

Analysis of China's Rare Earth Resources Tax

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Keywords: rare earth, resource tax, ad valorem collection

Abstract: Rare earth is a nonrenewable rare mineral which is widely used in modern industry. It is an important strategic resource of China. China accounts for nearly 1/3 of the world's rare earth reserves, and provides more than 80% of the world's market demand. Because of the huge damage to the environment during the exploitation and production of rare earth, the western countries have imported rare earth from China and stored it in large quantities for a long time. The scarcity of rare earth resources and the external cost of environment are not well reflected in the price formation mechanism of rare earth. As WTO ruled in 2014 that China's rare earth export quotas and tariff policies were not allowed, the rare earth resources tax as a means of regulation of China's rare earth industry is becoming more and more important. This paper expounds the situation of rare earth resources in China and the existing problems of the rare earth resource tax, and puts forward some countermeasures to improve the sustainable and healthy development of rare earth resources in China.

1. Introduction

Rare earth is widely used in metallurgy, machinery, aerospace and national defense fields. It is a precious strategic resource that is not renewable. China is the largest country of reserve, producer and exporter of rare earth, and has supplied more than 80% of the world's rare earth market for a long time. Countries such as Japan and Korea, which lack natural resources, import large quantities of rare earth from China to reserve. China's rare earth reserves dropped from 80% in 1990s to 36.7% of the world in 2017. China's exports are from 86 thousand tons in 2006 to 105 thousand tons in 2017. The Ministry of Commerce of China said in 2010 that China's reserves of medium and heavy rare earth can only be maintained for 15 to 20 years at the current production rate. Due to the loss of rare earth's international pricing power, the export of rare earth products at a low price for a long time has caused huge losses. The scarcity of rare earth resources and the external cost of the environment are not reflected in the actual value of rare earth elements. The environmental compensation cost that the enterprise undertakes is too low for a long time, so it cannot meet the need of environmental pollution control. A reasonable price formation mechanism is related to a sound tax system and policy support. With the 2014 WTO ruling that China's rare earth export quotas and tariff policies are irregularities, the rare earth resource tax has become a powerful means to control the rare earth industry in China.

Before 2015, there were more literatures on rare earth control and rare earth export [1, 2]. Since the export quota and tariff of rare earth were abolished, the focus of research tends to be rare earth resources tax. The rare earth tax has generally reduced the tax burden of enterprises and increased local income, but it is not conducive to the protection of rare earth resources, and the overlap of taxes and fees still exists [3]. The market should play a fundamental role in the resource allocation of rare earth industry, the Chinese rare earth standard system, and the tax policy of the rare earth industry should be improved [4]. The implementation effect of the resource tax policy is related to the market structure of the upstream and downstream. In the short term, the resource tax collected from the price is adopted to protect the environment. In the long run, the downstream enterprises of the rare earth industry in China should rely on technological progress to become bigger and stronger and the current downstream industry of the rare earth can be fundamentally changed [5].

2. Problems Existing in China's Rare Earth Resources Tax

2.1 Overview of China's Rare Earth Policy.

In 1991 the ionic rare earth minerals were listed as the species of protective mining in China. In 1998 China began to implement the rare earth export quotas. Since 2005 China's export of rare earth has changed from encouraging policy to export control policy, and began to abolish the export tax rebate policy of rare earth. In 2007, China implemented the control management of the rare earth mining, stopped issuing new rare earth mining licenses, and adopted the export tax system. In the following years, the rare earth tariff was constantly adjusted and the export tariff of 15%-25% was taken. In 2007 rare earth was incorporated into the mandatory production plan management. In 2008 China promulgated "The National Mineral Resources Plan (2008-2015 years)" to restrict mining. In 2011, China's rare earth tax rate increased by more than 10 times. Before the adjustment the rare earths were "other non-ferrous metals mine original mines" tax, and the resource tax should be paid according to "0.50 to 3 yuan per ton or cubic meter". After the adjustment, the rare earth resource tax standard is 60 yuan per ton of light rare earth (including bastnasite, monazite), and the medium and heavy rare earth (including xenotime and ionic rare earth ore) is 30 yuan per ton. Since 2015, the levying of rare earth resources tax has changed from the measure of the amount to the price, and the light rare earth is carried out according to the different applicable tax rates according to the region. Among them, Inner Mongolia is 11.5%, Sichuan is 9.5%, Shandong is 7.5%, and the tax rate of medium and heavy rare earth resources tax is 27%.

2.2 Problems of China's Rare Earth Resource Tax.

The low tax rate and the tax basis are main problems of the China's rare earth resource tax.

2.2.1 The Low Tax Rate Not to Reflect the Scarcity of the Rare Earth Resources.

Since the abolition of the rare earth export quota license system in early 2015, the barriers for foreign enterprises to obtain rare earth resources from China have been deleted, and the export of rare earth products has been growing continuously. According to the General Administration of Customs, China exported 34,800 tons of rare earth in 2015, up 54.6% from 2013. In 2017, China exported 51,200 tons of rare earths, an increase of about 127.6% compared with 2013. The export volume is increasing, but the unit price is decreasing. On the basis of calculation, the unit price of rare earth export dropped from 25581 US dollars per ton in 2013 to 8125 US dollars in 2017, a decrease of 68.2%. On the other hand, the export volume of China's rare earth accounted for 22.5% of the output in 2013, 48.8% of the output in 2017, the proportion of exports to the output is increasing, and the proportion of rare earth produced by China to export is increasing too. In 2017, China accounted for 80.8% of the world's total output of rare earth, but the price of rare earth is decreasing. Countries such as Japan and South Korea carry out the rare earth reserve policy and reserve the rare earth imported from China. China's rare earth supply position in the world is not an alternative. China's export of rare earth is mainly in the form of raw materials. Because of years of exploitation, the reserves of rare earth have fallen from 80% of the world in 1990 to 36.7% in 2017. At present, the reserves of rare earth in Brazil, Vietnam and Russia account for almost 50% of China's reserves respectively. The main reason for the largest supply of China is the low export price. Since the abolition of the export quota and tariff policy of rare earths, the rare earth resource tax has become more and more important as the main means of regulating and controlling the rare earth industry. Although the rare earth resource tax has been adjusted in 2011 and 2015, the results show that the scarcity of the rare earth resources is not reflected in the price of rare earth. After pricing, the price of rare earth is lower than the price before the reform. The tax rate of light rare earth and heavy rare earth is still low.

2.2.2 The Tax Basis Difficult to Reflect the External Cost Generated by the Development of Rare Earth Resources.

Although China has taken measures to regulate the rare earth industry, there are still many problems, such as low recovery rate, waste of resources, and serious pollution in China's rare earth

industry. In accordance with the current resource tax law of China, the tax payable of the rare earth resources tax is calculated according to the method of ad valorem collection, and the sales of the taxable products are multiplied by the specific tax rate applicable to the taxpayer. Due to the fact that the quantity of mineral resources is not used but the quantity of sales, the compensation for environmental damage, the rational exploitation of resources, the cost of development and the exhaustion of resources are not taken into account. The current rare earth resource tax is taxed in the sales link rather than in the actual production link. It does not consider the actual mining situation in the mine, and cannot contain the waste of resources and so on.

3. Countermeasures of Rare Earth Resources Tax

3.1 Improving the Tax Rate of Rare Earth Resources.

The tax rate of rare earth resources should be raised again, and the scarcity of rare earth resources should be reflected in the price. On the one hand, the increased price of China's rare earth will increase the export of Brazil, Vietnam and other rare earth reserves to the major importers of the rare earth such as US and Japan. On the other hand, it promotes the industrial upgrading of the domestic rare earth industry and increases the added value of the products. And in the way of tax collection, the combination of the price and the quantity should be adopted, the reason is to ensure the stability of the resource tax revenue in the low price of the rare earth, to increase the tax burden of the rare earth resources, so as to achieve the purpose of the sustainable exploitation and utilization of the rare earth resources in China.

3.2 Taxation of Rare Earth Resources in Accordance with the Amount of Exploitation.

In order to make the resource scarcity, the intergenerational cost of resources and the external cost of the environment better reflected in the mechanism of the formation of the price of graphite, it should be a feasible way to use the amount of exploitation as the tax collection. The amount of exploitation is the unit price of the product multiplied by the amount of exploitation and then divided by the rate of exploitation. So in the process of production, the enterprises must pay more attention to improving the mining rate and controlling the production, and the phenomenon of the waste of resources and so on can be suppressed.

4. Summary

Since the reform of rare earth resources tax in 2015, the original intention of the reform has not been achieved. The scarcity of the rare earth resources, the intergenerational cost and the external cost of the environment are not well reflected in the price of the rare earth. In this case, the rare earth resource tax should continue to deepen the reform, that is to continue to improve the tax rate of rare earth resources tax, and the tax basis such as amount of exploitation should be used to further promote the sustainable and healthy development of China's rare earth resources.

Acknowledgements

This work was financially supported by the National Social Science Fund of China (17BJY177) and the Doctoral Scientific Research Foundation of Harbin University of Commerce (14RW22).

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