

JUSTIFICATION OF SCENARIOS OF STATE REGULATORY POLICY OF UKRAINE

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Abstract: The research is devoted to justifying regulatory policy scenarios. The base of the analysis is the built cognitive map that shows the interactions between factors, leverages and goals of regulatory policy. For the purpose of justifying the possible dynamics of factors in the future in every scenario, changes of the most negative and positive factors were investigated, according to which the possible forecast for them was proposed. In the process of investigation, the impact of negative factors on the regulatory policy goals, the combination of leverages that must be included for overcoming the negative impact of all these factors were analysed and justified. As a result of the research we have determined three scenarios: optimistic, pessimistic and most probable. For every scenario, a specific set of leverages was proposed.

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Introduction

Modern world trends in the development of national economies indicate that the most developed of them function within the framework of the corresponding forms of state regulation, which involves the intervention of public authorities in the market mechanism for the achievement of the goals of social and economic development. Ukraine over the past 26 years has gone through a difficult path - from the post-Soviet planned economy to the regulated market. The problem of state influence on the economy is connected with the form of property that dominates the country. At present, the vast majority of business entities in Ukraine belong to the private sector. The influence of the state is realized in various forms, a special place among which has the state regulatory policy. Its main purpose is exclusively interference in the economic activity of executive authorities and local self-government in accordance with the normative consolidation. In practice, regulatory control also includes product quality control, tax regulation etc. That is why it is expedient to pay attention to all the mentioned issues, and not only to those specified in normative documents, for the comprehensive consideration of the regulatory policy.

The objectives of state regulation are to ensure the growth of the national economy and increase its competitiveness. That is why favorable conditions for entrepreneurs should be created, tax pressure reduced, and interference in competition prevented, since it is the interests of the population as a consumer to be protected by the state both in terms of quality and in terms of limiting activities through licensing, quotas and other administrative leverages. Therefore, regulatory policy and the effectiveness of its instruments use are extremely important and have to be investigated to make scenarios and chose the best one.

Theoretical and Methodological Background of Regulatory policy

In Ukraine, the studies of regulatory policy issues are represented in the works of such scientists as Shibaeva and Baban (2016) who analyze the regulatory policy in a fiscal sphere; Melikh (2016) who researches the regulatory policy in the budget system; Yakovenko (2010) who investigates issues of state bureaucracy of the government and ways to optimize the implementation of regulations; Osadcha and Lyashenko (2010) who examine customs regulatory policy; and Onoprienko (2017) who evaluates government regulation of the demographic situation and others.

However, while there is a large amount of scientific research in the field of regulatory policy, there is still a gap in the modals that include all instruments, and which can explain how factors affect leverages and the goals of regulatory policy.

The purpose of the research is to justify several scenarios of regulatory policy development according to the possible influence of factors on the main purposes of this policy.

Methodology and data

According to the purpose such tasks have been solved. At first, the character of influence from external factors on the regulatory policy has been described. Using scenario modeling the impact of

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every factor was determined. Then several scenarios as the combinations of interaction between some factors were described according to their previous trends. After this the influences of leverages of regulatory policy that must be taken account for these scenarios have been described.

In previous investigations, the model of regulatory policy that includes factors of the external and internal environment of the Ukrainian economy, leverages and goals of regulatory policy was described (Kolupaieva, 2017). This model is static but is has a huge potential for dynamic investigation. According to the cognitive map it is possible to find out which effect each factor has on the goals of the regulatory policy.

The development of the scenarios is based on the analysis of the processes of excitation by the graph (Kolupaieva, 2017), that is, the transition of the system from the state $t - 1$ to t , $t + 1$, ... according to the rule of changing the parameters in the vertices of the graph at time moment t_{n+1} , if at the time moment t_n in the concepts arrives the impulse P . In the formalized form, this process can be described as (Avdeeva, 2006):

$$x_i(t+1) = x_i(t_n) + \sum_{j \in I_i} a_{ij}(x_j(t) - x_j(t-1)), i = 1, \dots, N \quad (1)$$

where $x_i(t+1)$ and $x_i(t_n)$ – value of the i -th factor at time $t + 1$ and t ;

$x_j(t+1) - x_j(t_n) = \Delta x_j(t)$ – increment of the factor x_j at time t ,

a_{ij} – the weight of the influence of the factor x_j , on the factor x_i ,

I_i – the number of factors directly affecting the factor x_i .

The Results of the Scenario Modeling of the Regulatory Policy of Ukraine

To determine the degree of influence of each factor, a simulation of impulse input at the vertex of factors and leverages was performed. Let's consider the value of the most influential factors (Figure 1). Among the most positive are the following leverages: optimizing the amount and size of taxes and creating a favorable legislative environment. The obtained values indicate the maximum efficiency of these leverages in the dynamics, according to the six stages of analysis which were simulated.

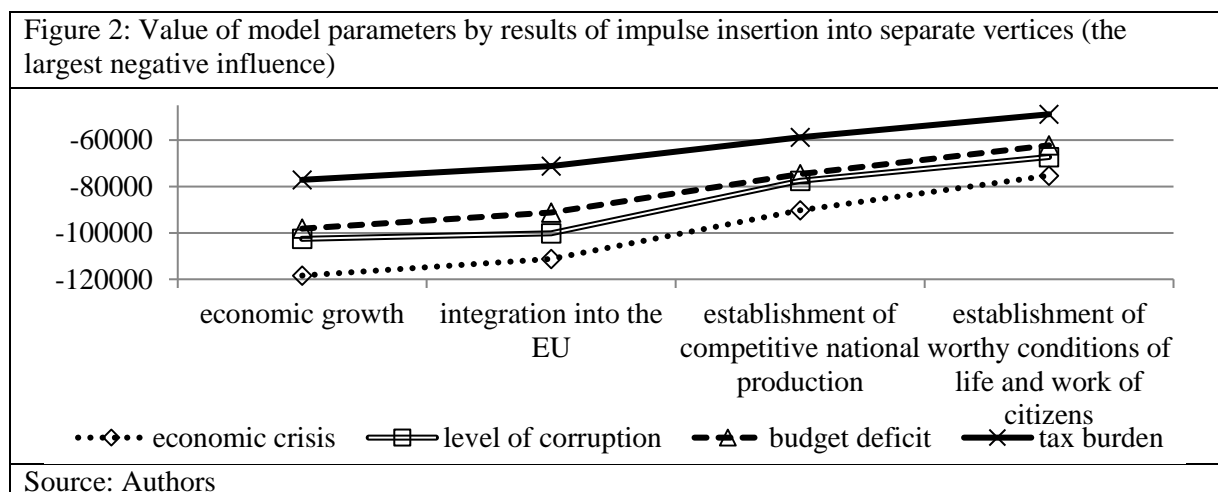
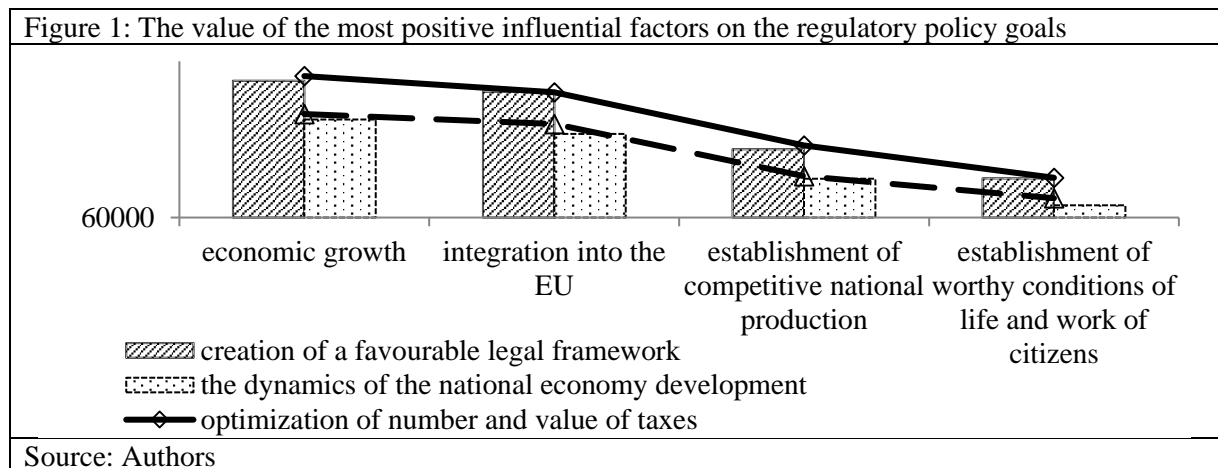
The obtained values indicate that the following goals will be more fully achieved: economic growth and strengthening of integration between Ukraine and the EU countries. To a lesser extent, the competitiveness of national production will be increased and, and the least – the increase of social standards. In general, the effects of factors are similar: all factors are affected proportionate to the objectives of the regulatory policy, reflected by the parallelism of the graphs.

Let us consider the essence of individual parameters. Optimization of the amount and value of tax is leverage and involves, firstly, reducing their amount. As the representatives of the fiscal authorities point out, the reduction in the number of taxes from 22 to 14 is being considered, which will facilitate both simplification of their administration and the reduction of expenses for their receipt. Secondly, it should be emphasized the regulatory role of taxes besides the fiscal (Shibaeva and Baban, 2016). Strengthening the tax burden from the moment (the value of the tax rate) contributes to the growth of the shadow economy. Thus, the lever of optimizing the amount and size of taxes should first of all be aimed at reducing the tax burden for the population.

In fact, the influential impact as a previous factor has the creation of a favorable legal framework. This envisages, first of all, the simplification of the procedures necessary for the opening of entrepreneurship, which will significantly accelerate this process and encourage this type of activity. In addition, the law on regulatory activity should be significantly expanded, defining in it not only the implementation of the policy through regulatory acts, but also those areas, leverages and methods that form regulators. Any business activity is carried out in accordance with the current legislation: obtaining licenses, quotas, standardization. The simplification of legislation will allow the expanding activities, diversifying and obtaining additional revenues by filling the budget and achieving the objectives of regulatory policy.

Corruption, which has one of the worst effects on the regulatory policy system (Figure 2), is one of the major obstacles to the normal functioning of the legislation - it is among the top three leaders for

negative impact on the model's resulting parameters - the goals of regulatory policy, taking second place and trailing only to economic crisis by degree of influence.



In 2017, Ernst & Young Company placed Ukraine at the forefront of corruption among the 41 surveyed countries, including the African continent (2017). Another organization - Transparency International in 2016 in the index of corruption perception - has determined that Ukraine ranks 131 out of 176 countries. These indicators have deteriorated in comparison with previous years, indicating an extremely unfavorable situation, despite the reform of the anti-corruption system, which in recent years has been expanded through the creation of the National Anti-Corruption Bureau (Law of Ukraine "On the National Anti-Corruption Bureau of Ukraine" dated October 14, 2014). In fact, corruption is a bloc for the emergence of a favorable legislative environment. On the other hand, the gaps in legislation are the best basis for the development of corruption. This cyclical link is a significant threat to the national economy as a whole and requires the implementation of appropriate overcoming strategies, which will be discussed below.

The strong influence of the state economic policy, which involves an increase in state intervention, is due to an increase in the level of entropy in the world economy and the proliferation of indicative planning in the developed countries was proposed for introduction in Ukraine. This result is quite obvious, but ensuring the occurrence of this parameter is a difficult task, which does not allow considering the possibility of its strengthening at the moment.

The two next factors according to the level of influence: the participation of the state in the processes of international economic integration and political stability. Regarding the situation in Ukraine, these factors, are improbable due to the current conflict in the eastern part of the country, the slow integration of Ukraine into the world community in addition to the European Union and the collapse of cooperative relations with its eastern neighbor.

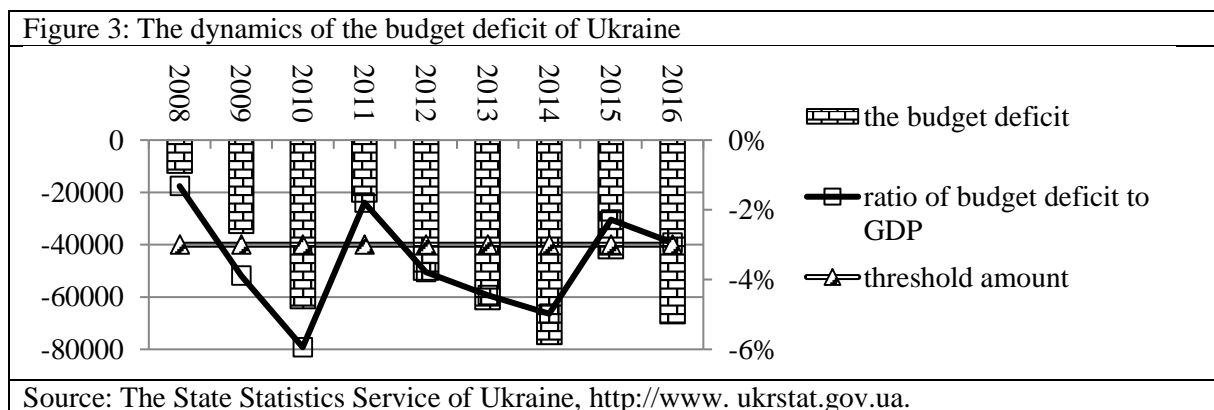
Among the levers that have a strong influence, special mention also should go to state funding and tax holidays / changing the terms of tax payment (delay / tax incentives). Regarding to state funding, it is quite clear that this leverage allows it to achieve the goals of both the development of the national economy and social security. The complexity of the implementation of this leverage is due to its high cost compared with the previous ones. Instead, tax holidays and tax incentives give in fact the same effect, but their cost is significantly lower. Thus, in Ukraine, such tax holidays for taxpayers who meet the criteria (established in accordance with the law after January 1, 2017, or provided that they have been less than three years old since the date of their formation) are in force, the annual amount of their declared revenues does not exceed 3 million UAH, and the number of employees was from 5 to 20 people;

enterprises registered by single tax payers by January 1, 2017 and in which, for the last calendar year, the total sales revenue from the sale of goods and services did not exceed UAH 3 million, and the average number of employees was from 5 to 50 persons and were engaged in the types of activities in addition to those specified in the Law of Ukraine "On Amending the Tax Code of Ukraine for Improving the Investment Climate in Ukraine" (2016).

Tax incentives are in effect valid for VAT in accordance with Art. 195 of the Tax Code which is mainly for export activities. There is also a tax social benefit: if the salary does not exceed the maximum amount of income, which is calculated on the basis of the costs of leaving, taking into account the coefficient. Regarding the delay of monetary obligations (tax debt) of taxpayers, it is carried out by the State Fiscal Service authorities in accordance with the provisions of Art. 100 of the Tax Code of Ukraine, by the resolution of the Cabinet of Ministers No. 1235 "On approval of a list of circumstances indicating the existence of a threat of the occurrence or accumulation of a tax debt and evidence of the existence of such circumstances" (2010).

The next step of analysis is to forecast the possible development of the most negative factors to form several scenarios.

The next leverage, which has a negative impact on the achievement of regulatory policy goals, is the budget deficit (Figure 3).

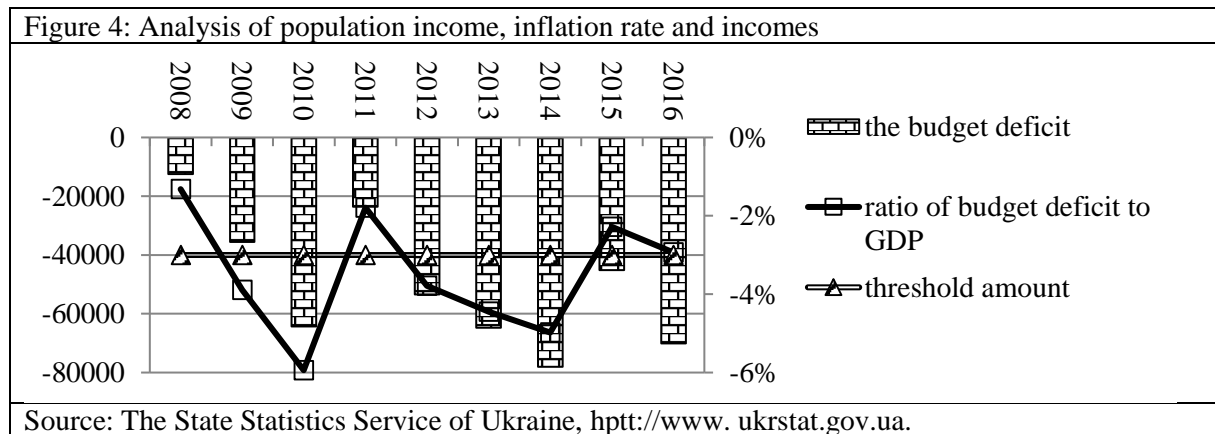


As we can see, this indicator has unfavorable tendencies: from 2008 to 2010 it has grown rapidly, then in 2011 it has decreased. Moreover, the ratio of budget deficit to GDP, is an important macroeconomic indicator, which, according to the Maastricht Treaty (the Treaty on the Establishment of the European Union of February 7, 1993), does not exert a destabilizing influence on the economy of the country, if it does not exceeds the threshold amount of 3% of the GDP (Melikh, 2016). That is, in 2011, it returned to a safe value, and then began to grow until 2014, decreasing in 2015. In 2016, the value was close to the threshold, which in general indicates an exaggeration of this indicator for the recommended values.

Among the factors that also have a negative impact, in addition to the mentioned levers, there is a tax burden and the regulation of the discount rate. That is why we consider the influence of the factors of indicators itself. The most unfavorable is the economic crisis. The economic crisis is a complete phenomenon in the national economy. On the base of analysis the volume and GDP dynamics financial results of Enterprises before taxation, the dynamic of export-import activity in Ukraine,

analysis of population income inflation rate and wages we can maintain that we have already overcome and there are no perspectives for developing this phenomenon.

The next negative factor is inflation. The population's income is known to have several dimensions: nominal and real, corrected depending on the level of inflation, and therefore the third one should be added to these two factors - the level of inflation. The galloping inflation in 2014-2015 led to a decrease in real incomes and wages that was overcome by 2016: all real incomes have grown, thus it is possible to assert the beginning of the overcoming of the crisis phenomena (Figure 4). In general, a significant increase in the cost of traditional imported goods for the long-term population (household appliances, cars) has significantly contributed to the quality of life, which was one of the factors of the emergence of social tension.



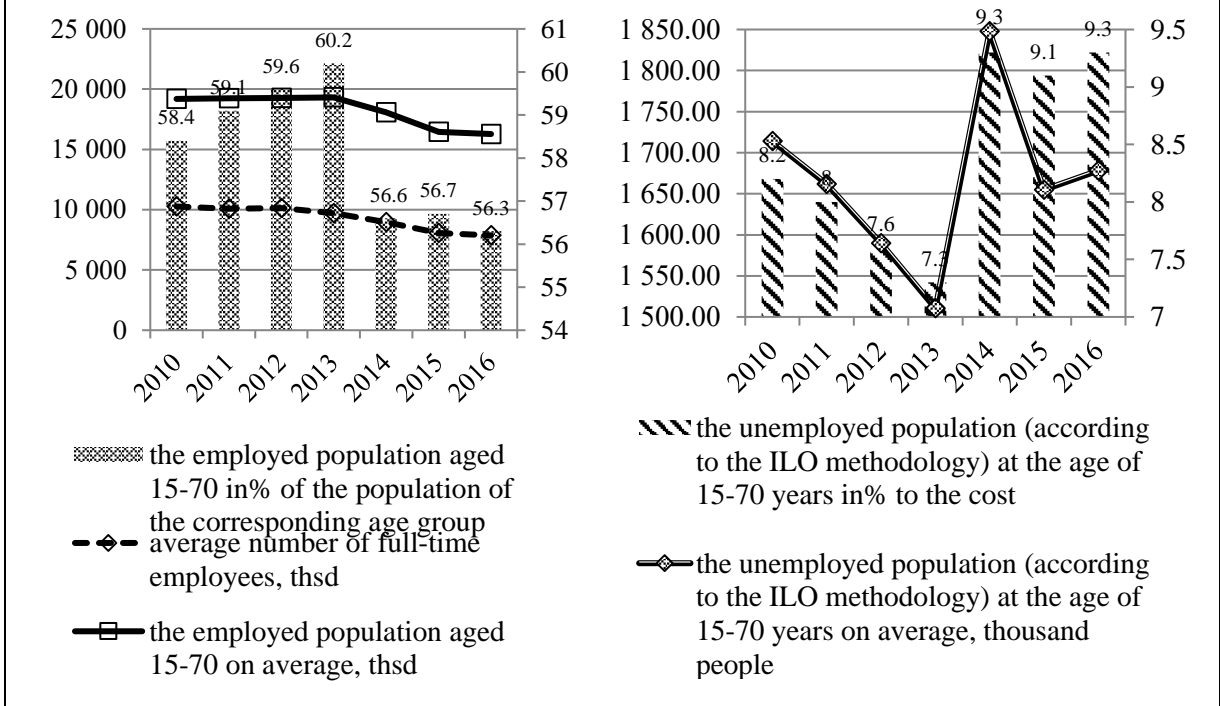
The next negative factor is unemployment (Figure 5). Unfortunately, unlike previous determinants, most of which already have a positive trend, the dynamics of unemployment remains negative. The unemployment rate, which declined during the period of 2010-2013, rapidly increased by 2% in 2014 to 9.3%, and this trend remained unchanged until 2016.

This process goes hand in hand with the reduction of the employed population, and should be noted that the reduction of regular employees in 2015-2016 was faster than that of the employed population as a whole: 9.9% and 2.44% and 9% and 1% respectively. In addition, the number of the economically active population has decreased by 16.8%, and the number of employed in the economy of Ukraine by 18% (Onoprienko, 2017). This shows that the processes of reducing the staffing of the organizations and the enterprise occur faster than other categories of the employed population, reflecting the corresponding processes for the release of personnel at the enterprises.

Among all other factors that negatively affect the goals of the regulatory policy is the level of bureaucratization of the state system. Bureaucratization is the de-professionalization of the management apparatus, which transforms the rational bureaucracy into its pathological form, and the features that it is characterized are the state of social disorganization of the apparatus of state administration and the material failure of the state, which cannot provide a satisfactory standard of living even to those who are in its service (Yakovenko, 2010) **Chyba! Nenalezen zdroj odkazů.**]. In general, bureaucratization is a transformation of the management system (in our study it is the state) into an inefficient self-sustaining apparatus, that is, when the processes of public administration do not meet the current requirements, but require a lot of money (Figure 6). The growth in total expenditures amounted to 148% in 2015, and 20.8% in 2016, while spending on 1 person in the state's population - by 21% in 2015 and 2016. The growing cost of the state apparatus in the current environment is a controversial issue, which also confirms the high level of bureaucratization of state power.

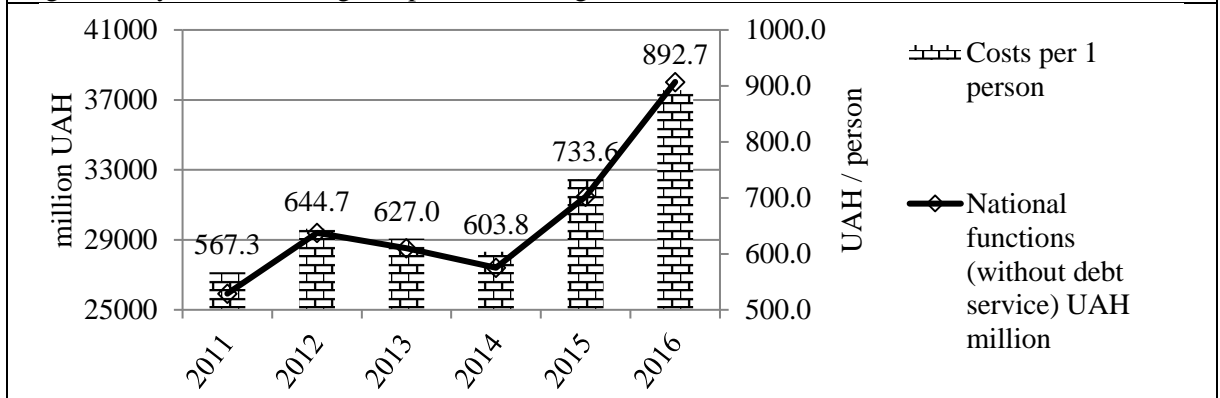
Also, bureaucratization is manifested in the very slow introduction of the e-government in the country, which does not allow the saving of time and money on the provision of administrative services. Additionally, there was the creation of the Center of Administrative Services Providing, which is in fact an additional link in the provision of services but does not affect the quality of their provision. Confusion and opacity of public administration create great prerequisites for the prosperity of corruption.

Figure 5: Analysis of the level of employment and unemployment in Ukraine



Source: The State Statistics Service of Ukraine, <http://www.ukrstat.gov.ua>.

Figure 6: Dynamics of budget expenditures on government administration



Source: The State Statistics Service of Ukraine, <http://www.ukrstat.gov.ua>; The State Fiscal Service of Ukraine, <http://vl.sfs.gov.ua/media-ark/news-ark/print-134346.html>

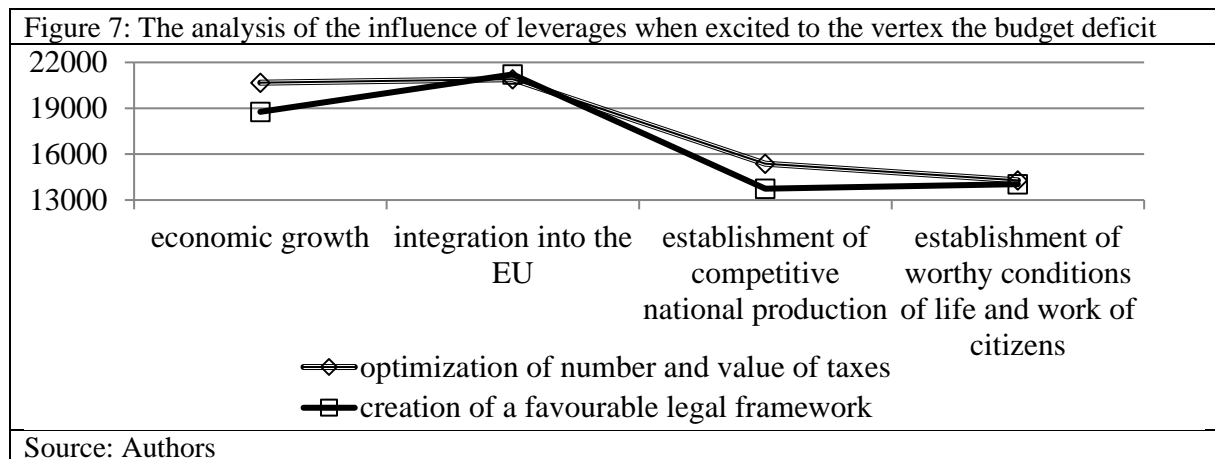
Thus, the most dangerous factors and individual leverages that adversely affect regulatory policy have been analyzed. To determine the leverage that can counteract this negative effect, modeling of the influence of each negative parameter of the model was conducted.

As an example, the effect of leverages to overcome the negative influence of the budget deficit on the regulatory policy goals are illustrated (Figure 7).

The negative impact of the budget deficit can only be offset by the two most significant leverages. According to the link between public debt and budget deficits, it should be noted that the influence of these leverages is parallel, so it is worth simulating their simultaneous impact. The simulation made it possible to assert that none of the leverages individually makes it possible to level the negative influence of these factors due to their high power.

Thus it is necessary to consider the leverages in the interaction. The most influential is the optimization of the amount and value of taxes. So let us take this leverage as a constant and analyze the influence of other leverages in interaction with it. How to expect the greatest result was obtained by the interaction between the optimization of the amount and the value of taxes and the creation of a favorable regulatory environment. Tax holidays, government funding and alternative tax regimes also

have a tangible impact on achieving regulatory policy objectives in conjunction with tax improvements.



According to the dynamics of negative factors and our forecast let's propose three scenarios of influence in the future (Table 1).

Table 1: Description of possible scenarios of the negative factors dynamics for regulatory policy

Description of possible scenarios of negative factors for regulatory policy	Optimistic scenario	Pessimistic scenario	Most probable scenario
Economic crisis	-	-	-
Corruption level	+	+	+
Budget deficit	+	+	+
Tax burden	-	+	+
The level of bureaucratization of the state system	+	+	+
State debt	+	+	+
Inflation rate	-	+	-
Social tension in society	-	+	+
Activities of the Governments of other countries	-	+	+
Unemployment rate	-	+	+
Changes in the market structure of the world market in favor of high-tech products	+	+	+
Impact of globalization in terms of access to new markets, search for new technologies and technology	+	+	+
Interstate and interregional migration	-	+	-
Asymmetry in the labor market	-	+	+
Adjustment of the discount rate	-	+	-

Source: Authors

As a result, it was established that none of the parameters of the economic crisis can be offset by a combination of the two most influential scenarios: the optimization of the amount and quantity of taxes and creating a favorable legislative environment which can achieve positive values of regulatory policy goals. The level of corruption can be overcome with these leverages separately. With the impact of the tax burden, in addition to these parameters, you can fight additional public funding and tax holidays.

Leveling the impact of bureaucratization can be ensured through these variables, as well as: the organization and legal regulation of activities, international agreements on the avoidance of double taxation, alternative tax regimes (simplified taxation system, special tax regimes) and strategic planning, and the support of foreign economic activity.

On social tension - all the mentioned factors have influence and also tax credit / discount. The negative flow of activities of governments of other countries can be leveled by adding to all of the mentioned factors and the deferral of tax debt for enterprises, guaranteeing protection and security, staffing, introduction of a micro-credit system, and sector monitoring / policy / program. The impact of

unemployment is further offset by the ratio of local and state taxes (the share of local taxes), resource protection, legalization of non-taxable income, preferential lending, regulation of prices and tariffs, and the openness of information.

Conclusion

Based on the above dynamics of the negative parameters of the model and taking into account a set of levers that allow this effect to be leveled, we propose scenarios for influencing the factors and possible strategies for implementing regulatory policy. On the basis of the calculations, it can be determined that the basic strategy for the implementation of regulatory policy based on an optimistic scenario of development should include improving the tax system in terms of reducing the amount of taxes, simplifying their administration, reducing interest rates along with extending the tax holidays with the review of existing regulatory acts in particular concerning the regulation of economic activity of enterprises, along with the increase of state financing.

When implementing the most probable scenario for these measures, it is necessary to add a program to avoid double taxation, expand the scope of alternative tax treatment and engage in the development of foreign economic activity. In a pessimistic scenario, in the mentioned event, it is necessary to include leverage on the organization and legal regulation of activities. Taking into account the budget deficit, the probability of state funding is low, that is why, in the absence of this leverage, it should be replaced by accelerated depreciation.

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