Տնսոեսական քաղաքականության հիմնախնդիրներ Проблемы экономической политики Issues of Economic Policy

# THE KEY MACROECONOMIC TASK AND THE ART OF ECONOMIC REGULATION Tavadyan A.\*

**Abstract.** Key indicators constitute nodes that link economic processes into one system. To obtain acceptable results in the study of economic interrelations, it is necessary to identify the uncertainty intervals of key indicators and their precise coupling.

The necessary conditions for the effective functioning of economic system are the determination possible intervals for key target, normative and regulatory indicators, the systematization of the key indicators, their presentation in the form of a single macroeconomic task.

Overcoming the sensitivity thresholds of target indicators is crucial for stable economic development. If the sensitivity threshold of the target indicator is not reached, qualitative changes in the economy are unlikely. Regulatory indicators, as well as the normative ones, should have the highest possible probability of being in the minimum interval, because their deviation from the interval immediately changes the rules of the game in the economy.

The paper discusses the art of regulation of economic processes, which is the formation of regulatory indicators in acceptable intervals to overcome the sensitivity thresholds of target indicators in the condition, when the normative indicators are in the favourable intervals.

**Keywords:** Economic indicators, Sensitivity thresholds, Intervals of uncertainty, Macroeconomic task, Forecasting, GDP, Exports, Trade balance, Employment.

JEL Classification: C13, C18, E30, E40, F15.

#### 1. Introduction

A necessary condition for an effective economic policy is the systemization of key indicators and the detection of their uncertainty intervals. Key indicators constitute nodes that link economic processes into a one system. Links of key indicators accumulate other connections of economic processes and present them in a condensed form. The U.S. government estimates around

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45,000 economic variables, but non-governmental sources keep track of at least 4 million data (Achuthan and Benerji, 2004). In this case, many of the formulated variables will be of minor importance, which do not play a significant role. It is quite true that statistical forecasts, especially economic ones, where data are filled with noise, are more convincing if they are supported by theories, or at least accompanied by an analysis of their fundamental basis. (Silver, 2012).

Consequently, to obtain acceptable results in the study of economic interrelations in synthesis with the analysis of objectives, normative constraints, and the basic principles of regulation in the economy, it is necessary to present the nodes, which accumulate other links. A system approach and a precise mating of key economic indicators are exceptionally important for economic development.

The economic system has sensitivity thresholds, i.e. states that make it possible to reveal the critical characteristics of key economic indicators, which allow to suggest their subsequent transition to a new quality (Tavadyan, 2014). A comprehensive study of the sensitivity thresholds assists to reveal their numerical parameters, as well, as the interrelations of the economy.

The systematisation of sensitivity thresholds allows to determine the direction of transition of quantity to the new economic quality, which is the most conducive to development of an economy. Achievements in economic policy will never lead to significant qualitative changes if the critical values of key characteristics are not met. A change in any economic indicator does not automatically mean a qualitative change in the sphere it characterizes and much less - that the threshold of sensitivity has been overcome. The sensitivity threshold of an indicator occurs when the probability of transition to a new economic quality increases significantly in a particular area of the economy. Economic indicators are dynamic and the formation of their possible sensitivity thresholds, the knowledge that they exist, of course, contributes to the correction of forecasts.

Without overcoming the sensitivity thresholds that contribute to the development of economy, it is impossible to achieve an acceptable level of stability, which ensures its economic security and creates preconditions for the effective realization of the economic potential.

The analysis of the critical characteristics of the key economic indicators - GDP, exports, trade balance, employment, inflation, central bank rate,

reserve ratio, national currency exchange rate, level of monetization and foreign exchange reserves, national debt, the level of taxation, allows to lay down the parameters of the sensitivity thresholds of economic policy. Sensitivity thresholds of key economic indicators actually act as reference points of economy which have to match the adopted decisions.

#### 2. Target indicators and their sensitivity thresholds

In the most consecrated form, the key indicators are given, and moreover, are legislated in the so-called "Magic square". In 1967, Germany adopted the act to promote economic stability and growth, which formulated the basic principles of economic policy in order to avoid a subjective approach. The principles for the key indicators required as the basis for the preparation of budgets, financial plans are as follows: steady economic growth, balanced foreign trade, a high level of employment, and price stability.<sup>1</sup>

In a concentrated form the "Magic square" indicators represent the key indicators of an economy. They have to be considered as a unified system. Attempt to single out only one indicator, without taking into consideration its close relationships with other key indicators, does not give a quality result, especially in the long run.

In this case, the so-called Goodhart's law may snap into the action (Goodhart, 1975). Once a government or a central bank begins to use only one indicator, its significance may not correspond to the economic reality. For example, if only the minimum inflation is achieved at the expense of an excessively high central bank interest and reserve rates, reduction of foreign exchange reserves, low monetization, then the result of this non-systemic inflation will be negative and it will not contribute to the development of the economy. Focusing on just one indicator makes the economic system volatile. Even if a certain growth of GDP is recorded, it cannot ensure the stable development of an economy and counteract crises.

It is reasonable to present the primary objective of economic development in a synthetic form. Which is overcoming the sensitivity threshold of GDP growth + a substantial increase in exports + a significant improvement of the trade balance + employment growth (Tavadyan, 2019). These reference points are purposely presented in an interrelated form, because that is the effective way to successfully solve the economic problems.

<sup>&</sup>lt;sup>1</sup> «Act to Promote Economic Stability and Growth», 8 June 1967, http://bit.ly/2FUajzK.

If the economic growth of less than 1% is critical for the developed countries, the experience of fast-developing countries shows that for significant economic development, especially for transforming economies, the annual GDP growth must not be less than 5%. The world's average level of GDP per capita, which is 10 thousand dollars, can serve as a benchmark here. For developed countries, where GDP per capita is much higher, in terms of improving living standards, 1% GDP growth represents a threshold of sensitivity. For transforming economies, the approximate sensitivity threshold for GDP can be presented as follows:

- GDP growth  $\leq 0\%$  stagnation,
- 0% < GDP growth < 5% quantitative economic growth,
- 5% ≤ GDP growth an approximate threshold of sensitivity for the GDP of a transforming economy, which creates conditions for qualitative growth.

$$\begin{array}{lll} Stagnation & \leq 0\% < & \begin{array}{ll} Quantitative & < 5\% \leq & \\ economic \ growth \end{array} & < 5\% \leq & \begin{array}{ll} Qualitative \\ economic \ growth \end{array} \end{array}$$

GDP growth of at least 5% is possible if there is no significant negative trade balance and worsening of the balance of payments. For this, the primary condition is that the ratio of exports of goods and services to GDP for small economies is not less than 50%. Moreover, finished products with high added value should prevail in exports. This is based both on practice and on theoretical studies.

Substantial export growth is crucial, especially for the economic development of small economies, because the domestic market is limited by definition. In developed countries with small economies, the ratio of exports of goods and services to GDP is not less than 50%, for it is obvious that in a small economy the market is also small and exports become a decisive factor. Of course, the system approach is necessary for this key indicator as well. The coordination of economic programs, aimed not only at the growth of exports, but also at achieving 50% of the ratio, becomes the most important factor of the priority objective, especially in small economies. At the same time, it is necessary to modernize the structure of exports, as well as to determine the appropriate mechanisms to achieve this result, and the threats and opportunities to counter them. Only when the export-to-GDP ratio reaches 50%, there is a high probability of overcoming the critical line – the threshold of sensitivity for economic development. At the same time,

exports will fully play the part that is necessary for the substantial positive qualitative changes in the economy.

#### Exports / GDP $\geq$ 50%

The probability of reaching this rate increases significantly if the trade balance - the difference between exports and imports, is not negative

#### Trade balance ≥ 0

moreover, employment of the population is not less than 90%.

#### Employment ≥ 90%

So, the sensitivity thresholds of target indicators that need to be overcome can be systematized as follows:

• GDP growth	≥ 1% ≥ 5%	for developed countries for transforming economies
• Exports / GDP	≥ 50%	for small economies
• Trade balance	≥ 0	
• Employment	≥ 90%	

These bounds represent sensitivity thresholds of the key target indicators. If these target conditions are not met, the qualitative changes in the economy – the transition of the threshold of sensitivity of economic development is unlikely.

Sustainable economic growth, balanced foreign trade, and a high level of employment are certainly the basics for key target indicators in economy. As for inflation, it is a key normative indicator, interconnected with target indicators. Price stability corresponding to the target indicators is a necessary condition for creating an opportunity to obtain the best results of the target indicators.

#### 3. The favourable intervals of normative indicators.

Of course, price stability corresponding to the economic system is not the only necessary condition for economic development. Subsequently, the EU developed the Maastricht criteria, which are normative in nature. These criteria were consolidated in the Maastricht Treaty in 1992. The following key indicators of a normative nature are as follows: the state budget deficit, the state debt, the inflation rate, the national currency rate, and the interest rates on government bonds. The bounds for these indicators are presented.

Similar conditions to the Maastricht criteria, have been implemented by other unions. For example, in the Eurasian Economic Union, these indicators are formulated on similar basis, taking into consideration the specifics of countries with transforming economies. The Treaty on the EAEU presents requirements for regulatory key economic indicators that determine the stability of economic development.<sup>2</sup>

The table presents the Maastricht criteria that ensure the balanced functioning of the economic and monetary union of the EU and the economic indicators that determine the stability of the economic development of the EAEU, according to the EAEU Treaty. In Eurasian Economic Union the principles of coordination of monetary policies are not developed. The level of stability of a key indicator – the national currency exchange rate, which has a regulatory function, is not actually determined by the EAEU Treaty.

It should be noted that both the Maastricht criteria and the criteria of key economic indicators presented in the Treaty on the EAEU are synthetic in nature. Therefore, even the key indicators presented in the Treaties should be considered with a certain conditionality. The level of monetization of the economy, as well as the level of foreign exchange reserves, directly related to inflation should be considered as normative indicators.

Changing the uncertainty interval (Tavadyan, 2012) of one key indicator can lead to a change in the interval of another indicator, because they are interconnected in a single system. Consequently, economic conditions - regulatory and normative indicators, as well as target indicators - should be estimated in intervals. Such a problem, certainly, cannot have a point solution.

<sup>&</sup>lt;sup>1</sup> «Introducing the Euro: Convergence Criteria», http://bit.ly/2FWleZY.

<sup>&</sup>lt;sup>2</sup> Договор о Евразийском экономическом союзе, Астана, 2015. (Treaty on the Eurasian Economic Union, Astana, 2015)

 $\it Table~1.~EU~Maastricht~criteria~and~main~macroeconomic~indicators~of~the~EAEU$ 

INDICATOR	EU	EAEU
Annual government deficit	The ratio of the annual government deficit to gross domestic product (GDP) must not exceed 3% at the end of the preceding financial year. If this is not the case, the ratio must have declined substantially and continuously and reached a level close to 3%.	The annual deficit of the consolidated budget of the government sector must not exceed 3% of GDP.
Government dept	Public debt should not exceed 60% of GDP at the end of the fiscal year or strictly approach this level.	The debt of the government sector should not exceed 50% of GDP.
Inflation	The inflation rate of a given Member State must not exceed by more than 1,5 percentage points that of the three best-performing Member States in terms of price stability during the year preceding the examination of the situation in that Member State.	The annual inflation rate in annual terms (December to December of the previous year, as a percentage) should not exceed 5 percentage points of the lowest inflation rate in the member States.
Exchange Rates	The observance of the normal fluctuation margins provided for by the exchange-rate mechanism of the European Monetary System, for at least two years, without devaluing against the Euro.	The Treaty on the EAEU does not formulate specific conditions on the exchange rate.
Long-term interest rates	The nominal long-term interest rate must not exceed by more than 2 percentage points that of, at most, the three best-performing Member States in terms of price stability.	There is no article regulating interest rates on government bonds.

Forecasts depend heavily on economic policy. If normative or regulatory indicators change and they fall out of acceptable and favourable intervals, there may be a significant deviation of the results from the forecasts of the target indicators. It is sufficient to note the normative and regulatory indicators should be in favourable and acceptable intervals, respectively.

If for developed countries the inflation is favourable in the interval of  $0\% \le \text{inflation} \le 2\%$ , then for countries with transforming economies inflation is acceptable in the interval of  $2\% \le \text{inflation} \le 5\%$ .

Inflation in transforming economies below 2% and above 5% is usually accompanied by significantly high central bank real interest rate (CBRIR), which is more than 2%. In addition, inflation above 5% and, it may seem paradoxically, below 2% can dramatically increase the risk of uncontrolled inflation processes. The extremes of the interval actually represent approximate thresholds for inflation.

Let's stress that the economic policies of developed countries should not be equated to the transforming economies. The practice of literal duplication of economic policies of developed countries in a transforming economy is inappropriate and the result is unlikely to be comforting.

Precisely the inflation corresponding to the real state of the economy makes it possible to gradually and further reduce inflation and, most importantly, to ensure its long-term stability. Only the strategy that takes into account the real relations is favourable for positive changes in the economy.

The indicated intervals in practice contribute to economic growth, because the most possible low inflation should meet the following conditions: it must not contribute to the worsening of the trade and payment balance, unemployment, reduction of the monetization level and of foreign exchange reserves.

It is clear, that a monetary policy consistent with fiscal policy, which stimulates economic growth and ensures financial stability, as well as price stability, is preferable, rather than an out-of-system price stability policy. Naturally, a central bank is independent in the implementation of its activities, but the monetary policy is obviously in a unified economic system.

With a system approach to price stability, when inflation is in a favourable interval, the level of monetization should meet the following conditions:

Level of monetization	≥ 50%	threshold of sensitivity
	≥ 70%	favourable threshold of sensitivity

The level of monetization exceeding 50% is a necessary condition for stable economic growth, the level of monetization exceeding 70% is a favourable threshold of sensitivity for economic development. Otherwise, the level of monetization will not be respectively sufficient and favourable for investment, development and application of new technologies, significant development of infrastructure, production of new goods and services.

The optimal interval of foreign exchange reserves should be as follows:

#### 33% of Imports ≤ Foreign exchange reserves ≤ 100% of Imports

If foreign exchange reserves cross the lower bound, this dramatically reduces the potential for regulation through foreign exchange reserves. In this case the possibility of a positive impact on the financial stability through this regulatory indicator is significantly limited. If foreign exchange reserves exceed the value of imports, it can significantly reduce the growth potential of an economy, because the growth of foreign exchange reserves can occur at the expense of economic growth.

According to the Maastricht Treaty, public debt should not exceed 60% of GDP at the end of a fiscal year, or steadily approach this level. In the EAEU, this condition is even stricter: the public debt should not exceed 50% of GDP. Taking in account that the economic system is less resistant to unexpected shocks, especially in transforming economies, and that public debt has a high percentage of external debt, this limitation is more appropriate for such countries.

Government debt.	≤ 60%	threshold of sensitivity for developed countries
	≤ 50%	threshold of sensitivity for countries with transforming economies

The annual government deficit should not exceed 3%.

#### Government deficit $\leq 3\%$

The interest rate on government bonds is actually guided by the central bank interest rate, which is a key regulatory indicator. The "price" of the national currency, its exchange rate, which is directly related to the level of inflation, also has a regulatory nature. Taking into account the permissible intervals of regulatory indicators, the complex implementation of the selected restrictions of key economic indicators is a complicated problem of regulating economic processes.

#### 4. The admissible intervals of the regulatory indicators

Key regulatory indicators in all developed, emerging, and transforming economies are similar. Target indicators have intervals of economic development, for normative and regulatory indicators those are favourable and acceptable intervals.

Monetary indicators primarily respond to changes in the economic system. They are more elastic and have a permanent regulatory nature, unlike fiscal indicators, which are usually necessary legislative procedures that require some time to change.

The CB rate plays a leading role in the regulation of inflation, although the reserve rate, which regulates the national currency, and the transactions of government bonds, plays a certain role.

Let's present the lower and upper interval bounds of the CB rate. Inflation has a key part in the lower bound of the interval. The CB rate should not usually be less than the inflation. Since inflation changes depending on the economic situation, the benchmark for the lower bound of the CB rate also changes.

The key benchmark for the upper interval bound of the CB rate is the profitability in areas that provide scientific and technological progress minus the net interest margin for banks. This plays a decisive role for the upper bound of the central bank real interest rate (CBRIR, the difference between the CB rate and inflation), which, as shown by the experience of countries in periods of significant economic growth, cannot be more than 2%.

If the sensitivity threshold is factored in than the allowable interval of CBRIR is as follows: the lower sensitivity threshold is a threat to inflation, the upper sensitivity threshold is an obstacle to economic growth.

Stable economic growth is unlikely if CBRIR, the difference between the CB rate and inflation is more than 2 percentage points. This pattern of economic growth is confirmed in practice.

#### $0\% \le CBRIR \le 2\%$

This interval contributes the most to the GDP and exports growth, especially to the growth of exports of manufactured goods and the dynamics of change in national currency respectively to inflation. At the same time, it positively influences the growth of monetization level. Under these conditions, it is necessary to ensure the inflation for developed countries in the interval of 0-2%, for the transforming economy - 2-5%. This can be considered a key objective of monetary policy.

The closer CBRIR is to the lower bound, that is 0%, the more effectively the economic system functions, if, of course, the lower limit of the real CB interest rate allows to restrain inflation for the transforming economy below 5%, and for the developed economy - below 2%.

A transforming economy is likely to implement an unreasonably high CBRIR, when it attempts to keep the inflation at an extremely low level, which is accompanied by a seemingly extremely stable exchange rate. This is especially ineffective if the inflation is imported (Stiglitz, 2013). The "penalty" for this is not only a low level of monetization and a reduction in foreign exchange reserves, but most importantly – the worsening of the balance of payments and trade, the decline in the rate of economic growth. With the appropriate economic system, CBRIR, and ex-change rate, the probability of these negative consequences is significantly reduced.

The policy of lowest inflation is acceptable only if the trade balance is positive, the balance of payments is not worsening, and the level of monetization corresponds to the necessary positive changes in the economy.

The formulation of the rule below follows from the properties of the CBRIR. If for a long period the real CB interest rate is more than 2%, especially when the monetization level is less than 50%, this leads to expensive

money, which is an obstacle to economic growth. This principle can be amplified by the growth of the reserve rate, wrong steps to regulate the national currency, and off-target transactions of government bonds.

If 0-2% inflation is acceptable for developed countries, the permissible CB nominal rate in these countries should be in the interval of 0-4%.

$$0\% \le ext{CB nominal rate} \le 4\%$$
 the minimum at  $0\%$  (developed countries) the maximum at  $2\%$  inflation

For the transforming economies, where inflation is acceptable in the interval of 2-5%, the CB nominal rate should be in the following interval:

$$2\% \le CB \text{ nominal rate} \le 7\%$$
 the minimum at  $2\%$  (transforming econoinflation mies) the maximum at  $5\%$ 

In fact the interval of 4 and 5 percentage points (4-0%, 7-2%) are the benchmarks of the regulation for the CB nominal rate for developed countries and for transforming economies, respectively.

The acceptable interval for the reserve ratio is 0% - 10%. 0% is the sensitivity threshold for inflation regulation and 10% is the sensitivity threshold for business.

$$0\% \le$$
 Reserve ratio  $\le 10\%$ 

The permissible interval of the exchange rate forms its sensitivity thresholds for export and import, accordingly. Exceeding the sensitivity threshold of the exchange rate poses a threat for exports and economic growth. The depreciation of the national currency below the threshold of sensitivity poses a threat for production with imported raw materials and equipment. Hence, the exchange rate contributes to economic development, does not contradict to the balance of payments and trade, and does not pose a threat to positive economic processes if it is in the next interval:

\$ ≤

The sensitivity threshold for imports.

Threat to production with imported raw materials and equipment.

**Exchange rate** 

≤ \( \overline{\state}

The sensitivity threshold for exports. Danger for exports and economic growth.

So,  $\overline{\$}$  is the threshold of sensitivity of the exchange rate for exports. Further strengthening of the national currency is a threat to exports and economic growth.  $\underline{\$}$  is the threshold of sensitivity of the exchange rate for imports. Its further weakening is a threat to industry using imported raw materials and equipment.

With a floating exchange rate of the national currency, the trend of its interval alerts about the utility of the regulatory steps of the national currency. Obviously, with the primary objective to significantly increase exports, which is extremely necessary - especially for small economies, it is advisable to promote the formation of the exchange rate closer to its possible lower threshold, but we should not cross this line. This can not only worsen imports, especially imports of equipment and raw materials, but also provoke inflation above its favourable interval, contributing to the transition of its threshold of sensitivity.

The lower and upper threshold levels of taxation, respectively, determine the minimum level of taxation required to perform the tasks of the state and the maximum level that does not hinder economic development.

For taxes, based on the variability of the economic situation, the possibility of making rational decisions is determined in the following interval:

#### $\underline{T} \leq \text{Level of taxation} \leq \overline{T}$

 $\underline{T}$  - the lower threshold of taxation, providing the minimum level of performance of the state,  $\overline{T}$  - the upper threshold of taxation that does not impede the development of the economy.

It should be noted that the sensitivity thresholds of the level of taxation depend on the efficiency of government expenditure.

#### 5. Key macroeconomic task<sup>1</sup>

For the effective functioning of the economic system, the necessary conditions are:

- Identification of possible intervals of key target, normative and regulatory indicators.
- Systematization of key indicators and their presentation in the form of a single macroeconomic task.
- Effective solutions, corresponding to the conditions of economic functioning and their estimation.

#### The key macroeconomic task is as follows:

For the target indicators the maximum values should be reached:

- GDP growth ≥ 1%, for developed countries
  GDP growth ≥ 5% for transforming economies
- Exports of goods and services / GDP ≥ 50%, for small economies
- Trade balance  $\geq 0$
- Employment  $\geq 90\%$

Restrictions on normative indicators:

- 0% ≤ Inflation ≤ 2%, for developed countries
  2% ≤ Inflation ≤ 5%, for transforming economies
- Government debt / GDP ≤ 60% for developed countries
  Government debt / GDP ≤ 50% for transforming economies
- State budget deficit / GDP ≤ 3%
- The level of monetization ≥ 50% minimum threshold The level of monetization ≥ 70% favourable threshold
- 33% of Imports ≤ Foreign exchange reserves ≤ 100% of Imports

The valid intervals of the regulatory indicators:

- 0% ≤ CB rate ≤ 4%, for developed countries
  4% ≤ CB rate ≤ 7%, for transforming economies
- $0\% \le CBRIR \le 2\%$
- $0\% \le \text{Reservation ratio} \le 10\%$
- $\$ \le Exchange rate \le \$$
- $\underline{T} \le \text{Level of taxation } \le \overline{T}$

The problem is formulated based on the principles developed by A. A. Tavadyan and Ag.A. Tavadyan, presented in paragraphs 2.3 of chapter 4 of the book «Полосы неопределённости и вариантность экономики» (Uncertainty Bands and Economic Variation)

Regulatory, as well as normative indicators should have the highest possible probability of being formed in their minimum interval, because their deviation from the interval immediately changes the rules of the game in the economy, as well as the effectiveness of exports, imports, investments. Therefore, the concept of a minimum interval of key indicators is of fundamental importance. Actually, this method can achieve maximum predictability in the economy.

The volatility of economic indicators in an acceptable interval is extremely important. Rigid stability is fraught with steep and significant changes in the economy. This is a necessary condition for all normative and regulatory indicators of the key system of indicators.

If the forecasts do not systematize economic relationships, the Domino effect may work. Estimation of the economic indicator, when proposed separately, may provoke a chain of negative implications. A set of unrelated, rash actions is inherently ineffective.

Political and economic uncertainty leads to the fact that in the best case it is possible to predict the key target indicators characterizing economic development – GDP, exports, trade balance, employment, variability in a certain interval. In practice, economists were able to predict only 2 out of 60 recessions in advance during the 90s (Loungani, 2000). Mostly point forecasts were presented, but signs of instability were not detected. The level of forecasting is affected, in particular, by fluctuations in prices for mineral products, mainly – for energy resources, affecting the growth of the economy in many countries, changes in the CB rate in the leading countries and unions with the largest share of GDP in the world, the pace of economic growth in those countries where products are exported.

#### 6. Conclusion

The role of the subjective factor in the economy can be crucial and changes in any indicator can significantly change economic processes. It can only be stated that the corresponding changes should occur for normative indicators in favourable intervals, and for regulatory indicators - in acceptable intervals.

The art of regulation of economic processes consists in the formation of regulatory indicators in acceptable intervals to overcome the sensitivity thresholds of target indicators, when the condition of finding normative indicators in a favourable interval is fulfilled.

Economic growth without taking into account the limitations of normative indicators and acceptable intervals of regulatory indicators is usually random and unstable. Adjustment of regulatory indicators in acceptable intervals promote the development of the economy and stabilizes the situation.

The formation of a system of favourable and acceptable intervals for key normative and regulatory indicators, respectively, can significantly reduce the uncertainty interval of target economic indicators. Minimum intervals of normative and regulatory indicators help to predict possible values of target indicators.

The difference between the upper and lower bounds of regulatory indicators determines the range of the art of regulation of economic processes. The art of regulation is exactly defined in finding an effective solution within the acceptable interval, which is the effect of regulation.

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### ԱՌԱՆՑՔԱՅԻՆ ՄԱԿՐՈՏՆՏԵՍԱԿԱՆ ԽՆԴԻՐԸ ԵՎ ՏՆՏԵՍՈՒԹՅԱՆ ԿԱՐԳԱՎՈՐՄԱՆ ԱՐՎԵՍՏԸ

#### Թավադյան Ա.Ա.

**Ամփոփագիր։** Առանցքային ցուցանիշները տնտեսության գործընթացները կապող հանգույցներն են։ Տնտեսական փոխկապվածության հետազոտության ժամանակ անհրաժեշտ են առանցքային ցուցանիշների անորոշության միջակայքերի բացահայտումը և նրանց հստակ համակցումը։

Տնտեսական համակարգի արդյունավետ գործունեության համար անհրաժեշտ պայմաններն են առանցքային նպատակային, նորմատիվ և կարգավորող ցուցանիշների հնարավոր միջակայքերի որոշումը, դրանց համակարգումը և ներկայացումը միասնական մակրոտնտեսական խնդրում, ինչպես նաև արդյունավետ որոշումների ընդունումը և գնահատումը։

Նպատակային ցուցանիշների զգայունության շեմերը վճռական նշանակություն ունեն տնտեսության կայուն զարգացման համար։ Եթե նպատակային ցուցանիշի կայունության շեմը չի հաղթահարվել, ապա որակական փոփոխություններ տնտեսությունում քիչ հավանական են։ Կարգավորող, ինչպես նաև նորմատիվ ցուցանիշները պետք է ունենան իրենց նվազագույն միջակայքում գտնվելու հնարավորինս բարձր հավանականություն։ Քանզի եթե այդ ցուցանիշները ձևավորվում են տվյալ միջակայքից դուրս, դա անմիջապես փոխում է խաղի կանոնները տնտեսությունում։

Տնտեսական գործընթացների կարգավորման արվեստը կարգավորվող ցուցանիշների թույլատրելի միջակայքերում ձևավորման մեջ է, որը հնարավորություն է տալիս հաղթահարել նպատակային ցուցանիշների զգայունության շեմերը, այն դեպքում, երբ նորմատիվ ցուցանիշները գտնվում են բարենպաստ միջակայքում։

**Բանալի բառեր.** տնտեսական ցուցանիշներ, զգայունության շեմեր, անորոշության միջակայքեր, մակրոտնտեսական խնդիր, կանխատեսում, ՀՆԱ, արտահանում, առևտրային հաշվեկշիռ, զբաղվածություն

## КЛЮЧЕВАЯ МАКРОЭКОНОМИЧЕСКАЯ ЗАДАЧА И ИСКУССТВО РЕГУЛИРОВАНИЯ ЭКОНОМИКИ

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**Аннотация.** Ключевые индикаторы представляют собой узлы, связывающие экономические процессы в единую систему. Для получения приемлемых результатов при исследовании экономических взаимосвязей необходимо выявление интервалов неопределенности ключевых индикаторов и их четкая стыковка.

Для эффективного функционирования экономической системы необходимыми условиями являются: определение возможных интервалов ключевых целевых, нормативных и регулирующих индикаторов, систематизация ключевых индикаторов и представление их в виде единой макроэкономической задачи, принятие эффективных решений и их оценка.

Преодоление порогов чувствительности целевых индикаторов имеет решающее значение для стабильного развития экономики. Если порог чувствительности целевого индикатора не достигнут, то маловероятны качественные изменения в экономике. Регулирующие, также как нормативные индикаторы должны иметь максимально возможно высокую вероятность нахождения в их минимальном интервале, ибо их выход за интервал сразу меняет правила игры в экономике.

Искусство регулирования экономических процессов состоит в формировании регулирующих индикаторов в допустимых интервалах для преодоления порогов чувствительности целевых индикаторов, при выполнении условия нахождения нормативных индикаторов в благоприятном интервале.

**Ключевые слова:** экономические индикаторы, пороги чувствительности, интервалы неопределенности, макроэкономическая задача, прогнозирование, ВВП, экспорт, торговый.