Assessment of the Effect of Tax Incentives for Oil and Gas Companies

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Abstract. Tax incentives are one of the tools for the development of sectors of the economy. In the Russian Federation, the use of tax incentives is a fairly common practice. However, the design solution does not always allow achieving the set task. Within the framework of this study, on the example of oil and gas complex enterprises, individual tax incentives were analyzed for the main list of taxes (MET, AIT, NP), from the standpoint of the achieved effects for key stakeholders. The results obtained showed that in the short term the level of the tax burden has changed insignificantly and tends to grow. Investments in fixed assets have an inverse relationship with the level of the tax burden, which requires clarification, in particular, verification through the calculation of the tax burden for certain types of taxes. At the first stage of the implementation of the presented measures, the state increases the level of oil and gas revenues, and is the only participant in financial relations that receives a positive effect from the presented measures.

1 Introduction

The fuel and energy complex of the Russian Federation is one of the most important for the Russian economy. In the context of a decrease in the share of easily recoverable hydrocarbon reserves in the overall structure of Russian reserves, and an increase in the share of hard-to-recover oil reserves, it is necessary to create an enabling environment for oil and gas companies capable of implementing innovative projects to improve the efficiency of oil and gas production. Taxation can be one of the incentives. It should be noted that the key stakeholders are both the state and oil and gas enterprises. Therefore, the development of an optimal taxation model should take into account their interests, which do not always have common ground.

The model of taxation formed in Russia already contains parameters for stimulating the innovative development of oil and gas enterprises. However, in order to understand the formed results of the implemented measures, it is necessary to analyze the effects received from them.

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2 Research Methodology

Analyzing the effectiveness of state measures for tax incentives[1] for the development of individual projects of oil and gas enterprises, it is necessary to understand that the key reference point is the interests of the main stakeholders (the state, oil and gas companies). For enterprises - the minimum possible amount of the entire set of tax liabilities, for the state - the maximum possible amount of tax exemptions.

Based on this, the effectiveness of the formed level of the tax burden is usually considered from two positions: from the position of the state (in terms of the formation of state revenues)[2]; from the perspective of business entities (the share of total tax liabilities in the structure of gross revenue).

Studies of the effectiveness of taxation from the standpoint of providing the state with tax revenues are devoted to a number of works. Key among them is the study of A.B. Laffer [3], who determined the relationship between the level of tax burden on business entities and state budget revenues. M. Traband and H. Uhlig [4], J. Abreu, E. Brando, S. Pereira [5] and others proposed their own interpretation of the A.B. Laffer. These are not the only attempts to develop or revise the Laffer curve, however, in most studies, the average tax rate is the key indicator.

From the position of analyzing the tax burden on a particular business entity, often used by the company’s management to assess the ongoing tax policy (Kreinina M.N.[6], Kirova E.A.[7], Litvin M.I.[8], Ostrovenko T. K. [9] and others), consider: the total tax burden; tax burden within a single tax; tax burden on the totality of some taxes, defined and justified by the authors of the research.

In the framework of this study, we will rely on both methodological approaches, since the objective of the study is to assess the effect obtained for key stakeholders.

3 Results and Discussions

In the Russian Federation, oil and gas enterprises are implementing various innovative projects. The state especially supports projects for the development of the Arctic, as well as other new offshore fields. As part of stimulating the development of the sea shelf, the state introduced a number of amendments to the current legislation [11-13].

The taxation of the extraction of minerals mined in the Arctic zone, as well as other offshore deposits, offers a differentiated approach to new offshore deposits. This differentiation is based on the level of complexity of subsoil development. Table 1 presents the characteristics of this differentiation.

Table 1 MET tax rates for mining at new offshore fields.

<table>
<thead>
<tr>
<th>Bet size</th>
<th>Production period</th>
<th>Deposit location</th>
<th>Special conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>thirty%</td>
<td>60 calendar months</td>
<td>Sea of Azov</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baltic Sea</td>
<td>If the deposit is located in this location for 50 or more percent of its area</td>
</tr>
<tr>
<td></td>
<td>60 calendar months</td>
<td>Caspian Sea</td>
<td>Located in the Russian part. Date of commencement of commercial production before 01/01/2016.</td>
</tr>
<tr>
<td>15%</td>
<td>84 calendar months</td>
<td>Black Sea</td>
<td>If the deposit is located in this location for 50 or more percent of its area. Depth up to 100 meters inclusive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Japanese Sea</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Caspian Sea</td>
<td>Located in the Russian part. Start date of commercial production after 01/01/2016</td>
</tr>
<tr>
<td></td>
<td></td>
<td>White Sea</td>
<td>If the deposit is located in this location for 50 or more percent of its area. Date of commencement of commercial production before 01/01/2020</td>
</tr>
</tbody>
</table>

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In addition, tax deductions are provided for residents of the Arctic zone. The amount of the deduction depends on the amount of expenses incurred for the acquisition and commissioning of fixed assets, etc.

The application of AIT is possible only for individual deposits. In total, in accordance with the legislation of the Russian Federation, there are 5 groups [14-17]. In this case, the amount of tax paid is taken into account in expenses when calculating corporate income tax. It should be noted that subsoil areas that fully or partially include a new offshore field are exempted from the application of AIT.

For organizations engaged in oil and gas production at new offshore fields, there are tax benefits for NP, which are quite limited - this is accelerated depreciation, accounting for the costs of prospecting, evaluating new offshore fields, research and development work, etc.

According to the data of the Federal Tax Service of the Russian Federation, the level of the tax burden on enterprises engaged in the extraction of fuel and energy minerals has decreased by 4.4 p.p. since the start of the amendments to the current legislation (01/01/2020) which is a positive aspect in the conditions of declining profitability of enterprises. By 2021, the level of the tax burden increased by 3.7 p.p., with an increase in profitability by 8.6 p.p.

### Table 1. Continuation

<table>
<thead>
<tr>
<th>Bet size</th>
<th>Production period</th>
<th>Deposit location</th>
<th>Special conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>15%</td>
<td>84 calendar months</td>
<td>Pechora Sea</td>
<td>If the deposit is located in this location for 50 or more percent of its area. Date of commencement of commercial production before 01/01/2020</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sea of Okhotsk</td>
<td>South part. Date of commencement of commercial production before 01/01/2020</td>
</tr>
<tr>
<td>10%</td>
<td>120 calendar months</td>
<td>Black Sea</td>
<td>If the deposit is located in this location for 50 or more percent of its area. Depth over 100 meters inclusive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sea of Okhotsk</td>
<td>Northern part. Date of commencement of commercial production before 01/01/2020</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barencevo sea</td>
<td>South part. Date of commencement of commercial production before 01/01/2020</td>
</tr>
<tr>
<td>5%</td>
<td>180 calendar months</td>
<td>Kara Sea</td>
<td>If the deposit is located in this location for 50 or more percent of its area</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barencevo sea</td>
<td>Northern part. Date of commencement of commercial production before 01/01/2020</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eastern Arctic</td>
<td>Laptev Sea, East Siberian Sea, Chukchi Sea, Bering Sea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>White Sea</td>
<td>If the deposit is located in this location for 50 or more percent of its area. Start date of commercial production after 01/01/2020</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pechora Sea</td>
<td>If the deposit is located in this location for 50 or more percent of its area. Start date of commercial production after 01/01/2020</td>
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<tr>
<td></td>
<td></td>
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If you look at Figure 2, you can see that the level of the tax burden and the rate of investment in fixed assets have a multidirectional trend. If we calculate the correlation coefficient of these indicators, we will get a strong inverse relationship (-0.88). This demonstrates that the growth of the tax burden reduces the level of investment in fixed assets [18-20]. Therefore, we can conclude that it is necessary to revise the implemented tax incentive measures.

Against the background of these fluctuations, oil and gas budget revenues have been gradually declining since 2019 (Figure 3). One of the reasons for this decline is the fall in the cost of oil on the world market (the average price in 2020 is $41.73) [21-23]. The price of oil is used not only in the calculation of supplies, but also in the calculation of the MET. As a result, there is a high level of correlation between oil and gas revenues and the price of oil (0.95).
Oil and gas revenues of the budget of the Russian Federation.

4 Conclusions

In conclusion, it must be said that: firstly, the formed system of taxation of oil and gas complex enterprises provides for a wide range of tax incentives for the development of deposits with hard-to-recover hydrocarbon reserves, and is designed for a 5-10 year perspective. At the same time, the use of these benefits is practically impossible without a high level of investment in fixed capital; secondly, the proposed measures of tax incentives have not yet achieved the expected effect - an increase in the level of investment; thirdly, a strong inverse relationship between the tax burden and investments in fixed assets by oil and gas companies suggests that the proposed tax incentives at this stage have not achieved the expected effect; fourthly, at this stage of the implementation of tax incentives, the interest of the state is mainly taken into account - an increase in budget revenues; Fifthly, the high dependence of oil and gas revenues of the budget and revenues of oil and gas enterprises on the price of oil on the international market creates serious risks both for the budget and for the development of oil and gas enterprises.

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