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MODELING SITUATIONS IN FOREIGN ECONOMIC ACTIVITY

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Abstract:
Criteria of making decision in foreign economic activity are considered in the paper. The tools of foreign trade, foreign exchange policy and investment policy are analyzed. The risk of tools choosing of foreign economic policy and stability in foreign policy are investigated. It is shown that the stability of the foreign economic system is determined by the presence of the subsystem of risk management of the occurrence of adverse conditions, which involves the definition of an integrated risk indicator for choosing a foreign economic policy strategy.

Key words: foreign economic activity, risk, stability of the foreign economic system, tools of foreign economic policy.

JEL classification: C60, F21, F42.

1.INTRODUCTION

When making decisions, the simulation of problem situations is widely used, which is a powerful analytical tool. Situation simulation and development of management solutions involve systematic, comprehensive study, measurement and generalization of the expected (possible) influence of factors on the results of the object of management by processing using the special techniques the system of indicators that best characterize the subject of management with the aim of increasing the efficiency of those activities.

According to the current trends in world development, the importance of foreign economic policy of the state increases. The establishment of new standards of implementation of foreign economic relations and their effectiveness requires the introduction of a rational management system of foreign economic activities. That is why the analysis of problems connected with the influence of factors is getting the actual relevance that ensure the effectiveness of external relations of economic entities and on this basis - improving the decision-making process in foreign economic activity.

Properly formulated and developed foreign economic policy is a guarantee of the successful development of the country's economy, achieved by the ability to timely respond to changes in the environment, to adjust to up-to-date trends.

2. LITERATURE REVIEW

Foreign economic policy (Madiyarova D.M., 1999) is a system of activities in the government, aimed at achieving the economy of certain advantages in the world market and, simultaneously, to protect the domestic market from competition of foreign goods, that is, it is an important link of foreign, domestic and economic policy of the country. The content of foreign economic policy is stipulated by the inner environment and respectively, the tasks of the national economy, and also the combination of external factors. The interconnection of foreign economic policy with the domestic policy of the country is manifested in the increasing interaction of national economies in a complex world system of coordinates.

The complex of governmental steps on foreign economic policy contributes to achieving the following main goals:

- creating conditions for access and functioning of domestic production branches in the world market
- providing the national entities with favorable conditions for foreign economic activity through the formation of rational trading regimes in relations with trade unions, individual countries and organizations, as well as monetary and financial platforms, which contribute to the regulation of interconnections with the international native financial organizations, creditor countries and debtors,
- providing the protection of foreign economic interests and national security of the country.

It should be noted that foreign economic policy plays a special role in the economic development of the state, performing the following functions:

- transformation (the policy of development of areas and regions in the field of import and export of goods, the capital, labor force, etc.)
- mobilizing (access to certain markets, maintaining positions on them and expanding foreign markets)
- balance (national interests in conjunction with the interests of the blocs of countries).

Foreign economic policy allows to record the progress of transformation models of the development of individual countries and to determine common values (overcoming the contradictions within the country, adapting to the new economic mechanism, the dominant inorganic for a given society culture), as well as the nature of the methodical ways of policy implementation .

The main goal of foreign economic policy of the government (Balabanov I.T., Balabanov A.I., 1998) is the active regulation of its foreign economic relations. As for the other main goals of foreign policy, the following points should be included: autarky, protectionism, economic welfare and growth, economic warfare, as well as balanced payment balance and economic security. Each goal is achieved with the help of using certain instruments of foreign economic activity. It should be noted that at present the foreign economic policy of the government is directed towards the maximum possible achievements of a certain set of goals, and not a single one.

3. RESULTS AND DISCUSSION

Therefore, because the foreign economic policy of the government is a deliberate activity of the state in relation to the formation and use of foreign economic relations to strengthen its potential (political, economic, social, environmental, etc.) and effective participation in the world economy, one should carefully approach the choice of tools for implementing and targeting this policy. Ineffective or inefficient implementation of foreign economic policy leads to the negative consequences.

In the implementation of foreign economic policy, one should take into consideration the system characteristics of economic decisions such as risk and reliability, elasticity, agility, flexibility, inertia, survivability, sustainability, etc.

The current economic system of the country as a whole and the foreign economic relations in particular should be organized in such a way so that it can ensure not only the effective and viable functioning of the economy, but also minimize the main threats to its stability, stability, survival, efficiency and competitiveness.

One of the main system characteristics of foreign economic activity is sustainability. The stability of the system reflects its ability effectively to withstand the internal and external loads, the ability to change its internal structure adequately and quickly in accordance to the changing conditions. The more stable the system will be in adverse events, the more viable it will be.

The concept of stability of the system is considered from the standpoint of its possible equilibrium. If the state of the system is known, and potential disturbances are predicted, then it is necessary to analyze whether the system can return to its original position after displacement. Resilience determines, in particular, that the system will not be transformed under conditions of stochastic influence of external factors (perturbations or threats). In this case, the stability involves not only the inertia and insensitivity of the system to external threats, but also its flexible response to the changes in the internal and external conditions of the functioning of the system, in order to ensure the stability of its socio-economic status.

The stability of the country's economy mainly depends on effective foreign economic policy.

Foreign-economic policy on a spatial aspect is divided into foreign trade, investment, foreign exchanges and customs policies. Each of these policies has its own set of tools.

Two main directions of foreign trade policy, as in general foreign trade, are freetreading and protectionism. The general objectives declared by the government are specified in the current tasks of improving the trade balance. The state is striving for certain foreign trade activities through selected instruments and methods of economic policy, namely:

1. Foreign trade tariffs.
2. Non-tariff barriers.
3. International treaties with state integration associations and economic organizations.
4. Subsidization and guarantee of export-import.
5. State coordination of foreign trade and activity of enterprises.

The main instruments of foreign trade and customs policies are by their nature divided into tariffs - those based on the use of customs tariffs, and non-tariff ones. Non-tariff methods of regulation, in its turn, are divided into quantitative methods and methods of hidden protectionism.

There are four groups of investment policy tool.

The first is so-called direct instruments (sometimes called active ones): investment from the state budget in the form of long-term and short-term financial investments, sale of assets and provision of state guarantees and orders to investors and creditors. These also include the protection and insurance of foreign investment and the development of collateral transactions at the state and regional levels.

The second is the derivative instruments. These are forms of investment promotion, based on civil-law agreements on the revenue side of the state budget. They are widely used in world practice. These include tax breaks, leasing and other economic incentives.

The third is the legal instruments that determine both the mechanism of investment activity and the form of control over it. This includes legislative and regulatory acts that regulate financial and investment activities, legislation on joint stock companies and enterprises created in other organizational forms of law, central bank resolution and some other documents.

The fourth is the organizational tools: information and analytical support of investment activity, monitoring of its effectiveness, promotion of investment projects in the capital markets.

The main of the above groups of investment regulatory instruments (Baev S., 2001) are as follows:

1. Tax incentives, including:

a) tax holidays, which are provided, as a rule, to new companies for a certain period and for certain types of taxation, especially taxes on income. The term is limited, mainly, from 1 to 3 years;

b) tax incentives for investment and tax credits, which create legal opportunities for tax avoidance, primarily through reinvestment. At the same time, the state is counting on the expansion of production;

c) creation of free economic zones with a special tax regime;

d) tax exemptions are not related to income, especially social insurance and customs duties. The greatest value here is the customs duties on investment goods;

e) tax incentives for individuals who promote domestic investment.

2. Credit and investment regulation.

a) state investment in those areas whose products are of a nation-wide nature and which are not subject to privatization in the near future;

b) the implementation of credit expansion or restriction that encourages or restricts investment activity by changing the discount rate;

c) transactions in the stock market, precisely: issue, sale, purchase;

d) regulation of the norms of obligatory or minimum reserves of central banks. Increasing norms reduces the credit resources of commercial banks.

Foreign exchanges control is an integral part of the foreign exchanges policy of the state in the field of monitoring and overseeing the observance of legislation in the field of foreign exchange and foreign trade operations. Foreign exchange controls include:

- control over movement through the customs border of currency values;
- control over foreign exchange operations;
- control over the fulfillment by residents of liabilities to the state in foreign currency.

The combination of choosing the purpose and tools of foreign economic policy can be represented as follows (Fig. 1).

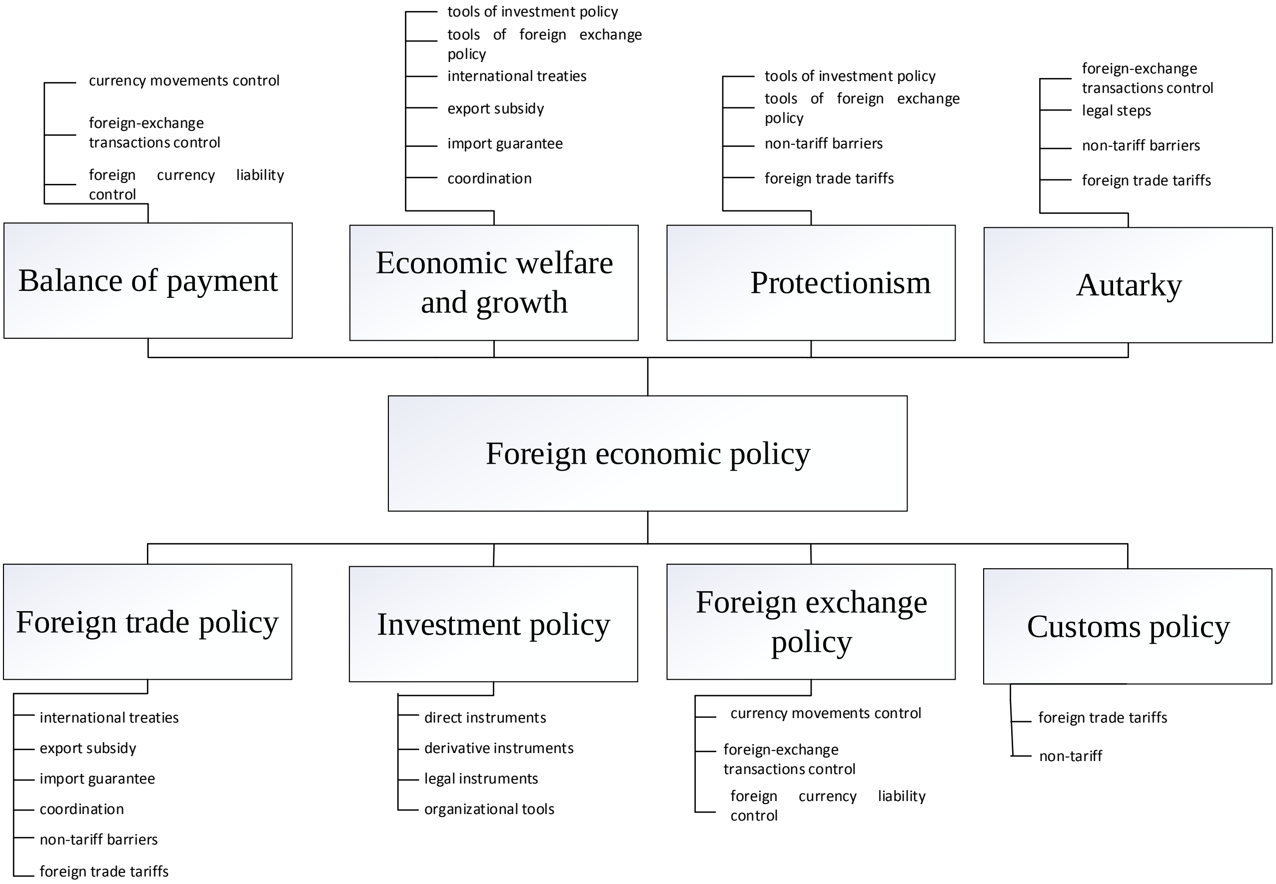

Figure no.1. Tools of foreign economic policy

The process of determining the set of instruments of foreign economic policy is inherent in the risk. In our opinion, the choice of the strategy of foreign economic policy can be divided into three stages, burdened with appropriate risk. At the first stage of the election, the direction of foreign economic policy is formed. At the second stage there is a choice of a set of goals of foreign economic policy. And in the third stage the tools of foreign economic policy are chosen (fig. 2).

For a qualitative and quantitative assessment and further reduction of the risk of choosing instruments of foreign economic policy, it is necessary to create a certain theoretically rational portfolio of instruments for implementing this policy. The formation of a portfolio can be based on the above three steps. By selecting the main policy direction, with the help of peer review and analysis of existing alternatives, a set of acceptable tools is created, which meets the criteria of optimality.

Deviation from the theoretically optimal portfolio of foreign economic policy instruments in any direction will be the risk of wrong choices of foreign economic policy instruments.

Deviations can be triggered by a number of reasons:

- the dynamic structure of economic processes;
- irrational use of policy tools;
- lobbyist influence on the policies of individual structures;
- not accepting some instruments due to differences in ethnic and cultural priorities, etc.

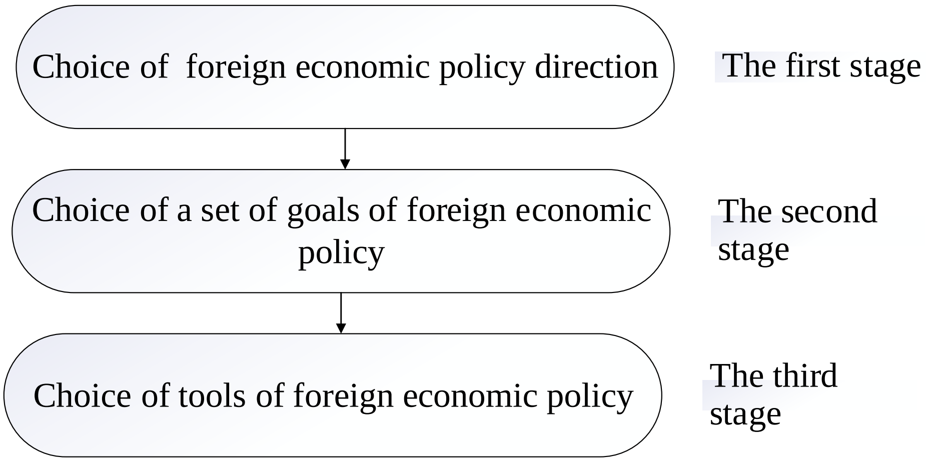

Figure no.2. The process of creating a set of tools for foreign economic activity

For the quantitative determination of the risk of choosing foreign economic policy, it is necessary to determine the criteria of effectiveness. One of the options of the criterion of policy coherence for the purpose of economic prosperity and growth, as well as balance of payments stability, is the use of the indicator of the efficiency of foreign trade activity (Makogon Yu.V., Kravchenko V.A. et.al., 1999; Molchanov A.P., 2013):

$$E_{FT} = \frac{P_{ex-im}}{C_{ex-im}}, \qquad (1)$$

where E_{FT} – is the indicator of the efficiency of foreign trade activity, P_{ex-im} – profit from export-import activity, C_{ex-im} – costs for export-import activity.

There are many indicators for assessing the effectiveness of an investment policy, including NPV, IRR, and others. Given the specifics of the state policy of the transition period, we consider it necessary to use also the indicator of the payback period of investments.

In a number of scientific works, as a quantitative assessment of the economic effect of investment policy, the net present value is used (Molchanov A.P., 2013):

$$NPV = \sum_{t=0}^{T} \frac{D_t}{(1+r)^t} - \sum_{t=0}^{T} \frac{I_t}{(1+r)^t} = \sum_{t=0}^{T} \frac{NCV_t}{(1+r)^t},$$

where D_t – earned income in the period t from investments, I_t – investment costs in the period t, I_0 – initial investment, r – risk discount rate, NCV_t – net cash flow during the period t, $t = \overline{0,T}$ – time of the investment process.

However, based on the specifics of the investment climate in Ukraine, we consider that one of the common measures of attractiveness for foreign investors is the payback period (Makhanets L.L., 2002).

It should be emphasized that the choice, as an indicator, of the payback period allows you to select a project among a series of generated with a minimum payback period. It is necessary to emphasize that this indicator, along with the internal rate of return, is chosen as the main method in the assessment of investment projects involved in the competitive distribution of centralized investment resources.

The payback period is important for a foreign investor in the Ukrainian market, since the lower the payback period, the less there is the likelihood of changes in legislation, liquidity, etc. It turns out that the risk of a foreign investor investing in Ukrainian enterprises is growing with the increase in the payback period of the project.

The purpose of this method is to determine the length of the period during which the project will work, which is called, "on itself". At the same time, the total amount generated by the project, the main components of which are the net profit and the amount of depreciation (ie, net cash flow), is credited as a return on investment capital.

In the general case, the calculation of a simple payback period is made by gradual, step by step deduction from the total investment costs of the net effective cash flow for one planning interval. The number of the interval in which the balance becomes negative corresponds to the desired value of the payback period of the investment.

In the case of the assumption of immutable cash flows, a simple payback period is calculated using a simplified method based on the following equation:

$$T_{ok} = PBP = \left\{ T \;\middle|\; \sum_{t=0}^{T} \frac{TIC_t}{NCV_{t+1}} = 1 \right\},$$

where PBP – payback period, expressed in planning intervals, TIC_t – total investment cost of the project.

The calculation of a simple payback period, by virtue of its specific visibility, is often used as a method of risk assessment associated with investing. Moreover, in the face of a shortage of investment resources (for example, in the initial stage of business development or in critical situations), this indicator may be most significant for making the decision to make capital investments.

The criteria of the effectiveness of foreign exchanges policy are the following: forecasting dynamics of the exchange rate of the national currency, the balance of supply and demand in the foreign exchange market without massive foreign exchange interventions by the central bank, provision in the foreign currency of the needs of the state, economic entities; the stability of the sources of foreign exchange earnings, the consistency of interests of importers and exporters, which is related to balancing the balance of trade balance, the independence of the national currency policy; co-ordination of current and strategic tasks of foreign exchange policy with debt, monetary policy.

It should be noted that one of the main objectives of the economic system is the most complete satisfaction of the needs of the national economy, the creation and maintenance of an economic base that can ensure the fulfillment of this requirement. To do this, you need to have sufficient material, financial and other resources to influence the development of socio-economic processes, as well as effective tools and mechanisms for influencing the economic system. The principal opportunity to achieve such a position is a sign of the manageability and sustainability of the economy. By the last term, we understand the ability of the system to maintain socio-economic stability (viability) for a constant change in the conditions of operation.

Thus, the economic stability of the system is determined by the presence of the subsystem of risk management of the occurrence of adverse conditions, which involves the definition of an integrated risk indicator for choosing a foreign economic policy strategy.

For a rational use of policy tools and the choice of their structure aimed at achieving effective foreign economic policy, we propose to use the following integrated risk indicator for choosing a specific foreign economic strategy from possible options:

$$r = \prod_{i=1}^{n} (1 + p_i)^{k_i} - 1, \; k_i \geq 0, \; \sum_{i=1}^{n} k_i = 1, \; i = 1, ..., n \qquad (2)$$

where p_i – the normalized indicators of the degree of risk of the relevant criterion of foreign economic policy, determined by the threshold values of indicators, and k_i – the proportion of the relevant risk indicator. These specific weights can be determined by using the hierarchy method, as well as the method of fuzzy sets described in a number of scientific papers. However, the adaptation of the described methods to foreign economic activity is required.

In determining the limits of the optimality of the proposed indicators, we suggest using similar indicators for countries with similar parameters of foreign trade and balance of payments (for Ukraine - it may be Czech, Poland, Romania etc.).

4. CONCLUSIONS

Having defined the criteria in accordance with the purpose and strategy of the country's economic development for the quantitative measurement of the risk of choosing foreign economic policy instruments and modeling of situations in foreign economic activity, one of the alternative options can be used as a system of adequate detailed risk indicators and an integrated indicator of the degree of risk of choosing a particular foreign economic strategies for possible options.

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