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INFLUENCE OF INFORMATION ASYMMETRY ON THE ASSESSMENT OF A COMPANY'S SOLVENCY

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Introduction. The environment in which enterprises operate in the 21st century is becoming qualitatively different: the intensification of competition in a saturated market leads to an increase in the degree of uncertainty, and hence to the emergence of unpredictable factors. Because uncertainty is a source of risk, it should be minimized by obtaining quality, reliable, comprehensive information. In Ukraine, declaring asymmetric information is done in a completely opposite way than abroad: real property, revenue and profit, on the contrary to developed capitalist countries, are understated to minimize taxation. In both cases, such information asymmetry gives potential investors misconceptions about the solvency of a company and the efficiency of its activities.

Aim and tasks. To investigate how the presence of information asymmetry in the economic environment affects the assessment of the solvency of economic entities from the perspective of investors. The obtained conclusions will allow to determine what exactly needs to be done in the direction of further improvement of regulatory instruments of state policy in this area.

Research results. With the growth of information saturation of society and the greater extent of replication and interpretation of source information, it becomes easier to abuse, manipulate information, and to mislead people. Obstructing the rational behavior of economic entities and generating additional costs (information retrieval costs), the asymmetry of information leads to inefficient functioning, and also causes restrictions on competition. The main universal models of investor behavior in a market in the conditions of information asymmetry, which are actually aimed at the inevitability of unexpected and sharp reversals of market conditions (so-called "black swans"), are analyzed.

Conclusion. A company's financial statements contain information that should be interpreted as asymmetrically distributed information. Approaches based on methods of detecting and accounting for asymmetry in the annual reporting of companies are promising for remedying its negative impact. On the other hand, these approaches must also take into account the fact that in the XXI century, the functions of intermediaries are easily deformed, information technologies are ineffective, and the rules of rational behavior may lead to failure. Therefore, overcoming uncertainty and information asymmetry requires taking into account N. Taleb's approach to the existence of "black swans". Moreover, it is a demand of the present time: in early 2020, the whole world encountered one of these "black swans", namely the global COVID-19 outbreak.

Keywords: crisis, uncertainty, financial reporting, information asymmetry, solvency.

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ВПЛИВ ІНФОРМАЦІЙНОЇ АСИМЕТРІЇ НА ОЦІНКУ ПЛАТОСПРОМОЖНОСТІ КОМПАНІЇ

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Вступ. Зовнішнє середовище, в якому діють підприємства у XXI столітті, стає якісно іншим: загострення конкурентної боротьби на насиченому ринку веде до підвищення ступеня його невизначеності, а значить, появи непередбачуваних факторів. Оскільки невизначеність виступає джерелом ризику, її слід мінімізувати за рахунок отримання якісної, достовірної, вичерпної інформації. Що стосується України, то варіант подання асиметричної інформації передбачає повністю протилежний закордонному варіант, коли реальні майно, виручка і прибуток, навпаки, занижуються для мінімізації податкової бази. Але і в обох випадках така інформаційна асиметрія створює хибну уяву інвесторів щодо платоспроможності компанії та ефективності їх діяльності.

Мета і завдання. Дослідити яким чином наявність інформаційної асиметрії в економічному середовищі впливає на оцінку платоспроможності економічних суб'єктів з позиції інвесторів. Отримані висновки дозволять визначити, що саме треба робити у напрямку подальшого удосконалення регулятивних інструментів державної політики у цій сфері.

Результати. В результаті дослідження було визначено, що зі зростанням інформаційної насиченості суспільства, зловживати, маніпулювати інформацією, вводити людей в оману стає простіше. Ускладнюючи раціональну поведінку економічних суб'єктів і породжуючи додаткові витрати (витрати пошуку інформації), асиметрія інформації призводить до неефективного функціонування, а також стає причиною обмеження конкуренції. Проаналізовано основні універсальні моделі поведінки інвестора на ринку в умовах асиметрії інформації, які фактично націлені на неминучість настання несподіваних та різких розворотів ринкової кон'юнктури (так звані "чорні лебеді"). Визначено основні напрями впливу інформаційної асиметрії на результати аналізу платоспроможності компанії.

Висновки. За отриманими результатами можна визначити, що показники фінансової звітності компанії містять інформацію, яку слід трактувати як асиметрично розподілену інформацію. Для нівелювання негативного впливу перспективними є підходи, засновані на методах виявлення та обліку впливу асиметрії в показниках річної звітності компаній. З іншого боку ці підходи також повинні враховувати те, що в XXI столітті легко деформуються функції посередників, виявляються неефективними інформаційні технології, підводять правила раціональної поведінки. Тому подолання невизначеності та інформаційної асиметрії вимагає врахування підходу Талеба щодо існування «чорних лебедів». До того ж це є вимогою часу - на початку 2020 року весь світ зіткнувся з одним з таких «чорних лебедів», а саме COVID-2019.

Ключові слова: криза, невизначеність, фінансова звітність, інформаційна асиметрія, платоспроможність.

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Introduction. The external environment in which enterprises operate in the XXI century is becoming qualitatively different: the intensification of competition in a saturated market leads to an increase in the degree of uncertainty, and hence the emergence of unpredictable factors. Because uncertainty is a source of risk, it should be minimized through the acquisition of quality, reliable, comprehensive information. However, in practice, this is usually not possible. At the beginning of the century, namely in October 2001 in the United States, bankruptcy of the energy corporation "Enron" was declared. This was caused by elementary fraud due to various financial machinations, namely the accounting of gas and electricity sales with future supply as current transactions. The value of transactions concluded today - for example, for gas supplied for the following year - was taken into account as current income, while the costs associated with the purchase of this gas were not taken into account as an expense. Non-expenditure revenues generated huge profits [5]. This in turn increased the profitability of shares and, accordingly, increased their sales on the stock market. It should be noted that such an overstatement of profits to raise funds through the sale of stocks and bonds at inflated rates is a mass phenomenon in world practice.

In Ukraine, declaring asymmetric information is done in a completely opposite way than abroad: real property, revenue and profit, on the contrary to developed capitalist countries, are understated to minimize taxation. In both cases, such information asymmetry gives potential investors misconceptions about the solvency of a company and the efficiency of its activities.

Analysis recent research and publications. The issue of information asymmetry and the impact of this process on the behavior of firms in the market attracts the attention of many economists. Confirmation of this fact is the formation of a new field in world economics – the information economy. The basis of the field is the recognition of information as an important economic factor of production, which determines the behavior of the firm in the market. Among the main developments in the study of information asymmetry and various aspects of its

manifestation in economics are the works of Akerlof G. A. [2], Saxton G.D. and Anker A.E. [12], Fulghieri P., Garcia D. and Hackbarth D. [6], as well as Womacca B., who conducted a study of information imbalance between economic entities in the international market [18].

Scientists Aboody, D. and Lev B. investigated the relationship between disclosure policy and liquidity in stock markets. The results showed that the relative spreads of supply and demand for firms that are more likely to disclose transaction information are about 50% higher than spreads for firms that conceal or disclose biased information. Thus, a well-thought-out disclosure policy reduces information asymmetry and, consequently, increases liquidity in stock markets [1].

The issues of smoothing information asymmetry are also relevant for governments in shaping the state policy of economic development. In this context, the work of Asongu S. A., Nwachukwu J. C. and Tchamyu V. S. is of interest, as it studies the political boundaries of information exchange for financial development in 53 African countries for the period between 2004 and 2011 [3]. Also, in the context of state regulation of information asymmetry, the conclusions obtained in Booth P. and Morrison, A. D. [4] deserve attention. According to the study, government regulation can prevent the negative impact of information asymmetry in the markets of illiquid contracts. The authors proposed a method of transition to such a legal framework, which is based on the concept of "mutual recognition", as well as existing regulatory institutions in the United States and the European Union (EU). The work of Nagar, V., Schoenfeld, J., & Wellman, L. [10] should also be noted. In their study, the researchers identified a source of uncertainty in the government's economic policy. According to them, this uncertainty is due to an increase in the spreads between supply and demand and a decrease in the reaction of stock prices to unexpected earnings. As a result, it was concluded that the uncertainty of government economic policy is an important component of the environment in which firms operate.

In world science, there are also a number of studies that link the problem of solvency and asymmetry of information.

For example, the study by Yeo, H. considers the factors influencing the solvency of shipping companies [19], while Petersen C. and Plenborg T. examine whether the level of voluntary disclosure affects the asymmetry of information for industrial companies listed on the Copenhagen Stock Exchange [11].

With regard to domestic science, it should be noted that in contrast to foreign science, the problems of information asymmetry and its impact on the functioning of economic entities are virtually not covered by domestic scientists. Therefore, while appreciating the existing achievements of these few scientists and their results, as well as considering the direction of the inclusion of national enterprises in global reproduction processes, one can identify the need for a more thorough study of the relationship between solvency and information asymmetry in the market environment [20].

Aim and tasks. The main goal is to investigate how the presence of information asymmetry in the economic environment affects the assessment of the solvency of economic entities from the perspective of investors. The obtained conclusions will allow to determine what exactly needs to be done in the direction of further improvement of regulatory instruments of state policy in this area.

Results. The emergence and development of economic crises can be justified by a set of factors of macroeconomic, structural and institutional nature. At the same time, various theories offer their vision of the causes and ways to overcome emerging crisis phenomena. In this study, we focus on the theory of information asymmetry, the most famous representatives of which are the Nobel Prize winners in economics – George Akerlof, Michael Spence and Joseph Stiglitz [8]. The founders of this school attribute the emergence of economic crises to asymmetric information flows in the economy, insufficient transparency of the corporate sector and the absence or inefficiency of institutions designed to solve the problem of information asymmetry. This phenomenon has existed in the world economy for quite a long time. With the seeming abundance of information flows, there is very little reliable analytical information about market participants. Ukrainian economy is also characterized by the presence of this problem, a

deterrent to the development of entrepreneurial activity in the country.

Even if we exclude malicious intent, the primary information is often repeated many times, supplemented by accompanying comments, which literally grow into the "body" of the original. In fact, more and more people do not receive primary information, but, as Silver N. defines it in his book *Signal and Noise*, "a copy of a copy from a copy" [14]. This replication of interpretations is exacerbated by information misuse. Moreover, with the growth of information saturation of society and the greater extent of replication and interpretation of source information, it becomes easier to abuse, manipulate information, and to mislead people.

It is useful to define the following as meaningful characteristics of asymmetry:

- a) disproportion, which shows a discrepancy in the various information in which the same phenomenon is evaluated or compared;
- b) bias as an incorrect assessment of the current state of affairs, which leads to different amounts of information about relevant factors and events from different economic entities;
- c) distorted reflection of reality, which may indirectly indicate the inadequacy of perception of reality.

The result of asymmetry is the distortion of relations between business entities, which can lead to contradictions, the manifestation of opportunism of one party towards the other, incorrect reflection of reality, and deviation of actual results from the desired. From this we can conclude that the fulfillment of rigidly set parameters is in principle impossible, especially in the long run, when the environment changes faster than economic entities can comprehend it and symmetrically reflect it first in their consciousness and then in their relationships. Thus, asymmetry as a situation of unequal endowment of the parties to the relationship with any resources is the result of the limited information processing capabilities of the parties to the transaction, operating in an uncertain environment.

The asymmetry of information creates for some participants in market relations the possibility of abusing the ignorance of others. Obstructing the rational behavior of economic

entities and generating additional costs (information retrieval costs), the asymmetry of information leads to inefficient functioning, and also becomes a reason to restrict competition. This can be caused by the following reasons:

- obtaining information is associated with certain costs (transaction costs). Thus, the subject will not pay for the information if the cost of obtaining the information will exceed the income from its use;

- information is not always reliable and accurate. In the event of a change in the economic situation, the information obtained previously may become obsolete and thus cannot be used to make economic decisions;

- not all economic entities are able to assess the information received by them. This is due to a lack of proper knowledge and skills.

Asymmetry in the distribution of information about enterprises means that a potential investor, buyer, supplier, lender, or partner cannot determine with sufficient accuracy the probability of changes in the financial condition of the enterprise. Attempts to solve these problems have given rise to the desire of economists, theorists and practitioners to form more or less universal models of investor behavior in a market under conditions of constant uncertainty.

The source of this research is the pioneering work of Markowitz H "Portfolio Selection", published in 1952. According to the findings, an investor should be guided by the "income-deviation" (EV) rule. It is the choice of such a portfolio that, when achieved, on the one hand, enables the maximization of the expected income of the investor and, on the other hand, the minimization of possible deviations (fluctuations) of this income [9, p. 79]. Commenting on the practical significance of this conclusion, the scientist notes that the procedure for selecting such a portfolio should involve "a combination of statistical methods and judgments of practical people" [9, p. 91]. The results of the study prompted a whole galaxy of economists, including Sharpe W.S., author of the Capital Asset Valuation Model (IOC), to answer the practitioner's question of how to put Markovic's ideas into practice [13, p. 7]. According to Sharpe, the market portfolio that can be formed as a result of the use of IOC is "just a little bit".

This portfolio has very attractive features. For the average investor, the market portfolio is in a sense the best portfolio [13, p. 17]. In this case, the greatest potential income may have the portfolio of securities, which in bad times shows the worst result, that is, a risky portfolio. On this basis, Sharpe believes that the average dollar invested in passive investment funds, such as index funds of low-capital companies, should yield more income than the dollar invested in those funds where portfolio management is active.

The above findings have become the basis for the formation of various automatic passive investment strategies. The concept of efficient financial markets, which arose on the same theoretical foundations, also contributed to an increase in the number of people wishing to simply follow market conditions, including with the use of trading robots.

However, no matter how tempting the idea of passive investment in index funds and market portfolios might seem, the general desire to protect oneself, on the one hand, and to earn money, on the other hand, does not lead to a massive rejection of active investment management. Also, passive strategies themselves often fail. An example of this is the crisis of 2007-2008, which clearly demonstrated the inefficiency of the markets.

Strategies for automatically following the market as a way to overcome uncertainty and constantly existing asymmetry of information are based on the principle assumption of constancy and continuity of successive market trends. Sharp uses the term "macroconsistency" of the market as the quintessence of a purely mathematical, counting approach to assessing a market portfolio ideal for investors [13]. But it is precisely the adherence to a given pattern of behavior that makes investors "fooled by chance." An example is the work of Taleb N., who explores the so-called peso problem, which many economists have used as a synonym for rare events. Long periods of stability of the Mexican currency inspired investors with the illusion of reliability. For these illusions, they then had to pay a significant loss of own and client funds. Taleb prophetically observes that the peso problem was unexpectedly typical [16].

Certain market strategies, which are actually aimed at the inevitability of the onset of unexpected and sharp reversals of market conditions, become a protection from the uncertainty and asymmetry of information. In other words, the investor can clearly understand that they do not have the full knowledge, but they choose a direction of investment in which the expected return and possible losses can be accepted with a sufficient degree of stoicism. One of the options for leveling the negative influence of information asymmetry is the prospect theory developed by Kahneman D. and Tversky A. [7]. Its essence is reflected in three important postulates:

The first. Evaluation of the result is carried out relative to the “adaptation level” – a neutral reference level, for example, income, value of savings or other indicator of habitual well-being, that is, material status quo.

Second. The assessment of changes in wealth or asset value is determined by the so-called “diminishing sensitivity” to the result, depending on the growth of wealth.

Third. Investors are more likely to avoid losses than to receive income, that is, at the level of consciousness (possibly subconscious), losses are always perceived more sharply than incomes. These postulates fully fit into the logic of the theoretical model of rational human behavior. Another thing is that rather complicated processes of human consciousness and subconsciousness, which prevent thinking and acting rationally, stand in the way of personification of investment strategies. They significantly modify the states of uncertainty and asymmetry of information.

Today, one of the main sources of economic information for investors are the financial statements of companies. However, in the forms of these reports, such valuable properties of information as completeness, systematicity, dynamism are lost. For a justified, complete and comprehensive analysis of the financial condition of enterprises, a balance sheet information at the beginning and end of the year is not enough. Analysis of the balance sheet gives only a general judgment on solvency, while for more informed conclusions it is necessary to calculate qualitative indicators that assess the prospects for the development of enterprises and their viability.

Thus, taking into account the process of growth of the asymmetry constantly accompanying the movement of information, it should be understood that the degree of distortion at the last stage of its presentation can be very significant. If opportunistic behavior occurs during financial reporting (for example, data on solvency, liquidity, profitability is transmitted in a truncated / distorted form), then such reporting will not only not illuminate the real financial situation of the organization, but will certainly serve as the main source of misconception. We outline the main directions of the influence of information asymmetry on the results of the analysis of the solvency of the company:

1). Conventionality of data for comparative analysis – one of the factors that distort reporting information is seasonality, which affects reporting and the results of its analysis. For example, the inventory turnover ratio for a processing enterprise will vary significantly depending on whether the data on stock status were used before the onset of the conservation season or after its end.

2). Limited interpretation of the results of the calculation of the coefficients. It is impossible to make any unambiguous judgments about the value of this or that analytical coefficient. For example, a high value of the quick ratio is favorable from the standpoint of characterizing the degree of solvency of the enterprise; on the other hand, such a high value of the ratio may be due to an unjustifiably large amount of money in the account, which is unlikely to characterize the financial policy of the company on the good side, since money movements do not generate income. Similarly, a high value of resource yield can indicate, on the one hand, the efficient use of enterprise resources, and on the other, an insufficient material and technical base and, possibly, a lack of funds for its improvement. In addition, enterprises may look better on some indicators, worse on others.

3). Ensuring data comparability – many large enterprises are not limited to any one area of activity and have their own divisions in various industries and fields of activity. In such cases, it is difficult to prepare meaningful averages.

Therefore, the methodology for analyzing financial statements is more obvious and understandable for small enterprises specializing in any particular industry; as for multidisciplinary enterprises, the methodology of comparative financial analysis for them is much more complicated.

4). Distortion of reporting data. It can happen for various reasons. For example, fixed assets, intangible assets are incorrectly valued; incorrectly calculated wear; shortages of materials were not written off; the value of work in progress has not been determined, etc. Also, in conditions of inflation, enterprise reports on financial condition and profit use may turn out to be a source of biased information, since various balance elements lose their value at different speeds. Inflation distorts the real value of the capital of an enterprise, its assets and liabilities. The result of the balance sheet of an enterprise also gives in inflation only an indicative estimate of the amount of funds at the disposal of the enterprise. However, it should be borne in mind that such an assessment does not at all reflect the current situation. The longer the life and reflection on the balance sheet of a given asset, the greater the difference between its accounting and current prices.

5). Veiling reporting. In order to show a more stable financial condition, some enterprises use the imperfection of analytical methods based on the interpretation of ratios calculated at the beginning and end of the year. An example of this is a company that received a loan and repaid it ahead of schedule before preparing the annual financial statements,

thereby improving the structure of the annual balance sheet, in particular in terms of liquidity assessment.

Conclusions. Thus, the study of the impact of information asymmetries in assessing the solvency of enterprises for investors has great importance. Having established the fact of the presence of information asymmetry, one can resolve the issue of ways to reduce the impact of false information. First of all, this is achieved by improving the methods of information disclosure. Given that the financial statements of the company contain information that should be treated as asymmetrically distributed information, promising are approaches based on methods identify and account for the effect of asymmetry in annual reporting indicators. The practical application of this technique will reduce the negative impact asymmetry of information has on the reliability of relative indicators (financial ratios), as well as outline promising areas of development for both the owners of the company and for future investors. The same approach should take into account the fact that in the XXI century, the functions of intermediaries are easily deformed, information technologies are ineffective, and the rules of rational behavior may lead to failure. Therefore, overcoming uncertainty and information asymmetry requires taking into account N. Taleb's approach to the existence of "black swans". Moreover, it is a demand of the present time: in early 2020, the whole world encountered one of these "black swans", namely the global COVID-19 outbreak.

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