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The Impact of ESG Rating on Enterprise Financing Cost -- Taking Longji Green Energy as an Example

Hailu Xu

School of Finance Investment, Hebei Finance University, Baoding, China
xuhailu0320@outlook.com

Abstract. This paper mainly takes Longji green energy, the leader of the photovoltaic industry in the new energy industry, as the main research object, and makes full use of signal transmission theory to analyze the impact of ESG rating on enterprise financing costs. The change trend of enterprise financing cost is reflected by the change in enterprise ESG rating. This paper mainly uses case analysis to analyze the relationship between Longji green energy's ESG rating performance and financing cost from many aspects, and learned that ESG rating has a significant impact on green bonds and bank loans. The research shows that the ESG rating is negatively correlated with the financing cost of enterprises. Companies with better ESG ratings can obtain more green bonds and more bank loan policies. The better the ESG rating, the lower the financing cost. Based on the results of this study, suggestions to promote ESG rating are put forward to optimize the financing cost structure.

Keywords: new energy industry, ESG rating, financing cost

1. Introduction

Under the promotion of the global dual carbon goal, the financing ability of the new energy industry, as the pillar of the development of the green economy, has a profound impact on the process of industrial transformation and industrial structure optimization and upgrading. Financing cost is an important factor in the development of enterprises, which has a profound impact on the strategic objectives of enterprise development and industry positioning. Financing cost also provides the basis for enterprises to enhance the competitiveness of the industry. China's economic development and industrial transformation are entering a stage of high-quality competition. Higher production efficiency and lower financing costs can enhance the competitiveness of enterprises. With the in-depth implementation of the "green water and green mountains are golden mountains and silver mountains" policy, enterprises now pay more attention to the creation of social benefits. Social benefit is an important indicator for enterprises to achieve sustainable development. Therefore, ESG performance is the core driving factor for the improvement of the financing ability of new energy enterprises. By focusing on the analysis of the substantial reduction of financing costs caused by ESG changes. Taking the cost of issuing green bonds as the core data, this paper reflects that the financing cost of enterprises with high social benefits is lower through the signal transmission theory, and analyzes the impact of ESG performance on optimizing the financing cost of enterprises through research. This paper takes the research results as the standard for the development of new

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energy enterprises and provide an important theoretical basis for green development. This paper mainly uses the theory of signal transmission. Information asymmetry theory refers to the decline of market efficiency due to the information gap between buyers and sellers in market decision-making. At the same time, the buyer and the seller are unable to participate in the decision-making rationally, resulting in "adverse selection". Signal transmission theory refers to the fact that the superior party can give the inferior party information transmission, thereby reducing the impact of adverse selection [1]. To reduce the information asymmetry between investors and enterprises and enhance investors' confidence in enterprise investment [2]. These two theories are the basis for the development of this paper. This paper will continue to use these theories to analyze the impact of changes in ESG ratings on corporate financing costs

The literature related to this article mainly has two modules. First, there is a negative correlation between ESG performance rating and corporate financing cost [3]. The better the ESG performance, the lower the financing cost. Through empirical research and signal transmission theory, scholars have profoundly proved that enterprises with good ESG performance can transmit positive signals to the market and investors, to effectively reduce the information asymmetry between enterprises and investors, thereby reducing the financing cost of enterprises, promoting the transformation of enterprises and improving the competitiveness of enterprises [4]. Second, better ESG performance can reduce the risk premium, so that enterprises can obtain lower-cost debt financing [5].

Based on the existing literature, this paper will analyze the role of ESG rating in the change of enterprise financing cost by combining with the recent data of Longji Green Energy. Explore the role of ESG performance in various dimensions on financing costs. The research conclusions and development prospects are put forward. At the same time, enrich the case results of green finance and sustainable development.

2. Introduction to Longji Green Energy

Longji Green Energy Technology Co., Ltd. (hereinafter referred to as "Longji Green Energy") was founded in 2000. With the mission of "making good use of the sunlight and creating a green energy world", Longji green energy adheres to the brand positioning of "being stable and reliable and leading by science and technology", focuses on scientific and technological innovation, constructs business segments such as monocrystalline silicon, battery modules, distributed photovoltaic solutions, ground photovoltaic solutions, hydrogen energy equipment, and forms "green electricity"+"green hydrogen" products and solution capabilities to support global zero carbon development.

As a global leading green energy technology enterprise, Longji Green Energy is committed to improving ESG performance. It has worked for many years in the field of sustainable development disclosure and practice, and has established a distinctive ESG brand image. The international mainstream ESG rating continues to maintain industry leadership. With its outstanding environmental, social and corporate governance (ESG) performance, it has won a number of authoritative awards, demonstrating its firm commitment to sustainable development and outstanding strength. Among them, Longji green energy has an important position in all dimensions of ESG, and has achieved full marks in three areas. They are: the "emergency response plan for sudden environmental risk events" in the field of E, "employee training" in the field of S, "ESG governance framework, directors, supervisors and high stability" in the field of G [6]. Longji green energy continuously optimizes the ESG certification process through a scientific and rigorous management system to promote enterprises to achieve high standards of compliance and sustainable

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development in the fields of environment, society and governance. It is a model of ESG performance in the new energy industry.

3. Impact of ESG rating on financing cost -- taking Longji Green Energy as an example

Based on the ESG rating of Longji Green Energy from 2023 to 2025, this paper analyzes the ESG rating and corporate financing costs.

3.1. The signaling mechanism of ESG rating: reducing information asymmetry

ESG rating is different from the internal information disclosure of the enterprise. It is the external evaluation of the third party, which fairly and effectively reflects the development of the enterprise. ESG rating performance can first show the development information of the enterprise through different ways and send signals to the market and investors. This is the embodiment of signal transmission theory. Because investors have limited access to market information, they have made long-term judgments on the development of enterprises. It is difficult for enterprises and investors to make rational decisions and then make "adverse selection" wrong decisions [7], which is the embodiment of information asymmetry.

Taking Longji green energy as an example, the ESG rating of Longji green energy was upgraded from aa- to a+in terms of ESG performance. The score of the environmental dimension increased from 78 to 89. Enterprises respond to double carbon goals and green policies, save energy and reduce emissions, recycle clean energy, and reduce carbon emissions. People will improve measures to safeguard employees' rights and interests, actively participate in public welfare undertakings, and actively fulfill social responsibilities. All these have profoundly demonstrated the practice of green development strategy and sustainable development goals. It has spread positive information to the market in terms of environmental and social governance. Let investors intuitively understand the process of enterprise development and check the attitude, strategy and policy of green development. It reduces judgment bias and errors caused by information asymmetry, provides more diversified financing channels for enterprise development, and greatly promotes the transformation and upgrading of enterprise financing costs.

3.2. Stakeholder trust mechanism: enhance financing feasibility

The optimization of enterprise ESG performance can obtain trust capital and promote enterprise financing. In terms of financing costs, ESG performance optimization directly reduced financing costs. In 2024, the coupon rate of the three-year green bonds issued by the company fell to 2.89%, which was at a low level in the financing cost of the photovoltaic industry in the same period. The debt of Longji green energy is 61 to 81 basis points lower than the average interest rate of 3.5% to 3.7% of ordinary corporate bonds in the photovoltaic industry. According to the bond financing scale of 12billion yuan, the low interest rate can save the company about 252million yuan per year and directly increase the net profit of 189million yuan. This is conducive to strengthening the investment trust mechanism and enhancing the financing feasibility.

In terms of government subsidies, ESG has optimized its performance and obtained more R&D subsidies from the government. In 2018, the government provided only 51.27 million yuan of research and development subsidies. By 2023, with the improvement of ESG performance, the Government R&D subsidy has increased significantly to 406million yuan. With the improvement of ESG rating, the government subsidy will reach 580million yuan until the first three quarters of 2025.

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The government's strong support and subsidies sent a signal of policy support to the capital market, and further optimized the financing cost. Thanks to the strong support of the government, Longji green energy has further enhanced the trust of investors and the feasibility of investment on the basis of government support.

3.3. Risk perception optimization

ESG rating can promote enterprises' risk perception and early warning, and effectively respond to operational risks. At the same time, ESG rating can help enterprises obtain the approval of regulatory authorities in the regulatory process, so as to reduce regulatory risks.

In terms of operational risk, Longji Green Energy promotes the optimization of various businesses through ESG performance to improve its risk capability. At the environmental level, Longji green can improve its own scientific and technological level and reduce carbon emissions by using advanced technology; Improve the monitoring system, improve the level of extreme weather warning, predict the changes of weather and environment in advance, and reduce the impact of weather factors on the photovoltaic industry; At the social level, Longji green energy strengthens its sense of social responsibility, actively participates in public welfare undertakings, improves infrastructure construction, reduces labor disputes, and promotes the stable development of the enterprise. These practices have greatly reduced the business risk of the enterprise, forcing Longji green energy to improve its anti-risk ability and development toughness. In terms of regulatory risk, Longji Green Energy, as a high ESG-rated enterprise, has prominent advantages. With a high ESG rating, the government is more likely to enhance its recognition in terms of regulatory supervision and environmental supervision. It reduces the accountability and restrictions proposed in government regulation. This enables enterprises to reduce regulatory risks and then improve their own development level. ESG rating plays an important role in the enterprise risk impact, which can reduce the loss of assets caused by major risks, or the punishment of the government in the process of supervision due to the non-compliance of the enterprise with environmental problems. This has further reduced abnormal expenditure and reduced expenditure. At the same time, the improvement of anti-risk ability and anti-regulatory ability is conducive to the establishment of a good image in the industry. Deliver the stability of enterprise development to investors, and obtain green financing channels such as green bonds and government subsidies through the approval of government regulations. Further reduce financing costs and realize a virtuous circle.

It can be seen from the data that there is a significant negative correlation between the improvement of ESG rating and the decline of financing costs. High ESG ratings can send positive signals to reduce information asymmetry and enhance investor confidence; High ESG ratings can obtain green bonds and government subsidies, enhance investor confidence and improve the trust mechanism of stakeholders; High ESG rating has strong strength in risk resistance and regulatory risk resistance, which is conducive to a virtuous cycle of high ESG rating → good risk resistance of enterprises → more investment channels → lower financing costs [8-10].

4. Conclusions

The research shows that the high ESG performance sends a positive signal to the market to help investors make correct decisions and reduce the information asymmetry of investors as a weak side of the market. Enterprises with high ESG ratings have a strong ability to bear and resist risks. At the same time, they play an exemplary role in the process of government regulation and obtain government subsidies and green bonds, which further enhances investor confidence and realizes a

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virtuous circle. To sum up, ESG rating plays an important role in reducing the financing cost of enterprises

In order to promote enterprise ESG performance, this paper will put forward development suggestions. The first is to formulate the development strategy and integrate ESG into the long-term strategy of enterprise development. The board of directors of the company formulates the enterprise development strategy and establishes the ESG Development Committee to incorporate the development objectives of ESG into the overall development plan of the company. Integrate ESG development into the daily management of the enterprise, organize each division of labor to perform its own duties, and let each department clarify its own development goals, ESG responsibilities and assessment indicators. At the same time, the company needs to lead enterprises to improve the ESG information disclosure system, release ESG information disclosure reports to the market in accordance with international standards and regulatory requirements, and actively convey the ESG development level to the market. The second is to focus on all development dimensions, adjust measures to local conditions, and accurately develop the three dimensions of environment, society and governance required by enterprises. Precise force to promote the development of ESG. In the environmental dimension (E), enterprises need to strengthen the research and development of photovoltaic technology, improve the level of science and technology, reduce carbon emissions, and achieve low-carbon development in the whole production chain. In the social dimension (s), enterprises should actively participate in social welfare, undertake social responsibility and improve their social image. In the governance dimension (g), people should optimize the corporate governance structure and strengthen the professionalism of the board of directors and employees. Integrate ESG into the development of enterprises, set up ESG development team, and improve the professionalism of enterprises. Third, strengthen science and technology empowerment, promote ESG digital practice, closely combine scientific and technological innovation with ESG development, and enable enterprises to participate in ESG practice more conveniently and with resources through advanced technology, so as to reduce enterprise financing costs and achieve sustainable development.

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