

Petroleum taxation: a comparison between Russia and Kazakhstan

M R Tsibulnikova^{1,2} D V Salata¹ V V Drobot E A Vorozheykina

1 Tomsk Polytechnic University, 30 Lenina street, Tomsk, 634050, Russia;
e-mail: tsibulnikova2011@yandex.ru

2 Tomsk State University, 30 Lenina street, Tomsk, 634050, Russia;

Abstract

The paper compares mineral resource recovery taxes for oil to be paid in Kazakhstan and the RF. It provides a case study on an average Kazakh oil and gas company and presents tax calculations as an example. To compare the taxation systems in Kazakhstan and the RF, the situation is modelled as if the field was located in the RF and the relevant calculations are carried out in compliance with national laws and regulations.

Key words: tax, mineral resource recovery, oil field

Introduction

Being one of the leading sectors of many national economies, oil recovery is obviously taxed. There is a global challenge to develop an adequate system of taxation to maximize the resource rent [1,2]. However, oil companies should get the profit enough to enhance production and conduct geological survey [3,4]. Taxation can either encourage or repel investments from the economic sector, which, in its turn, either contributes to or hinders the development of the industry [5,6]. The development of an adequate taxation system is currently a topical issue and it often becomes a cause for agreement reviews or a subject of disputes and controversies under international jurisdiction [7]. The research on taxation system and plausible effects is rather important since it allows identifying and implementing the best practices [8].

Materials and Methods

The present paper describes a case study of an oil and gas company of Kazakhstan in terms of the resource rent paid in Russia and Kazakhstan in compliance with relevant national laws and regulations. The comparison was made through calculations based on the data from JSC Mangistaumunaigas report over 2014. The petroleum tax calculations were carried out regarding a Kazakhstan oil field. The petroleum tax to be paid in compliance with Russian laws and regulations was calculated as well.

Results and Discussion

The mineral resource recovery tax (MRRT) is effective in the RF from January 1, 2002, with enactment of Chapter 26 of the Russian Tax Code. Taxpayers of the mineral resource recovery tax are individual entrepreneurs and organizations involved in mineral resource recovery and having license for the use of subsurface resources. The tax is comprised of a percentage rate, which regularly increases, multiplied by a coefficient depending on global oil price and dollar exchange rate.

In 2014 MRRT on hydrocarbon raw material accounted for 98% of the total tax and all regular payments for the use of natural resources. The MRRT on oil input into the national budget was 2463.6 billion rubles, which made up 87% of MRRT on hydrocarbon raw material and 17% of all national revenues in the RF, respectively [9].



Compared to the taxes effective before the MRRT enactment (payments for mineral reserve replacement and the right to use subsurface resources), the MRRT has a number of advantages. The major advantage is simplicity of tax administration for both taxpayers and the regulatory authority. The simplicity is achieved through transparent systems of tax assessment and determination, as well as the absence of tax concessions. Moreover, the tax allows national revenues from both the resource rent and the differential oil rent.

However, there are some limitations of MRRT to be pointed out regarding its effect on the economic sector and taxpayers' finance. The major disadvantage is dependence of the tax rate (and the amount of payments) on global oil prices. The dynamics of average oil prices (Urals crude oil, USD/bbl) and the range of price index (Ip) values over the period 2002–2015 are shown in table 1. The direct dependence of the price index Ip, which is used to determine the amount of MRRT in the RF, on global oil prices is obvious.

Table 1. Dynamics of MRRT on oil

Year	Price USD/bbl	Dollar exchange rate	Ip	Tax rate with regard to Ip (USD)	Oil price, USD/ton	Percentage of tax in price per 1 ton, %
2015	51	60.98	8.26	103.7	367.2	28.2
2014	97.6	38.4	11.83	151.8	702.72	21.6
2013	107.96	31.83	11.34	167.4	777.3	21.5
2012	110.58	31.09	11.36	162.9	796.2	20.5
2011	109.55	29.39	10.63	151.6	788.8	19.2
2010	78.05	30.37	7.34	101.2	561.96	18
2009	60.74	31.75	5.47	72.4	437.3	16.6
2008	94.04	24.85	7.95	133	677.1	19.6
2007	69.43	25.58	5.89	96.6	499.9	19.3
2006	60.89	27.19	5.4	83.3	438.4	19
2005	50.2	28.28	4.47	66.2	361.4	18.3
2004	34.51	28.81	3.03	36.5	248.5	14.7
2003	27.13	30.69	2.36	26.1	195.3	13.4
2002	23.72	31.34	1.96	21.3	170.8	12.5

Over the time period from 2002 to 2008, the percentage of tax in price increased from 12.5 to 19.6, and then in 2010 decreased to 18%. From 2011 till 2015 MRRT rose again. The particular increase in tax load is characteristic for 2015. As table 1 shows, the tax burden peaks in the periods of economic crises. Within these periods the tax withdraws oil price differential that is due to high global prices for energy sources. When MRRT and custom duties are both effective, there is double taxation system: in both cases, the tax basis depends on the amount of oil and export prices. Another MRRT limitation is flat taxation scale, which fails to be applied with due regard to geological, economic and geographic, infrastructural issues, as well as to the particularities in the field development and exploration, reserve structure and quality, etc. Therefore, additional benefits are actual for the taxpayers whose sites are located in better fields: the recovery is profitable due to the simple methods applied for resource extraction. Therefore, national oil production increases due to intense exploitation of highly profitable wells neglecting both new field exploration and development, as well as new well drilling [10].

In Kazakhstan, the issue of adequate natural resource taxation, which maximizes national revenues and ensures the profit of subsurface resource users, has always been

topical. The taxation system is developed in compliance with the Constitution of the Republic of Kazakhstan, which implies that the state holds a monopoly over the use of mineral reserves. This corresponds to the international principles of income taxation from natural resources. Over a short time period, the basic principles of petroleum taxation have been determined and the legislative framework has been developed. It is noteworthy that in Kazakhstan the taxation systems of leading oil-exporting countries are intensively studied and best global practices are applied to ensure petroleum sector development and to reach the aim set by the President of the Republic of Kazakhstan, namely, to be in top 50 most competitive countries [11].

The Law on Subsoil and Subsoil Use creates a legislative framework for granting, exercising, transferring, and terminating the rights of a subsurface resource user. In compliance with the Tax Code, taxes and other mandatory payments are regulated by the Tax Code only. These taxation principles have nothing to do with the agreements between the government and particular companies [12].

In the Republic of Kazakhstan, subsoil user taxation includes corporate income tax, oil export rent tax, commercial discovery bonuses, and mineral extraction tax. The only exception is production sharing agreements, which became effective before January 1, 2009, and special contracts approved by the President of the Republic of Kazakhstan.

The mineral resource recovery tax (MRRT) is analogous to the royalty, which is based on the recovery amount, and is applied for crude oil, gas condensate and natural gas. The rate ranges between 0.5% and 18% depending on the recovery amount. There are different rates and bases which are determined by the following factors: what is produced and whether production is exported or not. In 2013, the share of MRRT in the Republic of Kazakhstan budget revenues accounted for 12%.

The taxation system in Kazakhstan is inefficient due to uncollected tax debt. There should be a system of government monitoring over implementation of enhance recovery methods and rational utilization of feedstock, as well as environmental safety [13]. The above-mentioned methods will be efficient in case there are amendments to tax legislation which will allow using all available funds to ensure social and economic development of petroleum producing regions [14].

Let us compare the taxes for crude oil recovered under the same conditions in Kazakhstan and Russia. We assume that Kazakh company recovered 15,000 tons of crude oil within the first quarter of 2014, with 80000 tons transported to the refinery for 35000 tenge (equal to 7446.8 rubles) per ton, 5000 used towards production and the rest sold. Based on the accounting data, the production cost is 30000 tenge (equal to 6250 rubles) per ton. The global oil price over the first quarter of 2014 was 18400 tenge (3833.3 rubles) per barrel. The barrels to tons conversion coefficient is 7.2314. As the recovery amount planned for 2014 was 450000 tons, which is less than 50000 tons, the tax rate is 7%. As for the oil transported to the refinery and used towards production, the tax rate is applied with decreased coefficient 0.5, i.e. $7\% \times 0.5 = 3.5\%$ (in compliance with article 332 (2) of the Tax Code of the Republic of Kazakhstan). The MRRT for crude oil over the first quarter of 2014 is 708662808 tenge (147638085 at the exchange rate in 2014):

$$\text{MRRT} = ((80\,000 \times 35\,000 + 5\,000 \times 30\,000) \times 3.5\%) + (65\,000 \times 7.2314 \times 18\,400 \times 7\%) = 708\,622\,808 \text{ tenge} = 146\,638\,085 \text{ rubles}$$

Let us calculate the tax amount as if this oil (150,000 tons) was recovered in Russia (in compliance with article 342 of the Tax Code of the RF). On average the coefficient of

world oil price in the first quarter of 2014 was 12.3841 and the tax rate was 493 rubles per ton. The MRRT calculation is as follows:

$$\text{MRRT} = 150000 \times 12.3841 \times 493 \times 1 \times 1 \times 1 = 915\,804\,195 \text{ rubles}$$

(we assume that the coefficient of field depletion (Cfd), the index of reserve stock level (Irs) and the degree of recovery complexity (Drc) are equal to 1).

The calculation results indicate that under the same conditions the tax amount in Russia is six times as much as that in Kazakhstan. This explains higher budget revenues in the Russian Federation compared to those in the Republic of Kazakhstan.

Conclusion

There is a significant difference between the mineral resource recovery taxes in the RF and Kazakhstan. In Kazakhstan, a progressive taxation scale is applied, while in the RF a flat taxation scale is used. The progressive taxation in Kazakhstan encourages exploration and development of minor oil and gas fields by small companies. As for big companies, the tax payments are bigger since they recover greater amounts of oil.

In the RF, the same approach is applied for both big and small companies. The differences in the rate are connected with the type of the field, in other words, the decreasing coefficient is applied where the reserves are difficult to extract or if the field tends to be depleted. As a result, with oil prices falling, the number of small independent companies involved in resource recovery in the RF is decreasing, which strengthens the monopoly within the petroleum sector. In this regard, the MRRT in Kazakhstan is more flexible and appropriate regarding the taxpayers. Therefore, the progressive minerals taxation system of Kazakhstan might be applied in the RF.

References

- [1] Weijermars R 2015 *Natural Resources Research*. Natural Resource Wealth Optimization: A Review of Fiscal Regimes and Equitable Agreements for Petroleum and Mineral Extraction Projects. Vol. **24** (4) pp. 385-441.
- [2] Smith J L 2013 *Resources Policy*. Issues in extractive resource taxation: A review of research methods and models. Vol. **38** Issue 3 pp. 320-331.
- [3] Boadway R, Keen M 2010 *Problems and Practice*. Theoretical perspectives on resource tax design The Taxation of Petroleum and Minerals: Principles. pp. 13-74.
- [4] Konovalov V, Pogarnitskaya O, Rostovshchikova A I, Matveenko I A 2015 *IOP Conference Series: Earth and Environmental Science*. Potential of renewable and alternative energy sources. Vol. **27** pp. 5.
- [5] Demirmen F 2010 *SPE Hydrocarbon Economics and Evaluation Symposium*. Win-win upstream fiscal systems: What they are and how to achieve them. pp. 189-196.
- [6] Romanyuk V B, Baitova Y S, Safronova E V, Pozdeeva G P 2015 *IOP Conference Series: Earth and Environmental Science*. Regulatory framework of pricing and estimate standards in the petroleum sector (Article number 012073). Vol. **27** pp. 1-5.
- [7] Costa Lima G A, Gaspar Ravagnani A T F S, Schiozer D J *Conference Proceedings 2*. Proposed Brazilian fiscal system for pre-salt production projects: A comparative study of gain and loss of government and companies SPE Latin American and Caribbean Petroleum Engineering. pp. 1478-1486.
- [8] Bugorskaya M V 2009 *Mineral resource recovery tax*. Methodological aspect Tax Policy and Practice. Vol. **3-1**. pp. 25-27.

- [9] The Federal Treasury (official website) [Electronic resource] URL: <http://www.roskazna.ru> reference date 04.05.2016
- [10] Panskov V 2008 *Petroleum sector taxes*. Changes are essential, but not sufficient Tax Policy and Practice. Vol. **11** pp. 12–14.
- [11] Vygon G V 2004 *OilGasLaw 2*. Challenges in oil rent assessment and oil recovery taxation mechanisms.
- [12] Taxation of Subsoil users in Kazakhstan [Electronic resource] URL: <http://www.investkz.com/journals/80/901.html>
- [13] Akhmetov B 2014 *Vestnik of Revenue Service of the Republic of Kazakhstan*. Analysis of budget revenues in the Republic of Kazakhstan over 2013. Vol. **3** pp.7–8.
- [14] Statsurina Yu A 2015 *Topical Economic and Management*. Issues for Engineering and Oil and Gas Enterprises under Innovation Economy (in Russian) Vol. **1** pp. 86–94..