factors is considered to be of paramount importance.

For real provision of Ukrainian economic security it is quite necessary to work out the calculation methodology of this parameter. In March, 2007, the Ministry of Economics of the Ukraine introduced its own method of calculating the level of economic security. Though, lately experts indicated some drawbacks, while applying this method, because of a rather huge system of parameters, lack of necessary free statistic information and imperfect normative system. The main shortage of such approach is that one may get information rather late, as some economic data become available only in some month after the corresponding period.

At present there exist some alternative methods that estimate the level of economic security, but, unfortunately, they need a lot of parameters to be calculated. Still it is quite obvious that macroeconomic parameters will be the most important ones in this system. Among those elements the volume of investments influences indirectly on all other parameters of social and economic development: GDP, the level of consumption, the level of income, inflation, etc.

Aims

At the present stage of economic development of the Ukraine, it is advisable that the real influence of budget policy, especially budget expenses, should be determined concerning all investment processes in the country due to their influence on the economic security.

As a result the following aims are formulated in the work:

- to characterize the present state of the Ukrainian budget policy, and budget instruments by means of which the state may have influence on social and economic development of the country;
- carry out econometric investigation, concerning the degree of influence of budget instruments on parameters of social and economic development of the state, as it is a part of economic security of the Ukraine.

To solve the aim, theoretical and methodological approaches were applied to estimate the influence of budget instruments on social and economic parameters of the development in the Ukraine. Some economic-statistic methods and econometric modelling were used as well.

Budget regulation

In works, devoted to budget processes and budget development of the country, budget regulation is defined as a component of financial, economic and social regulation as a whole. Prof. I. Chugunov describes budget regulation as a dynamic system, which is accomplishing and adapting to the main objectives of social and economic development, including the parameter of formal rules of taking decisions (Chugunov, 2003). The balanced level of all instruments of budget regulation influences the tempo of social and economic development simultaneously and in time. The main task of budget regulation is the fulfilment of the main objectives of social and economic development of the state, as well as administrative and territorial units.

By means of budget instruments the state employs different forms of influence on economy through subsidies to the population and different organizations, state investments, budget financing of some branches that determine scientific and technical progress. Such policy gives the possibility to achieve desirable changes of economic proportions.

Therefore, the state expenses for social sphere, economic activity, fundamental investigations, and expenses for financing state programmes of the development can create favourable conditions for investment activity in the state. One can not exclude the influence of tax policy, as there is direct dependence between expense and income parts of budget. Nowadays, it is well known that some taxes have considerable influence on the level of GDP, while it in its turn influences all investment processes (Zatonatska, Stavytskyy, 2007a, 2007b).

The key problem of budget policy in modern Ukraine is to make such tax system, which may be directed to economic growth (Zatonatska, Stavytskyy, 2006 a). The tax system with objectives of only fiscal character has no desirable effect, as under conditions of market economy the influence of expenses on effectiveness of using resources is of paramount importance.

The analysis of the Ukrainian Budget Policy during the last 6 years

With the help of budget policy one can achieve provision of the national strategy and the development of the state by representing general plan, concerning the problem of mobilization of cash resources and their distribution to satisfy population's demands, to perfect and extend productive capacity etc (Zatonatska, Stavytskyy, 2006 b).

State budget always reflects social and economic ratio of different sections of population. Thus, by means of budget instruments the state can influence social and economic development in the country and consequently – the level of economic security.

Let's analyze the structure of Consolidated Budget of the Ukraine within the last 6 years (table 1), to understand the role of the state in social and economic development of the country. One can mention a considerable growth of the expenses for economic activity in nominal values and low structure change of expenses. During the period 2002–2007 their volume increased by 5,63 times – from 7,2 bln. UAH in 2002 to 40,5 bln. UAH in 2007, and their part in the general volume of expenses of the Consolidated Budget was in the range between 11.9–18.9% and constituted 17.9 in 2007.

The main part of state expenses was directed to health protection, education, and social services. In particular, the part of the expenses directed to health service increased by 3,5 times in nominal values and was during the last 6 years within the range of 10.9–12.8% (11.8% in 2007). The part of the expenses directed to education was changing in the range from 18.1% to 20.3% (19.6% in 2007). This part increased by 3,6 times in nominal values during the last 6 years. The part of expenses for social service in Consolidated Budget was less stabilized ranging within 17.1–28.2% (21.4% in 2007) and increased in nominal values by 3,8 times. It should be noted that CPI for this period constituted 1.73%. It follows that the expenses grew much faster than prices.

Statistic data analysis indicates that there is a steady change in the part of the expenses for economic activity and social service in the structure of Consolidated Budget within the last 6 year. This fact may be explained by the change of priorities in budget policy (Zatonatska, Lavrentyev, 2007).

Let's consider in detail the change of priorities concerning state expenses. During the period 2002–2004, one can observe a certain increase in part of the expenses for economic activity from 11.9% to 18.4% (maximum for the last 6 years). At the same time there is a cutback of spending for health service (from 12.5% to 12%), education (from 20.3% to 18.1%), and social service (from 21.0% to 19.0%).

In 2005, expenses for economic activity were reduced to 13.5% (18.4% in 2004), but expenses for social service grew up to 28.2% (19.0% in 2004). In 2006–2007, one could observe contrary tendencies: expenses for economic activity increased to 17.9% (2007 year), but the expenses for social service decreased to 21.5% (2007 year).

Coming to the conclusion, it is necessary to state that such sudden changes in

Table 1. **Volumes and Structure of Expenses of Consolidated Budget of the Ukraine**

Type of expenses	2002		2003		2004		2005		2006		2007	
	Bln. UAH	%	Bln. UAH	%	Bln. UAH	%	Bln. UAH	%	Bln. UAH	%	Bln. UAH	%
General state functions	8588,8	14.2	10017,9	13.2	12302,4	12.1	15475,8	10.9	19925,1	11.4	24270,8	10.7
National security	3536,4	5.9	5279,6	7.0	6185,8	6.1	6040,9	4.3	6401,2	3.7	9414,8	4.2
Internal order, security and judgement activity	5040,5	8.4	5843,7	7.7	7875,9	7.8	10207,9	7.2	12715,7	7.3	18444,8	8.2
Economic activity	7200,9	11.9	12215,5	16.1	18703,7	18.4	19109,0	13.5	27340,2	15.6	40512,8	17.9
Environment protection	661,6	1.1	920,9	1.2	1183,3	1.2	1251,3	0.9	1636,6	0.9	2240,3	1.0
Housing and communal services	1407,6	2.3	1823,3	2.4	2665,3	2.6	3912,5	2.8	8022,1	4.6	5900,9	2.6
Health protection	7537,9	12.5	9708,2	12.8	12159,4	12.0	15462,3	10.9	19719,9	11.3	26714,6	11.8
Intellectual and physical development	1417,9	2.4	2052,5	2.7	2695,9	2.7	3449,8	2.4	4327,3	2.5	5687,6	2.5
Education	12269,0	20.3	14977,7	19.8	18333,2	18.1	26745,3	18.9	33783,7	19.3	44331,6	19.6
Social service	12643,9	21.0	12953,2	17.1	19310,5	19.0	39882,2	28.2	41362,8	23.6	48517,6	21.5
Total	**60318,9**	**100.0**	**75792,5**	**100.0**	**101415,5**	**100.0**	**141537,1**	**100.0**	**175234,5**	**100.0**	**226035,7**	**100.0**
Official exchange rate of UAH against 100 USD (average for period)	532,66		533,27		531,92		512,47		505,00		505,00	

S o u r c e : authors' calculations on the basis of reports of the Ministry of Finance of the Ukraine

structures, unforeseen for medium-term perspective, have negative influence on the development of economy and social sphere.

Econometric model and its analysis

Let's consider in detail the interrelation of certain budget instruments on the parameters that characterize investment processes. Expenses for economic activity may be regarded as budget investments for financing state programmes. They must promote the development of priority branches of economy; stimulate private investments that characterize the level of enterprise activeness. They play a certain role in creating necessary infrastructure for realization of private investments.

Among budget expenses for economic activity the most important items are expenses for energy complex, transport sphere, agriculture and fundamental investigations (Chugunov, Zatonatska, Stavytskyy, 2007). These items constitute about 75% of all expenses for economic activity. Now let's consider their influence on social and economic development in detail.

Nominal variables with seasonal adjustment were used for modelling. The main model was an econometric regression of different types of investments in first differences from corresponding expenses in first differences. In case of necessity dummy variables were included to regression to eliminate political influence (for example, the influence of Presidential elections in 2004, changes of Government in 2005, etc.). So, the general model may be presented as follows:

$$\Delta y_t = \beta_0 + \beta_1 \Delta x_t + \gamma Z_t + \varepsilon_t, \quad t = \overline{1,n},$$

where Δy_t – different types of investments in first differences,

Δx_t – different types of state expenses in first differences,

Z_t – matrix of other exogenous variables (for instance, dummy variables for modelling political and seasonal effects),

β_0, β_1 – model coefficients,

γ – coefficient vector for additional exogenous variables,

ε_t – residuals of the model.

Generally, fours models for each type of expenses were estimated. All models were tested for adequacy, significance of coefficients, absence of autocorrelation of residuals, etc by standard econometric methods (Green, 2003). Let's analyze the results received.

The increase of the expenses for energy complex leads on the contrary to the decreasing of investments. The increase of state expenses in this sphere by 1 mln. UAH leads to the fall of increment of general investments by 11.2 mln. UAH with 2-quarters lag. It must be noted that private investments decrease by 9,6 mln. UAH, state – by 1.6 mln. UAH with the same lag, but the change of foreign investments is not defined statistically. Taking into account the importance of energy complex for the Ukrainian economy, one can't but understand that one of the ways out of such situation is partial privatization of mining enterprises which provides the possibility to increase considerably investments to these objects.

The increase of the expenses to transport sphere acts positively: every extra 1 mln. UAH spent leads to the increase of general investments approximately by 9,6 mln. UAH. In this case private investments grow rather actively – by 7,8 mln. UAH for every extra 1 mln. UAH of expenses for transport sphere. State investments increase 1,7 mln. UAH for every extra 1 mln. UAH of expenses for transport sphere. Practically, there is no growth in foreign investments, while the expenses for transport sphere are increasing.

So, one can arrive at the conclusion that state's participation in improving infrastructure sphere stimulates the economy, and that is why various projects, for instance, for opening fast – train railway, building new highways, etc. promote the development of the Ukrainian economy.

The increase of expenses for agriculture gives a positive impulse for the development as well: every extra 1 mln. UAH spent from budget for agriculture results in growth of general investments by 18,6 mln. UAH, the largest part belonging to private investments – 15.9 mln. UAH. The growth of state investments gives only 2,7 mln. UAH for every extra 1 mln. UAH of the expenses for agriculture.

Expenses for fundamental investigations influence the level of using new products, and stimulate innovation activity of domestic enterprises by means of spreading new technologies in different branches of national economy. It influences the GDP in its turn. In general, according to estimated models, the increment for scientific investigations for 1 mln. UAH leads to the increase of general investments by 50.4 mln. UAH. In respect of expenses for scientific investigations, additional 1 mln. UAH leads to the increase by 42,6 mln. UAH in private investments, by 7,63 mln.

Table 2. **The influence of extra 1 mln. UAH of expenses on increment investments, mln. UAH**

Type of investment	Expenses for energy complex	Expenses for transport branch	Expenses for agriculture	Expenses for fundamental investigations
General investments	−11,2	9,6	18,6	50,4
State investments	−1,6	1,7	2,7	7,63
Private investments	−9,6	7,8	15,9	42,6
Foreign investments	−0,1	0,1	0,1	1,17

Table 3. **The influence of 1% increment in expenses on investment growth, %.**

Type of investment	Expenses for energy complex	Expenses for transport branch	Expenses for agriculture	Expenses for fundamental investigations
General investments	−0.440	0.673	0.874	1.102
State investments	−0.602	1.142	1.216	1.599
Private investments	−0.421	0.610	0.834	1.040
Foreign investments	−0.017	0.031	0.021	0.114

UAH in state investments, and by 1.17 mln.UAH in foreign investments.

The aggregated information concerning the influence of the expenses on different investments is presented in table 2. The data in table 3 is worth mentioning as well. It presents calculated coefficients of elasticity, which display percentage increase of different types of investments by 1% increment of the corresponding expenses. It is obvious that increasing additional expenses for fundamental investigations by only 1% leads to the growth of increment practically in all types of investments more than 1%. In general, most types of expenses for state investments are rather effective as are they are connected with multiplication effect of the Ukrainian economy.

It has already been mentioned that the situation in energy complex demands special attention, as the expenses for this branch do not facilitate social and economic development of the country. One of the means to achieve this objective is increasing its transparency.

Conclusions

Summing up the data presented above, it is possible to come to the conclusion that the influence of the expenses for promoting economic development in the country is really very important. At the same time, the most urgent problem for our state is its energy complex. In other branches the increasing of expenses for economic activity leads to intensive investment activity. It should be mentioned that the largest part of increment provides private investments.

Unfortunately, the Ukraine does not use effectively budget investments in high technology branches. While investigating budget expenses for economic activity, it was concluded that the state investment activity, which is a part of budget policy, does not favour to the change of the na-

tional economic structure and provision of a certain level of socio-economic development. The largest part of state investments is directed to branches with low technological level. It means that increasing of such investments only will not facilitate solving strategy tasks, raising Ukrainian competitive level. It is an essential part for ensuring the economic security of the state.

When increasing state investments to stimulate private investment activity one may propose to define precise ways and directions of budget expenses for economic activity, which may facilitate socio-economic development of the country providing its economic security. To achieve such a goal one should develop actions for medium-term planning of budget expenses.

The issue of this work was the analysis of the Ukrainian budget policy. The investigation of the influence of budget expenses on different types of investments was presented applying certain econometric models, which were suggested by the authors.

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