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Tools for considering ESG factors in business valuation

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Abstract

As an indicator of the sustainability of the company's development, an indicator of its value is proposed, reflecting the dynamics of the financial health of the company and the ability of its management to create value for shareholders and other stakeholders. An increase in the value of an enterprise can serve as an indicator of improving production efficiency, introducing new technologies and processes, increasing the customer base and diversifying the business. The applicability of the enterprise business value indicator as an integral indicator of sustainable development is substantiated.

The hypothesis is considered that in the framework of business assessment, the influence of ESG factors should be taken into account by adjusting the cash flows of the enterprise and the discount rate as an indicator reflecting the risks of obtaining (forming) these cash flows, while the risk accounting areas should be correctly divided in order to avoid double accounting.

The expediency of calculating the validity of a block of shares or a share of an enterprise for sale (Discount for lack of marketability (illiquidity), DLOM) when evaluating a business, instead of a discount on liquidity, has been proved, which, when making final adjustments, should be calculated using a multiplicative formula together with a discount on the non-controlling nature of a block of shares; ESG factors when calculating the validity of a block of shares or the shares of the enterprise for sale are proposed to be taken into account using the "Mandelbaum factors".

The conducted research can be applied in practical tasks of business value management in the context of the vector of sustainable development of enterprises and the economy.

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Introduction

The sustainable development of an enterprise has a number of positive factors that contribute to its success. First of all, this is an increase in competitiveness: enterprises striving for sustainable solutions use innovative technologies and management methods, which allows them to improve the quality of their products or services and increase labor productivity. Such enterprises are more attractive to buyers and competitors.

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When sustainability factors are included in an enterprise's strategy, there is a reduction in risks and economic costs: Enterprises engaged in sustainable development are more conscious of resources and apply effective methods of managing them. This reduces environmental concerns, saves water and energy, and reduces waste disposal costs.

It is important that the efforts of the enterprise increase the attractiveness of the company for investors: investors are increasingly paying attention to the social responsibility of enterprises and their sustainable development strategy. Successful sustainable enterprises attract more investors, which contributes to their development.

A sustainable enterprise also creates favorable living and working conditions for employees, supports the socio-economic development of the region where it is located, and takes care of the environment. This helps to reduce social tension and improve people's living standards.

At the same time, the sustainable development of an enterprise can lead to some risks and dangers that may be underestimated or ignored in decision making. Some of these risks and hazards may include:

- Financial risks: The sustainable development of an enterprise may require significant financial investments, especially at the beginning of the process. This can create an additional burden on the financial resources of the enterprise and increase the risk of bankruptcy.

- Risks of knowledge transfer: Sustainable development is usually based on the transfer of knowledge and experience that cannot be bought on the market. However, if key specialists leave the company, this knowledge may decrease and significantly affect the sustainability and success of development.

- Reputational risks: Sustainability is associated with responsible behavior in environmental, social policy and business ethics. However, violation of these principles may negatively affect the company's reputation, making it difficult to conclude new contracts and attract investments.

- Risks of changes in legislation: Sustainability is based on compliance with legislation and regulation. However, changes in legislation or overly stringent requirements may lead to the need for additional investments and lower profitability.

- Risks of loss of competitive advantage: Sustainable development can be more expensive than traditional development. This can increase the cost of products and services, which can reduce the company's competitiveness and sales volume.

- Risks of interaction with the external environment: Sustainable development involves interaction with the external environment, including suppliers, consumers, government agencies and society as a whole. Failure to meet the expectations of any of these groups can lead to a drop in sales and loss of trust.

The sustainability of an industrial enterprise has traditionally been measured on the basis of a number of indicators, such as financial sustainability, which is determined by the company's ability to increase its revenues and reduce costs in order to achieve long-term profits; environmental sustainability, which is determined by the level of care for the environment and compliance with safety and environmental responsibility standards; social sustainability, which is determined by how the company treats its employees, the social and cultural aspects of business, fairness and the fight against corruption.

The quality problems of measuring the sustainability of industrial enterprises development are mainly related to the following factors:

- Lack of a unified methodology for measuring development sustainability. Each enterprise may use different methods to assess its sustainability, making it difficult to compare results between enterprises and create a common methodology.

- Limited data and information. In order to assess the sustainability of enterprises development, broad and high-quality information is needed on various aspects of the activities of enterprises, such as economics, ecology and social aspects. However, such information may be limited, especially when it comes to small and medium-sized enterprises.

- Lack of transparency and complexity of the sustainability measurement process. Assessing sustainability requires taking into account many factors and indicators, and the process can be complex and confusing. This can make it difficult for stakeholders to understand the evaluation results and limit their participation in the process.

- Problems of standards harmonization. Sustainability assessment standards for industrial enterprises may vary across countries and industries, making it difficult to establish a unified system and standards. This can lead to unfair comparisons between different market players and hinder international cooperation in this area.

1. Hypotheses

Based on the identified problem of the quality of measuring the sustainability of industrial enterprises development, the following hypotheses are put forward for its solution:

Hypothesis 1 - Use the value of the enterprise as an indicator of sustainable development

Hypothesis 2 - As part of business valuation, the impact of ESG factors should be taken into account by adjusting the company's cash flows and the discount rate as an indicator that reflects the risks of obtaining (forming) these cash flows, while risk accounting areas should be correctly separated in order to avoid double counting. When determining the final cost, it is advisable to calculate the discount for the lack of marketability (illiquidity).

2. Research part

2.1. Valuation as a Tool for Measuring Enterprise Sustainability

Measuring the sustainability of an industrial enterprise development is considered in publications from different points of view, the most popular approaches relate to the sustainability of the economic potential of a business.

Research by Andrea Trianni, Enrico Cagno, Alessandra Neri, Mickey Howard [1] confirm that in general, companies focus almost exclusively on the economic dimension of sustainable development, while social and environmental aspects are considered almost exclusively in order to comply with the law.

This economic direction is also developed by many researchers, and various measurement models are proposed, for example, Klimek, Dariusz, and Elżbieta Jędrych [2] emphasize that enterprise management is a constant process of striving to achieve the goal or objectives and balancing the level of capital within the enterprise.

As an important component of sustainability measurement Muhammad Kashif Shad, Fong-Woon Lai, Chuah Lai Fatt, Jiří Jaromír Klemeš, Awais Bokhari [3] also highlight the non-financial reporting of an enterprise in the field of sustainable development, as well as its relationship with the implementation of an enterprise risk management system (ERM) and business performance, while business performance is proposed to be determined using the economic value added (EVA) method. At the same time, a lot of attention is paid to ensuring the reliability, reporting organizations and stakeholders [4].

An indicator of enterprise value can be proposed as an indicator of sustainable development, as it reflects the financial health of the company and the ability of its management to create value for shareholders and other stakeholders. In addition, an increase in the value of an enterprise can serve as an indicator of improved production efficiency, the introduction of new technologies and processes, an increase in the customer base and business diversification.

The value of an enterprise is the sum of all its assets, which is determined in the market in accordance with the potential profitability and risk of the business. The sustainable development of an enterprise occurs if its assets grow and generate income, and risks are reduced or remain at the required level to ensure profitability.

The concept of enterprise value management as a systematic approach to assessing and managing the financial resources of an organization in order to increase its value and create a long-term competitive advantage is also of interest.

This concept is based on the following scientific grounds:

1. The theory of enterprise value, according to which the value of an organization is determined by the amount of future cash flows generated by the company's activities, and the risk associated with these flows.
2. The theory of portfolio investment that suggests that the way a portfolio of assets is managed determines the risk and return on investments, as well as the performance of the organization.
3. The theory of financial management that deals with determining the optimal amount of financing, managing financial resources and achieving efficient use of these resources.

In general, the concept of enterprise value management uses scientific theories and methods to evaluate the contribution of each business asset to the total value of the enterprise, select the optimal portfolio of assets, minimize risks and maximize return on investments. This allows the company to successfully operate in the market, increase its value, and achieve its goals.

The conducted analysis of compliance with the proposed principles when applying the business value of an industrial enterprise as an integral indicator of sustainable development is represented in Table 1.

Table 1. Characteristics of the business value of an industrial enterprise as an integral indicator of sustainable development

No.	Requirement	Characteristics of the business value indicator
1	Ability to use for the current and forecast indicator of enterprise sustainability determination	The application of the income approach to assessing the value of an enterprise makes it possible to determine the forecasted value of a business as an indicator of sustainability in dynamics.
2	Comprehensiveness of the indicator, which considers both financial indicators and the development strategy	During the company's activity forecasting the assessment considers external factors and business plans of the enterprise taking into account its strategic development.
3	Consideration of probabilistic and statistical approaches to improve the accuracy of calculations	The assessment toolkit is based, among other things, on the scenario conditions for the development of the enterprise, statistical and probabilistic analysis of pricing factors, including the use of option calculation models.
4	Ability to consider various performance indicators - cash flow, net profit of the enterprise, etc.	In order to determine the value of equity and invested capital of an enterprise, various parameters can be used, including revenue, net profit, cash flow, EBIT, EBITDA, etc.
5	Quantitative measurability of indicators included in the sustainability assessment methodology	As an indicator of sustainable development, the value of a business is considered, which has a quantitative assessment.
6	Compliance with the principle of relativity that considers the comparative assessment in the industry and the economy	The use of comparative approach methods in business valuation makes it possible to meet the requirements for compliance with the principle of relativity based on the indicators of similar enterprises and industries.
7	Model input parameters dynamics incorporation	As part of the income approach methods, it is necessary to take into account the dynamics of business cash flows and determine the terminal value at the end of

8	Availability of a scale for assessing financial and economic stability with the characteristics of the ranges	the forecast period. When determining the value of an enterprise, the result is, on the one hand, the value of its own or invested capital, and, on the other hand, value ranges based on the probabilistic nature of the market value and indicators of similar enterprises in the industry, including those obtained using price multipliers.
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As a result, we can conclude that the value of an enterprise can serve as an effective tool for measuring sustainable development and be applied in practice, since it meets all the criteria for determining this indicator. It should be noted that enterprise value is not the only indicator of sustainable development, but its joint use with other financial, environmental and social indicators can give a more complete picture of the state and prospects of the company.

2.2. Tools for considering the influence of ESG factors on cash flows and risks when assessing the value of an enterprise

Cornell, Brad [5] examines two main factors that influence the expected return of companies with high ESG (environmental, social and governance) ratings - investor preferences and risk. Moro-Visconti, Roberto [6] considers intangible sources of capital associated with ESG factors and the formation of general and long-term wealth from the standpoint of the concept of company value. Johnson, Ruth [7] obtained a significant positive regression coefficient between disclosure aggregates of ESG and WACC for firms in the industrial sector. Rastogi, Shailesh [8] explores the balance of ESG initiatives and information technologies in the banking business taking into account the concept of value creation. Research by Karolyi, George & Bancel, Franck & Glavas, Dejan [9] confirms that the poor quality of ESG rating data remains a significant barrier to its integration into company valuation processes and emphasizes the importance of correct discount rate determining.

In recent years, there has been an intensive improvement of international valuation standards in terms of considering sustainable development factors when conducting valuation studies and procedures, as well as the business and real estate valuation process [10].

The areas of focus in determining the change in business value considering ESG factors are:

- identification and interpretation of the current and forecast state of the ESG environment of the enterprise, and the market reaction to them.
- separation of the ESG factors influence on the basic (fundamental) value of an enterprise in the open market with a hypothetical buyer or investor (market value), and the value considering the opinion and interests of a particular investor (investment value).
- the need to avoid "double" accounting of pricing factors and risks. For example, when considering risks in cash flows using an income approach assessment, additional risks should not be considered when forming a discount rate.
- it should be taken into account that the elements of sustainable development intersect with other factors and are important in the complex of an operating enterprise, while the fulfillment or non-fulfillment of one or another ESG parameter may not have a direct impact on the value of the business.
- depending on the industry and region of the business, as well as the number of "ESG sensitive" investors for whom sustainability factors are significant, the impact of ESG factors on the value of the business may differ significantly or not be observed at all.

The procedure for integrating ESG factors into business value analysis procedures is considered by researchers mainly in two versions:

- in terms of risk [11] by combining elements of the income and comparative approaches and then adjusting the discount rate, generalizing that the lower the discount rate, the higher the valuation, holding all other elements unchanged.
- applying a quantitative assessment of the impact of sustainable development factors on business value [12], first of all, paying attention to the most significant issues affecting the overall business model of a hypothetical company and cost factors (both positively and negatively), then this impact on the company under study is analyzed and a decision is made to take into account the advantages and disadvantages related to ESG factors in scoring models.

Thus, the study of the influence of ESG factors on the value (cost) of a company can be divided into two main stages, the features of which will be discussed below.

Stage 1: identification of the most significant issues related to ESG factors and affecting the overall business model of the enterprise and value factors (both positively and negatively) and attributing to the cash flows and risks of the enterprise.

Sources of information for this stage of the study can be non-financial or integrated [13] reporting of both the enterprise and companies in the industry.

Non-financial reporting, integrated reporting, rating and ranking reviews and methods contain ESG factors in various classifications, which should be analyzed in terms of industry compliance of the enterprise, bank's credit policy, etc. Let us give comments on the separation of ESG factors (cash flows and discount rate) in the approaches to risk accounting that are common for most theoretical studies and practical calculations in Table 2.

Table 2. Risk assessment approaches

Risk Assessment Approach	Characteristic	Commentary on considering
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Qualitative Risk Analysis	Decomposition of possible risks and preparation of measures to reduce them	Accounting in cash flows
Design Considerations	Establishment in the characteristics of the project	Accounting in cash flows, while the accepted characteristics of the project are the basis for building several evaluation scenarios
Accounting in the discount rate	Inclusion in the "risk premium" when calculating the discount rate	Inclusion in the "specific risk premium" when calculating the discount rate

It should be noted that risk is closely related to uncertainty, as well as the likelihood of certain events occurring.

In Table 3 one example of a set and classification of ESG factors considered in the classes "Risk to be included in the discount rate", "Risk in the ESG level of the company's quality" and "Cash flows" is given.

Table 3. Separation of ESG factors

Group of factors	Risk to be included in the discount rate	Risk in the ESG level of the company's quality	Cash flows (Revenue)	Cash flows (Costs and cap. Investments)	Cash flows (Depreciation)	Cash flows (Working capital)
E. Environment, ecology						
Availability and quality of the environmental management system	+					
Environmental friendliness of the structural elements of the company's buildings		+				
Water resources management		+				
Waste management		+				
Commercial real estate in "green lease"		+				
Use of renewable energy sources		+				
Use of electric or hybrid vehicles		+				
Environmental pollution (land, water, atmosphere)		+				
Vulnerability to climatic and natural factors		+				
S. Social relations, society						
Availability and quality of social policy	+					
Interaction with regional communities		+				
Supply chain vulnerability due to ESG factors		+				
Vulnerability to changes in ESG legislation		+				
G. Quality of management						
Availability and quality of non-financial reporting	+					
Availability of a company strategy and business plans that consider ESG						
- Forecast of conditions for attracting preferential "green" financing				+	+	
- Forecast of increase / decrease in market share, revenue considering ESG factors			+			
- Forecast of costs due to vulnerability to changes in ESG legislation				+	+	
- Forecast of updating the features of manufactured products according to ESG criteria			+	+	+	
- Forecasting the order of relationships with suppliers and customers						+

The issue of a practical solution to the problem of considering the impact of risk in the ESG level of a company's quality can be classified as a multi-parameter economic problem.

Step 2: Determination of the factors that are taken into account in the forecasted cash flows of the enterprise and in the risks of receipt of the forecasted cash flows of the enterprise (when determining the discount rate).

Directions for considering ESG factors in the components of the cash flow forecasting model are summarized in Table 4.

Table 4. Directions for considering ESG factors in the components of the cash flow model

Component	Directions for considering ESG factors
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Free cash flow on equity or invested capital	- Planned change in production capacities (both an increase as a result of modernization, and disposal due to the inadmissibility of use or depreciation of assets), including those related to ESG requirements;
Capital investments	- Consumer qualities of manufactured products and their sensitivity to changing consumer requirements, including those influenced by ESG requirements;
Risk (discount) rate	- Opportunities to increase production and sales, as well as a decline forecast due to changing customer preferences;
Adjustment of the value of non-operating assets	- Analysis of market trends in pricing, competition, changes in market share and long-term dynamics of changes including those related to the transformation of markets in connection with adaptation to the principles of sustainable development;

Each of the elements of the discount rate should be analyzed from the point of view of the influence of ESG factors. As an example of such an analysis, we present the study of the systematic risk coefficient Beta (β) in the classical calculation model of the cost of equity (CAPM) proposed by WF Sharpe [14], J. Lintner [15] and F. Black [16].

The proposed directions for considering ESG factors can be regarded as universal for many income approach methods, since they include such basic elements as revenue, costs, and discount rate.

2.3. Discount for lack of marketability (illiquidity) and ESG factors

In the practice of business valuation, liquidity adjustment is often used as part of the final adjustments when compiling reports on the valuation of shares and shares of enterprises. However, the applied adjustment values as well as their use in business valuation cause numerous discussions, and experienced practicing appraisers have ambiguous opinions on this issue. Some experts express an unequivocal opinion that it is not necessary to include it in the assessment, due to insufficient data and the absence of reliable sources to substantiate it.

The use of a liquidity discount in the practice of business valuation is confirmed by numerous theoretical and methodological studies, but in the aspect of "marketability" or "saleability" of the evaluated block of shares or shares of the enterprise.

In this case, two terms are encountered: Discount for lack of liquidity and Discount for lack of marketability. Interestingly, G.R. Trugman [5] considers both terms as a single "Discount for lack of marketability (illiquidity)", which is proposed to be used in this article to refer to this discount as "DLOM".

The introduction of a liquidity discount is related to factors such as the difficulty of selling shares of unlisted companies compared to publicly traded shares that can be freely traded on the exchange, as well as the situation when shares are subject to legal or contractual restrictions due to the type of shares (it is about restricted stock - restricted stock refers to unregistered ownership interests in a corporation that are issued to corporate affiliates such as executives and directors. Restricted stock is not transferable and must be sold in accordance with special rules of the Securities and Exchange Commission (SEC), sale and purchase agreements, bank loan restrictions, or other types of contracts).

Factors that affect DLOM typically include "amount of control in transferred shares", which is included in the calculation of the Discount for Lack of Control or DLOC. The discount due to the lack of control is used, as a rule, when assessing minority stakes to compensate for the absence of any or all powers in the company (the level of powers of minority stakes is lower than that of controlling stakes).

It should be noted that in this case there is no duplication of discounts, but their mutual influence is observed, therefore DLOC and DLOM discounts are multiplicative [18] and the formula for the total discount (1) takes into account both of their values.

$$total\ discount = 1 - (1 - DLOM) \times (1 - DLOC) \tag{1}$$

Thus, the total discount to the value of the unquoted shareholding of the enterprise received at the control level takes into account both the insufficient powers of the minority shareholding in DLOC and its low liquidity DLOM. At the same time, a controlling stake requires a smaller discount for insufficient liquidity than a minority one.

The most common and widely used in foreign studies factors affecting the DLOM (discount on the liquidation value of assets) are those that were proposed by Judge David Laro in 1995 in the US Tax Court [19]. In the process of considering the case, the experts substantiated significantly different discount values: 70-75% and 30%. These judges' suggestions are now known as "Mandelbaum factors". They attract a lot of attention from methodologists and practicing appraisers, as they have case value in US law, and appraisal reports often act as evidence in litigation and disputes.

In Table 5 these factors are given from the original decision of the above court decision, together with the author's explanations, which reflect the perimeter of the research on DLOM. It is interesting to note that in the publications of different authors the number and interpretation of the "Mandelbaum factors" differ.

Table 5. The study of "Mandelbaum factors"

Factor	Explanations	Factor
Private and public sales of shares	The discounts of the offer prices of public (quoted) and non-public (unquoted) shares, as well as discounts during the initial public offering of	Private and public sales of shares

	the company's shares on the stock market - Initial Public Offering (IPO) are analyzed.	
Analysis of financial statements	The validity of the value (capitalization) of the company, financial performance, forecast revenue and profitability, as well as the business reputation of the company are studied.	Analysis of financial statements
Dividend policy of the company	It should be taken into account that the company's dividend policy is important for investors; however, it is necessary to study the situation when the company does not pay dividends or provides a low level of dividend payments, but at the same time accumulates retained profit to ensure long-term growth in the value of shares and future income.	Dividend policy of the company
The nature of the company, its history, position in the industry and economic prospects	These factors are analyzed in terms of investment attractiveness	The nature of the company, its history, position in the industry and economic prospects
Company management	The reputational and professional qualities of the company's managers as well as their fame in the industry are studied.	Company management
Scope of control in transferred shares	A minority stake that does not provide the buyer with the ability to influence decision-making in the company is less valuable than controlling stakes. Therefore, the investment attractiveness of the majority (controlling) stakes is higher than that of minority ones.	Scope of control in transferred shares
Restrictions on transferability of shares	Legally binding corporate agreements that restrict rights to transfer shares or establish their value (value formula) need to be studied.	Restrictions on transferability of shares
Investment (holding) period of shares	The period during which the investor must keep his investments in these shares in order to obtain sufficient profit is analyzed. The longer this period, the lower the investment attractiveness of the enterprise.	Investment (holding) period of shares
Company buyout policy	The history and policy of the repurchase of shares by the company from its shareholders is studied. With a balanced and profitable share buyback practice for shareholders the investment attractiveness of the enterprise increases.	Company buyout policy
Costs associated with the public offering	Investors take into account the costs associated with a public offering of unquoted shares (IPO), while considering both the imposition of costs entirely on the buyer, and their minimization by paying costs at the expense of the enterprise.	Costs associated with the public offering

Shannon P Pratt [20] provides an overview of the applied methods for determining liquidity discounts, as well as the results of a study of discount ranges according to other authors, while not highlighting certain factors to be taken into account in DLOM.

In the book Damodaran A. [21] it is proposed to consider such factors of liquidity of shares of an unquoted enterprise as:

- Liquidity of assets owned by the company;
- Financial condition of the enterprise;
- The possibility of entering the IPO;
- Company size.

Trugman GR offers [5] an additional factor of the optimistic mood in the investment market. It should be noted that one of the indicators of these investor sentiments on the stock exchange is the Fear & Greed Index¹ that can be included in the spotlight.

While in the case of a minority stake, researchers generally agree on the need to take into account DLOM, then the question of applying a discount when assessing an unquoted enterprise at the control level, which provides for 100% ownership of shares or shares of the company, does not have an unambiguous answer, since in practice there is a wide range of the objectives of the valuation, the characteristics of the valued business, and the valuation approaches used. The result of the survey for the period from June 30 to July 28, 2021 published by Chris Mercer [22] showed that 73.3% of appraisers always or sometimes use DLOM when valuing 100% of the shares of an unlisted company.

Robert F. Reilly [23] systematized the results of DLOM research, while changes in the US securities registration rules (SEC Rule 144) should be noted, which have reduced the transaction costs of the parties when concluding transactions since 1995. The author's statistics for the period 2001-2020, based on a study of IPOs for 2258 companies, show the average deviation of the share price for the first day of trading, similar to the DLOM intervals obtained from the analysis of the share price with and without restrictions on sale. At the same time, Matthews, Gilbert makes a compelling case to challenge the quality and credibility of research based on IPOs [24]

Let's pay attention to the following "Mandelbaum factors":

¹ <https://us.cnn.com/markets/fear-and-greed>

- The validity of financial indicators, forecast revenue and profitability, as well as the business reputation of the company;
- The nature of the company, its history, position in the industry, and economic prospects;
- Reputational and professional qualities of the company's managers, as well as their fame in the industry.

These aspects of the investment attractiveness of the current and forecast activities of the enterprise harmoniously fit into the popular and actively developed ESG concept of transformation (environmental, social and governance) of enterprises, industries and regions. At the same time, the measurement of the influence of these factors on the value of an enterprise is also actively studied in the theory of business valuation, including international valuation standards [25].

Conclusion

As a result of the study, the hypothesis of using the indicator of its value as an indicator of the sustainability of the company's development, reflecting the dynamics of the company's financial condition and the ability of its management to create value for shareholders and other stakeholders, is considered. An increase in the value of an enterprise can serve as an indicator of increasing production efficiency, introducing new technologies and processes, increasing the customer base and diversifying the business. The validity of the hypothesis and the applicability of the enterprise value indicator as an integral indicator of sustainable development are substantiated.

The hypothesis is considered that, as part of business valuation, the influence of ESG factors should be taken into account by adjusting the company's cash flows and the discount rate as an indicator that reflects the risks of obtaining (forming) these cash flows, while the areas of risk accounting should be correctly divided in order to avoid double counting. The expediency of calculating the discount for the lack of marketability (illiquidity, DLOM) when valuing a business instead of a discount for liquidity, which, when making final adjustments, should be calculated using a multiplicative coefficient formula together with a discount for the non-controlling nature of the shareholding, is proved; ESG coefficients when calculating the validity period of a block of shares or shares of an enterprise offered for sale are proposed to be taken into account using "Mandelbaum factors".

The conducted research can be applied in practical problems of business cost management in the context of the vector of sustainable development of enterprises and the economy as a whole.

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