Research on Development Mode of Green Insurance in Hubei

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Abstract. Green insurance conforms to the Polluter Pay Principle (PPP) in environmental law, has the function of dispersing risks and compensating losses. It can give full play to the role of market mechanism in the regulation and control of environmental governance, and is an effective economic means to solve the problem of environmental damage compensation. The implementation of green insurance in Hubei faces the problem of low enthusiasm for enterprise participation, which is not conducive to the role of the law of large numbers. The mode of "compulsory priority" and "voluntary supplement" is beneficial to solve the problem of green insurance and promote the development of green insurance.

Introduction

Green insurance, also known as environmental pollution liability insurance, is a business to a pollution accident on the third-party damage by the enterprise [1]. It requires the applicant to pay the insurance premium to the insurance institution at a certain premium rate according to the insurance contract. When the insured is liable for damages and governance due to the pollution of the environment, the insurance company shall bear the corresponding liability for compensation. Simply speaking, enterprises pay premiums, and the loss of the pollution accident shall be paid by the insurance company. From the development of some developed countries, environmental pollution liability insurance is undoubtedly an effective way to solve environmental management problems. This system uses the insurance function to guard against the responsibility of dealing with environmental pollution accidents, which is conducive to the spread of the economic risk, play lever mechanism of premium rate, encourage enterprises to strengthen internal environmental risk management, and make timely compensation for pollution victims.

China carried out the experiment work for environmental pollution liability insurance (hereinafter called green insurance) in 2007, and Hubei province is one of the earliest pilot provinces. In 2008 Hubei Province launched the local implementation regulations. Although this method can reduce risks and achieve win-win situation, the number of insured enterprises are less than expected. It is difficult to promote Green insurance. As environmental pollution events continue to emerge, the contradictions are still rising. This shows that the development of green insurance in Hubei province has a long way to go.

Development Status of Green Insurance in Hubei Province

Wuhan was designated as the pilot city of green insurance in Hubei in 2008. In 2009, PICC Wuhan branch took the lead in signing the green insurance policy with five enterprises, with a total insurance amount reaching 15 million Yuan[2]. In order to improve the insurance rate, The Wuhan municipal government has subsidized the premiums.

There are about 39 property insurance companies in china. In Hubei Province, the first corporation to introduce was green insurance PICC Hubei branch and the Yangtze property insurance Limited. PICC Hubei branch signed policies with a total amount of 15 million Yuan in 2009. The Yangtze property insurance Limited signed a premium of 175 thousand policy with Xiangyang camel group Limited by Share Ltd in August 2013.
Up to 2014, as shown in Table 1, there are only 155 enterprises with green insurance coverage in Hubei. The number of insured enterprises in Hubei is only sixth of that in China. Compared with the top 426 in Guangdong, the number of insured enterprises in Hubei is still less than half of that in Guangdong Province. The number of insurance companies in Anhui Province, which is ranked fifth, is 100 more than that of in Hubei province.

Table 1. The Top Ten Provinces of Insurance Companies in 2014.

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<tr>
<th>Rank</th>
<th>1</th>
<th>2</th>
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<th>4</th>
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<th>8</th>
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<tr>
<td>province</td>
<td>Guangdong</td>
<td>Hunan</td>
<td>Zhejiang</td>
<td>Sichuan</td>
<td>Anhui</td>
<td>Hubei</td>
<td>Liaoning</td>
<td>Shanxi</td>
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<td>Yunnan</td>
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<td></td>
<td>426</td>
<td>412</td>
<td>400</td>
<td>310</td>
<td>255</td>
<td>155</td>
<td>116</td>
<td>103</td>
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The Main Problems in the Development of Green Insurance in Hubei

The Double Lack of Environmental Protection and Insurance Consciousness Leads to Insufficient Effective Demand for Green Insurance

Because of the lack of environmental awareness, many enterprises pay more attention to economic benefits than environmental protection. The Distortions, "Law-abiding costs are high, illegal costs are low"[3], make it more difficult to strengthen corporate awareness of responsibility and environmental awareness. As the demand side of green insurance, polluting enterprises don’t have the motivation to buy the insurance due to the lack of the awareness of environmental protection and responsibility, which directly lead to low insurance rate, the lack of effective demand for green insurance.

Higher Operating Costs and Operational Risks Lead to Undersupply of Green Insurance

Because the environmental risk is difficult to effectively disperse and is very hard to underwrite, prevent the loss and claim, it is more expensive to carry out green insurance for the insurance companies. Especially in the voluntary insurance mode, the insurance companies are not willing to develop the green insurance with the less base and the greater operational risk[4]. As a result, the supply and demand of green insurance are both in short supply, it is unavoidable to be in trouble.

The Introduction of Green Insurance Is More Difficult Because the Insurance Model Is Not Mandatory

The insurance system of arbitrary liability is applicable to the pilot project in China. In such a model, whether the enterprise buys the green insurance or not depends on its own will. The newly revised "environmental protection law" also only encourages the enterprise to buy environmental pollution liability insurance, instead of enforcing. Many enterprises, tend to ignore environmental damage and are reluctant to insure them by profits-driven. As of 2014, the number of insured enterprises was less than 30% of the insured Enterprises. [5]

The Insurance Clause Is Not Reasonable, and the Practice Effect of Green Insurance Is Not Good Enough

In practice, the green insurance will only cover the civil liability for compensation caused by chance, the environmental pollution accidents, and will not take into account some pollution responsibilities caused by normal cumulative discharge behavior from polluting enterprises. The green insurance can’t solve the problems of compensation arising from non-emergent accidents faced by many enterprises because the coverage is too narrow. It is inevitable for enterprises to believe that green insurance is not applicable, and thus affect its enthusiasm for insurance.
The Development Mode of Green Insurance in Hubei

The development mode of green insurance in Hubei should be based on the mode of “compulsory insurance for priority and voluntary insurance for supplement”. According to the social and economic development of Hubei, compulsory green insurance can be applied to industries and enterprises with major environmental risks, and voluntary insurance should be carried out for less polluting industries. The purpose of “compulsory insurance for priority” is to ensure effective compensation for environmental damage, and enhance environmental awareness of enterprises, and the purpose of “voluntary insurance for supplement” is to make the green insurance more flexible and more extensive.

The Compulsory Insurance Model is Beneficial to Mitigate the Adverse Selection Problem in Insurance

If fully voluntary insurance is adopted, those enterprises with higher pollution risk will be more active to buy than those with lower pollution risk, which will increase the overall risk of insurance products on the market, and increase the price of the insurance product and leave enterprises with lower risk out of the insurance market. Such a cycle would result in reverse elimination. However, if the implementation of compulsory insurance, and match the different insurance rate according to the risk level, a lot of benefits will be brought about, such as leading to high risk enterprises to improve the management and reduce the risk, promoting the application of "law of great number", and improving the adverse selection problem.

The Compulsory Insurance Model Is Helpful to Improve the Voluntary Insurance Market Failure Caused by the Positive Externalities of Green Insurance

In the course of enterprise operation, the social cost caused by polluting environment is much higher than the cost undertaken by the enterprise itself, the social utility of buying green insurance is higher than the private utility for the enterprise. Therefore, the purchase of green insurance by enterprises has strong positive externalities to society.

In the Fig above, the demand curve D1 represents a curve that considers only private values, and its intersection with the supply curve S determines the optimal quantity of the market, Q1. Since green insurance has positive externalities, if its external interests are considered, its social value will include private values and external interests, and its demand curve will move up (Demand curve D2). The intersection of the D2 and the supply curve determines the socially optimal quantity Q2. The figure can be seen, if the demand of the products of green insurance are completely determined by the market, the demand will be lower than the quantity demanded by society (Q1<Q2), which will lead to insufficient demand for green insurance products with positive externalities. Completely voluntary mode will lead to the lack of demand for green insurance market, and it is difficult to meet the needs of economic and social development. According to the
principle of economics, economic activities with positive externalities can not achieve Pareto optimality only on the market and government intervention is needed. Therefore, the government's enforcement of green insurance will improve the market failure caused by the positive externalities in the voluntary insurance market.


The insurance business is based on the law of large numbers. According to the requirements of the law of large numbers, the insurance company must accept a lot of risk and the target to make the actual risk closer to the calculated loss probability, and to ensure the stability of the insurance business. [6]

At present, the public awareness of insurance is not high in general, and the degree of cognition of green insurance is low. It is normal for enterprises to buy green insurance, which needs to be improved by coercive means. Only if the government promotes the insurance of enterprises, will there be enough insured enterprises to meet the requirements of the law of large numbers, which can make loss probability more accurate, make insurance rate lower, make risk more dispersive and insurance management more stable. Only through the government "visible hand" to guide the operation of the insurance market, the market "invisible hand" to achieve the best allocation of social resources, insurance can truly play the role of social stabilizers.

In addition, although the ecological environment in China has improved partially, the trend of deterioration of the ecological environment has not been fundamentally reversed; the current situation of environmental risk also determines that China must choose the model based on compulsory insurance.

Conclusion

The development of green insurance in Hubei should be carried out the mode of "compulsory priority" and "voluntary supplement". For the industries and enterprises with major environmental risk, the government should carry out compulsory green insurance, which can ensure a sufficient number of enterprises to participate in the insurance and overcome the lack of insurance demand and the high cost of insurance operation caused by the low enthusiasm of enterprise insurance. At the same time, the government should establish the third party EIA institutions and scientific evaluation system to promote the development of green insurance, so as to achieve the ecological goals of "clear water, blue sky, green hills and beautiful city" in Hubei province.

References


