

Features of Investment Asset Management of Oil Companies When Implementing Additional Income Tax

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Abstract. For many years, there has been an ongoing debate about the fair level of tax burden for resource extraction companies. Both the state and the management of enterprises recognize the dependence of the level of budget financing and the profitability of investment assets on the applied approach to taxation. The article presents the results of a study of the features of assessing the effectiveness of investment asset management and offers recommendations for optimizing the distribution of cash flows.

Keywords: Mineral extraction tax, additional income tax, taxation of oil production, investment assets, performance assessment.

1. INTRODUCTION

Currently, Uzbekistan has developed an economic model in which hydrocarbon production is the basis of the state budget. The state budget is extremely interested in the development of new fields and the implementation of new large oil and gas production projects, which promise significant fiscal payments in the long term. However, due to the gradual depletion of well flow rates, there is a need to provide such tax conditions that will make it possible to increase the profitability of investment assets with current low efficiency.

The concept of additional income tax (ATT) was proposed back in Uzbekistan was introduced on January 1, 1992. Initially it was 30%, in 1993-1994 - 25%, and since 1998 it has been 20%. However, as of October 1, 2019, the VAT rate has been reduced from 20% to 15%. The rise in oil prices at the beginning of the millennium prompted the abandonment of the AIT and the implementation of a mineral extraction tax (MET). The gradual depletion of oil and gas fields requires a transition from taxation of production volume to taxation of economic results.

An alternative to the current tax system (DSS) involves the possibility of influencing the level of tax payments through the competent redistribution of funds between the investment assets of the oil company.

In recent years, especially with the emergence and development of the coronavirus pandemic, not only world oil and gas prices, but also their consumption volumes have undergone significant fluctuations. This situation has led to increased attention to the issue of choosing optimal tax planning tools when financing investment assets.

2. PURPOSE

The purpose of the article is to study the impact of the application of a tax on additional income in oil production on the procedure for assessing the effectiveness of investment asset management and to develop recommendations for optimizing the distribution of cash flows.

3. LITERATURE REVIEW

Taxation of natural resources has always been and remains a two-way issue. On the one hand, natural resources should belong to the entire state and its people, so income from their use is used to finance the budget. On the other hand, the goal of mining organizations is undoubtedly to make a profit. Achieving the necessary balance is the goal of an effective tax policy of the country.

Over the past decade, many studies by both national and foreign scientists have been devoted to this issue.

Most of the authors (Hiorth , A., Osmundsen , P., 2020; Issabayev , M., Rizvanoghlu , I., 2019; Provornaya , IV, Filimonova , IV, Nemov , VY etc. , 2020; Snow , N., 2011; Kashani , HA, 2012; Sikhimbaeva , DR, Esimseitova , KA, Esimseitov , MS, 2014; Lund , D., 2014; Tang , B.-J., Song , X.-T., Cao , H., 2018; Osmundsen , P., Løvås , K., 2013) as a result of studying the experience of relations between oil companies and the state, they agree that the oil industry is very dependent on the taxation system and is quite sensitive and responsive to any changes. This is especially noticeable during sharp fluctuations in world oil prices.

Privalov , NG, Privalova , S.G. (2017), Reimer M.N, Guettabi M., Tanaka A.L. (2017), Smirnova N.V., Rudenko

G.V. (2016), Rabe B.G., Hampton , RL (2015), Khafizova , AR, Fassakhov , IA (2015), Cherniavsky , A. (2012 are devoted to the need to make changes to the current mineral extraction tax.

The advantages and disadvantages of introducing a tax maneuver in Russia were analyzed by Fjaertoft D., Lunden LP (2015), Gorbunova E. (2020), Katysheva E. (2016), Ponkratov V. (2014, 2016) and others. The flexibility of this instrument and the ambiguous impact on budget revenues, as well as stimulation of the development of fields with low efficiency, are noted.

The works of the presented authors served as the basis for further research into the impact of the application of an additional income tax on the efficiency of investment assets.

4. ANALYSIS AND RESULTS

An investment asset is a field or group of fields, united by territorial, administrative or other basis, having a common infrastructure for the transportation and/or treatment of oil and gas, which require financing of the preparatory stage over a long period.

Each investment asset has its own time frame. The moment in time when only the first idea about an asset occurs can be called the moment of birth of the idea of an investment asset. Also, the moment of implementation can be considered the moment when financing begins. The end of an asset can be an event such as the end of financing, the merger of an asset with another asset, re-equipment and a radical revision of the asset.

The life cycle of an investment asset is the time interval between the conception of an investment asset and its final liquidation. The life cycle is presented in Figure 3 and includes three main life stages:

- pre-investment stage;
- implementation stage (investment stage);
- post-investment stage (exploitation stage).
- The criteria by which the effectiveness of any investment asset is assessed are based on the principles:
- changes in the value of funds over time;
- possibility of changes during implementation;
- accounting for inflation in the economic model;
- taking into account alternative cost options;
- accounting and forecasting of risks associated with the sale of an asset;
- forecasting cash flows generated on the basis of all receipts and payments;
- control throughout its implementation;
- comparability of macroeconomic parameters of assets sold in one time period;
- taking into account the impact on related areas (society, ecology, etc.);
- step-by-step structure for assessing asset performance.

The main purpose of an investment asset is to generate economic profit. Within the asset, such profit is provided by cash flows. Cash flows that are generated by an investment asset are the totality of all outflows and inflows of cash at all stages of the asset.

Static indicators will include:

- coefficient efficiency investment ;
- simple payback period for the project.

Dynamic indicators of investment efficiency include:

- net present value (NPV) ;
- investment return index (PI) ;
- internal norm profitability (IRR);
- payback period calculated using discounted cash flows (DPP).

Most often, to minimize the risks of investment inefficiency, a set of economic efficiency indicators is used. This variety of indicators helps to have a more holistic and broader picture of the effectiveness of an investment project. Of course, economic efficiency is only one point when deciding to implement an investment project. In addition, the investor evaluates many non-economic significant factors, for example, the impact of the project on the company's reputation or the environmental situation in the region where the project is implemented, or the coverage of new markets.

In an oil and gas company, cash inflows are generated from proceeds from the sale of oil and associated gas. The latter can be taken into account in the project upon agreement. The use of revenue from the sale of associated gas in calculations is permitted in the case where, based on the results of the project, a change in the volume of associated

gas production with its subsequent sale is predicted. Gas factor and gas utilization indicators are used to determine gas volumes.

Outflows comprise production costs based on the following elements:

- investments;
- variable production costs;
- costs of maintaining the well stock;
- other expenses.

The calculation of the amount of mineral extraction tax is carried out in accordance with the rates specified as part of the macro parameters. When determining the amount of mineral extraction tax, the approved standards for oil losses during in-field transportation and treatment are taken into account. For deposits for which there is a mineral extraction tax benefit, the amount of mineral extraction tax is determined taking into account the benefit. The mineral extraction tax rate for natural and associated gas and payments for associated gas flaring are determined in accordance with the Tax Code of the Russian Federation.

It can be noted that taxes have an impact when calculating performance indicators. The adoption of such an important decision as the transition to a new tax regime will reduce the income tax base of oil companies; otherwise, the current procedure for calculating corporate income tax will remain.

The new system involves the introduction of additional income taxation (ATI), as well as a reduction in the total value of the mineral extraction tax and customs duty on oil, which depend on gross indicators. The new tax system involves a reduction in the total amount of fiscal payments depending on gross production indicators (mineral extraction tax and export duty), and the introduction of taxation of the estimated cash flow from the production of hydrocarbons.

A distinctive feature of the income tax is that when calculating the tax base, cash flows from the investment asset generated during the entire life cycle are taken into account. It is also important that the amount of tax payments is related to the profitability of each individual license area, which, in turn, depends on the production conditions. Consequently, the tax burden will be diversified, which will improve the economic performance of fields with low profitability, including hard-to-recover reserves.

The investments made in developing the asset must be profitable, that is, effective. To determine cost-effectiveness, an assessment of the asset's performance is carried out. At this stage, investments are forecast for the construction of production facilities, transportation preparation facilities, forecast oil and gas production profiles, operating costs, and economic macroparameters.

The tax component is part of assessing the economic efficiency of an investment asset and is an integral element of the company's investment asset management system. Therefore, when justifying the choice of the optimal tax, it seems advisable to introduce into the assessment of the efficiency of using an investment asset the receipt of additional economic effect as a result of a change in the taxation regime.

Flexibility is one of the key benefits of the new tax. If the mineral extraction tax is established for a ton of oil produced, then a tax on additional income is established in the case of income received from this ton. Accordingly, if there is no income, then there will be no tax.

Methods for adapting the investment program to the levels of limit expenses of personal income tax can be:

- 1) acceleration or shift in investment projects involving oil production;
- 2) optimization of capital costs that do not affect oil production;
- 3) optimization of operating costs without loss of oil production levels;
- 4) adjusting the level of oil production depending on the situation;
- 5) change in tax policy (depending on the state).

Exceeding the spending limit in the current year can only be justified by increasing the limit spending multiplier for the next years to build up the investment program at the licensed area.

NPV, PI, IRR, DPP are mandatory indicators of economic efficiency when assessing investment assets in the oil and gas sector. In order for a project to be approved and accepted, its indicators must correspond to the level of project efficiency accepted within the oil company. Additionally, in special cases, specific performance indicators can be calculated for the project.

Basic principles for assessing economic efficiency in large oil and gas companies:

- the presence of certain assessment standards;
- the presence of a homogeneous competitive environment;
- centralized allocation of funds for projects;

- centralized receipt of funds from projects;
- proportionality of the depth of analysis of the materiality of the project;
- taking into account uncertainties and risks;
- analysis based on cash flows;
- accounting for the time value of money (discounting);
- attribution to the project of expenses and income caused by the implementation of the project;
- accounting for past (historical) expenses and income;
- audit of financial models;
- standardization of financial models.

Another feature of investing in the oil and gas complex is the division into types of invested capital itself:

- capital investments;
- non-capital investments.

Large oil and gas companies have internally developed economic models for assessing investment projects. Models are usually developed by IT departments in collaboration with the company's investment departments. All investment models can be divided into:

- standard;
- non-standard.

Standard models are universal models that can be used to assess the economic efficiency of a large number of similar investment projects. Using standard models, companies usually evaluate investment projects for development, acquisition or disposal of assets.

In the process of evaluating investment projects, cases arise when the standard performance assessment model cannot be applied to a specific investment project. In this case, investment services resort to the use of non-standard models, which must comply with the requirements of all internal guidelines of the company and contain a detailed description of assumptions and calculation logic. The use of non-standard models for assessing economic efficiency is most often resorted to when evaluating maintenance projects.

When assessing the effectiveness of international projects or projects of a new type of business for a company, it is possible to use a non-standard netback, as well as fixed tariffs for the supply of production equipment or the provision of services.

When assessing investment projects of oil and gas companies, it is mandatory to have an assessment of the investment risks of the project. Of the wide range of methods for assessing project risks, large oil and gas companies usually resort to quantitative methods:

- sensitivity analysis;
- stress test;
- analysis of break-even points;
- modeling of random variables.

Another feature of the oil and gas industry is the constant initiation of joint investment projects, often such projects are implemented jointly with foreign partners in the Russian Federation and abroad. An assessment of the economic efficiency of a joint project must be presented for the project as a whole and for the share of investors in the project.

When modeling cash flows in joint projects, it is necessary to take into account:

- ownership and management structure of the joint project;
- features of the legislation of the country where the project is implemented;
- project financing conditions;
- various financing options and possible cash flow optimization schemes;
- cash flows actually available after taxes.

Thus, when analyzing the effectiveness of an investment asset in the oil industry, a detailed analysis is required, including issues of accounting and optimization of taxation within the project, including the use of various jurisdictions to minimize the costs associated with financing the project and generating income from it. In this case, it is necessary to analyze all direct tax deductions, as well as take into account benefits under double taxation agreements.

The resulting model for optimizing the investment load of an asset and developments were tested on three investment assets (“A”, “B” and “C”) of an oil and gas producing company, which are sold under the AIT regime.

Let's consider the schedule (Fig. 1, a) of the current forecast of the investment program for investment asset “A” and the level of limit expenses.

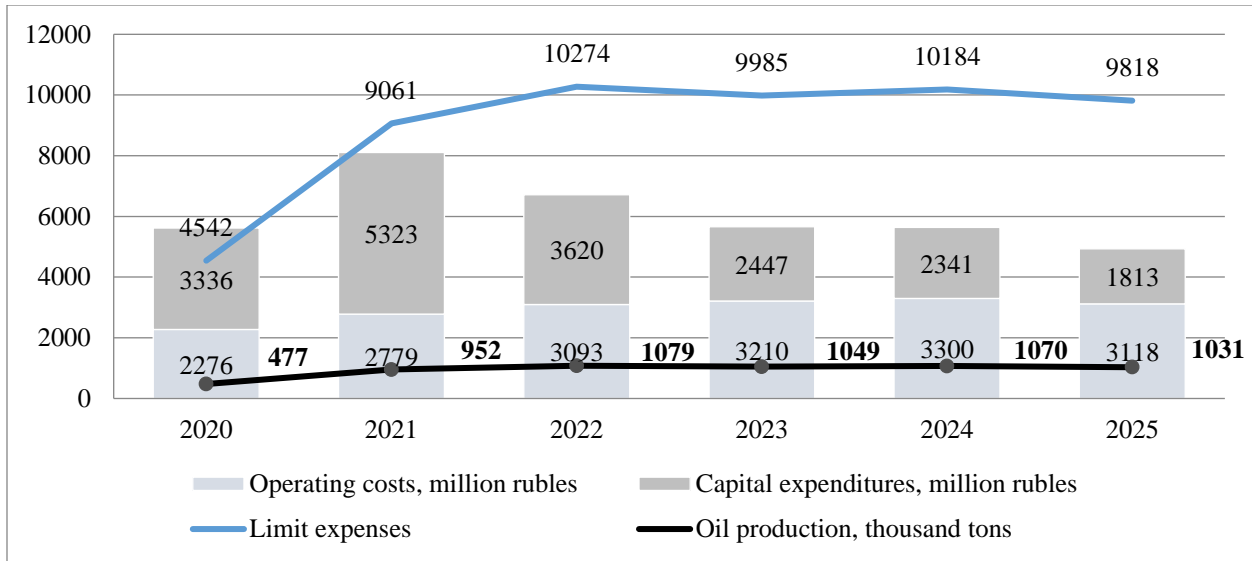


Fig.1. Current forecast and level of limit expenses of the investment program for investment asset “A” until 2025.

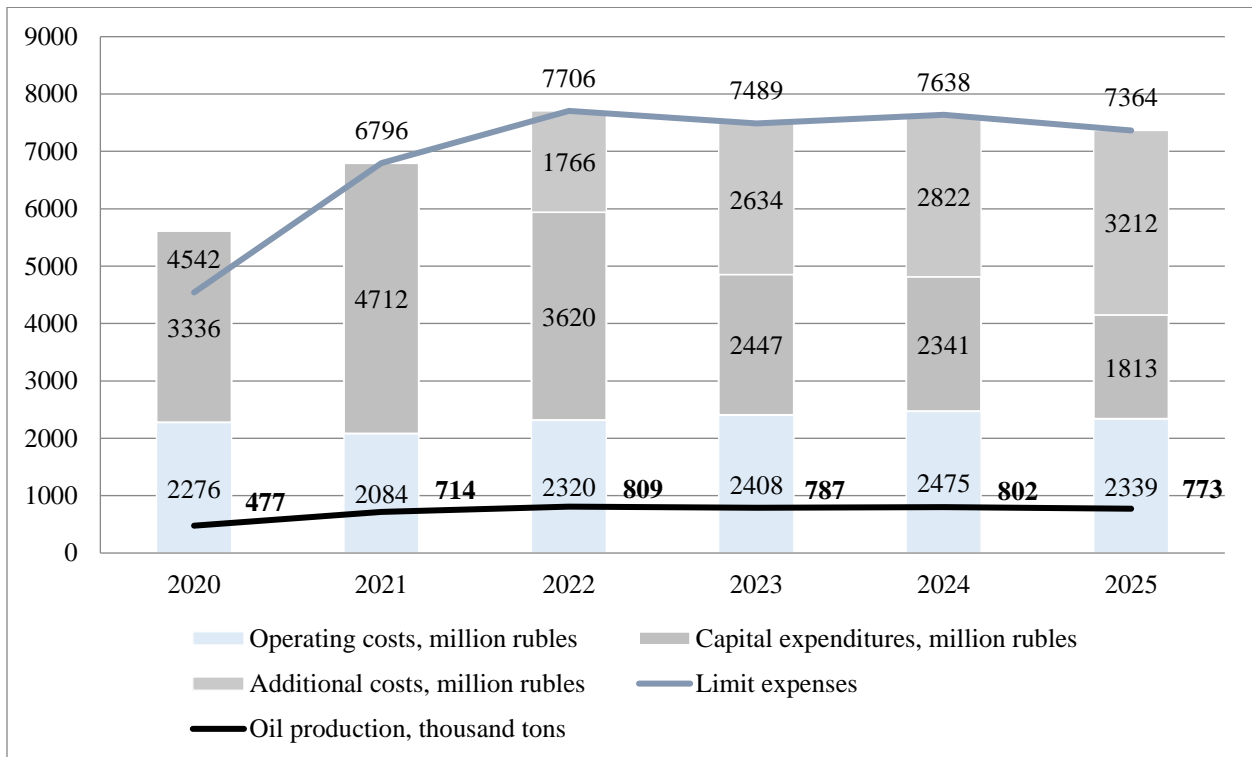


Fig.2. Proposal for adjusting the production program of investment asset “A” until 2025.

It is worth noting that 2020 is overloaded with investment projects related to oil production (production drilling, sidetracking, etc.). High future production from these projects is not ensured by the required level of investment activity of the company in this license area.

As the analysis showed, in order to achieve a positive effect on investment asset “A” it is necessary to reduce the investment load in 2021 by 11% (Fig.3.), the consequence of this decision will be a decrease in oil production for all subsequent years. As a result of a decrease in production levels, the indicators of limit expenses will be adjusted, to achieve which it will be enough to load the investment program for subsequent years. As a result, ineffective overpayment of AIT will be reduced.

When analyzing the situation for investment asset “B” (Fig.2) in the medium-term forecast, one can highlight a very significant uneven distribution of investments over the years: the investment program for 2021-2022 is significantly lower than 2023-2024.

In this area, it seems logical to accelerate the implementation of the most “confident” investment projects for drilling and sidetracking for the period 2021-2022 (Fig.3).

A special feature of the situation for investment asset “C” for the period 2021-2023 is the increase in specific operating costs for oil production (Fig.2). For this investment asset it is necessary

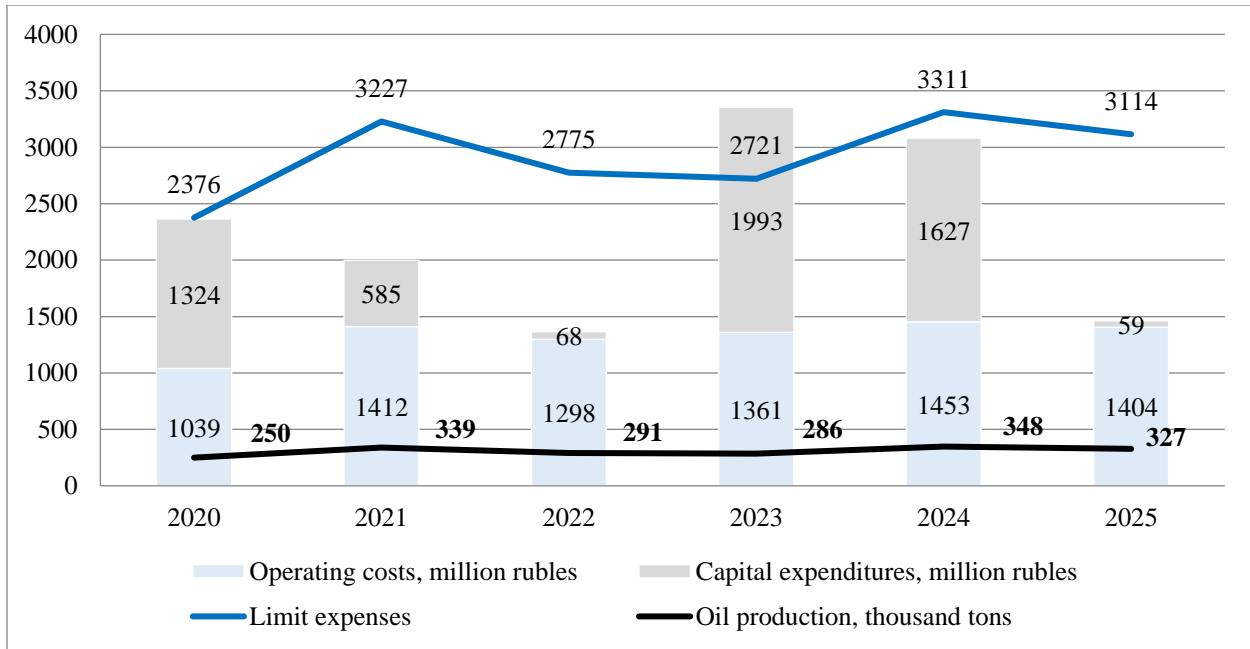


Fig.3. Current forecast and level of limit expenses of the investment program for investment asset “B” until 2025.

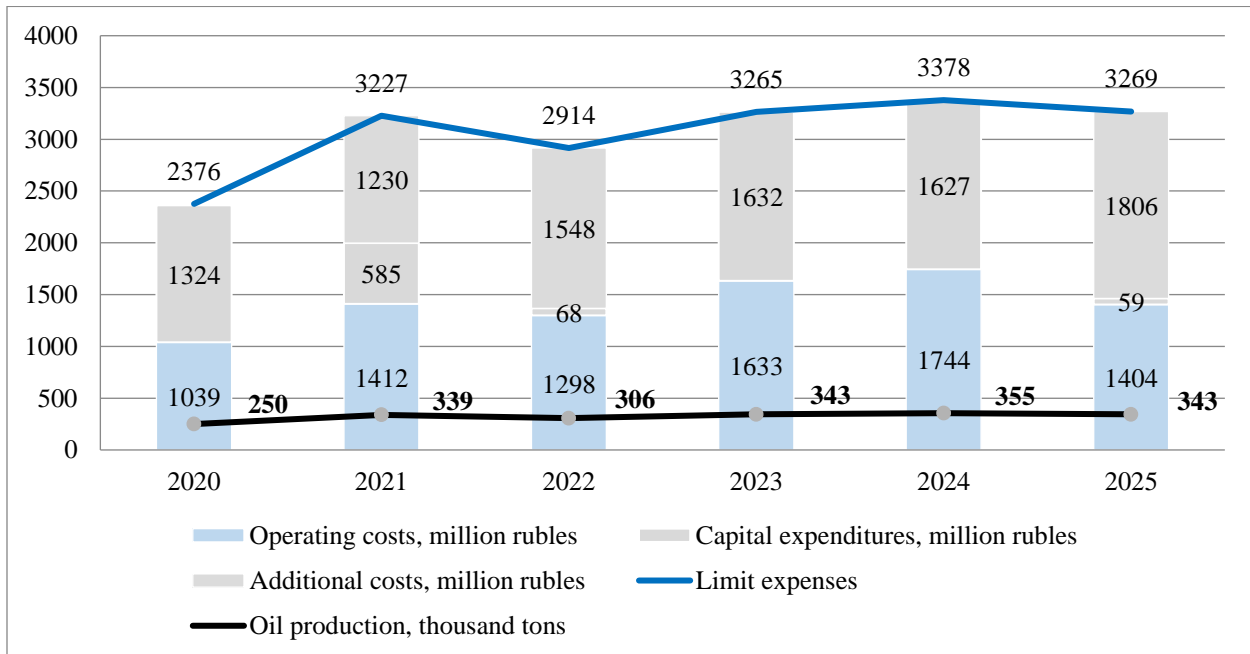


Fig.4. Proposal for adjusting the production program of Investment asset “B” until 2025.

carry out extensive audit work (Appendix 3, b) regarding the formation of operating costs, and suggest ways to reduce them. It is also necessary to adjust the capital expenditure program without losses in oil production.

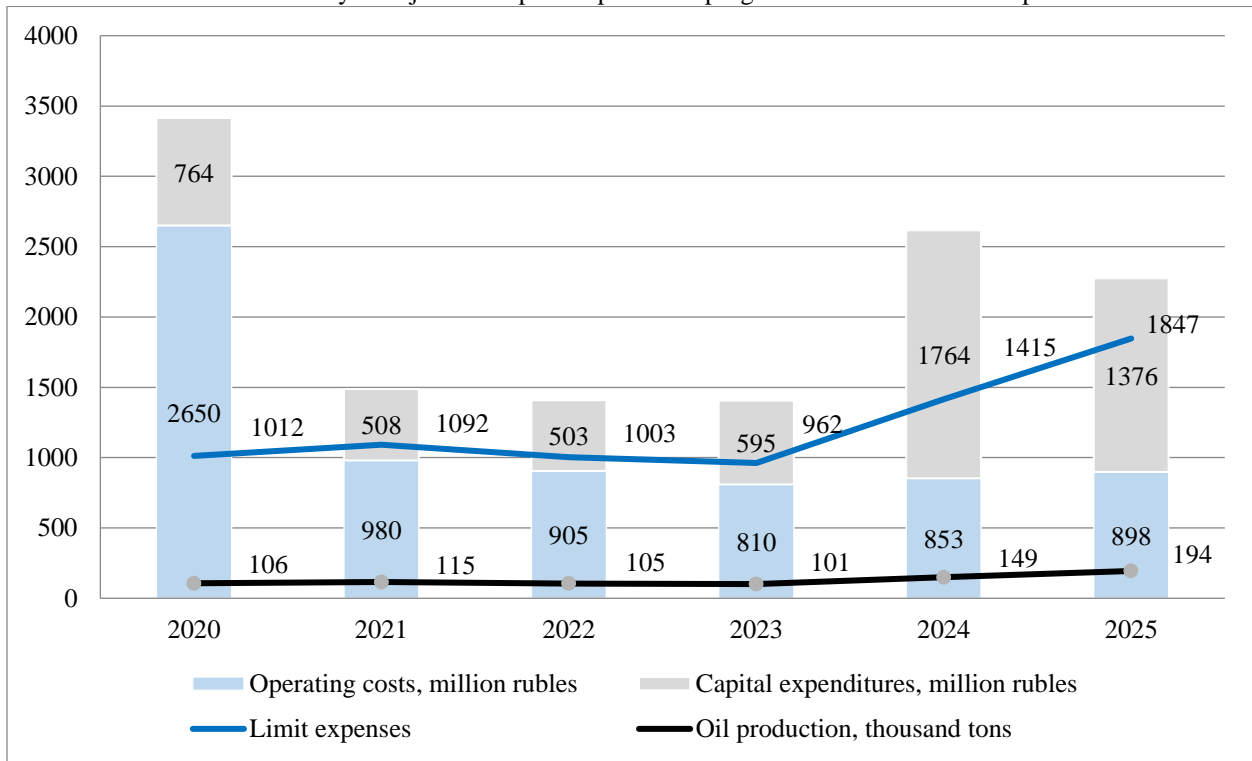


Fig.5. Current forecast and level of limit expenses of the investment program for investment asset “C” until 2025.

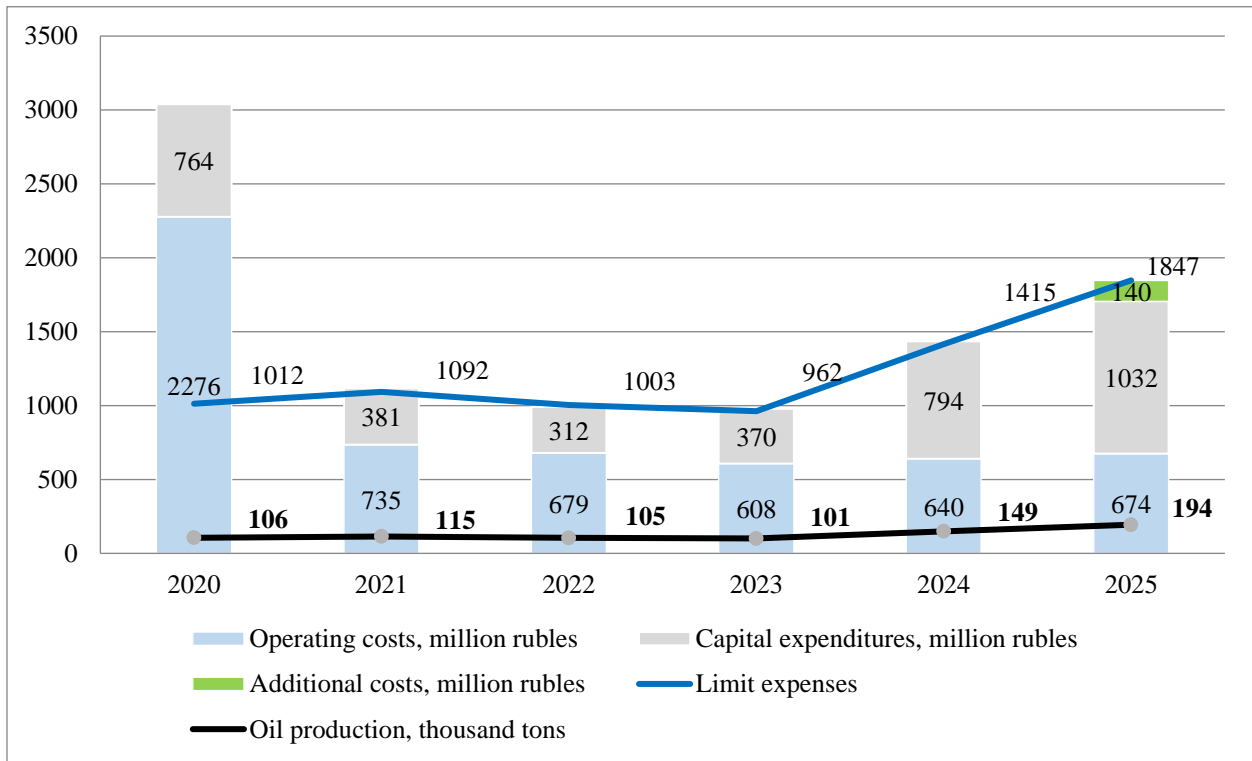


Fig.6. Proposal for adjusting the production program of Investment Asset “C” until 2025.

Thus, I would like to note that the issues of constructing long-term production plans for individual investment assets should be studied especially carefully. Each asset has its own characteristics, its own problem areas that need to be worked on, its own highly efficient zones, the effectiveness of which does not always correlate with the efficiency of paying taxes.

The product of a painstaking analysis of each field is a large overall plan for the development of an oil and gas asset, in which licensed areas in the AIT regime will form only a part of the overall production program, which has many levers of influence and control.

5. CONCLUSIONS

One of the most significant problems of the current stage of development of the oil and gas complex of Uzbekistan is the high level of depletion of fields. Rich oil reserves are discovered either at significant depths or in areas with harsh climates, which leads to a sharp increase in the cost of their extraction. Therefore, when applying the current taxation system, many investment assets were assessed as economically ineffective. The introduction of a tax on additional income, subject to its proper use, as well as high-quality planning for the distribution of investment efforts, will increase the profitability of deposits of this type and provide a new impetus for the development of the industry.

REFERENCES

- [1]. Brown, J.P., Maniloff, P., Manning, D.T. Spatially variable taxation and resource extraction: The impact of state oil taxes on drilling in the US (2020) *Journal of Environmental Economics and Management*, 103, article No. 102354. DOI: 10.1016/j.jeem.2020.102354.
- [2]. Cherniavsky, A. The analysis of the impact of changes in tax regimes on export profitability of oil and main petroleum products (2012) *Questions Ekonomiki*, 2012 (10), pp. 92-104. DOI: 10.32609/0042-8736-2012-10.
- [3]. Fjaertoft, D., Lunden, LP Russian petroleum tax policy - Continuous maneuvering in rocky waters (2015) *Energy Policy*, 87, pp. 553-561. DOI: 10.1016/j.enpol.2015.09.042.
- [4]. Gorbunova, E. Tax policy of the state in the oil industry as one of the factors ensuring financial security of the Russian Federation (2020) *Smart Innovation, Systems and Technologies*, 138, pp. 48-55. DOI: 10.1007/978-3-030-15577-3_5.
- [5]. Hiorth, A., Osmundsen, P. Petroleum taxation. The effect on recovery rates (2020) *Energy Economics*, 87, article No. 104720. DOI: 10.1016/j.eneco.2020.104720.
- [6]. Issabayev, M., Rizvanoglu, I. Optimal choice between local content requirement and fiscal policy in extractive industries: A theoretical analysis (2019) *Resources Policy*, 60, pp. 1-8. DOI: 10.1016/j.resourpol.2018.11.018.
- [7]. Katysheva, E. Methods of the taxation optimization for the oil-extracting companies in Russia (2016) *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM*, 3, pp. 357-364. DOI: 10.5593/SGEM2016/B53/S21.046.
- [8]. Khafizova, AR, Fassakhov, IA Development of the oil companies taxation system (2015) *Mediterranean Journal of Social Sciences*, 6 (1S3), pp. 20-23.
- [9]. Lund, D. State participation and taxation in Norwegian petroleum: Lessons for others? (2014) *Energy Strategy Reviews*, 3(C), pp. 49-54. DOI: 10.5901/mjss.2015.v6n1s3p20.
- [10]. Osmundsen, P., Løvås, K. Trends and trade-offs in petroleum tax design (2013) *International Journal of Global Energy Issues*, 36 (1), pp. 42-60. DOI: 10.1504/IJGEI.2013.055940.
- [11]. Ponkratov, VV Tax maneuver in Russian oil production industry (2014) *Neftyanoe khozyaystvo - Oil Industry*, (9), pp. 58-61. ISSN: 00282448.
- [12]. Ponkratov, VV, Pozdnyaev, AS The oil production taxation in Russia-consequences of tax maneuver (2016) *Neftyanoe Khozyaystvo - Oil Industry*, (3), pp. 24-27.
- [13]. Privalov, NG, Privalova, SG Problems of mineral tax computation in the oil and gas sector (2017) *Journal of Mining Institute*, 224, pp. 255-262. DOI: 10.18454/pmi.2017.2.255.
- [14]. Provornaya, IV, Filimonova, IV, Nemov, VY, Komarova, AV, Dzyuba, YA Features of the petroleum products pricing in Russia, in the USA, and Saudi Arabia (2020) *Energy Reports*, 6, pp. 514-522. DOI: 10.1016/j.egy.2020.09.029.
- [15]. Rabe, B. G., Hampton, R. L. Taxing Fracking: The Politics of State Severance Taxes in the Shale Era (2015) *Review of Policy Research*, 32 (4), pp. 389-412. DOI: 10.1111/ropr.12127.
- [16]. Reimer, M.N., Guettabi, M., Tanaka, A.-L. Short-run impacts of a severance tax change: Evidence from Alaska (2017) *Energy Policy*, 107, pp. 448-458. DOI: 10.1016/j.enpol.2017.05.014.
- [17]. Sikhimbaeva, DR, Esimseitova, KA, Esimseitov, MS Taxation of subsoil use in Kazakhstan (2014) *Actual Problems of Economics*, 160 (1), pp. 406-411.
- [18]. Smirnova, NV, Rudenko, GV Priorities for improving taxation in the oil industry in Russia (2016) *Indian Journal of Science and Technology*, 9 (19), article No. 93907. DOI: 10.17485/ijst/2016/v9i19/93907.
- [19]. Snow, N. Industry officials latest attack call to raise oil, gas taxes (2011) *Oil and Gas Journal*, 109 (18 A), pp. 20-21. ISSN: 00301388.