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MANAGING THE FINANCIAL STATE OF OIL & GAS SECTOR ENTERPRISES

Abstract. The enterprises of the oil and gas complex, selected to achieve the purposes of the research, are subordinated to the State. The financial performance of the oil and gas sector companies determines the financial position of the industry as a whole and can serve as an indicator of investment attractiveness or inattractiveness. Most enterprises have an outdated and depreciated material and technical base, inefficient disposal of financial resources, which lead to losses. The state of the industry in Ukraine is reflected in the research data of the Institute of natural resources management, and is characterized by the inability to effectively manage the existing potential of the oil and gas complex.

Comprehensive analysis of the indicators of the financial state of the oil and gas companies was conducted using the method of grouping (distribution of oil and gas sector enterprises by types of economic activities); grouping, comparison and compilation of analytical data using tabular method (data on financial state of enterprises of oil and gas sector, indicators of estimation of dynamics of oil and gas enterprises, factor analysis of returns on equity (by Dupont method); analysis of current receivables and accounts payable of entrepreneurs, the analysis of the results of the research (depreciation of fixed assets of enterprises); the schematic (compiling the Resource Management Index) and the matrix (the matrix of the correlation of financial results and the dynamics of gross and net profit indicators) representation of research results. To establish the input of the author's approach to the existing literature, a comparison of the obtained results of the functioning of the oil and gas sector with the data of the Institute for Natural Resources Management, based on the aggregated Resource Management Index, has been done.

The application of the above mentioned research methodology makes it possible to characterize the financial status of enterprises in the oil and gas sector in a comprehensive way. The list of measures to improve the situation is suggested and assumes the introduction of management of oil and gas sector at the state level and managing the financial state of enterprises of the oil and gas sector.

Keywords: oil and gas complex, enterprises of the oil and gas sector, financial resources, financial condition, analysis, profit, loss, profitability.

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УПРАВЛІННЯ ФІНАНСОВИМ СТАНОМ ПІДПРИЄМСТВ НАФТОГАЗОВОЇ СФЕРИ

Анотація. Підприємства нафтогазового комплексу, що відібрані для досягнення цілей роботи, підпорядковані державі. Фінансові результати функціонування підприємств нафтогазового сектору визначають фінансовий стан галузі в цілому і можуть слугувати індикатором інвестиційної привабливості або непривабливості. Більшість підприємств мають застарілу та зношену матеріально-технічну базу, неефективне розпорядження фінансовими ресурсами, що призводить до збитків. Стан галузі в Україні відображають дані дослідження Інституту з управління природними ресурсами, що характеризуються як неспроможність ефективно розпоряджатися наявним потенціалом нафтогазового комплексу.

Комплексний аналіз показників фінансового стану підприємств нафтогазової сфери проведено з використанням способу групування (розподіл підприємств нафтогазового сектору за видами економічної діяльності), групування, порівняння та зведення аналітичних даних табличним методом (дані про фінансовий стан підприємств нафтогазової сфери, показники оцінки динамічності підприємств нафтогазової сфери, факторний аналіз рентабельності власного капіталу (за методом Дюпона), аналіз поточної дебіторської та кредиторської заборгованості підприємств нафтогазової сфери, рейтингової оцінки фінансового стану підприємства та ранжування отриманих результатів), графічного методу зображення результатів дослідження (знос основних засобів підприємств), схематичного (склад Індексу управління ресурсами) та матричного (матриця взаємозв'язку фінансових результатів з динамікою показників валового та чистого прибутку) подання результатів дослідження. Для встановлення взаємозв'язку авторського підходу проведено порівняння отриманих результатів функціонування підприємств нафтогазового сектору з даними Інституту з управління природними ресурсами за агрегованим Індексом управління ресурсами.

Застосування наведеної методики дослідження, уможливило комплексно охарактеризувати фінансовий стан підприємств нафтогазової сфери. Запропоновано перелік заходів щодо поліпшення ситуації шляхом упровадження у практику управління нафтогазовим сектором на рівні держави та управління фінансовим станом підприємств нафтогазової сфери.

Ключові слова: нафтогазовий комплекс, підприємства нафтогазового сектору, фінансові ресурси, фінансовий стан, аналіз, прибуток, збиток, рентабельність.

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УПРАВЛЕНИЕ ФИНАНСОВЫМ СОСТОЯНИЕМ ПРЕДПРИЯТИЙ НЕФТЕГАЗОВОЙ СФЕРЕ

Аннотация. Финансовые результаты функционирования предприятий нефтегазового сектора определяют финансовое состояние отрасли в целом и могут служить индикатором инвестиционной привлекательности или непривлекательности. Большинство предприятий имеют устаревшую и изношенную материально-техническую базу, неэффективное распоряжение финансовыми ресурсами, что приводит к убыткам.

Анализ показателей финансового состояния предприятий нефтегазовой сферы проведено с использованием способа группировки (распределение предприятий нефтегазового сектора по видам экономической деятельности), группировки, сравнения и сводки аналитических данных табличным методом (данные о финансовом состоянии предприятий нефтегазовой сферы, показатели оценки динамичности предприятий нефтегазовой сферы, факторный анализ рентабельности собственного капитала (по методу Дюпона), анализ текущей дебиторской и кредиторской задолженности, рейтинговой оценки финансового состояния предприятия и ранжирование полученных результатов предприятий нефтегазовой сферы), графического метода изображения результатов исследования (износ основных средств предприятий), схематического (состав Индекса управления ресурсами) и матричного (матрица взаимосвязи финансовых результатов с динамикой показателей валового и чистого дохода) представление результатов исследования.

Применение приведенной методики исследования дает возможность комплексно охарактеризовать финансовое состояние предприятий нефтегазовой сферы. Предложено перечень мероприятий по улучшению ситуации путем внедрения в практику управления нефтегазовым сектором на уровне государства и управления финансовым состоянием предприятий нефтегазовой сферы.

Ключевые слова: нефтегазовый комплекс, предприятия нефтегазового сектора, финансовые ресурсы, финансовое состояние, анализ, прибыль, убыток, рентабельность.

Формул: 1; рис.: 3; табл.: 6; библи.: 11.

Introduction. The oil and gas sector of Ukraine is an important energy-service component of the economy. Its input is significant, which implies necessity of effective management at each level of the hierarchy — starting from the sectoral ministry to the enterprise. As enterprises of the oil and gas sector are part of the fuel and energy complex, they, alongside with the enterprises of the electric power, nuclear industry and coal-industrial complex, determine energy security of specific cities, regions and the state as a whole.

The oil and gas industry in many countries is the engine of the country's economic development. Unfortunately, Ukraine is an import-dependent country on these types of resources. Although, according to experts, our State is able to meet its needs using its own territorial deposits of gas and oil. Enterprises in the oil and gas sector supply raw materials (petroleum products, natural gas) to industrial facilities (for example, production of chemical products — pesticides, fertilizers, solvents, synthetic flavors, etc.), housing and communal services (for example, centralized heating and hot water supply), households (providing natural gas), catering their needs.

In the conditions of dominance of the state monopoly over the ownership of oil and gas extraction, their processing, execution of works by enterprises of the oil and gas complex and maintenance of respective infrastructure, this kind of economic activity should bring a sufficient level of profitability to maintain the enterprises and personnel. However, over the years of Ukraine's independence, oil and gas deposits have been used mainly as a source of income. While the funds needed for upgrading and modernizing the existing material and technical base, intensifying and improving existing or new deposits, were allocated either in an insufficient or inefficient manner.

Appropriate financial planning for enterprises, including management of possible financial risks, should be performed not only by business executives, but also by analysts working in or out of state. A large share of enterprises of oil and gas sector does not have sufficient financial resources to organize effective planning work, which negatively affects management results.

Thus, the study of the financial state of oil and gas companies is an urgent and timely task of nowadays.

Analysis of research and problem statement. The issue of effective development of oil and gas sector of Ukraine is an important component of the research of domestic scientists and practitioners. Significant contribution to solving the financial problems of enterprises in the oil and gas sector was made by S. Apostolak [1], A. Belous [2], V. Gavrysh [9—11], A. Goncharuk [10], Y. Kolbushkin [3], V. Nitsenko [9-11], T. Pashkovskaya [4], and others. Y. Kolbushkin [3] focuses on reducing the tax burden on oil and gas companies, as further tax increases can lead to a decline in the production of carbohydrates. S. Apostolak [1] stresses the ineffective use of existing opportunities in the oil and gas sector, which brings losses to the state. The lack of transparency and rules of the game frustrates potential investors from investing in Ukraine's energy independence. Experts of the American Chamber of Commerce (ACC) emphasize the problems of oil and gas sector. In its press release, ACC identified three main blocks of issues, the effective solution of which will create an attractive environment for oil and gas business in Ukraine. In particular, international business considers as the primary further improvement of the legislation in the field of taxation of hydrocarbon production; the regulatory reform of the sector and the practical implementation of the Law "On the Natural Gas Market" [5]. T. Pashkovska concludes that for the successful reform of the oil and gas sector of Ukraine it is very important to prevent further monopolization of the gas market of Ukraine. Important steps in this direction are the abolition of provisions on the mandatory sale of gas by Naftogaz Ukrainy, extracted by private companies [4]. A. Goncharuk, V. Havrysh, V. Nitsenko, Y. Bilan and D. Streimikiene note that oil and gas, as the main sources of energy, should be gradually replaced by alternative energy sources in order to reduce the pressure on the environment [9—11].

Unsolved aspect of the problem. Problems of the financial nature of the enterprises of the oil and gas sector in conditions of environment uncertainty, the variability of the legislative and regulatory framework, fiscal policy and other factors are investigated by the authors separately, without being tied to the actual results of the enterprises management. This study was conducted using actual annual financial statements of enterprises, indicators of their financial state and identification of problems that accompany the operation of oil and gas sector enterprises.

The purpose of the article. The financial state of enterprises of the oil and gas sector determines the efficiency of the use of advanced capital (public funds). Financial factors have a positive or negative influence, direct or indirect, on the formation of financial results and financial position of enterprises in the oil and gas sector. Thus, the object of research is the management of the financial state of enterprises in the oil and gas sector and the factors that accompany their functioning.

Research results. At the beginning of 2016, out of 32 state enterprises, institutions, organizations and associations belonging to the sphere of management of the Ministry of Energy and Coal Industry of Ukraine, 9 are under liquidation procedures, for 1 — a bankruptcy case has been instituted, for 5 — a decision regarding reorganization has been taken.

The research was conducted using data from the official site of the Ministry of Energy and Coal Industry of Ukraine and PJSC "NJSC Naftogaz of Ukraine". We group the selected set of enterprises by types of economic activity (Table 1).

Table 1.

Distribution of enterprises of the oil and gas sector by types of economic activity

Activity	Number of reporting companies, units	Name of Company
Oil and gas	7	SOE Dashavsky Plant of Composite Materials; State Enterprise for gas supply and gasification Lanivtsigaz; Substation for gas supply and gasification of Pidgaitisigaz; State Enterprise for gas supply and gasification Shumskgaz; SOE Poltava Department of Geophysical Works; Ukpnaftokhimperepobka association; SU Opggazpemaautomatika
Supply and sales	1	SOE Kremenets Department for supply and sale of gas
Science	2	SSPE company Polimexeptivmash; SOE OS "Masma-seppo"
Project and exploratory	1	SOE Lvovdiproftfahim
Tpansport	1	SOE Enterprise for the supply of petroleum products
Other types of activity	1	SOE The headquarters of gas-rescue units at refineries and petrochemical enterprises
Activities of head offices (head offices)	1	PJSC "NJSC" Naftogaz of Ukraine "

* Source: built upon the data of the Ministry of Energy and Coal Industry of Ukraine, NJSC "Naftogaz of Ukraine" and data of the enterprises participating in the study.

Considered enterprises are engaged in various types of economic activities, covering the whole spectrum of works — scientific and design works, equipment production, supply, sale and transportation of oil and gas, rescue units.

Domestic enterprises of the oil and gas sector compile and submit annual financial statements in accordance with the Law of Ukraine "On Accounting and Financial Reporting in Ukraine" and the National Accounting Standards (NP) (NB) 1 "General Requirements to Financial Statements", and NAK Naftogaz of Ukraine provides consolidated financial statements in accordance with the National Accounting Standard (2) "Consolidated Financial Statements".

Foreign practice involves the creation of a separate report in the framework of the annual financial statements — the "Discussion and Analysis of Management" [6], in which the management of company provides an assessment of past year operations and financing. Managers also discuss the upcoming year, outlining future goals and approaches to new projects. Discussion and management analysis is an important document for analysts and investors who want to review the company's financial state and management effectiveness.

An important stage in determining the effectiveness of oil and gas sector operations is the assessment of their financial state. The financial state is a rather meaningful definition. It includes a review of the main development indicators, their comparison, determines the effectiveness of the use of financial resources and the analysis of the financial results of enterprises on the base of the main public financial statements (Table 2).

Table 2.

Data on the financial state of enterprises in the oil and gas sector, ths.

Enterprises	Business number	Equity		Long-term liabilities and collateral		Current liabilities and collateral		Unoblocated assets		Mutual assets	
		2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
SOE Dashavsky Plant of Composite Materials	1	7272	7278	0	0	1900	1904	3216	2766	5956	6416
State Enterprise for gas supply and gasification Lanivtsiga	2	-43	-46	0	0	324	317	237	214	44	57

Substation for gas supply and gasification of Pidgaitsgaz	3	-377	-380	0	0	485	484	103	95	5	9
State Enterprise for Gas Supply and Gasification Shumskgaz	4	275	252	0	0	34	38	247	223	62	67
Association of Ukpnaftokhimperepobka	5	-19	-20	0	0	72	53	5	2	48	32
SU Opggazpemaautomatika	6	1507	1192	0	0	205	41	55	38	1657	1233
SOE Poltava Department of Geophysical Works	7	27206	24406	0	0	7234	4533	7240	6701	27200	22238
SOE Kremenets Department for supply and sale of gas	8	35612	34546	0	0	14685	50774	36189	35608	14108	49712
SSPE company Polimexep-tivmash	9	196	198	19	3	10	7	1	1	224	207
OSE OS Masma-seppo	10	1391	1129	0	0	282	339	1124	900	549	568
SOEI Lvovdiprofitfahim	11	1802	1366	451	485	1	175	438	330	1816	1696
SOE Enterprise for the supply of petroleum products	12	108676	101787	4325	4325	8362	9076	20492	19988	100871	95200
SOE The headquarters of gas-rescue units at refineries and petrochemical enterprises	13	130	130	2438	3846	2	1	10	4	2560	3973
NJSC "Naftogaz of Ukraine"	14	429035776	44783847	37581048	80317009	74415038	2163707	449017354	460028227	2014508	139764236

Source: built upon the enterprises' data

Note: further in the study, the classification according to the serial number of the enterprise will be used

The size of working capital in enterprises varies considerably. The growth of working capital at the following enterprises constituted respectively: 10 (3,5%), 1 (7,7), 4 (8,1), 2 (29,5), 14 (51,9), 13 (55,2), 3 (80,0%) and for 8 — 3,5 times. In other enterprises there was a decrease in circulating assets by 5,6-34,4%.

The dynamics of the development of enterprises in the oil and gas sector can be studied using the following key indicators: the amount of economic resources at the disposal of the enterprise, net income (revenue) from the sale of products, works, services, gross and net profits (Table 3).

Using the data in Table 3, we grouped the indicators of gross and net profit of enterprises in the form of a matrix, which shows the relationship between the indicators of financial results and the dynamics of indicators (Figure 2).

Gross profit / loss			Net profit / loss			Profit	Financial result
1, 3, 5, 6, 9		8, 10, 14	1, 9, 10		8, 14		
4	2, 13			13		Loss	
7, 11, 12			2, 4, 5, 7		3, 6, 11, 12		
Decrease	0	Growth	Decrease	0	Growth		
Indicator dynamics							

Fig. 2. The matrix of the correlation of financial results and the dynamics of gross and net profit indicators
Source: author's development

Table 3.

Indicators for assessing the dynamics of enterprises in the oil and gas sector, ths

Serial number of enterprise	Amount of funds at the disposal of the enterprise		Deviation		Net income (revenue) from the sale of products, works, services		Deviation		Gross profit / loss		Deviation		Net profit / loss		Deviation	
	2015	2016	+, -	%	2015	2016	+, -	%	2015	2016	+, -	%	2015	2016	+, -	%
1	9172	9182	10	0,1	11454	7912	-3542	-30,9	4274	2287	-1987	-46,5	1,598	24	-1,574	-98,5
2	281	271	-10	-3,6	0	0	0	0,0	0	0	0	0,0	-29	-3	26	-89,7
3	108	104	-4	-3,7	150	144	-6	-4,0	100	94	-6	-6,0	0	-3	-3	0,0
4	309	290	-19	-6,1	112	0	-112	0,0	65	0	-65	0,0	-36	-23	13	-36,1
5	53,1	33,7	-19,4	-36,5	812,5	641,7	-170,8	-21,0	489,5	446,9	-42,6	-8,7	-38,3	-0,8	37,5	-97,9
6	1,712	1233	-479	-28,0	2371	1901	-470	-19,8	1282	861	-421	-32,8	-24	-314	-290	1,208.3
7	34440	28939	-5501	-16,0	29981	15081	-14900	-49,7	392	-222	-614	-156,6	-4,904	-2,763	2,141	-43,7
8	50297	85320	35023	69,6	3895	17290	13395	343,9	-1102	1176	2278	206,7	-442	1,400	1,842	-416,7
9	225	208	-17	-7,6	649,9	544	-105,9	-16,3	204	112	-92	-45,1	30	7	-23	-76,7
10	1673	1468	-205	-12,3	3657	3659	2	0,1	1074	1138	64	6,0	166	72	-94	-56,6
11	2254	2026	-228	-10,1	4875	1395	-3480	-71,4	226	-92	-318	-140,7	135	-412	-547	-405,2
12	121363	115188	-6175	-5,1	0	24168	24168	0,0	0	-2788	-2788	0,0	-3,598	-6,889	-3,291	91,5
13	2570	3977	1407	54,7	0	0	0	0,0	0	0	0	0,0	0	0	0	0,0
14	536786153	592381856	55595703	10,4	112761671	161382827	48621156	43,1	12534160	45105429	32571269	259,9	-27,749,272	26,528,989	54,278,261	-195,6

Source: built and calculated based upon enterprise data

8 enterprises out of total got a gross profit (5 of which recorded its decrease, compared to the previous period, and 3 — its increase), 3 — did not receive either profit or loss and 3 got loss. Change in the gross profit can positively or negatively affect the formation of net profits of the enterprise. Thus, only 5 enterprises received a net profit (of which 3 recorded a decrease in the indicator, and 2 — the growth), 1 — did not receive neither profit nor loss and for 8 — a loss was recorded. Since net profit as a benchmark determines the further development of an enterprise, its value should be positive and grow in comparison with the previous period. Only 4 enterprises (1, 8, 9 and 14) have the same state of indicators of gross and net profit, which testifies to the stability of their functioning and the possibility of further gradual development.

Lets' estimate the indicator of the efficiency of invested capital in the enterprises of the oil and gas sector using the DuPont method. Since enterprises are fully subordinated to government institutions, the efficiency of using the invested capital should be high, which would indicate the appropriateness of the investment.

In order to study the factors in detail, we use the return on equity ratio as follows:

$$R_{eq} = N_m * A_t * L \quad \text{or} \quad R_{eq} = \frac{N_p}{N_i} * \frac{N_i}{A_{ava}} * \frac{A_{ava}}{A_{acec}} \quad (1)$$

де R_{eq} — Return on equity; N_m — Net margin; A_t — Asset turnover; L — Leverage (financial leverage); N_p — Net profit; N_i — Net income from sales of products (works, services); A_{ava} — Average annual value of assets; A_{acec} — Average annual cost of equity capital.

The results of the calculations performed (Table 4) showed that enterprises have a fairly low level of efficiency in the use of own capital. Enterprises 4, 6, 7, 11, 12 are loss-making; for 1, 3 profitability does not exceed 1,0%; for others — profitability is in the range of 1,0—6,7%.

Table 4.

Factor analysis of return on equity (by Dupont method)

Enterprises	Return on equity	incl. due to influence:		incl. due to influence:	
		Leveridge	Return on assets	Net margin	Asset turnover
1	0,3	1,261	0,3	0,003	0,862
2	6,7	-6,202	-1,1	0,000	0,000
3	0,8	-0,280	-2,8	-0,021	1,358
4	-8,7	1,137	-7,7	0,000	0,000
5	4,1	-2,249	-1,8	-0,001	14,786
6	-23,3	1,105	-21,1	-0,165	1,275
7	-10,7	1,228	-8,7	-0,183	0,476
8	4,0	1,933	2,1	0,081	0,255
9	3,6	1,099	3,2	0,013	2,513
10	5,7	1,246	4,6	0,020	2,330
11	-26,0	1,351	-19,3	-0,295	0,652
12	-6,5	1,124	-5,8	-0,285	0,204
14	6,1	1,301	4,7	0,164	0,283

Source: built and calculated based upon enterprise data

Thus, the financial state of enterprises in the oil and gas sector is critical according to the most of indicators, which not only does not allow simple reproduction, but also leads to significant losses. This situation is the evidence of inefficient management of the oil and gas complex not only on the micro, but also at the macro level.

The financial risks of the operation of oil and gas companies can be grouped into two groups: internal and external. Internal risks affect the formation of indicators of financial and economic activity. Qualitative and quantitative characteristics of internal financial risks are determined by the management of the enterprise (criteria, restrictions, etc.). In order to reduce the negative impact on the efficiency of financial and economic processes, current (operational) and strategic (perspective) adjustments of planned indicators (forecast data) are carried out, the search for internal

reserves and directions of increasing the efficiency of use of material and technical and labor resources, ways of reducing the cost of production, saving cash of the enterprise is conducted.

One of the factors of internal risk is the limitation of financial reporting, which includes inaccuracies due to deliberate manipulation of figures; complexity of comparison, if the preparation of reports is carried out by different methods of accounting; some argue that this is an incomplete achievement of the company's economic prospects, as it is reflected only in financial measures [7].

One limitation of financial reporting is that it is subject to human interpretation and errors, and in some cases even deliberate manipulation of figures. There is a serious concern in the United States about the accuracy of financial statements. There are many cases, when the management has manipulated figures in the financial statements to highlight overestimated economic performance, emphasized the need to review the effectiveness of accounting standards, audit regulations and corporate governance principles [7].

External risks do not depend on the will of the enterprise managers and have a restrictive effect on the economic results. Parameters of external risks are determined by its various components (taxes, level of sales price, etc.).

The examples of environmental factors may include: demographic status; average household income; unemployment rate; cost of fuel and lubricants; tariffs for housing and communal services; the cost of natural gas for the needs of the population and industry; age characteristics such as retirement age population; indicators of poverty, etc.

T.P. DiNapoli [8, p. 3—4] notes that the financial condition is affected by the combination of environmental, fiscal and organizational factors, including decisions and actions of the management. We agree with the author's opinion, since the first two factors are the external ones, and the latter is internal.

The formation of assets of the considered enterprises takes place via the involvement of a large share of short-term liabilities, as shown in Table 5.

Table 5.

Analysis of current receivables and payables of oil and gas companies

Enterprises	Current accounts receivable - total, ths. UAH		Share of current accounts receivable in current assets, %		Current liabilities and collateral - total, ths. UAH		Share of current liabilities and provisions in the formation of property, %		The ratio of receivables and accounts payable	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
1	342	386	3,7	4,2	1900	1904	20,7	20,7	0,18	0,20
2	45	58	16,0	21,4	324	317	115,3	117,0	0,14	0,18
3	2	2	1,9	1,9	485	484	449,1	465,4	0,004	0,004
4	40	58	12,9	20,0	34	38	11,0	13,1	1,18	1,53
5	43,8	23,6	82,5	70,0	72	53,4	135,6	158,5	0,61	0,44
6	69	131	4,0	10,6	205	41	12,0	3,3	0,34	3,20
7	21518	16303	62,5	56,3	7234	4533	21,0	15,7	3,0	3,60
8	13496	48973	26,8	57,4	14685	50774	29,2	59,5	0,92	0,97
9	201	190	89,3	91,3	10	7	4,4	3,4	20,10	27,14
10	267	306	16,0	20,8	282	339	16,9	23,1	0,95	0,90
11	473	207	21,0	10,2	1	175	0,04	8,6	473,0	0
12	51047	45419	42,1	39,4	8,362	9076	6,9	7,9	6,11	5,00
13	26	3	1,0	0,1	2	1	0,1	0,03	13,00	3,00
14	36053881	6185115	6,7	10,3	74411728	12162028	13,8	20,3	0,49	0,51

Source: built and calculated based upon enterprise data

In the practice of financial analysis, it is assumed that part of the funds of enterprises withdrawn from economic circulation should be equal to the amount of obligations to other contractors. Growth of the ratio of accounts receivable and payables (enterprises 4, 7, 9, 12, 13) may indicate the lack of ability to pay off their debts in due time. The low value of the indicator (enterprises 1, 2,

3, 5, 6, 14) shows an increase in the share of liabilities in the formation of assets of the enterprise, which may lead to a dependence on external market agents (enterprises' creditors). The normal level or that which is approaching it (enterprises 8, 10, 11) makes it possible to block the shortage of working capital of enterprises by liabilities to other contractors on the market.

To analyze thoroughly and to identify the problem areas that impede effective resource management, the Institute for Natural Resources Management (NRGI) has developed its own integrated assessment methodology that has been used for two years while preparing a global Resource Management Index. It consists of three major dimensions — resource use, revenue management and environmental friendliness - that combine 14 subcomponents (Figure 3) [2].



Fig. 3. Composition of the Resource Management Index

Source: built on the basis of [9, p. 7]

The Resource Management Index assesses the policies and practices that governments use to manage the oil, gas and mining industries of their countries. The index provides a composite estimate for each assessment [9, p. 7].

According to rating result in 2017, Ukraine ranked 44th place and testifies that the country has established some minimum procedures and practice of resource management, but most of the elements necessary for the provision of social benefits are absent [9, p. 4—5].

The studies, we have conducted, are supported by the data on the total independent evaluation according to the Index of resource management.

In order to achieve qualitative changes, according to NRGI experts, you need to: focus on improving the implementation of regulatory norms; continue the openness of the government; to raise the quality of state enterprise management; protect public space and fight corruption; strengthen global norms and institutions; use data for reforms [9, p. 23—24].

In order to conduct a comprehensive study of the financial state of the oil and gas companies, we will use the method suggested in [8]. This technique involves a combination of the most important financial indicators. Each value of the base year (year 1) corresponds to 0,35; of current year (year 2) — 0,65, which is determined by the weight of the actual value of the indicators.

Using this method, we performed calculations and grouping of the obtained indicators represented in the table 6.

Table 6.

Gradation of the obtained result according to the Methodology for calculating the rating assessment of the enterprise financial state

Score		Serial number of enterprise	Rating	State	Type	Financing	Result
from (inclusive)	to						
1	0,8		AAA	Distinctive	Limited Risks	Own funds of enterprises + State financing + Loans of banks	Development
0,8	0,6		AA	Very good			
0,6	0,4		A	Good			
0,4	0,2	1 (0,37), 9 (0,37), 10 (0,34), 14 (0,203)	BBB	Positive	There are risks	Government financing + Loans to banks	Restructuring
0,2	0	4 (0,03), 6 (0,00)	BB	Normal			
0	-0,2	8 (-0,05), 7 (-0,18), 12 (-0,11)	B	Satisfactory			

-0,2	-0,4	11 (-0,36)	CCC	Unsatisfactory	High risks	Public funding	Sanitation
-0,4	-0,6		CC	Poor			
-0,6	-0,8	3 (-0,70), 5 (-0,75)	C	Critical	Critical Risks	Bankruptcy procedure	Liquidation
-0,8	-1	2 (-0,803)	D	Bankrupt			

Source: calculated on the basis of enterprise data using the technique suggested in [8] and improved by the authors

Since the given method corresponds to the value from -1 to 1, then the selected set must be ranked on the specified scale. When studying the method used, we suggest to improve it. Thus, in order to improve this methodology, we will add to it the type of financial condition, possible sources of financing and, as a result, further development or liquidation.

The calculations showed that 4 enterprises are in the zone of financial comfort, they are in good financial condition, have limited financial risks. For their further development, own funds of the enterprise, state financing and bank loans can be used. 5 companies are in satisfactory financial condition with a medium risk, maybe a procedure for restructuring the liabilities to creditors may be required. 1 enterprise is in unsatisfactory financial condition, a more profound study of its financial state may reveal the necessity to restrict further state financing due to high financial risks of obtaining losses, or to conduct partial or complete financial rehabilitation. A similar situation is observed with enterprises 3 and 5, however, alongside with their critical financial situation, this may indicate the ineffectiveness of management decisions and the absence of further development prospects. And the last company — 2 — has no financial resources at all for its current functioning, not to mention at least a simple reproduction, and should enter the liquidation procedure.

It should be remembered that companies that are on the verge of another group can improve, remain in the same group or worsen their financial position by the next fiscal year.

Improving the situation in managing the financial situation of oil and gas sector companies is possible if the following changes are made:

1. At the State level:

1.1. Implementation of advanced world experience in signing production-sharing agreements [1].

1.2. Simplifying the licensing system and controlling compliance with licensing conditions [1].

1.3. Moratorium on increasing tax, rent payments [1]. Stimulating the development of enterprises in the oil and gas industry via introducing a tax burden based on world oil prices will enable the State, firstly, to resolve one of the key issues of national security - increasing its own hydrocarbon production. Secondly, as a result of the development of production capacities, creating additional jobs where oil extraction will be carried out, which will contribute to solving social problems in certain regions of Ukraine [3, p. 4].

1.4. Determination of the level of rent payments and their transfer to the disposal of enterprises with the target use for the development of industry [1].

1.5. Changing the gradation of the definition of rental payments — we should be interested in any amount of gas and oil, even insignificant. In France, negative rents are used in wells with low debit, that is, the state pays extra for gas production [1].

1.6. Simplification of procedures for obtaining permits for the design, construction, exploration, repair and exploitation of deposits: to exclude the permissive function of regional councils, leaving only the applicant one, to exclude objects of the oil and gas system from the system of approval of the State Architectural and Construction Inspection, etc. [1].

1.7. Cancellation of duties and value added tax on imported tangible investments, equipment, temporarily imported for the purpose of performing operations related to the arrangement and repair of deposits [1]. Eliminate the risk of accrual of value added tax during the cancellation / liquidation of unsuccessful wells [4].

1.8. Liberalize the rules for exchanging foreign currencies (for companies operating abroad or exporting oil and gas) [4].

1.9. To finalize P(C)BO № 33 "Mining Resources Expenditures", to apply accounting data for the purposes of accounting expenditures for exploration [4].

1.10. Allow the inclusion of the value of assets lost into the area of antiterrorist operations to reduce the tax base of income tax [4].

1.11. Foresee in the Tax Code a clear definition of engineering services, which will not include the cost of exploration and development [4].

1.12. Reduce levels of fraud and corruption and strengthen the anti-corruption component when conducting auctions, tenders, contractual relationships between enterprises and the government.

1.13. Develop a comprehensive state program for the strategic development of the oil and gas sector.

2. At the enterprise level:

2.1. Use transparent mechanisms for the formation of costs and prices for major types of works and services.

2.2. To introduce a system of direct responsibility for financial results and efficiency of using budget, credit and other funds.

2.3. To develop corporate anti-corruption policy at the enterprise in order to increase the level of self-awareness.

2.4. Conduct re-training and improve the qualifications of specialists and business managers.

2.5. Establish a system of incentives (monetary and non-cash) based on the results of the fiscal year.

2.6. Increase funding for modernization and updating of the material and technical base of oil and gas enterprises.

2.7. Enhance the innovation of companies by introducing appropriate exemptions and incentives at the state level.

2.8. Engage leading foreign and international consulting companies (for example, Ernst & Young, Deloitte Consulting, etc.) in the processes of reorganization and restructuring of oil and gas companies.

2.9. Organize and gradually introduce a model of the production and sale of alternative fuels, which will increase the level of environmental friendliness and safety [9-11].

The suggested system of measures at the state level should create attractive conditions for the functioning of oil and gas sector enterprises, while transformations at the enterprise level should increase the efficiency of the use of state and other funds.

Conclusions. The financial state of the enterprises of the oil and gas sector is determined by the deterioration in the quality of the material and technical base, the reduction of public financing, the high level of the cost of performed works and services, and the loss-making functioning.

In Ukraine, there is a paradoxical situation when the most profitable energy companies in the sector get losses.

In the absence of control over the efficiency of spending public funds, there are situations of artificial manipulation of finances, which leads to an increase in the cost of work performed, production and underestimated sales prices, and as a result — to the loss.

The results of the financial analysis were confirmed by the findings of the experts of the Institute for Natural Resources Management, who referred Ukraine, and consequently the entire oil and gas complex, to countries with low regulatory influence, inefficient management of existing oil and gas resources, opaque allocation of financial resources and their use. Moreover, experts point out that the country does not have the majority of elements necessary to ensure the benefits of society.

In order to improve the situation in the country, it is necessary to amend the Tax Code, reduce the tax burden on oil and gas companies, simplify the system of obtaining a license, and increase control over the activities of related legal entities.

Companies that are dynamically developing or have a normal financial position, besides using own funds, budget financing, can conduct a procedure for issuing and placing bonds, obtaining bank loans, and creating joint ventures.

For a part of the enterprises that are not able to develop and to conduct, at least, a simple re-production, bankruptcy and liquidation procedure, reorganization or partial or full privatization should be introduced. This approach can serve as evidence of changes in the quality of management

decisions made and enable the implementation of programs and plans of the development of enterprises in the oil and gas sector.

In future, a meaningful study on the definition of the system of financial risks for the results of the management of enterprises in the oil and gas sector is expedient.

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