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#### **UDC 657**

### DETERMINATION OF ECONOMIC ESSENCE OF MINERAL RESOURCES AS OBJECTS OF ACCOUNTING

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Sustainable development of the Belarusian economy is impossible without balanced reproduction and use of mineral resources. However, the content of accounting and analytical information does not always correspond to the requirements of their effective control due to the lack of integrated development of the field of accounting. An integrated approach to the study of accounting issues of the field development, including the definition of objects of accounting requires, above all, clarifying the scientific terminology. In this regard, the economic substance of the concepts of "minerals", "stocks of minerals", "mineral resources" and "mineral raw materials" is investigated in the article. It is argued that the objects of accounting are mineral resources (stocks of minerals).

The development of the geological industry and the expansion of the mineral resource base of the Republic of Belarus provides for the need for further exploration and preparation for the commercial development of mineral deposits. However, the content of accounting and analytical information does not always correspond to the requirements of their effective control due to the lack of integrated development of the field of accounting.

An integrated approach to the study of accounting issues of the field development, including the definition of objects of accounting requires, above all, clarifying the scientific terminology.

In the legislative and regulatory documents of various countries, IFRS literature on mineral resources are different, sometimes contradictory concepts of "minerals", "stocks of minerals", "mineral resources", "mineral raw materials".

Thus, according to the Code of the Republic of Belarus "On Subsoil" minerals are understood as "... contained in the bowels of natural mineral formations of inorganic or organic origin, which are solids, liquids or in gaseous state, and the chemical composition and physical properties allow their industrial and other economic use in natural form or after pre-treatment (purification, enrichment). Mineral raw materials are minerals extracted from the depths and subjected to primary processing (cleaning, enrichment). Similar treatment of the concepts of "minerals" and "mineral raw materials" is contained in the Code of the Republic of Moldova "On Subsoil", the Law "On Subsoil" of the Republic of Uzbekistan, the Mining Law of Ukraine, in the publications of a number of authors, in particular I.V. Sergeyev, G.V. Sekisov, M.M. Yumaev, N.A. Syrodoev.

The opposite view, according to which minerals are treated as products of mining industry contained in mined from the depths of the mineral raw materials, is presented in the Law of the Republic of Kazakhstan "On Subsoil" and the Tax Code of the Russian Federation in the works K.V. Papenovoy.

The third approach to the terms "minerals" and "mineral raw materials" includes the identity of these concepts [1, 2].

In addition to the terms "minerals" and "mineral raw materials" in literature and legal acts of different countries the terms "mineral resources" and "stocks of minerals" are used. There are also differences in the definition of these terms.

One group of authors consider mineral resources narrower than minerals, namely as part of the minerals, that is quantified by geological studies and geological exploration.

In the other sources mineral resources are identified with the term "minerals" or the term "stocks of minerals. In this case categories "minerals" and "stocks of minerals" are not identical in many sources.

Analysis of the definitions of "minerals", "stocks of minerals", "mineral resources", "mineral raw materials" set out in a special economic literature, as well as laws and regulations of different countries made possible to identify the key features of each category.

However, in our view, we can only talk about the possibility of using of predictive minerals. Real, proven ability to use arises as a result of geological exploration and evaluation. However, the distinguishing feature characterizes the different concept – "stocks of minerals". Analysis of the concept of "mineral resources" showed that the sign of exploration and evaluation ("explored and preliminary estimated", "calculated") is segregated in its definition or the characteristics possible only on the basis of assessment ("economically significant", "commercially reasonable ") are provided.

Thus, in our view, "stocks of minerals" and "mineral resources" are identical categories and they are minerals the use of which is proved on the basis of quantitative assessment.

In accordance with most approaches to the definition of the concept of "mineral raw materials" it is understood as minerals extracted from the bowels. That is, the distinguishing characteristic of this category is extraction from the field. It should be noted that the mining company will directly extract quantified minerals, that is, the use of which is proved.

Based on the above we represent the features of the concepts of "minerals", "stocks of minerals", "mineral resources", "mineral raw materials" in Table.

Table – The characteristic features of the concepts of "minerals", "stocks of minerals", "mineral resources", "mineral raw materials"

Notion	Distinguishing features			
	Location		Ability to use	
	occurring in the mine field	extracted from the mine field	prognostic	proved
Minerals	+		+	
Stocks of minerals	+			+
Mineral resources	+			+
Mineral raw material		+		+

Thus, from the economic point of view, the minerals are those lying in the depths of the prognostic natural mineral formations of inorganic or organic origin, their presence and the possibility of economic use is expected with varying degrees of probability. The concept of "natural resources" should be viewed broader than the concept of "mineral resources" ("stocks of minerals"). Since the latter are identified and quantified minerals, that is, the possibility of economic use of these resources is proved. In turn, minerals are those extracted from the bowels of the identified and quantified minerals.

Key features of the studied concepts presented in Table 1 suggest that part of the identified mineral resources after the exploration and evaluation of mineral resources are transformed into (stocks of minerals), which in the process of production go into mineral raw materials.

However, it should be noted that minerals cannot be identified as the accounting objects. This is because minerals are inferred resources that are not quantified and their presence is expected on the basis of geological assumptions and (or) the analogy with known deposits, i.e. they are hypothetical in nature.

Unlike minerals, mineral resources (stocks of minerals) are clearly identified.

Thus, exploration and evaluation of mineral resources (stocks of minerals) is carried out by the subsoil user at the specific field, i.e. the subsoil obtained on the basis of mineral rights. That is, each field has individual characteristics (in the form of documentary evidence), distinguishing it from the other objects in their physical and legal parameters. These signs are recorded in the passports of deposits and occurrences of minerals produced for State Cadastre bowels. For each mineral deposit information describing the location (region, district, coordinates, absolute mark above sea level, the name of the nearest station, pier village showing the distance and direction to the field), the quality and quantity of the main minerals and mineral together with it lying with assignment of cadastral number shall be contained [3].

Presence of clearly identified signs of mineral resources (stocks of minerals) suggests the possibility of viewing them as objects of accounting. Consider this hypothesis from the point of view of the theory of accounting.

Mineral resources (stocks of minerals) can serve as the organization's assets, if they meet the relevant criteria of an asset.

Thus, in the Republic of Belarus in accordance with the Law "On Accounting and Reporting" assets are understood as "property that arose in the organization as a result of a business transaction from which the company expects to obtain economic benefits".

Thus, in the Republic of Belarus signs of an asset are the following:

1) the existence of property rights to the object, that is, the right of possession, use and disposal (property rights);

2) the availability of economic benefits.

In accordance with Article 5 of the Code of the Republic of Belarus on subsoil mineral resources (stocks of minerals) are the exclusive property of the state. In this regard, under the laws of the Republic of Belarus mineral resources (stocks of minerals) are a necessary prerequisite for the functioning of financial extractive industries, an important means of production, they can not act as an asset in the balance sheet of the mining companies that we believe violates the requirement of substance over form.

It should be emphasized that the requirement of substance over form contains "Basis of Preparation and Presentation of Financial Statements": If the information is to represent faithfully the transactions and other events, it is necessary that they are accounted for in accordance with their substance and economic reality and not merely the legal form". The principle of substance over form fixed by the Law "On Accounting and Reporting" of the Republic of Belarus, the legislation of the Russian Federation and other countries.

The lack of mineral resources (stocks of minerals) of developing deposit in the balance of extractive industries does not only distort the information on the resources and economic potential of the organization, but does not integrate the accounting system with the system of national accounts.

Currently mineral resources (stocks of minerals) are included in the economic assets (AN212 mineral and energy reserves) in the international system of national accounts [4].

In Belarus, the economic value of mineral resources (stocks of minerals) is not reflected in the national accounts as non-produced assets (land, subsoil, water resources, patented entities, the notional value of business relationships and reputation, etc.) and values are not included in asset boundaries [5]. However, data on mineral resources (mineral reserves) are reflected in the state balance of minerals and geothermal resources of the subsoil, but they are only accounted for in quantitative estimation, that does not allow to build a system of cost accounting of mineral resources (stocks of minerals) in accordance with the SNA requirements.

It should be noted that mineral resources (stocks of minerals) are part of the national wealth of each state, but now in Belarus, they are not only taken into account by economic entities, but also in general excluded from the national wealth.

Statistical measure of national wealth of the Republic of Belarus provides only "a set of accumulated wealth created by the labor of people that society has at any given time."

The accounting system should not only generate information to reflect the mineral resources (stocks of minerals) of Organizations of the Republic of Belarus in the SNA and the composition of the national wealth, but also include consideration of their exhaustion. This will provide the necessary information base for the calculation of the macroeconomic indicators of sustainable development (net domestic product, index adapted net savings, etc.), that characterize the relationship between the quality of the environment, depletion of natural resources and economic growth.

However, as noted above, under the current legislation of the Republic of Belarus mineral resources (stocks of minerals) cannot be included in the asset composition, as the exclusive ownership of them is state-owned.

Methodological principle of the theory of static accounting based on the legal concept of protection of the rights of creditors is a prerequisite for the balance sheet display only assets for which there is ownership.

The fundamental purpose of static accounting is identifying opportunities to pay off debts of the enterprise by its assets, therefore reflection of the balance of values which do not constitute proprietary rights in the asset is admitted impossible.

Dynamic theory of accounting was accepted in the definition of asset in the IFRS. It is based on the opposite methodological principle: all applied assets regardless of their ownership including rented, used on the rights of ownership and use are recorded in the balance. This theory proceeds from the purpose of identifying the financial results and the effectiveness of current activities. As it is pointed out by J. Richard, "dynamic theory in regard to the asset appears the antithesis of the static theory, since it does not take into account such a thing as property (in terms of its impact on the balance)".

The need of balance sheet display of all used natural resources both belonging and not belonging to the organization of the right of ownership is noted in the writings of domestic and foreign scholars such as S.G. Vegera, A.P. Shevlyuk, T.S. Semenov, Y.V. Altukhova, V.G. Shirobokov, I.V. Makunina.

Thus, the need of accounting treatment of mineral resources (stocks of minerals) with the purpose of accounting of the resource potential and its depletion, and subsequent integration of this information into the system of national accounts for the reliable determination of the index of national wealth and the calculation of macroeconomic indicators for sustainable development of the country allows for the conclusion about applicability of the provisions of the dynamic concept for reporting mineral resources as part of the organization's assets.

Based on the foregoing mineral resources (stocks of minerals) that meet the criteria of the asset in its dynamic interpretation (in accordance with the dynamic theory of accounting) fit in objects of accounting:

1) that are controlled by entity;

2) from which economic benefits are expected.

Thus, the inclusion of mineral resources (stocks of minerals) in asset composition will allow mining companies to disclose the resource potential and its depletion, that in turn will provide the necessary information base for reliable determination of the index of national wealth and the calculation of macroeconomic indicators for sustainable development of the country, describing the connection between the quality of the environment, depletion of natural resources and economic growth.

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UDC 336.77=111

## DISCLOSURE CREDIT TRANSACTIONS. THE DEVELOPMENT OF CREDIT RISK IN THE CONDITIONS OF INFORMATION ASYMMETRY

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The article considers the phenomenon of information asymmetry in the banking business. Availability determines the existence of information asymmetry and the increase in banking risk. The effect of asymmetric information on the lender and the borrower is defined. A number of problems associated with the presence of information asymmetry are considered. Having trouble of transaction costs and the problem of increasing credit risk in the bank as a result of the negative impact of information asymmetry is marked.

A prerequisite for the existence of credit transactions is the existence of economic rules, rules that define the possible forms of economic organization in which individual participants interact with each other. From the perspective of O. Williamson, contracts governing transactions between economic agents should reflect three components exchange: the price, the specificity of resources and precautions [1, p. 141]. According to A. Auzan, peculiarities of a contract are directly linked with the characteristics of transactions – with their level of uncertainty, the degree of asset specificity and frequency [2, p. 163].

During the credit transaction and the conclusion of the relevant contract, primarily the right to use material goods is delegated. A distinctive feature of the credit transaction is a high level of risk to participants, in turn, generated by asymmetric information. At first glance, the greatest uncertainty arises from the lender, because originally it was he who fulfills its promises, transmits the value but to count on its return movement he can only after a certain time. However, the borrower may suffer if the lender refuses to commitments in full or in part. It may be, if the borrower has already made full or partial investment of the project, incurred certain costs, and the creditor requires early refund.

The contract allows interaction between participants unrelated with informal relations, as well as not always having mutual and complete trust for each other. The loan agreement regulates not only the conditions of the transaction and specificity transferred resources, but also captures the precautions that should protect participants from the breach of the transaction. In particular, collateral that will be alienated in favor of the creditor as a result of default by borrower commitments is the way to reduce the risk to the lender. The contracted refusal of remuneration payment (percentage) can be a safeguard against early claim for refund on the part of the borrower. For example, a client opens a term deposit in the bank, decided to return the money to its expiry, the bank usually applies in such cases, certain punitive measures – a reduction or lack of interest.

A contract between parties legally confirms the inherent loan repayment transmission resources.