

## **CHAPTER 2**

### **VALUE ADDED IN THE SYSTEM OF FINANCIAL INDICATORS OF THE CORPORATE ENTERPRISES' BUSINESS ACTIVITY**

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#### **INTRODUCTION**

One of the main directions of the reforms taking place at the microeconomic level is a creation and development of corporate (joint-stock) ownership. The poorly performing economy of socialist enterprises having remained as Ukraine's inheritance, lack of a strategic program of economic transformation in the transition period as well as lack of managers' knowledge of corporate governance methods are the reasons for the unprofitable activity of numerous corporatized and privatized enterprises. Today, managers of joint-stock companies face the challenge of proper management, since such companies differ from those of other organizational and legal forms in separating capital owners from participation in management.

Corporate governance issues are being researched by scientists both abroad and in Ukraine. The most famous foreign researchers among them are R. Braille, Y. Brigham, Van Horn, R. Westerfield, B. Jordan, Davis Steven, Dumb Ada, Dubiel Stanley, S. Myers, S. Ross. Russian scientists who have contributed to the development of the corporate governance theory are V. Bocharov, A. Denisov, S. Zhdanov, A. Ivanov, V. Leontiev etc. The list of Ukrainian scholars includes L. Dovgan, V. Yevtushevsky, O. Karbovnik, M. Korolenko, O. Mendrul, S. Pishpek, N. Ryazanov, V. Sutormina, M. Sirosh, V. Tarnavsky, V. Fedosov, L. Venger, M. Gridchina, A. Denisov, D. Isaev, N. Kalach, T. Momot, G. Skudar, M. Chumachenko, M. Shkilnyak etc. deal with the improvement of the financial and economic mechanism of corporate management. However, despite a great deal of scientific works devoted to this issue, some its aspects are insufficiently studied in the economic literature.

The transition economy of Ukraine is marked by a large number of enterprises with low production efficiency. The main challenge of the business environment of Ukrainian enterprises is lack of sufficient profit, which leads to their insolvency and subsequent bankruptcy. The financial

results of various joint-stock companies both do not contribute to the growth of capital and do not even provide simple return on investment. Instead, capital is reduced due to losses, which points to downturn in the development of these companies' business. In today's economic conditions with a great deal of unprofitable enterprises, the indicators of financial results of performance, return on equity, return on assets, profitability of business activity are becoming more and more negative and their subsequent analytical decomposition gets more complicated. This problem may be resolved by implementing effective management based on a systematic approach in order to increase the efficiency of joint-stock companies' business activity.

At present joint-stock companies demand new criteria to evaluate the effectiveness of their operations, which would provide true information whether the goals of corporate governance are achieved or not, in particular, whether the interests of all their members are satisfied<sup>1</sup>. Yet so far this issue has not been properly addressed both in the studies of the related economic science and in the concepts and methodological developments of the relevant bodies of public administration dealing with economic issues.

The indicator for estimating corporate enterprises' performance should reflect the main levers of value creation and provide necessary information to make management decisions both by managers and shareholders of a joint-stock company. At the same time, this indicator should also reflect the contribution of all participants to the creation and distribution of value and be effective enough for analytical decomposition in the system of financial results of an enterprise's business activity.

## **2.1. Value added as a performance indicator of enterprises with corporate governance**

The common financial indicator, which usually evaluates financial performance of an enterprise and is used both abroad and in domestic methods of analyzing an enterprise's business activity, is profit. However, according to many financial experts, it does not fully reflect the main levers of value creation.

The presence of a large number of unprofitable enterprises in Ukraine brings about methodological problems arising during the calculation and

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<sup>1</sup> Шкільняк М. Менеджмент у системі корпоративного управління. *Вісник Тернопільського національного економічного університету*. 2018. № 2. С. 7–20.

interpretation of economic indicators of their activities. These circumstances require a special approach to developing a technique for analyzing the activities of both profitable and unprofitable enterprises. The new requirements also highlight the need for appropriate indicators that would provide relevant and reliable information as to the performance results and financial status of corporate enterprises.

Such an indicator should make it possible to measure the results of corporate enterprises' business activity in the current conditions of transition economy and provide managers and, if necessary, shareholders of a joint-stock company with proper information as to the management of economic processes.

The indicator that addresses the mentioned requirements is value added created and distributed by an enterprise in the course of its activity. It basically reflects the efficiency of an enterprise's activity in terms of corporate governance due to the fact that value added is distributed among all participants of corporate relations in the form of wages, interest on attracted capital, dividends and taxes as well as some part of it may remain for further company's development.

Value added is a much deeper and more fundamental criterion for estimating the results of an enterprise's business activity than profit, since it does not only measure a company's performance as a whole, but also assesses its social contribution. In particular, the distribution of value added provides information as to a respective remuneration share of a corporate governance team. Figure 1 shows the main directions of value added usage and presents the elements into which it is distributed. Thus, the main participants in corporate governance, who determine the direction of value added distribution, include: company staff; state; suppliers of capital (own and attracted).

Value added is the reason why a company has been set up and, what is more, the financial results of its activity depend entirely on the proportions of value added distribution into its constituent elements. Value added marks the result of the company owners', managers' and employees' efforts and reflects a level of public benefits. From this point of view, value added can be seen as a criterion for estimating the results of the business activity of a corporate enterprise.

Therefore, to make a relevant and reliable estimation of the business activity of a company with corporate governance and further analytical decomposition of the selected criterion, it is advisable to use value added created by such a company.

Value added is one of the most difficult economic categories. To understand its essence, it is necessary to study the history of value added paradigm as well as turn to the basics of economic theory.

Modern economic theory specifies that not only employees but also means of production are involved in the creation of value added and profit. This point of view is upheld particularly in the Western economic theory, which is based on four factors of production: land, capital, labor and entrepreneurial capability<sup>2</sup>.

American scientists K. Cobb and P. Douglas analyzed the influence of factors of production on the rate of new created value (so-called production function). According to their calculations, which were carried out in the 50s of the 20th century in relation to the American economy, the contribution of labor to the growth of national income was  $\frac{3}{4}$ , while that of capital was  $\frac{1}{4}$ .

New created value is precisely called *value added*, considering the fact that an enterprise, during the process of production, adds new value to past materialized labor costs.

There are several ways to define value added, but all these definitions mean nearly the same:

– value added is an increase in the value created by an enterprise in the process of goods (works, services) production. It includes labor remuneration,

– profit and some other elements. In practice, value added is calculated as the difference between the cost of finished products sold and the cost of raw materials, supplies and semi-finished products used for their manufacture<sup>3</sup>;

– value added (in economic theory) is the value of a product sold by a company with the subtraction of the cost of supplies used by this company for its production. Value added is equal to a part of revenue that includes equivalents of wages, rents, interest and profit<sup>4</sup>;

– value added (in the measurement of GDP, which stands for the amount of value added created by all producers and residents) is the value of sectoral sales excluding the value of intermediate goods. Only the value

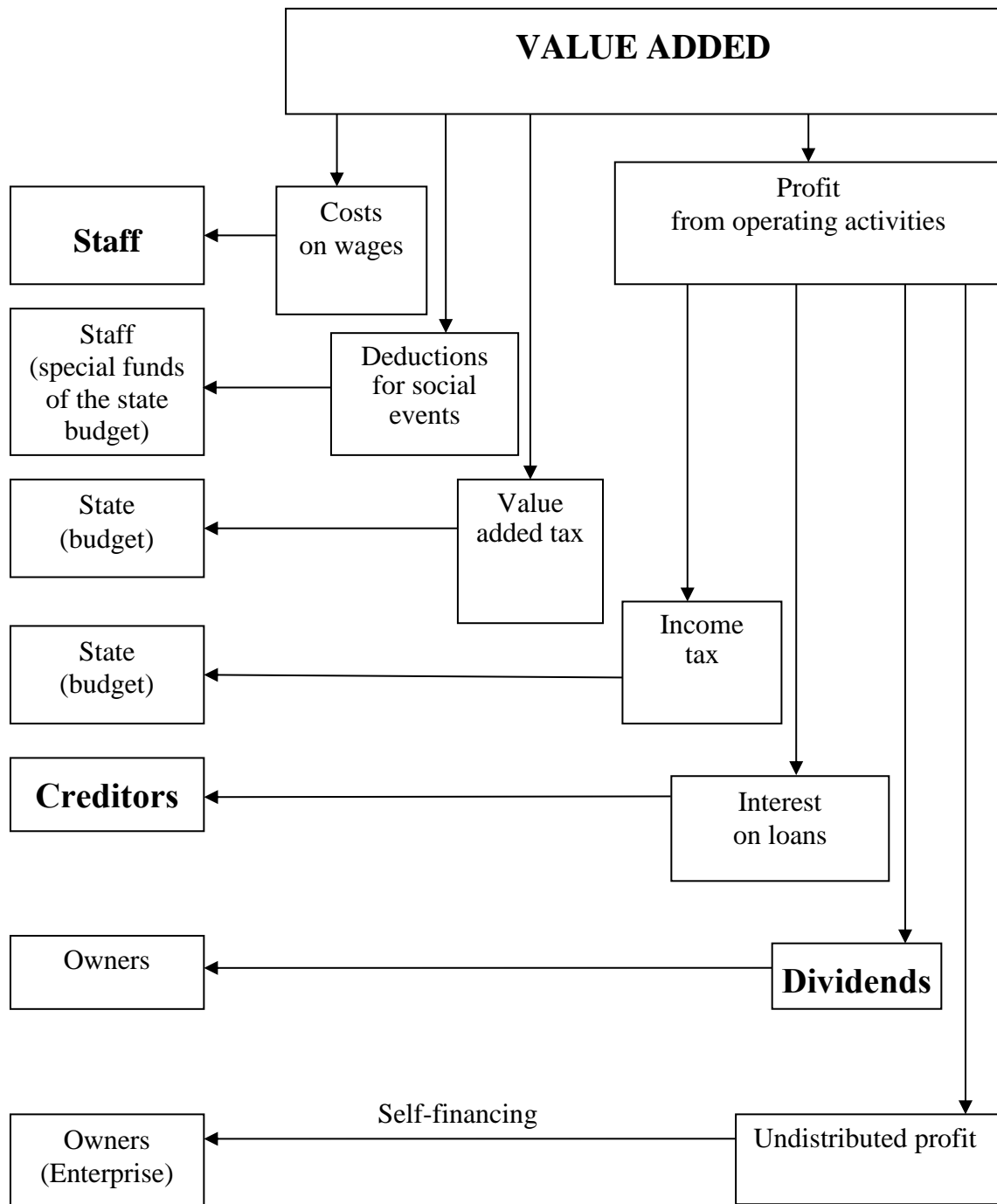
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<sup>2</sup> Макконелл К., Брю С. Экономикс: принципы, проблемы и политика. Москва: Республика. 1992. 399 с.

<sup>3</sup> Абрютин Н.С. Добавленная стоимость и прибыль в системе микро- и макроанализа финансово-экономической деятельности. *Финансовый менеджмент*. 2001. № 1. С. 13–17.

<sup>4</sup> Макконелл К., Брю С. Экономикс: принципы, проблемы и политика. Москва : Республика, 1992. 399 с.

of finished products is taken into account for GDP calculation, which avoids double measuring<sup>5 6</sup>.



**Figure 1. The main directions of value added distribution of a corporate enterprise**

<sup>5</sup> Моторин Р.М., Моторина Т.М. Система національних рахунків : Навчальний посібник. Київ : КНЕУ, 2001. 336 с.

<sup>6</sup> System of national accounts of United Nations (SNA). URL: <http://unstats.un.org/unsd/sna1993/toctop.asp>

The definition of value added implies the value generated directly by an enterprise in the process of production by living labor, which is added to the cost of intermediate consumption and, together with the latter, creates the value of a product. Intermediate consumption costs include costs of past materialized labor, particularly, a share of fixed capital (depreciation) spent and working capital spent.

Value added is conventionally perceived by modern economists only in connection with a tax paid on it. By contrast, value added as an economic category objectively exists in business, whether or not a value added tax is imposed by a government. In addition, experts believe that any economic unit is created just for the sake of value creation, which distribution is essential for financial results of any business and workers' wages.

As it has been mentioned above, value added marks the result of the efforts made by owners and employees of an enterprise and reflects a rate of public benefit created by a joint-stock company. The economic elements that make up value added are in line with all the participants of corporate governance. Therefore, from this point of view value added can be regarded as an indicator of a corporate enterprise's performance.

On the basis of the chosen criterion and by using an appropriate algorithm of its calculation as well as a special method of analysis, it is possible to obtain reliable information regarding the estimation of a joint-stock company's economic efficiency.

Before developing a model of calculation and choosing a methodological approach to the analysis of the selected indicator as well as creating any algorithm of appropriate measurements, it is necessary to identify a current role and place of value added in the economic processes running at the level of micro- and macroanalysis of the financial and economic activity of an enterprise.

Let us consider the relationship and features of the content and structure of value added when defining it at the micro- and macroeconomic levels.

In a country with market economy financial management of an enterprise is concentrated on profit, while the focus of government administration is on Gross Domestic Product (GDP), which consists of the total amount of all value added created by enterprises. In this context it means that the state economic policy is aimed at creating conditions for enterprises to obtain maximum profit, and the profit of an enterprise depends directly on the value added it has created. Conceptually, it is assumed that different interests at micro- and macro-level economies are in harmonious unity.

Yet in practice it turns out that in the system of national accounts (SNA) at the macro level there is no such an indicator as “total profit of enterprises”. Also, among the indicators of accounting (financial) reporting and forms of state statistical reports completed by enterprises there is no such an indicator as “value added”. This contradiction has been observed for quite a long time, but only a few experts raise this issue. For instance, N. S. Abryutina believes that through data of financial accounting are necessary primarily for “matching” micro and macro levels. To make it possible, she proposes to introduce national accounting indicators, first of all value added, into the Plan of company accounts<sup>7</sup>.

Accounting in an enterprise is a mechanism for monitoring the correctness of accounting records. Within the SNA such control is absent, since it is unnecessary at the macro level. It exists, though, in the form of GDP calculation both by production and distribution methods as well as by end use<sup>8</sup>. Herewith, all three calculations should be relevant to one another.

Establishing a relationship between micro and macro levels includes creation of an enterprise’s accounting system that would calculate value added. The emergence of the value added indicator among enterprise’s financial indicators will solve not only the pressing issue of reporting discrepancy at the micro- and macroeconomic levels, but also serve as a tool for deeper analysis of the financial and economic activity of enterprises.

Value added is an indicator, which the national accounting system is based on, and it is implicitly hidden in accounting records. So, it would be beneficial to make it an object of the state statistical reporting of an enterprise and an indicator that would become a subject of the internal financial analysis. In today's market conditions businesses pay value added tax (VAT) and, at the same time, do not calculate directly the object of taxation. The contradiction is that the value added tax rate is tied to sales revenue, but not to value added itself.

## **2.2. The methodology for determining value added at the enterprise level**

Despite the significance of the value added indicator in measuring and further analyzing a company’s business activity, national accounting

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<sup>7</sup> Абрютина Н.С. Добавленная стоимость и прибыль в системе микро- и макроанализа финансово-экономической деятельности. *Финансовый менеджмент*. 2001. № 1. С. 13–17.

<sup>8</sup> System of national accounts of United Nations (SNA). URL: <http://unstats.un.org/unsd/sna1993/toctop.asp>

standards in Ukraine do not provide for completing a report on value added and its calculation.

So, let us take a look at the main methods of calculation and components of value added.

In general, the model of value added calculation is:

$$\text{Added value} = \text{Production volume} - \text{Intermediate consumption.} \quad (1)$$

If a company operates rhythmically, then the volume of sales is almost equal to the volume of production for the relevant period of time. Therefore, to simplify the

calculations, it can be assumed that the production output rate corresponds to the sales revenue.

Intermediate consumption is a part of total production costs, which includes production, management and commercial expenses including different elements. These elements are raw materials, supplies, fuel, energy, component parts, depreciation as well as wages costs, that is, all current expenses associated with manufacturing goods by a company with the use of goods purchased from third parties. The production of goods without attracting resources from third parties is not intermediate consumption.

There are several methodological difficulties in calculating value added at the enterprise level:

- enterprises' expenses are determined and grouped according to the volume of sales, not in relation to the amount of goods produced;

- depreciation is accounted for as a part of costs and in the SNA – as a part of value added, in other words, a part of income;

- VAT in the reporting of an enterprise is artificially separated from revenue and expenses and does not participate in sales turnover. Therefore, while calculating added value it is necessary to include VAT in turnover again.

More important thing for corporate enterprises at this stage is not so much the accuracy of calculation of value added as the selection and reasoning of its main constituent elements as well as identifying the principal model of its calculation and algorithm of analysis.

Let us consider the main methods of calculating value added. In economic science different approaches to its determination exist depending on the needs and requirements of information users.

Specifically, there are two fundamentally different methods of calculating added value at present:



- subtractive, which defines value added as the difference between the value of output and the value of intermediate consumption;
- additive (cumulative), which determines value added as the sum of elements that make up its distribution – profit, wages, taxes and interest on loans.

Therefore, the terms of residual value added (RVA) and additive value added (AVA) should be introduced according to the model of value added calculation.

According to the abovementioned principal model of calculation, residual value added is measured by the formula:

$$RVA = SR - IC, \quad (2)$$

where SR is sales revenue from products (works, services) sold; IC – Intermediate consumption.

Next, it is necessary to clearly determine expenses related to intermediate consumption in the production of goods (works, services). It should be pointed out that there are some different approaches to this issue.

In the world practice, value added created by an enterprise is calculated at two levels – gross and net<sup>9</sup>.

Unlike net value added, gross value added includes depreciation costs in addition to the abovementioned elements. Some Ukrainian experts attribute depreciation to value added believing that fixed assets thus transfer their value to a new created (added) value. However, as known, depreciation is a conditional attribution of the part of fixed assets costs to the cost of products and, accordingly, to the total cost of goods produced by an enterprise. What is more, fixed assets are produced outside an enterprise, belong to acquired tangible assets and are subject of production by other enterprises. From this point of view, it makes sense to attribute depreciation to intermediate consumption expenses. Consequently, for the purposes of using value added as an indicator that estimates the results of a corporate enterprise's business activity, its determination should be made based on the model of net value added indicator, i.e. excluding depreciation costs.

Thus, intermediate consumption (IC) costs should include all current expenses associated with the release of products (works, services) produced by an enterprise and which are also the subject of output of other enterprises:

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<sup>9</sup> Caby J., Couret A., Herigouyen G., *Initiation a La Gestion*. Montchrestien, Paris, 1998. P. 558.

$$IC = MC + DC + OC, \quad (3)$$

where MC is material costs including production, management and commercial expenditure, in particular, raw materials, supplies, fuel, energy, component parts expenses; DC is depreciation costs; OC is other costs including manufacturing services expenses.

The model of calculating residual value added taking into account intermediate consumption costs is now as follows:

$$RVA = SR - (MC + DC + OC). \quad (4)$$

If the volume of production and the volume of sales do not match, the calculation of value added becomes more complicated. Still, if a company's management makes a decision to know and analyze value added, its calculation at first can be exercised quite easily by making certain assumptions that do not significantly affect the result. After all, the basic analytical procedures and methods of information processing in economic analysis at the micro level are mainly a horizontal analysis involving the comparison of indicators of different time periods.

On the other hand, additive value added (AVA) calculates value added by adding elements into which it is divided: net profit, income tax, wages, deductions and interest on loans:

$$AVA = NP + IT + VAT + LC + DSE + IL, \quad (5)$$

where NP is net profit; IT is income tax; VAT is value added tax; LC is labor costs; DSE is deductions for social events; IL is interest on loans.

It is worthwhile highlighting that value added calculated by the subtractive method is that actually created within an enterprise, while the second method of calculating value added (additive) sums up those costs, which do not belong to intermediate consumption, but are made directly in the process of production and sale of goods. Thus, additive value added, which is a sum of costs, is, by the nature of its calculation, a value not created but distributed to the relevant cost areas. Therefore, comparing the two results of value added calculation – RVA and AVA will show the same rate for enterprises that have a positive or zero financial result. For unprofitable enterprises, the rate of AVA will always exceed that of RVA by the amount of losses.

In fact, virtually created value added is RVA. In case of an unprofitable enterprise, AVA is a value distributed to cover costs that are only partially made up for by the added value created. The other uncovered part of RVA is a loss and can be usually covered by means of

immobilizing company's assets. Thus, a consistent assessment and analysis of value added calculated by the subtractive and additive methods will allow not only determining its rate, but also in case of loss-making activities assessing the degree of a company's deficit.

A necessary and at the same time important step at the preparatory stage of developing a framework and creating an algorithm for the value added analysis is also modeling of financial statements and working out an algorithm to determine RVA and AVA.

When developing a value calculation algorithm and modeling an appropriate financial reporting form, some difficulties may arise due to the discrepancy between the data contained in accounts and presented in the accounting (financial) reporting forms. The data presented in financial reporting forms are more subject to taxation than the financial analysis, despite the existence of separate mandatory forms of tax reporting in Ukraine. Still, all the necessary information for the financial and economic analysis is contained in the general ledger. On the other hand, in accounting there are two kinds of outgoing information: accounts and reporting forms. To that end, there should be introduced two methods of calculating value added: based on accounting records and based on reporting forms, respectively. Let us consider the approach to the determination of value added based on completing a relevant reporting form – the “Added Value Statement”.

Generally, financial statements of an enterprise include two main documents of financial reporting – the “Balance Sheet” (Form № 1) and the “Income Statement” (Form № 2). The main purpose of these documents is to meet the information requirements of both external and internal users.

In today's business environment, management of a reporting company demands accounting information that would be beneficial in making right managerial decisions. The requirement to develop a managerial function of accounting raised the question of specifying definite users of this information and their information needs. An attempt to address this question was made by American professional accountants, who brought up for discussion a document about the content of additional information that should be provided by corporations. One of the necessary additional documents included in this list is the “Value Added Statement”. The Accounting Standards Committee (ASC) published the “Report on Corporations”, where value added was defined as “wealth that an entity could create through its own efforts and efforts of its employees”. This

document stated that the reporting forms existing at that time did not fully meet the requirements of different users of accounts. It recommended that company reports should cover a wide range of information and this information should be provided to those with sufficient rights to access. In particular, users of information regarding the activity of corporate enterprises include not only the owners, but also employees, creditors, state, public etc. The document also indicates that the “Value Added Statement” reveals in detail a company’s profits and expenses and may further be considered as a more convenient and informative means of presenting the results of corporate enterprises’ business activity.

Obviously, compiling and presenting such additional information will result in additional costs and much deeper description of an enterprise's economy. On the other hand, it should be taken into account that joint-stock companies enjoy a protected limited liability status. That is why, corporations are believed to be prepared to publish additional information about their business activities.

The “Income Statement” provides information about profit and loss and, thus, presents a corporation's performance only from a shareholder side. But current management theories regard a corporate enterprise as an organization ruled by a stakeholder team for its own benefit. Such teams generally include employees, capital suppliers (shareholders and lenders) and government. While the “Income Statement” generally measures only profit or loss and does not provide any information on the distribution of this profit, the “Value Added Statement” is able to reflect the share of value received by the entire team of employees, capital suppliers and government and may also contain information regarding how it is distributed.

The author of the scientific paper has developed the project model of the “Value Added Statement” and defined the algorithm for calculating the indicators contained in the statement (Table 1).

In the first section of the “Value Added Statement” value added is calculated by the subtractive method – as the difference between a company’s revenue and an amount of intermediate consumption and depreciation – a residual value added (net) – line 11.

In the second section of the document (Table 1) an additive value added, which includes costs it is used for, is calculated – line 29.

Value added is a much broader and less subjective concept than an accounting profit. It is quite easy to complete the “Value Added Statement”, since it generally means regrouping the information already disclosed in the “Income Statement”. Hence, this report can be considered

as a document that shifts the emphasis usually made on the declared profit of a joint-stock company to the information on the distribution of created value among all participants in corporate governance.

It should be underlined that the calculation of RVA and AVA allows not only determining the amount of value added actually created by an enterprise with a view to calculating the amount of costs to be covered by the value added created, but also, in case of unprofitable activities of an enterprise, to estimate the degree of its deficit.

Table 1

**Value Added Statement**  
**(The project model and algorithm of value added calculation)**

<i>Line number and algorithm for value calculation</i>	<i>Section 1. Creation of value added</i>	<i>Code</i>	<i>For the previous period</i>	<i>For the reporting period</i>
1	2	3	4	5
1	Sales revenue (including VAT)	010		
2	(incl. VAT)	020		
3	Growth in finished goods in stock	030		
4 = 1+3	<b>Volume of production (including VAT)</b>	040		
5	Material expenses	050		
6	Other operating expenses (services)	060		
7 = 20% (5+6)	VAT on purchased and spent values	070		
8 = 5 + 6 + 7	<b>Intermediate consumption (including VAT)</b>	080		
9 = 4 – 8	<b>Residual value added (gross)</b>	090		
10	Depreciation	100		
11 = 9 – 10	<b>Residual value added (net)</b>	110		
12	VAT (paid to the state budget)	120		
13	Labor costs	130		
14	Deductions for social events	140		
15	Taxes included in the cost of production	150		
16 = 11-(12+13+14+15)	<b>Income from operating activity</b>	160		
17	Financial expenses	170		
18	Income tax	180		
19	Other taxes on income	190		

## Ending of Table 1

1	2	3	4	5
20 = 16- (17+18+19)	<b>Net profit</b>	200		
21	<b>Dividends</b>	210		
22	Undistributed profit	220		
23	Other directions of profit distribution	230		
	<b>Section II.</b> <b>Value added distribution</b>			
24 = 13	Staff	240		
25 = 12+14+15+18+19	State	250		
26 = 17	Creditors	260		
27 = 21	Owners (dividends)	270		
28 = 22+23	Owners (enterprise)	280		
29 = 24+25+26+27+28	<b>Total amount of additive value added</b>	290		
30 = 11-29	<b>Absolute rate of unrecovered costs</b>	300		

As mentioned above, both value added indicators – RVA and AVA will only reach the same rate for businesses having a positive or zero financial result. For unprofitable businesses the rate of AVA will always exceed the value of RVA and the level of this excess, as can be seen from the models of RVA and AVA calculation, is equal to the amount of losses (L):

$$L = RVA - AVA. \quad (6)$$

The exceeding of RVA over AVA can be considered as a rate of unrecovered costs to be paid at the expense of value added created by an enterprise. In particular, in case of unprofitable enterprises, the amount of actually created value added is not enough to cover all necessary expenses, which leads to the immobilization of assets and loss of the capital of shareholders of a joint-stock company.

Therefore, the loss (L) is nearly equal to the absolute rate of unrecovered costs of additive value added (ARUC):

$$L = ARUC = RVA - AVA. \quad (7)$$

On the other hand, the relative share of loss in additive value added is equal to the relative rate of unrecovered costs (RRUC), which is calculated in percentage:

$$\text{RRUC} = \text{ARUC} / \text{AVA} \times 100\%. \quad (8)$$

The information on the absolute rate of unrecovered costs is undoubtedly worth including in the “Value Added Statement” of a joint-stock company in the appropriate form of financial reporting (line 30, Table 1).

Thus, the proposed project model of the “Value Added Statement” contains the following important information for analysis:

- the amount of actually created value added – RVA;
- the amount of costs to be paid at the expense of created value added – AVA;
- profit or loss as a result of operating activities of an enterprise – P, L;
- the size of shares of value added distribution among the participants in corporate governance: staff, state, creditors, enterprise;
- the absolute rate of unrecovered costs of additive value added – ARUC.

### **2.3. The integration of value added into the Balanced Scorecard of an enterprise**

The additional information included in the “Value Added Statement” gives analysts more opportunities to evaluate and analyze the performance of corporate enterprises. In particular, such analysis can be carried out based on the relative indicators calculated by the following models: *a share of value added in sales revenue* (SVA); a ratio of intermediate consumption costs to sales revenue – *unit costs of intermediate consumption* (UIC); a ratio of intermediate consumption to value added – *a cost capacity of value added* (CCVA).

It should be pointed out that the proposed indicators do not contradict to those traditionally used for the financial analysis and can be integrated naturally enough into the current systems of financial and non-financial indicators.

One of such systems is the Balanced Scorecard (BSC) and Economic Value Added (EVA), which integration was attempted by foreign economists<sup>10</sup>.

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<sup>10</sup> Ampuero M., Goranson J., Scott J., Solving the Measurement Puzzle; How EVA and the Balanced Scorecard Fit Together. *The Cap Gemini Ernst & Young Center for Business Innovation. Issue “Measuring Business Performance”*, 1998. P. 45–52.

It is anticipated that the integration of EVA into the BSC structure will allow it to be used as a fundamental indicator to transform BSC from a set of useful but unstructured metrics into a system with a well-defined performance benchmark.

However, the EVA concept is based on a comparison between profits and expenses that recover the cost of capital. Thus, this calculation cannot be made for unprofitable enterprises and its use in the conditions of transition economy becomes limited. The idea of integrating this economic indicator into the system of non-financial indicators of BSC can be implemented by applying value added proposed above in this paper as a financial indicator to measure the results of corporate enterprises' business activity in the conditions of emerging market.

The principle of calculating one of the efficiency indicators for corporate governance, which is the share of value added in sales revenue (SVA), allows it to be applied in the model of financial analytical decomposition ("Du Pont Model") to determine the impact of individual factors on the level of value added created for a certain period of time per one monetary unit of equity (Figure 2). Impact factors in this model include the following: the share of value added in sales revenue ( $VA / SR$ ); assets turnover ratio ( $SR/A$ ); debt ratio (assets ( $A$ )/ shareholders' equity ( $E$ )).

Further analysis of these indicators can be carried out by means of the traditional scheme in accordance with the character of each of them, in particular:

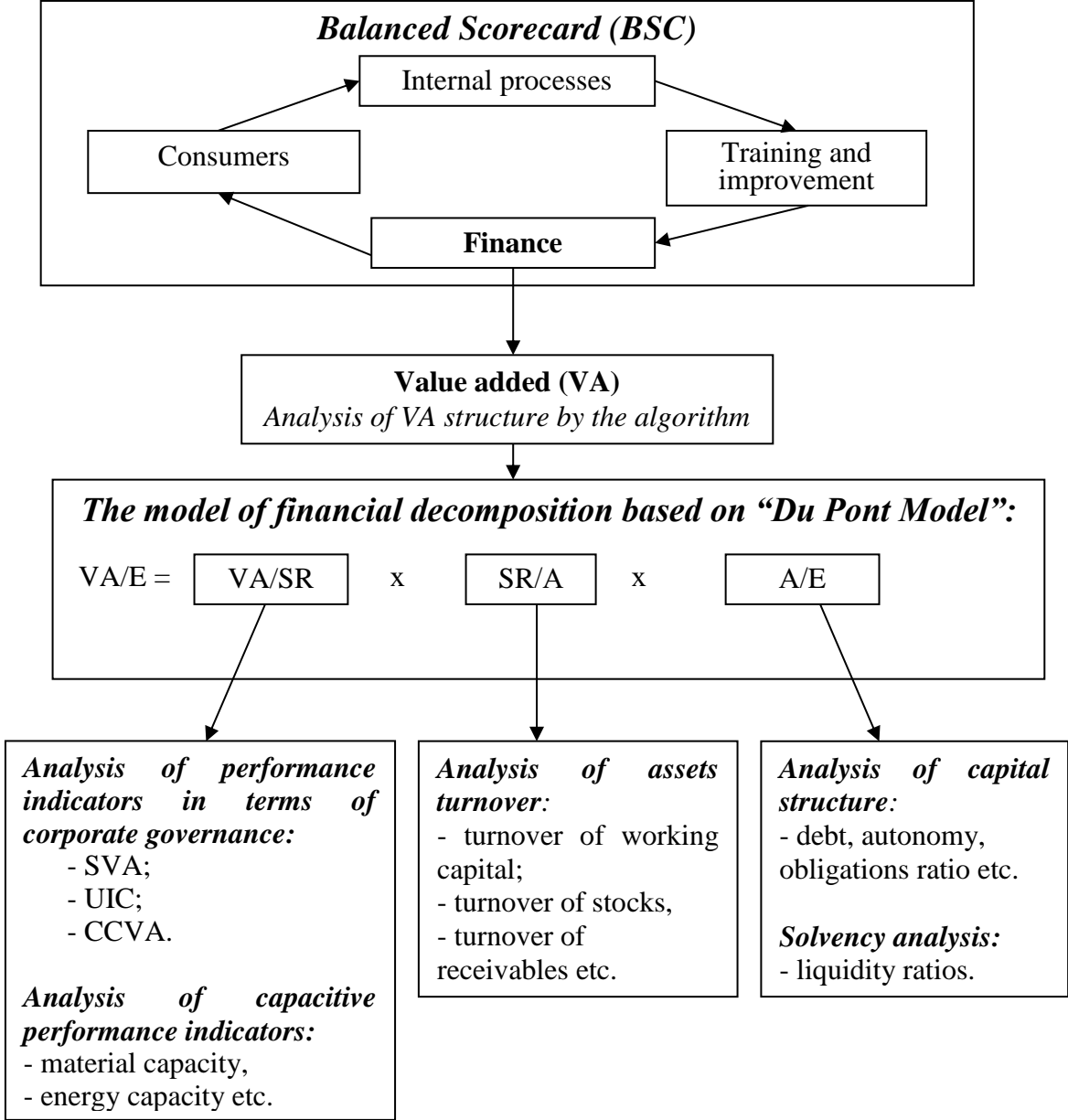
- analysis of performance indicators in terms of corporate governance (SVA, UIC, CCVA and their elements);
- analysis of capacitive performance indicators;
- analysis of assets turnover (total value of assets and elements);
- analysis of capital structure and solvency of the enterprise.

Value added is a deeper and more fundamental criterion for measuring the performance of corporate enterprises than profit analysis, since value added estimates the results of a company's business activity as a whole and thus makes it possible to analyze and understand its social contribution. In particular, the information on the distribution of value added among stakeholders makes the participants in corporate governance aware of the respective share of remuneration of different team members.

The proposed indicators for assessing the performance of companies with corporate governance, in contrast to traditional estimates calculated using a profit indicator, can also be applied to unprofitable enterprises, since the probability of negative index of value added in modern market



conditions is much less than the probability of unprofitable activities of enterprises. Thus, the use of value added as a performance indicator of corporate enterprises helps to prevent identified drawbacks of existing methods based on profit analysis.



**Figure 2. The integration of the performance indicator of corporate enterprises into the system of financial and non-financial indicators**

**CONCLUSION**

With a view to presenting the profit and expenses of a joint-stock company in the form that is consistent with the interests of all participants in corporate governance, it is recommended to complete the “Value Added

statement”, the model of which is offered in this study. This document discloses in detail all relevant information and can be considered as the best option for presenting the results of business activity of corporate enterprises achieved through joint efforts of capital, management and employees.

The value added indicator calculated by means of subtractive and additive methods allows not only determining value added actually created by an enterprise as well as calculating the amount of expenses to be covered by the created value added, but also estimating the degree of its deficit in case of loss-making activity.

The analysis of the performance of corporate enterprises based on the study of the composition and structure of value added, identifying the impact of certain financial factors on its amount and using value added as a financial indicator in the balanced system of non-financial indicators will contribute to obtaining a much greater amount of new and much more proper information than while using conventional research methods. The results of such analysis are interesting to all participants in corporate governance and, in addition, such information may be particularly beneficial for capital owners.

## **SUMMARY**

A new approach to evaluating and analyzing the performance of joint-stock companies has been presented based on the indicators that define the results of business activity of a company with corporate governance and can be integrated into the modern systems of financial and non-financial indicators. The relevance and necessity of using value added, which is created and distributed by an enterprise in the course of its activity, as a performance indicator have been proved. Value added marks the result of a company’s owners, managers and employees efforts as well as reflects the rate of public benefit and allows evaluating the degree of achievement of the goals of corporate governance.

It has been proposed to supplement the financial and management reports of a joint-stock company with the Value Added Statement, the form of this document has been developed and the algorithm for calculating its indicators has been drawn out. A consistent assessment and analysis of value added, calculated by the subtractive and additive methods, provides information on its total amount and structure, and, in case of unprofitable operations of an enterprise, makes it possible to measure the rate of unrecovered costs covered by the immobilization of assets.

To analyze the effectiveness of corporate governance it is worthwhile involving relative indicators calculated on the basis of value added: the share of value added in sales revenue; unit costs of intermediate consumption; cost capacity of value added. The given indicators do not contradict to those traditionally used for the financial analysis and can be easily integrated into the current systems of financial and non-financial indicators.

The analysis of the business activity of corporate enterprises based on the use of value added as a financial indicator in the model of financial analytic decomposition (Du Pont Model) and in the balanced system of financial and non-financial indicators (Balanced Scorecard) will allow obtaining new and much more proper information in comparison with traditional research methods. The results of such analysis are useful for all participants in corporate governance.

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