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## **METHODOLOGICAL APPROACH TO ESTIMATION OF QUALITY OF STATE REGULATION INFLUENCE ON UKRAINIAN FINANCIAL SERVICES MARKET**

*This study researches the essence of concept and determined the peculiarities of forming quality of state regulation's influence on financial services market, suggesting the method of its rating. The results of the method's testing are based on statistical data about activity and effectiveness of controlling and regulatory actions at the financial services market of Ukraine and dynamics of its development.*

**Keywords:** *financial services; financial services market; state regulation; quality; influence, rating.*

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## **МЕТОДИЧНИЙ ПІДХІД ДО ОЦІНЮВАННЯ ЯКОСТІ ВПЛИВУ ДЕРЖАВНОГО РЕГУЛЮВАННЯ НА РИНОК ФІНАНСОВИХ ПОСЛУГ**

*У статті досліджено сутність поняття та визначено особливості формування якості впливу державного регулювання на ринок фінансових послуг, запропоновано методикку її оцінювання. Наведено результати апробації методикки на основі статистичних даних щодо активності та ефективності контрольно-регуляторної діяльності на ринку фінансових послуг України та динаміки його розвитку.*

**Ключові слова:** *ринок фінансових послуг, державне регулювання, якість впливу, оцінювання.*

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## **МЕТОДИЧЕСКИЙ ПОДХОД К ОЦЕНКЕ КАЧЕСТВА ВЛИЯНИЯ ГОСУДАРСТВЕННОГО РЕГУЛИРОВАНИЯ НА РЫНОК ФИНАНСОВЫХ УСЛУГ**

*В статье исследована сущность понятия и установлены особенности формирования качества влияния государственного регулирования на рынок финансовых услуг, предложена методика его оценивания. Приведены результаты апробации методикки на основе статистических данных относительно активности и эффективности*

*контрольно-регулятивної діяльності на ринку фінансових послуг України і динаміки його розвитку.*

*Ключевые слова: рынок финансовых услуг, государственное регулирование, качество влияния, оценка.*

**Introduction.** The effectiveness of financial sector's state management depends on many factors and components. Conformity of financial services market state regulation with needs and interests of its subjects, strategic objectives of market mechanisms development, institutional architecture and creation of appropriate conditions for formation of balanced market conjuncture play an important role in its ensuring.

The initial condition of forming the quality rating method of state regulation's influence on financial services market development is the clear understanding of concept's essence that corresponds to the object of such rating. It should be mentioned that in science literature not enough attention has been paid to working out the analysis of management quality, which shows the results of research of different management problems' aspects. N. Anatovych [1], S. Batchykov [9], S. Glazyev [9], V. Dunne [2], M. Lendel [3], D. Lyapin [4], V. Romanov [6], I. Salman [7], A. Chermerys [8], A. Yuldashev [10] and others touched upon some questions of state regulation's quality in their works. But in existing economic literature not enough attention has been dedicated to the development of rating method of state regulation's influence on financial services market progress, which is directed at optimization of controlling and regulatory functions assigned to authorized bodies. This is manifested as the absence of clear explanation of this term and understanding the mechanism and factors of formation of the quality of state regulation's influence on financial services market and as the absence of index system and applied methods of its rating. As a rule, the methods of mathematical statistics, illegible calculations and game theory are used for this purpose. Separate approaches, which are interesting from the position of possible development of scientific and methodic principles of management systems' quality rating, are also presented in technical literature [9].

In our opinion, complex rating instrument mentioned above is quite toilful, which makes its using irrelevant in quality evaluation process of state regulation of financial services market. The objective point of this research is the development of quality analysis instrument of state regulation's influence on Ukrainian financial services market.

**The main part.** The essence of "quality of state regulation's influence" is closely connected with content of "quality of management" concept. In economical literature it is defined through "set of processes" features that are occurring in management system and providing the effective operating of the whole system in general.

While studying the quality of state regulation, it's necessary to take into account that state regulation mechanism features including structure-organizational and effective aspects. The first one reflects formation's specific of the mechanism structure, correlations between its structural elements, which provide effective financial market services operating via clear and purposeful cooperation within the processes of lawmaking and law enforcement. The second one characterizes the consequences of using different forms and methods of financial services market's state regulation from the position of goal achievement degree.

To our opinion, using a term "quality of state regulation's influence" in reference to this object is more appropriate, taking into account that state management of financial services market provides limited direct state interference into formation of market conjuncture and active use of self-control mechanisms.

Into scientific and methodological principles of quality of state regulation's influence on financial services market we put the following basic statements. Firstly, regulation function as a management type is based on availability of feedback between management and the managed subsystems. That's why mechanism operating needs monitoring which is the basis for systematic and continual collection, analysis and use of information about financial services market operating for its purposeful correction, according to the strategic goals and aims of social-economic development. Secondly, periodic rating of mechanism, which requires relevance determination of carrying out control-regulatory procedures, their effectiveness from the point of achieving long-term and short-term goals of state economic policy, is needed. Thus, rating of influence quality is a totality of analytic means of studying and measuring real results of state policy realization in a certain sphere, which allows defining the extent to which the activity of state institutions corresponds to proclaimed national goals.

Quality of state regulation's influence is a complicated concept and, as a rule, rating of such quality can be characterized only by complex index. To our mind, indices, change tendencies of which are controlled by Commission of Financial Service Markets Regulation, can be fundamental indicators of financial service market development. Accordingly, generalizing index of development can be presented as a geometric mean of growth rate of financial market services subjects' number, cost of their assets and amount of the rendered services:

$$I_{DL} = \sqrt[3]{C_{SA} \times C_{AC} \times C_{PSA}}, \quad (1)$$

where  $I_{DL}$  is the integral index of financial services market's development level;  $C_{SA}$  is a coefficient of financial services market subjects' amount growth, which shows how many times the amount of financial services market subjects changed for the analyzed period, units;  $C_{AC}$  is a coefficient of assets' cost growth, which characterizes assets' value of financial services market subjects that accounts for 1 monetary unit of a similar amount of assets in the base period, units;  $C_{PSA}$  is a coefficient of provided services' amount growth, which demonstrates how many times provided services' amount has grown, units.

Efficiency of state regulation mechanism can be particularly evaluated on the basis of indices that show activities' levels of state financial services market regulation and effectiveness of control function fulfilled by it. At the same time it is necessary to take into account that the main criteria among mentioned is activity level of state financial services market regulation, because it characterizes the effectiveness of practical implementation of instruments of this mechanisms' direct influence.

It should be determined as the geometric mean of growth indexes' coefficients, which show intensity of application of regulatory measures and instruments. Taking into account the available statistic data, activity level of state financial services market regulation can be calculated via such formula:

$$L_{SR} = \sqrt[4]{C_{NLA} \times C_{NLG} \times C_{CV} \times C_{EM}}, \quad (2)$$

where  $L_{SR}$  is the activity level of state regulation, units;  $C_{NLA}$  is a growth coefficient of developed and adopted normative legal acts, units;  $C_{NLG}$  is a coefficient of growth in number of licenses granted, units;  $C_{CV}$  is a growth coefficient of conducted verifications, units;  $C_{EM}$  is a growth coefficient of enforcement measures taken after the appropriate verifications.

The level of state regulation can be characterized as active if the result is more than 1. If the result is less than 1 it means that the level of state regulation is decreasing.

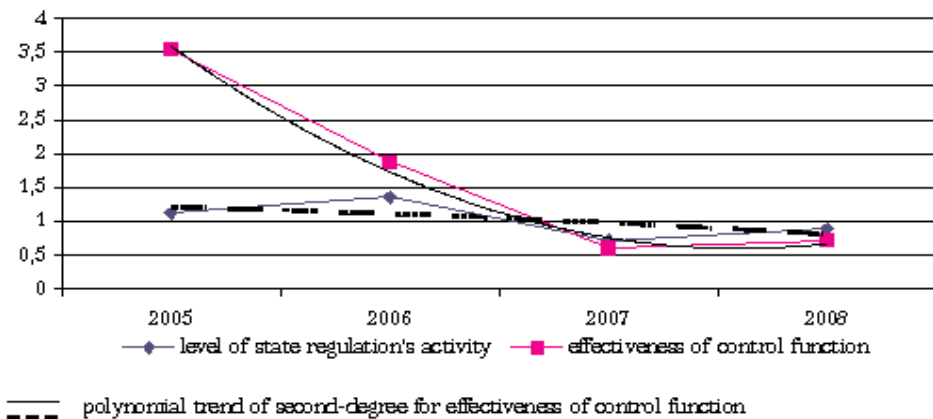
In turn, relation of enforcement measures taken to the number of conducted verifications can be used for evaluation of conducted verifications of legislation compliance by the financial services market subjects:

$$E_{CFI} = N/A, \quad (3)$$

where  $E_{CFI}$  is effectiveness of control function's implementation;  $N$  is the number of applied influence measures;  $A$  is the amount of conducted verifications.

On the basis of calculation of implementation efficiency of the control function it is possible to set up the expediency and effectiveness of supervisory activity by the appropriate regulator. Effectiveness of control function's implementation (taking into account, that it would assist detection of the legislation violation and so on) will be provided upon the reason that the amount of verifications will be less than implemented influence measures (index must be more than 1).

Comparing the received absolute figures on activity level of state regulation and effectiveness of state regulation's control function are presented on Figure 1.

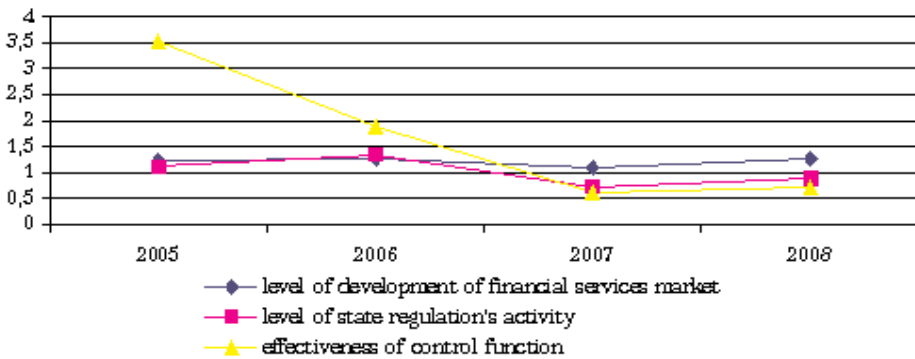


*Figure 1. Activity and effectiveness dynamics of state control function of Ukrainian financial services market, authors' calculations according to the data [5]*

Research of the state regulation's activity indicates the level of its implementation on behalf of the State commission of the financial services market's regulation after 2006 as rather low. E. g., while in 2006 the magnitude of the average coefficient of increasing the Commission's activity in the main lines was 1.35, in 2008 it was only 0.88. The efficiency in execution of the review services is reducing and in 2008 it was 0.72. This number is twice less than in 2005. Such tendency is caused by the forma-

tion and improvement of certain legislative and methodological bases concerning registration and licensing the financial services market participants, the sequence of making and giving in accounting; holding consultations about banning of breaking the current law. As a result, the financial services market participants started to organize and implement their activity more efficiently without serious offences against the regulatory requirements.

The extrapolational prognostication of the dynamics of the figures mentioned above in the next period without any condition being changed allows us expect the efficiency of the review services to rise, until it reaches 1.5 (the level of accuracy of the forecast is 99.12%). A slight deduction of the state regulation's activity is also expected – nearly to 0.5 (level of accuracy of the forecast is 40.42%). The correlated analysis in Microsoft Excel shows the strong connection by the Chaddock's scale between the level of the financial services market's development and the activity of state response (correlated coefficient is 0.736) and moderate connection between the level of the financial services market's development and the efficiency of the controlling function (correlation coefficient is 0.370). Visually correspondence and differences are shown in Figure 2.



**Figure 2. The comparison between the level of the financial services market's development in Ukraine and the factors of its formation on behalf of the state control mechanism, authors' calculation**

On the whole we suggest evaluating the quality of the state regulation's influence on the financial services market using the algorithm. A structured logic model of the algorithm is given in Figure 3.

According to the results of the regression analysis the stochastic dependence between the level of the financial services market's development and the state regulation's influence can be described with the following equation:

$$I_{DL} = 0.9913 + 0.2332L_{SR} - 0.0080_{CFI} \tag{4}$$

The indices of the regression equation's importance indicate that this equation represents 56% of the factual variation of the resultant index change of the chosen factors. Besides, the natural rate of the financial services market's development in Ukraine without taking the state regulation's influence into account is only 99.13%. In other words, active state participation in stimulation of nonbank financial institu-

tions that assign certain services causes the possibility of this financial market segment's increase.

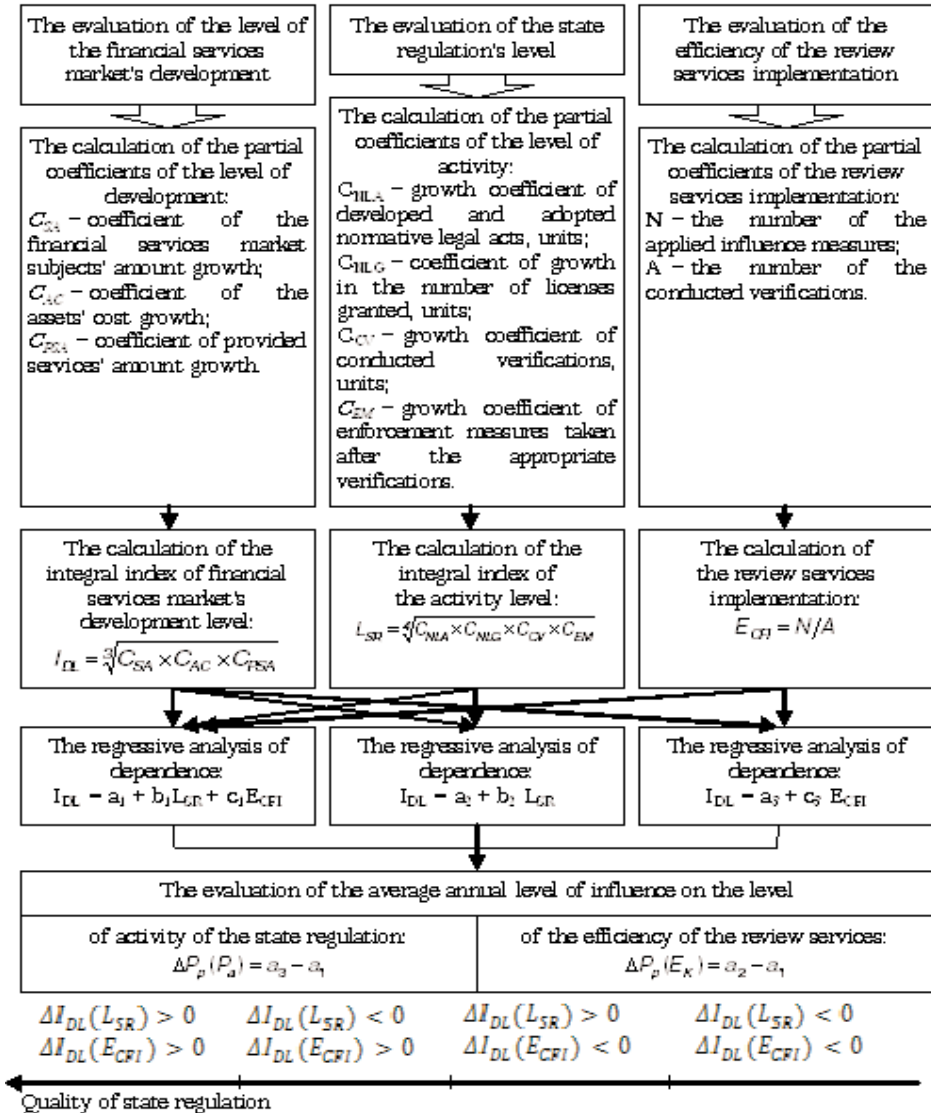


Figure 3. Procedure for evaluating the quality of the impact of government regulations on financial services, authors' development

Interpretation of the equalization of pair regression which we have gotten allows us draw conclusion that the increase of government control activity level by 1% leads to the increase of the level of development of financial services' market by 23%. At the same time according to the statistical data the efficiency in implementation of control function by the government control bodies of financial services' markets makes the development of this sector slow down. The increase in amount of verifications and

measures of influence leads to the decline of integral index of development of financial services market by almost 1%.

The regressive function of dependence of development of financial services market on the level of activity of government control has such a form:

$$I_{DL} = 1.0019 + 0.2094L_{SR}. \quad (5)$$

It has lower indices of significance. It represents 54% of actual variation of resulting index from the change of the selected factor. At the same time the estimation of rejection in the values of regression equalizations parameters, which characterize the natural level of development of financial services market with condition of absence of entertained factors action. This estimation allows getting the rough estimate of average annual size of current payment of efficiency of government control implementation of mechanism control function in a forming of general level of development of the financial services market which is controlled by it. By our calculations it is 0.0106 units, or only 0.84% of the index of Ukrainian financial services market development in 2008.

A rough estimate of mid-annual influence of state regulation activity on the level of development of the financial services market is 0.1877 units. Thus, the regress equation in the conditions of an exception of consideration of influence of state regulation activity as factor in formation of the market development level looks like:

$$I_{DL} = 1,1790 + 0,0213E_{CFI}. \quad (6)$$

The values of the mid-annual expiration of factors received are only approximate and probable because regression models have different significance values. At the same time considering the absence of an adequate estimation toolkit for such influence in general we can make a conclusion that it is possible to neglect the value in rough estimates of indicators.

The quality of state regulation influence on the financial services market as a whole can be differentiated as 4 kinds. It depends on the character of mid-annual influence of state regulation activity and of control function efficiency on development of the financial services market. Quality of state regulation influence is corresponding to various types of the mechanism action:

- stimulating development: if influence is positive (positive size) for activity of state regulation, and for performance of control function;
- effective state regulation with sufficient activity: if influence on development of the financial services market is positive by the factor of control function efficiency and negative by the state regulation activity. Sufficiency of activity in this case is considered from the point of view of the possibility of maintenance of effective control by the state regulation mechanism of the market development condition;
- active state regulation with low efficiency: if influence on market development is positive for the action of the state regulation activity factor, but negative for the efficiency of control function performance;
- a decontrol: if state regulation activity and control actions efficiency lead to decrease in the level of the financial services market development.

The value of mid-annual influence of state regulation activity and of control function efficiency (0.1877 and 0.0106 accordingly) specify that the state regulation mechanism of financial services market in Ukraine has a stimulating development nature.



**Conclusions.** Our scientifically-methodical approach allows identifying the type of state regulation mechanism action at the financial services market, define the basic directions of activity updating of controls. By results of the current condition analysis at the financial services market in Ukraine we understand that the major factor of positive influence strengthening of state regulation on its development in modern conditions is creation of possibilities to increase activity indicators of such regulation. It assumes further perfection of the standard methodical base for creation, registration, licensing, conditions of service granting, drawing up and granting of reporting, of the transparency of financial institutions activity and their interaction with financial services consumers. As a result of such improvement the necessity of carrying out control checks and introduction of influence measures would decrease, which levels the negative influence of low state regulation efficiency on the level of development of the domestic financial services market.

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