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17. Williams, A., Giardina, E. (1993). Efficiency in the Public Sector: the theory and practice of cost – benefit analysis. Great Britain: University Press, Cambridge.

CRITERIA AND INDICATORS OF ASSESSMENT OF THE EFFICIENCY OF FOREIGN ECONOMIC ACTIVITY

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The importance of the research issue in the contemporary environment is defined by a more significant role of the foreign economic activity (FEA), which became a key factor of financial stability and development of the local production, as well as an important tool to achieve competitiveness, and an element of economic security. FEA priority, both to separate business entities and to the country as a whole, defines necessity of its analytical support. The latter, in its turn, is connected with continuous improvement of the theoretical basis and practical tools of economic and mathematical modelling, including tailored methods to assess the efficiency.

The majority of the applied mathematical models, assessment methods, and indicators are focused on the FEA micro level, and do not permit to assess FEA efficiency with regard to national and regional systems in all aspects. The scientific and theoretical, as well as empirical researches dedicated to study of FEA social and economic efficiency are limited by assessment of the main ways of influence on the economic growth (for example, gross domestic product dynamic).

Insufficiency of mathematical and methodological background used to assess the FEA effects and efficiency with regard to national and regional economic systems, increases the necessity to review this issue, and to search for new scientifically valid modelling tools.

Distinctive feature of the offered methodology is possibility to register and empirically assess the complex of FEA effects for macro- and meso- economical systems. Application of methodologies has high scientific validity as a basis of research becomes fundamental works of economic and mathematical science, national and foreign scientists' classical works and modern researches, devoted to problems of modeling and an assessment of foreign trade activities efficiency.

Delivery of the foreign economic activity is connected with the assessment of its efficiency. The concept of “foreign economic efficiency” may have a different gist and definition with regard to levels of FEA review. A number of authors (Kovshar; Afanasiev; Mikhailova) highlight a two-tier FEA delivery level: micro-level (business entities) and macro-/meso-level (state or region). This approach encourages ultimate understanding of the researched categories.

The key efficiency criterion of FEA with regard to micro business entities is the ratio of transactions outcome (revenue, income) and the cost of their delivery (initial investment, transaction expenses, taxes). The direct economic effect from foreign economic activity means improvement of the company financial performance, the indirect one - cheaper production, familiarization with new processes, increase of production volumes, saving of financial resources, etc.

On macro-/meso-level, the FEA efficiency shall be reviewed from a slightly different point of view. Since on a macro-/meso-level of the economy operation the participant of the FEA

is a complex entity (region or a state), the efficiency should be assessed with regard to FEA impact on all elements of the regional or national economic system.

According to D.S Lebedev, the efficiency of foreign economic liaisons, from the point of macro-level, is defined in comparison with other countries, and comprises a complex of budget, production, and social effects [10, 107]. The author considers that “the effect emerges within the in-house environment of companies and national economics, when the achieved efficiency reveals itself against the foreign economic background” (2010).

Review of the FEA efficiency in terms of macro- and meso-economic systems, as well as consideration and usage of the FEA effects revealed in social and economic development, are theoretically justified and have high practical value. The so called social and economic approach applied to review the FEA efficiency starts to gain popularity. The gist of this approach is as follows: economy development level and population life quality are theoretically dependent on efficient operation of the foreign economic complex of a certain territory. According to Zh. A. Mingaleva, E.Y. Loseva and E.D. Oborina, within the frames of this approach, the foreign economic activity is a “tool to increase the level of social/economic development, and competitiveness of the territory”; efficiency of the latter, however, is defined with regard to ability to ensure this territory sustainability and life quality improvement” [11, 183].

Similar understanding of the FEA and its efficiency are theoretically justified in the scientific literature. A large number of authors of scientific researches devoted to the foreign economic activity assume FEA to be an actual tool of economic development and a key factor to improve the territory competitiveness.

A.S. Molchan, L.I. Trinka and E.V. Lekhman state that “participation in foreign economic liaisons traditionally ensures that the resource potential of the territory is used and increased simultaneously; moreover, in many cases it becomes the dominant factor of the social and economic development” [13, 4]. According to Y.V. Yadrevskaya, the contemporary foreign economic activity is the main condition of sustainability and way to settle many economic problems” [17, 125].

S.V. Belozerova considers the foreign economic liaisons to be the key factor defining the state and development of the economy” [2, 41].

There are a lot of researches within the area of FEA management referring to territorial entities which prove that formation of the FEA development strategy is the way to settle the issues of economic growth, to improve competitiveness, and to realize the social and economic development of the territory. Foreign scientists also consider the foreign economic activity as a factor of economic growth and a way to strengthen the role and influence of the country (region) in the global economy and politics. Among the adherers of this concept are the following founders of the international trade theory: D. Ricardo (2007), E.F. Heckscher (1949), J. Bhagwati (1985), J. Stiglitz, J.S. Mill (2004), and contemporary scientists dealing with researches in the foreign economic scientific area: M. Daumal, S. Özyurt, (2011); V. Jeníček, V. Krepl, (2009); Joshua J. Lewer, Hendrik Van den Berg, Jeníček, V. Krepl, (2009); M. Josic, H. Josic, L. Jurcic, (2013); Mihir A. Desai, C. Fritz Foley, James R. Hines Jr., (2008); Peng Sun, Almas Heshmati, (2010); S. Suranovic, (2012); D. Popa, L. Carp (2013).

From the other side, foreign economic activity may negatively impact the territory social and economic position, which reveals in expanding of structural disproportions in the economy, appearance of numerous inefficient production elements (raw materials, unskilled labour), deterioration of ecological environment, increase of social and economic division of territories, etc. [15, 254]. Besides, in some cases, the impact of the foreign economic activity on both micro (factories, companies) and macro- entities (regions, countries) leads to overall dependence of the economic position from FEA delivery conditions and environment of the global market; the latter is a major threat to sustainability of the stated entities, and impacts the territory economic security.

Therefore due to significant and versatile influence of the foreign economic activity on the condition of the national economy, the state shall excise a more thorough control over

formation of the structure and specialisation of the foreign economic complex, as well as over research of its impact on economic branches and social aspects. This is very critical for the Russian Federation.

We believe that due to high dependence of the Russian Federation economy from export factors and failure to settle a number of FEA safety issues, the research and forecast with regard to the national foreign economic efficiency - the efficiency of foreign economic liaisons in achieving social and economic effects required to operate macro- and meso-economic systems - are undoubtedly very important.

Under FEA efficiency of macro- and meso - systems we understand a complex appraisal category reflecting the state of FEA influence on social and economic positioning of a macro- or meso-entity.

This definition is close in its meaning to the national economic, as well as social and economic efficiency. The degree of FEA efficiency is considered to be a relative value of social and economic effects (a kind of changes; favourable or negative tendencies in development of an economic system) per a unit of the performed foreign economic activity. The favourable changes may include as follows: improve of the employment, infrastructure development, increase in earnings, structural change of the economy, production modernisation, etc. The negative changes may include destabilisation of economic position of import- substituting productions, environment pollution, obsolete manufacturing, growing exposure to crises, etc.

The traditional efficiency factors include the final results and resources (expenses, investments) spent to achieve them. In this research the factors to assess FEA efficiency of macro- and meso-systems are proposed as follows:

- 1) factor of FEA social and economic efficiency (MEF):

$$\text{MEF} = \text{ME} / \text{FEA} \quad (1)$$

Where ME – social and economic effect of the foreign economic activity; FEA – scope of the foreign economic activity.

- 2) foreign economic security coefficient (KFS) – efficiency indirect factor:

$$\text{KFS} = \text{ME} / \text{SED} \cdot 100\% \quad (2)$$

Where ME is a social and economic effect of the foreign economic activity, SED – the level of social and economic development.

The versatile appraisal of the efficiency is connected with the fact that, as a rule, majority of social and economic effects of foreign economic activities observed during a long period of time increase dependence of macro- and meso-systems from FEA entities, which unfavourably impacts the level of economic security.

Improve of the country or region economy openness and increase of foreign economic liaisons are favourable for the economy. Given, however, dependence of this development from foreign market fluctuations, stability of growth is exposed to high level of risks and dangers. In view that “efficiency” collates with the category of “optimality” (conditional optimum with regard to available constraints), the coefficient of the economic security shall be used as a conditional factor of FEA efficiency. This coefficient is a relative value characterizing specific weight of FEA effects with regard to general level of the social and economic development. It has a threshold value which is identified on base of a rule-of-thumb practice. The proposed FEA efficiency factor relates to indicators of economic security, but its meaning is different. The proposed coefficient of FEA security is based on identifying percentage of a part of the value formed under direct influence of the FEA in its general meaning. This may be used to assess FEA efficiency subject to social and economic development of macro- and meso –systems being conditionally dependent from the FEA.

On the whole, the direct appraisal of the efficiency will be conducted on base of numeric value of two factors indicated above (FEA social and economic efficiency factor and FEA security factor with regard to its threshold value).

The FEA effects and efficiency assessment system, which permits to fully describe and empirically evaluate the key directions of FEA influence on social and economic condition of regional and national systems, is proposed with regard to the specified criteria and values (Fig 1).

The calculation of the specified factors to assess FEA efficiency is delivered with regard to our bespoke methodology which can be used to specially register and empirically assess the complex of FEA effects by applying the tools of co-integration, correlation and regressive analysis, as well as a step out analysis.

The main specific of the proposed FEA efficiency assessment methodology on regional and national levels is a possibility to register and empirically assess the complex of FEA effects by applying the tools of co-integration, correlation and regressive analysis, as well as a step out analysis.

<i>FEA of macro- and meso- economical systems</i> includes: EX Export IM Import FI Foreign investments IA Investments	Indicators of the FEA effects and efficiency assessment	
	Sphere of influence	Approximate list of indicators of an assessment of effects and efficiency of foreign trade activities
FEA efficiency: - Direct criterion of efficiency: coefficient of social and economic return of foreign trade activities (MEF): $MEF = ME / FEA$ - Indirect criterion: coefficient of the external economic safety (KFS): $KFS = ME / SED * 100\%$, which has threshold value (*KFS)	Block 1. Economic growth	GDP (VRP); National income
	Block 2. Production	Commissioning of fixed assets; Number of the enterprises; The Volume of the shipped goods
	Block 3. Finance	Income of the budget; Balanced financial result of the organizations; The Credits and deposits provided by org and to physical persons in rubles and foreign currency; Volume of issue of securities
	Block 4. Standard of living of the population	Population with the monetary income is lower than the size of a living wage; Cash expenditures and savings of the population; Acquisition of real estate by the population
	Block 5. Situation in labor market	Occupied in economy; Unemployed; Compensation of hired workers
	Block 6. Scientific researches and	Number of the organizations which are carrying out scientific researches and development; Number of the personnel; Internal costs of scientific researches

Figure 1. FEA Efficiency Assessment System (source - offered by the author)

The objective of this model is to empirically assess FEA effects and efficiency for macro- and meso- economical systems.

The methodology comprises two phases (Table 1):

Table 1

Methodology to calculate FEA efficiency assessment indicators for macro – and meso economic systems (source - offered by the author)

Stage	Content of Calculations	Instruments of realization	Mathematical description of calculations and their results
Phase 1. Model FEA impact on the social and economic development			
1	Choose, justify and formalize a set of numerical values which will describe FEA parameters in full, including the factors of social and economic development of the territory being directly	Formation of numerical massifs	$\blacktriangleright {}^1FEA_{m,p} = \{fea_{ij}\}_{m,p} \quad {}^1SED_{s,p} = \{sed_{ij}\}_{s,p}$ (1) where FEA – indicators of foreign trade activities; SED– indicators of social and economic development; p – time period; m, s – number of indicators of foreign economic activity and social and economic development respectively (for their foreign economic activity there will be no more than four: EX, IM, FI, IA; for social and economic development – about thirty, namely indicators of PR, F, L, EG, PLL, SRI, INFR, ECO blocks).

Stage	Content of Calculations	Instruments of realization	Mathematical description of calculations and their results
	influenced by the latter		
2	Transition to absolute changes of indicators.	Arithmetic calculations, formation of the numerical massif	$\Delta SED = sed_t - sed_{t-1}; \quad \Delta FEA = fea_t - fea_{t-1}$ $\blacktriangleright FEA_{m,y} = \{fea_{ij}\}_{m,y} \quad {}^2SED_{s,y} = \{sed_{ij}\}_{s,y}$ (2), where y – time period, y=p-1.
3	The analysis of the selected statistical data to detect dependence between foreign trade activities and indicators of social and economic development, determination of its quality, and selection of the most relevant communications	Correlation analysis	$r = \frac{cov(XY)}{S_x \cdot S_y}$, where: r – coefficient of linear correlation of Pearson, $cov(XY)$ – selective coefficient of covariance, S_x, S_y – selective mean square deviations. $\blacktriangleright {}^3SED_{l,y} = \{{}^2SED_{s,y} r \geq 0,5; p \geq 0,05\}$ (3), where l – number of indicators of social and economic development.
4	Research of relationship of cause and effect between indicators of social and economic development and foreign economic activity	Granger causality method	$X_t = \varphi_0 + \sum_{i=1}^m \alpha_i X_{t-i} + \sum_{i=1}^m \beta_i Y_{t-i} + \varepsilon_t$ $Y_t = \kappa_0 + \sum_{i=1}^m \chi_i Y_{t-i} + \sum_{i=1}^m \delta_i X_{t-i} + v_t$ where X, Y – changes, causal relationships between which are investigated (in our case SED and FEA indicators respectively), φ_0, κ_0 – free members, $\alpha_i, \beta_i, \chi_i, \delta_i$ – autoregression coefficients, ε_t, v_t – errors of measurements. $\blacktriangleright SED_{n,y} = \{{}^3SED_{l,y} \delta_i = 0\}$ (4), where n – number of indicators of social and economic development.
5	Creation of system of regression equations reflecting dependence of social / economic development from the FEA	Regression analysis	$\blacktriangleright SED_n = F(FEA_m)$ (5)
Phase 2. Diagnosis of FEA effects and efficiency			
1	Definition of indicators of sensitivity of change of social and economic development to variability of foreign economic activity	Definition of a derivative for the regression equations, formation of the numerical massif	$S_{FEA_j}^{SED_i} = f'(x) = \frac{dy}{dx}$, where $S_{FEA_j}^{SED_i}$ – an indicator of sensitivity of change of social and economic development to variability of foreign economic activity. $\blacktriangleright S_{z,1} = \{S_{ij}\}_{z,1}$, имеет следующий вид: $SED_1 \begin{bmatrix} S_{FEA_1}^{SED_1} \\ \dots \\ S_{FEA_i}^{SED_i} \end{bmatrix}$ (6)
2	Definition of indicators of effect of foreign economic activity	Arithmetic calculations, formation of the numerical massif	$ME_{FEA_i}^{SED_i} = S_{FEA_i}^{SED_i} \cdot fea_{ij}, fea_{ij} \in FEA_{y,m}$, where $ME_{FEA_i}^{SED_i}$ – effect of a separate type of foreign trade activities on the corresponding indicator of social and economic development. $S_{FEA_i}^{SED_i}$ – coefficient of sensitivity of change of the corresponding indicator of social and economic development to variability of foreign trade activities. fea_{ij} – value of the corresponding indicator of change of foreign trade activities in j- year. $\blacktriangleright ME_{z,y} = \{me_{ij}\}_{z,y}$ with the specification of types of foreign trade activities in a section of the studied temporary period, has appearance: $ME_{FEA_1}^{SED_1} \begin{bmatrix} y_1 me_{FEA_1}^{SED_1} & \dots & y_j me_{FEA_1}^{SED_1} \\ \vdots & & \vdots \\ ME_{FEA_i}^{SED_i} \begin{bmatrix} y_1 me_{FEA_i}^{SED_i} & \dots & y_j me_{FEA_i}^{SED_i} \end{bmatrix} \end{bmatrix}$ (7), where y – the time period.

Stage	Content of Calculations	Instruments of realization	Mathematical description of calculations and their results
3	Definition of indicators of return of foreign economic activity	Arithmetic calculations, formation of the numerical massif	$MEF_{FEA_i}^{SED_i} = \frac{ME_{FEA_i}^{SED_i}}{FEA(i)_{m,p}^{SED_i}}$ <p>► $MEF_{zy} = \{mef_{ij}\}_{zy}$, has an appearance:</p> $MEF_{FEA_1}^{SED_1} \begin{bmatrix} y_1 mef_{FEA_2}^{SED_1} & \dots & y_j mef_{FEA_2}^{SED_1} \\ \vdots & & \vdots \\ y_1 mef_{FEA_i}^{SED_i} & \dots & y_j mef_{FEA_i}^{SED_i} \end{bmatrix}$ <p>(8)</p>
4	Determination of coefficient of the external economic safety	Arithmetic calculations, formation of the numerical massif	$KFS_{FEA_i}^{SED_i} = \frac{ ME_{FEA_i}^{SED_i} }{SED(i)_{z,p}^{SED_i}} \cdot 100\%$ <p>► $KFS_{zy} = \{kfs_{ij}\}_{zy}$, has an appearance:</p> $KFS_{FEA_1}^{SED_1} \begin{bmatrix} y_1 kfs_{FEA_2}^{SED_1} & \dots & y_j kfs_{FEA_2}^{SED_1} \\ \vdots & & \vdots \\ y_1 kfs_{FEA_i}^{SED_i} & \dots & y_j kfs_{FEA_i}^{SED_i} \end{bmatrix}$ <p>(9)</p>
5	Determination of threshold value of coefficient of the external economic safety	Expert assessment, formation of the numerical massif	<p>► ${}^{tv}KFS_{z,1} = \{{}^{tv}kfs_{ij}\}_{z,1}$, has an appearance:</p> $SED_1 \begin{bmatrix} FEA_i \\ KFS_{FEA_2}^{tv-SED_1} \\ \dots \\ KFS_{FEA_i}^{tv-SED_i} \end{bmatrix} \quad (10)$

1) Model FEA impact on the social and economic development. Towards this end it is necessary to choose, justify and formalize a set of numerical values which will describe FEA parameters in full, including the factors of social and economic development of the territory being directly influenced by the latter. Thereafter it is required to select one-directed relevant connections between the researched parameters (correlation analysis, Granger causality method), to build a system of regression equations reflecting dependence of social / economic development from the FEA;

2) Diagnosis of FEA effects and efficiency. It is necessary to correlate the values of FEA social and economic outcome, the coefficients of FEA security and their threshold values; make a conclusion on FEA efficiency. It is also required to analyse the response of social- economic development to FEA changes (regressive analysis, differential calculus.)

In view of significance of foreign economic liaisons for Russia, it is currently of paramount importance to improve the efficiency of the foreign economic activity and to increase its favourable influence on the social and economic environment of the territories with the aim to mitigate possible negative effects.

References:

1. Afanasev, V.G. Vneshneekonomicheskaya deyatelnost: uchebnoe posobie. – M. : Izdatelstvo MGTU GA, – 84. (In Russian)
2. Belozerova, S.V. Perspektivnyi razvitiya vneshneekonomicheskikh svyazey v Rossiyskoy Federatsii. // Vestnik SevKavGTU. Seriya "Ekonomika", – №2(10), – P. 40-45. (In Russian)
3. Bhagwati, J.N. The Generalized Theory of Transfers and Welfare: Exogenous (Policy-Imposed) and Endogenous (Transfer-Induced) Distortions. // The Quarterly Journal of Economics, – 100(3). – P. 697-714.
4. Daumal, M. Özyurt S. The Impact of International Trade Flows on Economic Growth in Brazilian States. // Review of Economics and Institutions. – №2-1. – P. 3-25.
5. Heckscher, E. The effect of foreign trade on the distribution of income. // Translated as chapter 13 in American Economic Association, Readings in the Theory of International Trade, Philadelphia. – Blakiston, 497–512.

6. Jeníček, V., Krepl V. The Role of Foreign Trade And Its Effects. // Agric. Econ. – Czech. – № 5(55). – P. 211-220.
7. John Stuart Mill. Principles of Political Economy with Applications to Social Philosophy. – Cambridge: Hackett Publishing Company, Inc., 310 p.
8. Josic, M., Josic H., Jurcic L. Testing Rybczynski Theorem: An Evidence from The Selected European Transition Countries. // Mediterranean Journal of Social Sciences. – № 4(10). – P 99-105.
9. Kovshar, E.A. Osnovy vneshneekonomicheskoy deyatel'nosti: ucheb. Posobie. – Minsk : BGU, 398 p. (In Russian)
10. Lebedev, D.S. Metodicheskie podhody k analizu vneshney torgovli na makrourovne. // Vestnik Yaroslavskogo gosudarstvennogo universiteta im. P. G. Demidova. Seriya Gumanitarnyye nauki. – №2 (12). – P. 106-112. (In Russian)
11. Mingaleva, Zh.A. Loseva E.Yu., Oborina E.D. Sotsialno-ekonomicheskiy podhod k issledovaniyu vneshneekonomicheskikh svyazey regiona. // Ekonomika regiona. – № 1. – P. 182-187. (In Russian)
12. Mihaylova, E.Yu. Model vzaimosvyazi makro- i mikrourovney sistemyi VED. // Ekonomika. Upravlenie. Pravo, – № 7. – P. 31-34. (In Russian)
13. Molchan A.S., Trinka L.I., Lehman E.V. Vneshneekonomicheskaya deyatel'nost kak faktor ustoychivogo razvitiya ekonomiki regiona. // Politematicheskiy nauchnyy zhurnal Kubanskogo gosudarstvennogo agrarnogo universiteta. – №3 (97). – P. 3-11. (In Russian)
14. Peng Sun, Almas Heshmati. International Trade and its Effects on Economic Growth in China. // Discussion Paper – №. 5151. – P. 36.
15. Pokrovskaya, V.V. Organizatsiya i regulirovanie vneshneekonomicheskoy deyatel'nosti: Uchebnik. – M.: Yurist', 456 p. (In Russian)
16. Ricardo, D. Nachalo politicheskoy ekonomii i nalogovogo oblogenia – M.: Ecsmo, 954. (In Russian).
17. Yadrevskaya, Yu.V. Ustoychivoe razvitie ekonomiki regiona s uchetom vneshneekonomicheskogo faktora. // Vestnik Kuzbasskogo gosudarstvennogo tehnikeskogo universiteta. – №4. – P. 123-126. (In Russian)

NEW CHALLENGES OF CORPORATE MANAGEMENT

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The transformational processes currently going on in the world have changed people's attitude towards many aspects of modern society. So far the human race has lived in its history through two substantial waves of change, "each one largely obliterating earlier cultures or civilizations and replacing them with ways of life inconceivable to those who came before" [5, p.151]. Each wave took a different period to develop, with the speed accelerating along the way: the first wave – the agricultural revolution – was the longest and lasted thousands of years, while the second one – the industrialization era – has lasted for only three hundred years, at present giving way to a new change wave – the information revolution, which is taking us to an era of creativity [5, p.151].

Just a couple of decades ago information was considered to be the main wealth in the market: people paid a lot of money for it, protected it, and even committed crimes trying to obtain it. Today the situation is different, quite paradoxical, when with more, even confidential, information becoming available to public through various channels, you may at the same time have not enough reliable information for making a sound decision. On the corporate level, this leaves businesses with less room for the competitive advantage, which means that the main