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FOREIGN EXPERIENCE OF STATE REGULATION OF THE OIL INDUSTRY AND DEVELOPMENT OF THE OIL REFINING COMPLEX

The article presents the results of the analysis of the foreign experience of the state regulation of the oil industry and the development of the oil refining complex regarding the possibility of its adaptation to Ukrainian conditions. The features, advantages and disadvantages of the tax policy tools used in the process of state regulation of the development of the oil industry are separately highlighted. From the standpoint of the socio-economic development of the regions of Ukraine, the importance of analyzing and taking into account different approaches to the distribution of areas of responsibility and rental income between the state and local budgets is emphasized. It is shown that the tax policy can have a significant impact on oil production and oil refining, since the taxation system may include (or not include) mechanisms for supporting the production of difficult-to-extract oil, increasing the depth of field development, development of fields with small reserves, etc. It is also stated that the main elements of oil industry taxation and rent extraction mechanisms are: royalties (payment to the owner for the use of the subsoil; bonuses paid when licenses are issued for the field); resource rent taxes (taxation of the financial results of companies from oil production); export duty. It has been proven that in most countries' taxation is based on a combination of these elements. Special regimes can be allocated to a separate category - agreements on the distribution of products and service contracts. In addition to special rent payments, standard taxation is applied to oil companies: corporate income tax, VAT, property tax, etc.

Key words: state regulation, state policy, oil industry, oil refining complex, taxation, socio-economic development, stimulating measures, territory management.

Formulation of the problem. Regulation of the development of the oil refining complex is the most important component of the state economic policy, which provides for a set of measures aimed, on the one hand, at the maximum extraction of rent payments to the budget, and on the other hand, at ensuring the country's energy security, creating incentives for the integrated exploitation of oil fields and the development of territories, attraction of investments in geological exploration and creation of technologies, formation of transparent and unified rules for all market participants, support of competition. The main mechanism of state influence on the development of the oil refining complex is manifested through the tax system, the distribution of financial and administrative functions and the regulation of subsoil use processes.

Analysis of recent research and publications. Well-known researchers, including O. Amosha, O. Bogma, M. Voynarenko, Y. Kovalova, V. Ostashevsky, M. Porter, G. Ryabtsev, S. Sapegin, were engaged in the analysis of various aspects of state regulation of the development of industry in general and the oil industry. H. Semenov, S. Sokolenko, O. Sukhodolya, V. Tertychka, V. Fedorova and others.

The purpose of the article is to analyze the foreign experience of state regulation of the oil industry and the development of the oil refining complex regarding the possibility of its adaptation to Ukrainian conditions.

Presenting main material. The system of taxation of the oil industry and the oil refining complex, as a rule, is considered as conceptually different from the system of taxation in other sectors of the economy since it generates significant rental income and there are increased investment risks.

In this connection, it is appropriate to analyze the experience of oil-producing states, to highlight the features, advantages and disadvantages of the tax policy tools used in the process of regulating the development of the oil refining

complex. At the same time, from the point of view of socio-economic development of regions, different approaches to the distribution of spheres of responsibility and rental income between the state and local budgets are fundamentally important. The volume of revenues to local budgets is determined by first, the possibility of creating reserve funds at the local level (they make it possible to ensure the stability of local budget expenditures in the event of a worsening of the economic situation); secondly, they provide an opportunity to support the localization of production in related industries and to invest in the diversification of the regional economy.

It is the tax policy that can have a significant impact on oil production and oil refining, since the taxation system may include (or not include) mechanisms for supporting the production of difficult-to-extract oil, increasing the depth of field development, development of fields with small reserves, etc.

The main elements of oil industry taxation and rent extraction mechanisms are: royalty - payment to the owner for the use of subsoil; bonuses paid upon issuing field licenses; resource rent taxes – taxation of the financial results of companies from oil production; export duty. In most countries, taxation is based on a combination of these elements. Special regimes can be allocated to a separate category - agreements on the distribution of products and service contracts. In addition to special rent payments, standard taxation is applied to oil companies: corporate income tax, VAT, property tax, etc.

The countries of the world can be divided into three groups, depending on the adopted model of tax systems, in which the elements of taxation are: a) royalties and income tax; b) resource rent taxes and income tax; c) royalties, resource rent taxes and income tax.

The experience of developed countries with different production geographies, resource potential and the degree of centralization of rent income, which have achieved significant success in forming effective oil industry taxation systems that make it possible to adapt to price fluctuations, company performance,

the need for significant investments in technology, and thereby creating conditions for sustainable socio-economic development of the regions.

In the United States, the oil and gas industry taxation regime includes a combination of bonuses, royalties, mineral extraction tax, corporate income tax and property tax. Rent payments go to the owner of this resource, which can be: the US government, states, Indian reservations, corporations, trusts, private individuals. The US government owns the rights to develop oil fields on the shelf. Production bonuses are formed as a result of negotiations between resource owners and investors, acting as first payments, and their share in the development of offshore fields is up to a quarter of the oil revenues of the US budget from offshore production. The royalty rate for onshore deposits ranges from 12% to 30% and is negotiated or competitively bid. The only mechanism for extracting rent at the state level is the mineral extraction tax (severance tax) [2], which is included in state budgets. Tax rates are differentiated in different states, the tax base is also different, but in most cases it is a percentage of the cost of extracted raw materials [6]. In some states, operating expenses, some taxes and royalties are deducted from the tax base, the average rate is from 5% to 10%. This allows you to flexibly respond to changes in costs due to the deterioration of the quality of stocks, the use of new technologies, etc. From the point of view of regional development, a key component of the US tax system is decentralization, in which a significant share of rent and tax revenues from the oil industry remains in the state in which the resources were extracted, taking into account the location of the deposits (onshore or onshore).

Within the framework of the study, a more detailed analysis of the experience of the state of Alaska, whose socio-economic development depends precisely on the oil industry, is considered appropriate. Thus, while working in the territory of the state of Alaska, oil companies must pay: first, royalties in the amount of 5-60% of the cost of extracted oil (on average -12.5%. At the same time, for new or unprofitable fields, a reduction in the rate is expected [7]; secondly, oil and gas production tax. Until 2014, the state had a progressive scale of taxation of

cash flow (gross income less capital and operating expenses, royalties), the tax is paid at a rate of 25 -75% [3] depending on the price of oil, which helped in the development of unprofitable fields. In 2014, the taxation system underwent changes, the progressive scale was abolished, which was replaced by a single rate of 35% and a benefit of 5 USD for each mined barrel [8]; thirdly, bonuses for obtaining a license agreement for the right to extract resources, the value of which is determined at competitive bidding; fourthly, corporate income tax (35% to the federal budget and 9% to the state budget); - fifth, property tax. In Alaska, two funds have been created to perform stabilization and savings functions: the constitutional budget reserve fund and the Alaska permanent fund. The first is created as an auxiliary source of financial resources in case of approval of a deficit budget, the limit of funds that can be withdrawn from the Fund is established annually by the state legislature. This limit can be changed if necessary. Funds withdrawn from the Fund to the budget are issued as a debt obligation, which must be fulfilled in years with a budget surplus. The funds of the permanent fund of the state of Alaska are aimed at accumulating reserves for future generations, in the event that oil production declines. Such a Fund is accountable not to the government, but to the population of the state, it cannot be used in the event of a budget deficit. This fund annually receives at least 25% of the state's oil revenues, a large part of which will bypass the state budget. The majority of the fund is constantly invested, the rest of the funds are paid as dividends to the population of the state. Funds are also reinvested to neutralize inflation.

Another feature of the functioning of the US oil complex is the wide distribution of oil business among small and medium-sized companies. Special conditions are created for their activities in the USA, related to preferential taxation, low tax rates ("bonus of the first year", when taxes are calculated from half of the taxable amount, the amount of federal taxes is reduced). Targeted loans and venture financing instruments are provided and guaranteed to small businesses. To support small business, the US Small Business Administration was formed, which at the government level ensures the protection of the interests of small

businesses. Representations of this organization are established in all states and some large cities.

Thus, in the USA, the following features of taxation of the oil industry in the context of regional development can be distinguished: first, decentralization of rent payment by business entities in the oil industry; secondly, differentiation of taxation instruments, tax base, tax rates in different states; thirdly, differences in the level of the tax burden for deposits of different volume of production and productivity (for highly productive deposits, the rates are higher than for low-productive ones); thirdly, the development of small businesses in the oil industry; fourth, the availability of special funds for the development of territories with a developed oil industry.

In Canada, which is also a major oil exporter, decentralization of rent revenues is also common, which is partly due to the specification of ownership of minerals, which belong mainly to Canadian provinces. The taxation regime is based on a combination of royalty and corporate income tax, which is paid at the rate of 15% to the state budget and 10-16% to local budgets [4]. Royalties have a complex structure and depend on oil prices, well productivity, development stages, production volume, geological characteristics, etc. The provinces independently determine the rate in the range of 0-45%. On the one hand, such measures make it possible to take into account the specifics of the production process of extraction, as well as to regulate the development of deposits through the reduction of taxes for new production, the extension of the operating life of old wells, and the reduction of the level of oil losses. On the other hand, the process of administering all the introductory royalty parameters is quite complicated. In Canada, special royalties are used, related to the following: first, attraction of investments in capital-intensive projects, development of new technologies; secondly, tax holidays for newly restored deposits; thirdly, to increase the resource yield of layers; fourth, special (preferential) tax regimes are used for the development of offshore oil and oil-bearing sands.

The main region of Canada for oil production is the province of Alberta (77% of production), which has certain characteristics. Royalty ranges from 0 to 40% and is determined by the following components: the price and quantity of extracted oil, taking into account productivity, the level of production and profitability achieved, geological properties, and the time of discovery. All of the above contribute to the extension of the exploitation period of deposits and prevent the loss of oil, which ensures the long-term development of oil-oriented territories. In Alberta, there is a trust fund, part of which is used to finance local projects, and the other part is invested to ensure the needs of future generations [9].

The experience of countries engaged in offshore mining, primarily Great Britain and Norway, is important. At the same time, both countries formed tax systems based on income taxation. Thus, Norway is among the top twenty countries in the world that have the largest natural oil resources. Income to the state budget from the oil industry is about 29.1% and 48.9% in the structure of export revenues [10]. At the initial stage of the development of the oil industry in Norway, the state played a key role. To regulate the development process of the industry, a system of administrative licensing and management of the oil and gas complex is used to establish permanent control over the activities of enterprises that develop deposits. The development of oil fields in Norway is in the North Sea. Foreign companies that invested heavily in the development of the Norwegian oil industry from the beginning and still continue to invest in the development of the Norwegian continental shelf.

The state takes measures to develop both the oil complex and related industries, primarily the oil service sector, and implements programs to support local oil service contractors. From the beginning of the development of deposits, the local industry began to take an active part in serving the needs of the oil business, which contributed to the development of the territories located near the North Sea shelf. In order to incorporate Norwegian enterprises into production chains, the main operators were obliged to subcontract the performance of a certain range of services and production of goods to local organizations. The fact that

Norway is currently one of the wealthiest countries in the world speaks of the effectiveness of the processes of state regulation of the oil complex. Increasing scientific and technical potential, as well as improving production technologies for the creation of oil platforms, geological exploration of the North Sea shelf, production of high-quality petrochemical products - all this is the result of successful state regulation.

Taxation of the oil industry in Norway is carried out on the basis of the use of two main instruments: first, a special resource tax (equal to 51% of net profit); secondly, income tax (at the level of 27%). Thus, the total effective rate is equal to 78%. Capital costs are amortized over six years, and there is also an additional deduction from the tax base of a special resource tax in the amount of 22% of capital costs. As for royalties, they were used in the Norwegian tax system until about the end of the 1990s.

In Great Britain, companies in the field of oil production pay general income tax at the level of 30% and additional tax on petroleum activities at the level of 10% of the similar income tax base for companies [4]. Companies producing oil at new fields pay a tax on income from the oil industry at the level of 50% of the net cash flow, and after 20-25 years of operation of the field, the tax rate is significantly reduced. The effective tax rate is 40%. There are also deductions from the taxable base of additional tax on certain categories of inventory, and capital expenditures are allowed to be depreciated directly in the year in which they are incurred.

As for developing countries, it is advisable to consider their experience comprehensively, with the identification of common features characteristic of their large number. Most countries use royalties, which guarantee a set minimum of payments from the initial stage of development, and apply ad valorem tax rates (from 2 to 30%). For most developing countries, the use of production sharing agreements, on which the entire taxation system is based, is characteristic. As part of such agreements, field developers compensate the costs with the corresponding amount of "compensation" oil, and the remaining resources, taking into account the

volume of production and profitability of the project, are divided between the company and the state. At the same time, tax deductions usually depend on the level of oil production. In other countries, income tax is applied, where the rate for the oil sector is higher than for other industries. In some states, a tax on resource rent is applied together with income tax [2]. Also, in such countries, measures are taken to create investment benefits by taking into account the costs of exploration and development of deposits. Tax holidays are rarely used, usually for small projects, investments in unexplored territories. An analysis of the annual reports on the tax burden in the oil and gas industry of the countries of the world, published by the company "Ernst & Young", shows that measures to reduce the tax burden in developing countries are carried out much less often than in countries with developed and established economies.

In the process of researching the state regulation of the development of the oil refining complex, one cannot fail to mention the experience of countries where oil production is a priority economic activity. In the countries of the Middle East, service contracts are common, when oil-producing companies, when financing oil development and production, receive compensation from the state for such services (financial or part of production). The compensation may also include part of the profit from the sale. By its essence, a service contract is an agreement under which the investor literally pays for services. The government (or state-owned oil company) retains control over all production, and the contractor receives compensation [2]. In particular, in Oman and Kuwait, funds have been created to which all deductions from excess profits are directed. The funds are responsible for state investments in the oil complex, management of foreign assets, implementation of various social programs. Thus, the Oil Fund of Kuwait was founded in 1960 to accumulate funds from the budget surplus, which is formed as a result of high revenues from oil exports. The funds of the fund were used to finance all types of state expenses. In 1976, the Reserve Fund of Future Generations was formed in Kuwait.

In Oman, the creation of the State General Reserve Fund in 1980 was due to the need to accumulate funds for future generations at the expense of oil revenues. However, the fund's resources were often used for current government expenses. Since 1989, the fund has received all revenues from oil obtained at prices higher than 15 dollars. US per barrel. In 1990, the Contingency Fund was founded, later renamed the Oil Fund. Its purpose is to finance investments in the oil sector. The fund is formed on the same terms as the state fund of general reserves.

The state policy of Ukraine in the sphere of regulation of the oil industry is defined in the Energy Strategy of Ukraine for the period until 2035 "Safety, energy efficiency, competitiveness" [11]. However, like many other strategic documents in the country, according to experts, they do not have the necessary influence on the development of the industry. In essence, this is a wish for qualitative and quantitative guidelines. They do not determine the rules of the game, regulatory or fiscal conditions, do not provide for stimulating measures, do not take into account the factors of achieving the respective goals, as well as the parameters of the balance of oil and oil products. State policy in the field of development of raw material regions in Ukraine is simply absent. At the same time, the peculiarity of the taxation of the oil complex in Ukraine is the use of exclusively variable taxes with high rates: tax on the extraction of minerals (similar to royalties) and customs payments based on gross indicators, when rent is collected from each ton of raw materials. The role of customs payments is also manifested in subsidizing domestic oil refining and limiting the volume of export deliveries. Oil companies also pay a general income tax, but it is the lowest among economically developed countries.

Conclusions.

It has been established that in developed countries the taxation system is mainly based on profit or takes into account the parameters of deposits in turnover taxes. In addition, tax decentralization is widespread, which has a positive effect on the budget revenues of the territories and is an important component of the state policy on stimulating regional development. In the global practice of state regulation of the oil industry and the development of the oil refining complex, the

following trends have emerged that should be taken into account in Ukraine: differentiation of the tax system depending on the stage of field development, the use of new methods and technologies in the production process, mining conditions; redistribution and decentralization of rent payments between the center and regions; development of northern, shelf and continental deposits with the provision of tax incentives to mining companies to increase the investment activity of the industry.

References:

1. Amosha, O.I., Kharazishvili, Yu.M., Liashenko, V.I. et al. (2018). Modernizatsiia ekonomiky promyslovykh rehioniv Ukrainy v umovakh detsentralizatsii upravlinnia [Modernization of the economy of industrial regions of Ukraine in terms of decentralization of management]. Kyiv, IIE of NAS of Ukraine. 300 p.
2. Bobylev Ju.N. "World experience in taxation of the extractive industry" [Online], available at: URL: <ftp://ftp.repec.org/opt/ReDIF/RePEc/rnp/wpaper/2.pdf>
3. Brown C. (2013). "State Revenues and the Natural Gas Boom: An Assessment of State Oil and Gas Production Taxes". pp. 16.
4. (2016) "Global Oil and Gas Tax Guide". *Ernst & Young*.
5. Kulakova C.Yu. (2017) "Effective development of the oil and gas complex as an important condition for the socio-economic development of the state" *Efektivna ekonomika*. [Online], vol. 11. available at: <http://www.economy.nayka.com.ua/?op=1&z=5947>
6. Ofitsijnyj sayt Natsional'noi konferentsii zakonodavchykh zboriv shtativ v SShA. [Online], available at: <http://www.ncsl.org/research/energy/oil-and-gas-severance-taxes.aspx>.
7. Ofitsijnyj sayt Alaska Department of Revenue, Tax Division. [Online], available at: <http://www.tax.alaska.gov>.

8. Ofitsijnyj sajt [Online], available at: http://iser.uaa.alaska.edu/Publications/webnote/2014_05_01_WebNote17WhereDidthe2BillionGo.pdf.

9. Riabtsev H.L. (2011) *Derzhavna polityka rozvytku rynku naftoproduktiv v Ukraini: formuvannia ta realizatsiia* [State policy of oil product market development in Ukraine: formation and implementation] NADU, Kyiv, Ukraine.

10. (2018) Statistics Norway, Ministry of Finance.

11. Cabinet of Ministers of Ukraine (2017), "On the approval of the Energy Strategy of Ukraine for the period until 2035" Safety, energy efficiency, competitiveness" dated August 18, vol. 605-p. [Online], available at: <https://zakon.rada.gov.ua/laws/show/605-2017-%D1%80#Text>.