ACCOUNTING AS AN INTEGRAL PART OF FINANCIAL AND ECONOMIC ASSESSMENT OF BUSINESS ENTITIES

Purpose. To determine the impact of accounting for the activities of economic entities on the general state of financial and economic activities of mining enterprises on the basis of the statistical method of analysis.

Methodology. The theoretical and methodological basis of this study includes scientific works by national and foreign scientists in terms of forming the accounting system of enterprises (economic entities), legislative and regulatory documents which regulate accounting. The study used a set of general and special methods of cognition: content analysis, logical generalization, quantitative and qualitative comparison, scientific abstraction and systematization.

Findings. It is established that in the conditions of the growing national economy there occurs dynamic strengthening of the influence of science and R&D on the socio-economic development of the country. It is proposed to consider accounting as a component of financial and economic evaluation of business entities. The financial analysis of activities of 40 leaders of the mining industry market of the world is provided.

Originality. The study analyzed the financial and economic condition of economic entities and provided recommendations in terms of management and accounting. In contrast to the existing ones, these recommendations are as follows: formation, composition, powers and procedure of enterprise committees; the role of the works council in ensuring the effective functioning of the internal control system at the enterprise; implementation of an effective remuneration policy; disclosure of corporate management information by enterprises. It has been proven that the mining industry, along with the oil and gas industry, distributes more of its revenues to the state than any other sector of the economy. This is due to the fact that in addition to direct and indirect taxes, mining companies pay significant amounts of royalties in the form of resource rents for non-renewable resources.

Practical value. The results of the study can be used by practitioners, scientists, civil servants (the Ministry of Education and Science of Ukraine and its structural units, local governments in the field of education and science) to monitor economic development and improve state regulatory impact on economic entities.

Keywords: economy, financial position, analysis, accounting, mining, business entities

Introduction. Despite the high results of operating activities of mining companies, the confidence of investors and consumers in this industry is declining every year. Investors and consumers are questioning the mining industry’s ability to develop sustainably and create favorable development conditions and benefits for all stakeholders. Certain developments in the industry, such as security and environmental incidents, have contributed to this position.

Large-scale structural changes in both the outside environment and the internal operating system also call into question successful development of the mining industry in the future. In particular, extreme weather events have become more frequent, which is one of such large-scale structural changes. Mining companies deal with coal deposits, mining and sales, and thus account for a significant amount of CO₂ emissions from ore processing and metalworking. Mining companies have the lion’s share in the economy of the country and the world, so due to constant changes, modernization and adjustment of international accounting standards, the issue of accounting for financial activities of mining companies is becoming especially relevant today.

Literature review. The national and foreign scientists have studied the definitions and concepts of “financial results” and “accounting of financial results”. The work [1, 2] considered the problems of capital and capital investments; disclosure of the content of accounting for financial results with more widely carried out in the works [3, 4]. Numerous publications state that the accounting policy should be strictly tied to a particular company, and should be the same for all transactions. In addition, the accounting of all its types is clearly linked to the budgeting system. Accounting without budget indicators is worthless and in contrast to such accounting policy of other systems provides for the possibility of applying different options for assessing economic events depending on time, departments, areas of business and even the economic meaning of a particular business transaction [5, 6].

In the following papers [7, 8] it was noted that the emergence of strategic management systems of the enterprise is one of the factors of further development of the accounting system, which ultimately necessitated the development of a system of accounting theory and at the level of accounting practice — the field of establishing effective mechanisms for obtaining, providing and interpreting accounting information of a strategic nature by enterprise management [9, 10].

In [11, 12] they consider accounting, in terms of organization of management accounting: budgeting; analysis of the "costs — volume — profit" relationship; management control systems based on accounting for centers of responsibility, as well as methods of strategic management accounting [13, 14].

Issues related to the accounting of financial results among scientists and economists have always occupied a special place and have been the subject of constant debate [15, 16]. The essence and concept of financial result for entrepreneurs of the mining industry and accountants is reflected in the formation and maintenance of its accounting [17, 18]. However, market
relations require the adaptation of accounting systems by economic entities, one of the main elements of which is the accounting of financial results.

**Unsolved aspects of the problem.** The scientific achievements of the above scientists are important for the formation of theoretical foundations and practical application by business entities. However, the issues of comprehensive study on factors and introduction of innovations of international standards in the field of accounting remain open. It is necessary to improve the methodological tools for assessing the impact of such innovations, as well as the analytical characteristics of the impact of the studied component on the dynamics of the financial result of mining enterprises.

**The purpose** of the article is to analyze and study the state of accounting, the possibility of introducing international standards for mining enterprises and the impact of these innovations on the financial performance of companies in modern business conditions.

**Methods.** In the course of scientific research, the authors used a number of general and special methods of cognition:
- analysis – for critical assessment of approaches to the interpretation of the essence of accounting;
- logical generalization – for the structural components of the financial development of mining enterprises;
- quantitative and qualitative comparisons – to highlight the mutual influence of science and market economy;
- graphic visualization – for visual display of information on the financial condition of mining enterprises;
- scientific abstraction and systematization – to present proposals in terms of improving the areas of state regulation of a market economy.

The next step of the methodology is to conduct a systematic analysis in order to summarize and scientifically process the results of financial analysis.

**Results.** Starting in 2018, at the state level it was decided to introduce new tools for assessing the level of capital, which was based on the conditions of conversion/charge-off. This in turn provided new opportunities to increase the level of capitalization of the economic condition of the state and served to reform the requirements for assessing the level of capitalization of the state economy and is a priority in reforming capital requirements, the introduction of which is planned for the near future. Its main feature can be considered to involve the ability to absorb losses of the financial structure by converting or writing off liabilities using such an instrument at the expense of investors.

Given the significant changes in the accounting of transactions with financial instruments in connection with the transition to the application of International Financial Reporting Standard 9 “Financial Instruments”, the state regulator has updated supervisory reporting indicators, as well as improved approaches to risk assessment of financial instruments when calculating capital ratios, credit risk and liquidity [4].

We offer you an annual review of global trends in the mining industry, which analyzes the performance of the largest (in terms of market capitalization) companies in the industry (Fig. 1).

**Fig. 1. Dynamics of indicators of the largest mining companies in the world (billion USD)**

However, investors did not seem to be impressed by such results – at least judging by the market profitability indicators and the value estimates of mining issuers. Stock markets are the markets of the future, not the present, and therefore more emphasis should be placed on the futures price rather than the current price. And it is clear that when investors assess the prospects of the mining industry, they are concerned about the industry’s perception of such vital issues as safety at the enterprise, environmental protection, technology and interaction with the consumer.

For this reason, the mining industry as a whole is actively involved in the controversy over climate change. However, the actions of the world’s largest companies differ significantly: some have adopted strategies to combat climate change, others are quite indifferent to this topic. The main investments are directed to the segments of copper and metals used in the production of batteries, which only benefit from changes in the structure of the energy balance in the transition from the use of internal combustion engines to electric vehicles, including those producing electricity from renewable energy sources [5, 19].

However, as the share of coal in world electricity production is 38 %, it remains an important component of the investment basket, continuing to receive significant investment and maintain interest in transactions in this segment.

In addition, mining companies align their operating portfolios with long-term strategies by selling non-core assets and optimizing project portfolios. In 2018 and early 2019, the main activity in the field of mergers and acquisitions among the largest companies in the world was reduced to consolidation in the gold mining sector. Thus, for buyer companies, compliance with a long-term strategy remains a key factor in purchasing decisions. At the same time, in the future, we will also be able to see agreements to improve the efficiency and productivity of current operations.

Although investors and stakeholders appreciate the efforts of mining companies to increase efficiency and achieve high results, it is clear that they are concerned about the lag of the industry when it comes to factors that have not traditionally been the focus of the mining sector [6]. Such factors include methods for reducing emissions, investing in the development of advanced technologies, more active interaction with consumers and creating a brand.

Assessing the prospects for the second half of 2019 and subsequent periods, we note that the high results of operational activities and progress in some areas will continue.

However, we do not see any signs of a quantitative shift in priorities that will allow the industry as a whole to respond to changes in other sectors. Without such a shift in priorities, in our view, the gap between the perception of the mining industry and the benefits it provides will only widen. Over the next few years, the mining industry will be able to adapt to growing and changing stakeholders’ expectations through sustainable operational performance.

By using technology for safer and more efficient operations, addressing global concerns and pursuing a balanced
strategy of creating lasting value for stakeholders, the industry can provide a better future for all beneficiaries – producers, consumers and society at large [7, 20]. Revenue and profitability of the 40 largest mining companies continued to grow steadily, as we predicted last year. The amount of dividends paid to shareholders is at a record high, the financial position of companies is stable. For the first time in the last five years, there has been an increase in capital investment, but this figure continues to be below the pre-crisis level of 2008. Trade wars, geopolitical crises and climate change are still the cause of volatility in the industry – this uncertainty became particularly apparent in late December 2018, when commodity prices and exchange rates in developing economies declined significantly.

Despite the impressive financial performance of the industry over the past two years, the mining index barely maintains its position against the background of the world stock indices. Although stock returns, supported by strong financial performance by mining companies, have remained high for several years, investors do not seem to be in a hurry to buy them in the context of current prices and dividend yields. This leads to a situation where, having already bought them, investors do not receive sufficient benefits with the appropriate dynamics of quotations [8].

Moreover, our long-term analysis indicates only a slight increase in the market capitalization of mining companies over a 15-year period. According to this indicator in the specified period the industry lagged behind the market as a whole, and not only behind the sector of new technologies, but also behind comparable industries, such as oil and gas. It is obvious that mining companies evaluate the success of their activities not only on the basis of the dynamics of stock quotes. However, a comparison of changes in stock prices relative to the dynamics of the rest of the market gives an idea of investors’ assessment of the attractiveness of the industry.

Since 2011 dividend yields in the mining sector have exceeded 3% and are generally comparable to other industries (for example, in the oil and gas industry, this figure is 3–5%); and in the high technology sector – 1–2%). In the last two years, there has been a significant increase in the amount of dividends paid. Despite the stable financial situation and results of mining companies in recent years, investors are concerned about the negative coverage of their activities in the media, the uncertain future of some commodities and the ability of the industry to manage the expectations of investors and customers.

The mining companies included in the Global Index of 500 Brands 2018 (none of them is in the top 100), despite the fact that it includes 22 oil and gas companies, indicates a negative attitude towards the industry or lack of interest in it.

In our opinion, the results below the market are due to the risks and uncertainties of the changing world, as well as investors’ doubts about the ability of the mining industry to respond effectively to change. The further success of the mining industry depends not only on its ability to adapt, but also on its ability and willingness to market its brand.

The mining brand concept is the position of the main supplier of raw materials for the most important sectors of the economy, as well as goods that consumers use in everyday life, such as metals and minerals (which are in the top ten most popular, including gold, silver, aluminum and nickel) in their cell phones, the lithium in the batteries of their electric cars, the steel from which their pots are made, or the coal converted into electricity to light their homes.

With a strong financial position and stable cash flows, it is time for first-tier mining companies to address the issues that bring their market value down. Among the main challenges facing business today are climate change, technology development and changes in consumer sentiment. In order to restore confidence in the industry, leading mining companies need to prove that they are keeping up with the times and changes.

In other words, they need to completely renew their reputation, turning from effective “ore concentrators” into outstanding creators – creators of economic and social capital. By focusing on environmentally friendly and customer-oriented strategies based on advanced technologies, they will be able to gain the trust of stakeholders and sustainably create added value in the long run. Accelerating and expanding the introduction of new technologies and the use of advanced technologies is becoming an important feature of the world’s leading mining companies [9, 14].

Automation and digitalization processes are gaining momentum, as companies prefer to use technology to reduce operating and production costs. However, in comparison with many other industries, the level of technological maturity of mining companies is still relatively low. Only seven of the forty companies analyzed have a director of technology, a director of information technology and a director of digital technology in their senior management.

Mining companies should adopt best practices in digital technology and Industry 4.0 in general outside the industry, as well as apply a new way of thinking in their operations. In addition, they need a broader view of new technologies to address sustainable development, security and changing consumer sentiment. There is no denying that the benefits of digital leadership for companies today are significant. A study conducted by the International Center for the Digital Impact concluded that companies that implement digital technologies increase revenue and reduce costs over time [10, 15].

An important point in the digitalization of the industry is that investment in technology should not stop at the entrance to the mine. Mining companies have significant opportunities to stimulate research and innovation in the use of their products by consumers.

Such measures include the investment of coal mining companies in carbon capture and storage technologies or the work of companies that produce platinum group metals as well as in the commercialization of technologies based on hydrogen fuel cells. Consideration of technology in the context of the entire supply chain not only indicates a responsible approach, but also begins to form a culture of innovation [11, 19].

Forecasts for 2019 begin to reflect the pressure on profitability every year. In our forecasts for 2019, we assumed that revenue would remain stable, as a slight increase in production and an increase in average prices for iron ore would be balanced by lower prices for coal and copper. We assume that operating costs will increase under the influence of purchase price inflation on production resources.

As a result, profitability indicators will generally remain at the level of the current year. Our forecast is based on performance data for previous years, as well as estimates of future values of key variables such as prices, production costs and cost of production resources.

Revenue increased in 2018, but due to higher commodity prices in 2018, revenue increased by 8%, which was due to the growth of average annual prices for most commodities. The decline in prices by the end of 2018 was a reflection of the uncertainty of the economic situation at the time and the obvious difficulties in ensuring economic growth. Production of most commodities increased by an average of 2% (Fig. 2).

Given the demand for sustainable development in the future, many companies are beginning to actively address the issues of reducing the environmental impact of their activities (Fig. 3).

All sectors of the economy, from technology companies and automakers to energy and mining companies, face the challenge of offering environmentally friendly products to consumers. We compared the structure of revenue for 2018 and 2006 (standard representative pre-crisis year, revenue for 2006 adjusted for changes in prices to ensure comparability of data).
The similarity of the revenue structure is striking. Coal retains a similar share, although revenue results hide changes in the sector at the level of forty analyzed companies, when US coal mines were pushed out by companies from India and the Asia-Pacific region. Copper also retained its position, and the share of iron ore increased, which contributed to the development of infrastructure.

The mining industry, along with the oil and gas industry, distributes more of its revenues to the state than any other sector of the economy. This is due to the fact that in addition to direct and indirect taxes, mining companies pay significant amounts of royalties in the form of resource rents for non-renewable resources obtained in the countries where they operate.

Last year, the share of revenues distributed to the state in the form of direct taxes and royalties increased from 19 to 21 %. In addition, carbon taxes and/or emission quota trading schemes have been introduced in a number of countries. In 13 of the 25 countries where the 40 largest mining companies operate, these taxes/systems have already been in place, and nine countries are actively considering the need to implement them.

Despite high levels of dividend payments, total shareholder earnings in the form of dividends, share repurchases and market capitalization growth are lower than in most comparable industries due to the need for long-term and current capital expenditures. With corporations increasingly under scrutiny in connection with the paid taxes, the 40 largest mining companies need to make an extra effort to make stakeholders aware of their actual tax contribution to society.

Regular disclosure is not enough: mining companies need to explain that income tax is only part of their total contribution. For example, over the past five years, the amount of royalties paid by the 40 largest mining companies has been almost equal to the amount of direct taxes paid to state budgets, not including payroll taxes and other indirect taxes also paid by companies. In addition, in many jurisdictions, mining companies pay significant taxes or fees for emissions under the emission quota trading system.

In 2018, the capital expenditures of the 40 largest mining companies in the gold and copper mining sectors were the highest: $ 30 billion was invested here. Capital expenditures in the coal sector have not changed much on an annual basis, and we assume that companies will keep production at current levels at consistently high coal prices in order to maximize profits. According to forecasts, in the long run the price of coal will decrease, so it is likely that capital expenditures on the development of new deposits will be postponed.

In the segments of iron ore and nickel mining, capital expenditures will remain at the same level as in the last two years. In view of the above, we consider it necessary to provide the following recommendations in terms of corporate management, in particular:

- formation, composition, powers and procedure of enterprise committees;
- the role of the works council in ensuring the effective functioning of the internal control system at the enterprise;
- implementation of an effective remuneration policy that will encourage employees to act in the interests of the enterprise and not to resort to excessive risks;
- disclosure of information on corporate management by enterprises.

Conclusions. Thus, the state regulator constantly demonstrates active participation in the life of economic entities, the introduction of new rules and requirements that will further have a positive impact on the economic and social sector.

The financial result is the main part of accounting, because it occupies a decisive place in the activities of any enterprise. The main purpose of the creation and operation of an economic entity in the market is the financial result, which takes the form of profit, which determines the efficacy of its activities. On the basis of the financial results, one can analyze the state of the enterprise in the market, namely its liquidity and profitability.

In the conditions of crisis and post-crisis state of economies, the key directions for the enterprises in work remain the following: achievement of the set strategic goals, maintenance of growth (at least stability) of profitability. Therefore, in a changing financial environment, the focus should be placed on business processes that allow achieving priority goals, and the state regulator should aim to ensure the effectiveness of measures with prior identification of financial risks and the further ways to respond (influence) to them — before making management decisions.

Thus, the financial results of the enterprise are the main lever for the creation of the enterprise and its further existence and development, so accounting for financial results has a special place in accounting, which also requires accountants of some attention and skill.
Опис як складова фінансово-економічної оцінки діяльності суб’єктів господарювання


6. M. V. Бодрецький

7. М. І. Коваль

8. Г. І. Кірюхіна

9. А. Т. Козлова

10. G. O. Кричаль\[1, M. V. Бодрецький\], M. I. Koval\[1, Г. I. Krychyna\], A.T. Kozlova\[1

11. Мета. Встановити вплив обліку діяльності господарюючих суб’єктів на загальний стан фінансово-господарської діяльності підприємств гірнічодобувної промисловості на основі статистичного методу аналізу.

12. Методика. Теоретичною й методологічною основою даного дослідження є наукові праці вітчизняних і закордонних учень у частині становлення облікового методологічного і правового поля підприємств (господарюючих суб’єктів), законодавчої та нормативної документації, що регулюють бухгалтерський облік. У ході дослідження використані загальні та спеціалізовані методи пізнання: аналіз змісту, логічні узагальнення, кількісне та якісне порівняння, наукова абстракція та систематизація.

13. Результати. Встановлено, що в умовах зростаючої національної економіки спостерігається динамічне посилення впливу науки та НДДКР на соціально-економічний розвиток країни. Запропоновано облік розглядати як складову фінансово-економічної оцінки діяльності суб’єктів господарювання. Приведено фінансовий аналіз діяльності 40 лідерів ринку гірнічодобувної промисловості світу.

14. Наукова новизна. У ході дослідження проаналізовано фінансово-економічний стан суб’єктів господарської діяльності та надано рекомендації в частині управлення та обліку. На відміну від існуючих, дані рекомендації полягають в наступному: формування, забезпечення, повноваження і порядку роботи комітетів підприємств; ролі різних підприємств у забезпеченні ефективного функціонування системи внутрішнього управління на підприємствах з урахуванням ефективної політики винагородж; розкриття підприємствами інформації щодо корпоративного управління. Доведено, що гірнічодобувна промисловість, щодо нафтогазової галузі, здатна розрізнятися на користь держави більше своїх доходів, ніж будь-який інший сектор економіки. Це пов’язано з тим фактом, що крім прямих та непряміх податків, гірнічодобувні підприємства виплачують значні суми роялті у вигляді ресурсної ренти за невідновлювані ресурси.

15. Практична значимість. Результати дослідження можуть бути використані практиками, науковцями, державними службовцями (Міністерство освіти і науки України та його структурні підрозділи, органи місцевого самоврядування) для моніторингу розвитку економіки та досконалення заходів державного регуляторного впливу на суб’єкти господарювання.

Ключові слова: економіка, фінансовий стан, аналіз, облік, гірнічодобувна промисловість, суб’єкти господарювання

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