

## **MAXIMIZING THE VALUE OF ENTITIES OF THE REGION IN THE IMPLEMENTATION OF PUBLIC-PRIVATE PARTNERSHIPS**

Purpose and means of control of the economy of the region as an integrated economic formation significantly differ from the similar indicators of the corporate governance focused on its territory with business structures. If the purpose of the corporations of the strategic value-based management (VBM) is increasing the market valuation of business as a comprehensive measure of economic efficiency for its owners, for the regional economy such indicators are considered the calculated according to certain methods criteria of the efficiency of the socio-economic development. Thus, as the selective analysis of recent publications shows, there is some substitution of the formulation of goals of the development of the economic potential of the region methods of using more or less subtle tools of calculating quantitative values of the indicators, that in the present context, reflect not target, but only incident, residual, secondary parameters of the economic system of the region as a whole [1, 2].

The modern concept of the use of the system of the national accounts at the regional level is based on the enlarged representation of the essence of the economic production and income. The mentioned methodology, unlike scorecard balance system of the economics, which was based on assigning to purely economic sphere of material production, includes in its composition a wider list of social activities.

The mentioned methodology is based on the concept J. Hicks under which income is recognized as maximum amount of money, which in the case of acquisition for consumer goods and services does not diminish with the amount of accumulated wealth, does not entail the adoption of additional financial obligations, that does not make its recipient poorer [15]. The current system of national accounting of Ukraine successfully adapted described basic approaches. Today it distinguishes five relatively homogeneous groups of economic entities which are provided with a standard set of accounts registration of economic operations, which are connected with the formation, production, distribution, income redistribution, accumulation and preservation, acquisition of financial assets and financial liabilities adoption: non-financial corporations and quasi corporations performing functions of production of goods and non-financial services; quasi corporations and financial corporations performing functions of accumulation of free financial resources and offer them to investors under certain conditions; public administration, acting as the redistribution of national income and wealth, providing free services; households acting as the purchase of goods and services in the market, form the offer and meet the market demand for labor; non-profit institutions serving households (social, political and religious organizations that provide free services to their members).

The analysis of the relationship of institutional sectors is based on the generalization of opposing economic value streams that operate between them. Last reflect on the relationship between compensation value (goods, services, labor and assets) or transfer intersectional relationships without compensation.

Despite the objective prerequisites for a harmonious combination of the interests of the regional administration and private corporations that operate in the territory, in practice there are often differences in the positions of the parties on issues of business participation in social development of the region. According announced in the State Strategy directions of forming the regional development up to 2015, high social responsibility of business, which manifests itself in the adequate level of wages, ensuring a stable flow stream of tax payments, the development of the industrial base

of suppliers of raw materials and components, should not only contribute to the economy of the region in general, but also have as a consequence a steady increase of business value. [16] The task of the local administration in this case is to encourage the social responsibility of business in the “oppression” of interests of owners by providing socially responsible companies for additional support measures, incentives and more.

Cost methods of evaluating the effectiveness of regional production activities require appropriate adjustment. They, unlike accounting and bookkeeping, statistical models must take into account parameters such as the value of capital, required rate of the profitability of its owners, the actual cash flows.

So we recognize that the region is the territorial administrative unit of the unitary state of the country, which has a relatively complex set of separate natural, socio-economic, national, cultural and other conditions of heterogeneous technology enterprises and industries. Consistent reform of the regional economy, besides requiring the observance of a number of special conditions of exercise, can fully be based and successfully carried out only on the renewed paradigm of the region as quasi corporation. Only in this case, the control system can be fully focused on:

- the accumulation of the growing quantity of functions and amounts of financial resources that earlier before were included to the center (the purpose of the activity of the region as a quasi-state);

- the formation and development of the local market, which has borders (area), which are specified with the general conditions of economic activity (business climate), peculiarities of the local conditions of various goods and services, labor, credit and financial resources, securities, information, knowledge, etc. (the purpose of the activity of the region as a market);

- the achievement of positive dynamics of parameters of the quality of life of the territorial communities that is ensured with the stable and balanced reproduction of social potential of the territory (labor resources, education, health care, culture, environment) and the population settlement system (the purpose of the activity of the region as a society) [17].

An indicator of the effectiveness of the regional development (quasi corporation) as a major subject of property and economic activity, the member of competition in the markets for goods, services, capital cannot be only the value of gross regional product (GRP) and other indices that are narrowed calculated on its basis. Given the fact that the index of GRP cannot take into account the production of “non-market” goods, it may play limited role indicators of economic growth but not development. Intensive use of methods of economic (rather than financial) management of the development of the socio-economic system of the region as a whole, the purpose of which goes beyond the simple accumulation of resources and more associated with the optimization of institutional structure and reduced transaction expenses, provides the opportunity to maximize the usage and thus, the target growth of total assets, which are concentrated in the area.

One of possible approaches to calculating the economic evaluation of complex regional socio-economic development is the technique of The European Commission Directorate-General Regional Policy (ECDGRP) [18]. It is based on the disparate simulation of the value in two competitive strategies formed as derived from local institutional environment and the nature of the regional natural, human and other resources (regional share of “national wealth” in the natural capital, produced assets and human resources:

- regional administration stimulates private investment, working directly with businesses and potential investors;

- focuses on the elimination of disproportions in the development of regions by increased attention to the formation of the public sector, untargeted development of

infrastructure and solving social problems through lobbying local interests and fundraising budget [19].

Strategic development of regions in the first type is determined by factors of local importance – infrastructure, population, social, cultural features, and the possibilities of their usage for the formation of the economic model of production and services with high added value, taking into account trends in demand in the global market. For citizens the value increase (competitiveness) of the region receives expression in the ability to provide employment, safety, high level of income and life. Valuation “bandwidth” (aggregate production, specialization, types of enterprises and businesses, the dominant form of ownership) of the region is formed in its major part as a result of the operation of enterprises related to the production types of economic activities (PEA) (total wages, comprehensive income and mixed income, the cost of “local market”, revenues from exports).

The source of the formation of a high level of competitiveness of the regions of the second type is the flow of regional transfers, as well as “non-market” part of the gross regional product (GRP) and its most important element – the regional gross value added (RGVA). Regional transfers include alternative sources of income, such as from the sale of assets to nonresidents, recalculation of pension and other social benefits, recalculation of migrant workers. Non-market component of RGVA provides receipt of public funds that can play a significant role for the region with limited abilities of self-development.

The evaluation of the economic value of the region, as noted above, can be fundamentally accomplished on the basis of the approach to measuring the value of investment active quasi corporate diversified company using the tools of corporate finance and the theory of management value. According to the published approach, the region is considered as an analogue of diversified holding company – the subject of competition in the market for goods, services, capital with a limited set of macroeconomic tools.

In the first stage of determining the value of quasi corporation the financial analysis is carried out using the totality of its assets.

Certain steps of the first stage of evaluation are:

- first – defining total investment expenses (the amount of total assets, initial costs, changes in the value of working capital during the time of the investment project);
- second – calculating total operating expenses and income;
- third – defining the financial rate of profitability on investment. The indicator, used to assess the cost-effectiveness of the project, is the financial net present value of the project (FNPV), and also the financial internal rate of return (FRR).

Herewith FNPV is calculated by the ratio:

$$FNPV = \sum_{t=0}^n a_t S_t = \frac{S_0}{(1+i)^0} + \frac{S_1}{(1+i)^1} + \dots + \frac{S_n}{(1+i)^n} = \sum \frac{S_t}{(1+FRR)^t} = 0,$$

where  $S_t$  – the balance of net cash flows over time  $t$ ;

$a_t$  – financial discount factor for the relevant period. FRR index is defined as the discount rate that achieves zero FNPV;

- fourth – identifying the different types of funds in the calculation of total financial resources of project implementation. Clarifying power of different sources and calculation of the difference between the inflow and outflow of funds shows a deficit or a profit of accumulated during the period of the project funds. It is recognized financially stable if the cumulative cash flow during each of the years taken into calculation, greater than 0;

- fifth – defining Financial rate of return on national capital – FRR (K).

The instrument of evaluation of the effectiveness of the influence of separate programs of the strategic development for the region's economy as a whole, the so-

called “Economic efficiency”, as opposed to “financial efficiency” for the private investor advocates the cost-benefit analysis (CBA). The use of shadow prices of alternative use (Fig. 1) provides for the explanation of social deviations assessment of costs and benefits from similar assessments for investors by taking into account the impact of taxes and externalities as a result of implementation:

- fiscal (tax) adjustment – “cleaning” of prices of factors of production and products, which are made, of VAT and other indirect taxes, “cleaning” prices of resources from direct taxes; exclusion of the social payments to employees from the calculation; elimination of the effect of indirect taxes (subsidies), which are designed to adjust some negative externalities by preventing their dual credit;

- the monetization of the impact of externalities, external costs and benefits that are not included in the stage of financial analysis by the method already mentioned ECDGRP [20, 144]: actual expenditures to prevent environmental degradation (expenditures that are averted); impact assessment of the quality of ecosystems to meet the ownership of real estate; assessment of the high-quality rest; assessment of the attractiveness of external benefits; assessment of the relationship between negative impact of business on the environment and the worsening of individual welfare;

- analysis of the contribution of individual investment projects in the region’s economic development through successive steps:

- first – offset adjustment of prices of resources and products that are made in the process of establishing their real value, taking into account (if necessary) additional indirect effects on the economy of the region. Implemented by calculating the actual deviation from the marginal cost for products that are not subject to sale or the customs value of goods, sold at market prices, and the actual salary adjustments with regard to unemployment in the region;

- second – discounting the anticipated social costs and benefits. To select the discount rate one of the approaches can be selected:

$$STRR = L + \rho + \mu \times g,$$

where STRR – social time preference rate, discounting of the future social costs and benefits, refusal from the current consumption for the benefit of the future consumption;

L – the risk of death (other extreme events), which is associated with complete loss of income;

$\rho$  – the rate of discounting net individual time preferences of the current consumption in relation to the future for its constant level (equal to 0 if for any positive levels of return on investment savings rate will remain unchanged at  $1/\mu$ ;

g – annual growth of the personal consumption;

$\mu$  – elasticity of the marginal rate of consumption [21], or

$$SDR = \alpha \times SOC + (1 - \alpha)SRTP,$$

where SDR – the weighted rate of social discounting, taking into account alternative sources of funds for investment projects, the price of investment resources being withdrawn from the private sector;

$\alpha$  – share of budgetary resources that displace private investments;

SOC – alternative social opportunity cost of capital, the shadow value of capital, internal rate of return of the best alternative of usage of funds in the private sector;

$(1-\alpha)$  – the share of resources that reduces current consumption;

third – calculating the outcome of economic indicators (economic net present value, economic profitability, ratio of cost / results) complex financing schemes for the method of determining the Adjusted Present Value (APV), cash flow to assess the budget efficiency investment projects [22].

Thus, increasing the economic value of the region is possible only in the implementation of both financial (in terms of investors’ project) and cost (in terms of regional development) viable investment projects.

Despite the high level of detail of the value concept at the level of quasi corporations using similar approaches in the course of maximizing the value of the region is quite problematic.

The structure provides an opportunity for a separate analysis of the internal factors of value creation and the factors shaping it by cluster or synergistic effects. This premiums (discounts) contain valuation measures, actions, links and other elements of institutional capital, formed as a result of the administration in the field of economic development. The main elements of the regional economy, which can be used by regional administration are: tax and tariff policy; budget spending (procurement, investment); attracting national funding; lobbying interests of companies at national level; policy in the sphere of public value and resources; license, regulations [23].

It should be borne in mind that the full economic development of the region in a coordinate system “of private business – public administration – population” provides for natural purposes persecution of its members:

- Firstly, the activities of local authorities, distributing its administrative, financial and other resources is to achieve the strategic objectives and priorities of development, focused on formation benefits primarily of non-cash nature;

- investors form the situation in the region by selecting options most efficient and least risky investment allocation of resources, which are based on sectoral preferences, development of the infrastructure, created by power conditions for early growth businesses;

- population chooses the places of residence and work, focusing on the level of wages formed in the region, working conditions and living standards.

Recent research related to the efficiency analysis (quasi) corporate activity in the coordinates of corporate value, while providing for consideration of the interests of not only the owners of capital, but also suppliers of the non-financial resources (material, labor, intellectual) [24]. Thus, the potential conflict of cooperation of individual participants of the trilateral cooperation process (specifically, business and government) is the fact that regional authorities are not directly interested in the growth of the value of business that has, above all, the purpose of achieving their goals: reducing unemployment, maximizing flows of tax payments, the possibility to shift the part of the functions of social security of the population of the region on business and so on. Balancing, at least in part, of the interests of private business and government is possible while taking into account flows of their costs and benefits in terms of the theory of non-cooperative games J.F. Nesh [25].

For the formal expression of possible strategies for the development of relations we will accept the following notations:

$\tau$  – flow of benefits that are in the case of growth of investment activity;

CSR – costs within the business to ensure social responsibility (positive effect in terms of administration);

B – flow of benefits for business, the cost of administration resources to ensure favorable conditions for development.

	Progressive government position	Passive government position
Socially responsible business	$B - CSR; -B + \tau + CSR$	$-CSR; \tau + CSR$
Aspect solely on creating shareholder value	$B; -B$	$0;0$

According to calculations, even slight attention to the consideration of the objectives of investors in decision-making bodies creates conditions for Pareto – increase of the level of the welfare of not only private investors but also the population at the expense of effective action regional administration [26].

Index GRP per capita, that enough informative displays actual efficiency of the regional economy, poorly suited for the analysis of the alternative variants of the development and strategic planning. Similar to corporate finance, this figure corresponds to the EPS (Earnings per Share) – net profit per share. Index GRP per capita, the share value of efficiency, achieved in the current period due to the specifics of calculation does not contain information on the cost of capital, which in the final analysis, is financed by citizens through taxes and reduced current consumption, as no information on its efficiency (capital) use. At the project level, this problem is solved through the use of investment techniques CVA analysis of the economic potential of the region. In the course of its implementation, the purpose of the development of the region may be determined increasing of the efficiency of using assets in its economy that ensures the welfare of owners of these assets, provided that it does not violate the current and future interests of the latter institutional units (including the population of the region). The most optimal conditions for the economic development are provided in the mix of development strategies of business units operating in the territory and the economic development strategy for the region. The mechanism of combining the totality of interest is the direct involvement of medium and large businesses in the development strategy of the region directly, other agents – indirectly, through the consideration of the main positions of regional strategies in the process of developing their own.

#### References:

1. Лазарева Є.В., Яблонська Н.В. Методичний підхід до оцінки конкурентоспроможності регіону / Є.В. Лазарева, Н.В. Яблонська // Регіональна економіка. – 2011. – №1. – с.23-31.
2. Горячук В.Ф. Оцінка конкурентоспроможності регіонів України на основі результатного підходу / В.Ф. Горячук // Регіональна економіка. – 2011. – №1. – с.39-46.
3. Porter M.E. Competitive Advantage, Free Press, New York, 1988. Chapter 10.
4. Krugman P. R., Wells R. Economics. – Worth Publishers, 2005. – 1200 p. – ISBN 978-1-57259-150-9.
5. Гранберг А.Г. Основы региональной экономики: [учебник] / А.Г. Гранберг; ГУ ВШЭ. – М., 2004. – 495 с.
6. Теплова Т.В. 7 ступеней анализа инвестиций в реальные активы. Российский опыт: [монография] / Т.В. Теплова; Эксмо. – М., 2009. – 368 с.
7. Шеховцева Л.С. Управляемое развитие региона (стратегическое целеполагание): [монография] / Л.С. Шеховцева; Изд-во РГУ им И. Канта. – Калининград, 2005. – 329 с.
8. Коупленд Т., Колер Т., Мурин Дж. Стоимость компаний (оценка и управление): [Учебник. Перевод с англ.] / Т. Коупленд, Дж. Мурин; Олимп-Бизнес. – М., 1999. – 576 с.
9. J. Martin, J. William Petty. Value Based Management. The Corporate Response to the Shareholder Revolution. Harvard Business School Press. 2000. – 249 pp. – ISBN 978-0-87584-800-6.
10. Rappaport, Alfred. Creating Shareholder Value: The New Standard for Business Performance. New York: Free Press, 2000. – ISBN 0029257204.
11. Ehrbar, Al. EVA: The Real Key to Creating Wealth. New York: John Wiley & Sons, 1998; Lehn, Kenneth, and Anil K. Makhija. EVA & MVA as Performance Measures and Signals for Strategic Change // Strategy & Leadership, May / June 1996, pp. 34-38; O'Byrne, Stephen F. EVA and Market Value // Journal of Applied Corporate Finance, Spring

1996, pp. 116-125; Peterson, Pamela P., and David R. Peterson. "Company Performance and Measures of Value-Added" // in The Research Foundation of the Institute of Chartered Financial Analysts, 1996; Stuart Cooper, David Crowther, Ted Davis, Matt Davies. Return on Investment // Management Accounting. June 2000, Vol. 78, Issue 6, p. 38-46.

12. Ottoson, E., Weissenrieder, F. 1996. "Cash Value Added – a new method for measuring financial performance" in Gothenburg Studies in Financial Economics. 1996/1.

13. Arnold G. 2000. Tracing the development of value based management. In: Arnold G., Davies M. (eds). Value Based Management. Context and Application. John Wiley & Sons: N.Y.

14. Madden B. J. 1999. CFROI Valuation: A Total Systems Approach to Valuing the Firm. Butterford-Heinemann: Oxford.

15. Хикс Дж. Стоимость и капитал: [Монография; Пер. с англ.] / Дж. Хикс. Общ. ред. и вступ. ст. Р. М. Энтова; Прогресс. – М., 1993. – 488 с.

16. Про затвердження Державної стратегії регіонального розвитку на період до 2015 року. Кабінет Міністрів України; Постанова, Стратегія від 21.07.2006 № 1001, остання версія – Редакція від 02.12.2011, підстава 1190-2011-п. [Електронний ресурс]. – Режим доступу: <http://zakon1.rada.gov.ua/laws/show/1001-2006-п/page2>.

17. Левченко О.М. Економіка знань: управління розвитком людських ресурсів Великобританії: [монографія] / О.М. Левченко; Видавничий дім "Корпорація". – Кіровоград, 2005. – 116 с.

18. A Study on the Factors of Regional Competitiveness. A draft final report for The European Commission Directorate-General Regional Policy // University of Cambridge. Access: [ec.europa.eu/regional\\_policy/sources/docgener/studies/pdf/3cr/competitiveness.pdf](http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/3cr/competitiveness.pdf).

19. Kunte A., Hamilton K., Dixon J., Clemen M. Estimating National Wealth: Methodology and Results. World Bank, Access: [http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/1998/11/17/000009265\\_3981013134540/Rendered/PDF/multi\\_page.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/1998/11/17/000009265_3981013134540/Rendered/PDF/multi_page.pdf).

20. Guide to Cost-Benefit Analysis of Investment Projects (Structural Funds-ERDF, Cohesion Fund and ISPA) / M. Florio, U. Finzi, M. Genco, F. Levarlet, S. Maffii, A. Tracogna, S. Vingetti // Evaluation Unit DG Regional Policy European Commission, 2002.

21. Емельянов А.М., Шелунцова М.А. Использование подхода ставки межвременных предпочтений для оценки социальной ставки дисконтирования / А.М. Емельянов, М.А. Шелунцова // Электронный журнал "Корпоративные финансы". – 2007. – №1. – стр. 9-21.

22. Малаховський Ю.В. Государственно-частные инструменты наращивания стоимости институциональных элементов национального богатства / Ю.В. Малаховський, Н.Х. Наеф // Administrarea Publica. – 2015. – №4. – С. 83-90.

23. Божья-Воля Р.Н. Использование концепции "Управление на основе стоимости" в управлении экономикой региона: [автореферат дис. на соиск. уч. степ. канд. экон. наук] / Р.Н. Божья-Воля; ГУ "ВШЭ". – М., 2009. – 26 с.

24. Ивашковская И.В. Финансовые измерения корпоративных стратегий / И.В. Ивашковская // Аудит и финансовый анализ. – 2007. – №5. – С.150-164.

25. Binmore K., Rubinstein A., Wolinsky A. The Nash Bargaining Solution in Economic Modelling // RAND Journal of Economics. – 1986. – Vol. 17. – P. 176-188.

26. Дамодаран А. Инвестиционная оценка (инструменты и техника оценки любых активов): [учебник] / А. Дамодаран; Альпина Бизнес Букс. – М., 2008. – 1344 стр.