

The Impact of ESG Factors on Industries: The Case of China

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Abstract. The ESG factors consideration has shown an upward trend since half century ago, as well as in China since the 21st century. The Chinese governance has required institutions and companies include ESG scores in the company's reports and make information of corporations being transparent to the public. This paper analyzes which industry or market are sensitive and will be influenced by considering ESG factors in the near future based in China. By means of collecting relative research theories and conclusions, this paper presents three industries that are possible to be impacted by ESG. Technically, there are numerous industries would be affected, but this paper focuses on three of the most well-known and sensitive markets-financial market, sinful market, and green industries. This paper is able to help investors or individuals who wants to invest and even the governance to recognize the future tendencies of several markets and it's useful to aware in advance for investment worthwhile industries.

Keywords: ESG, sustainable, green, social, governance.

1. Introduction

Since half century ago, which was around 80s and 90s of 20th century, environmentally friendly and sustainability concepts have aroused individuals' attention on and gradually became more and more crucial globally. Especially in the early 21st century, the Peoples Republic of China was also starting to pay attention on ESG factors consideration and regard it as a new considered elements in diverse industries. ESG as a new factor that affecting decision-making procedures plays an important role no matter in which industries. After including ESG factors, companies have started to create long-term values aiming to have a long way sustainable development instead of short-dated values. Besides, considering ESG is also a representation of corporations' societal responsibility and ethical values. With the upward significant of ESG, Chinese government also issued relative ESG regulations and supervision requirements, asking companies to disclose their ESG related information. However, ESG in China market is still novel enough and has not shown a significant influence on all walks of life. Since ESG in China are around quarter of century or even less, there are not massive research and papers talking about ESG factors in China, and how ESG affects China's future industries. Some analysis of ESG in China market show that current optimal portfolios are consisted of companies which are disclosed of relatively low ESG scores, meaning that temporarily the majority of corporations are focusing on short-term benefit and possibly sacrifice their long-term sustainability. Thus, it is saying that ESG in China still has a far way to develop and to improve. This paper chose 3 potential sensitive industry that will be affect most significantly by ESG in the near future. Financial market, sinful market, as well as the green market are three of the most relative and sensitive industries under ESG considerations. Therefore, this paper explained how ESG affect these three markets and why there would be influenced by ESG.

2. ESG Affects Financial Market

Industries that bear the brunt of ESG impacts must be financial industries, since considering ESG elements promotes a long-term development and leading capital flows to environmental-friendly and societal responsibility area. Regarding the environmental factor, ESG engages financial institutions focus on the climate change and resource usage issues and appealing clean energy and green techniques. During the last century, environmental pollution issues as well as the global climate change and resource scarcity gradually arise, drawing societies' and enterprises' attention on, creating

a warning for diverse industries especially financial field. Under financial realm, there are several important sectors such as investment, innovation, and risk management etc. Since considering risk factors is ubiquitous within financial industry, environmental changing will definitely affect risks of current programs and investments. “There are two major reasons for the growing trend of ESG in China. To begin with, Chinese regulatory agencies are making a lot of effort to support green finance. China as possessing one of the largest economies globally, is dedicated to reconciling the economic and environmental issues. Second, by requiring ESG disclosure, China hopes to entice investors from around the globe to invest in its listed companies through its opening-up program” [1,2]. In China, the economic development is ascending much rapidly, urbanization and industrialization in China have been progressed in an accelerated approach, however, rapid progress doesn't mean that China does not face any risks and issues. Air pollutions, climate change, and water scarcity etc. in China are all challenging forward financial industry. Thus, considering environmental factors before making financial decisions becomes more sustainable for financial institutions and corporations, meaning green finance will account for a larger portion in financial industries in the future.

Under the 21st century of China, individuals' social values have evolved much, recently, the focus on topics such as sustainable development, environmental-friendly, and also social responsibilities continuous to increase, so does the significant of ESG considerations. As the increasing social attention to corporate behaviors, any financial activities of a company will have more or less corresponding social impacts, thus, financial institutions need to positively respond to changes of social values aiming to follow the step of social development of sustainability. Besides, with the improvement of peoples' living standards, China's consumption habits, financial management concepts, and individuals' purchasing power have been changed as well. One reason for this situation would be development of payment innovation in China, “Demand from small and medium enterprises (SMEs) for financial services has become more and more diversified in China. Conventional financial institutions may not satisfy these needs”[3,4]. Therefore, modern innovated social values and payment concepts are able to influence conventional financial industry to evolve.

In addition, currently, Chinese government is appealing for sustainable strategies of diverse industries as well as financial market. Meaning that any updates of governance's policies or decisions would be able to directly affect financial institutions' following activities. “The solution to China's banking sector's issues would be to establish a centralized hierarchy of Party organs. As a result, the creation of a centralized hierarchy of state supervisory organs came after the construction of a vertical leadership structure of Communist Party organs” [5]. Since last century, Chinese government has started supervising on financial market and aiming to established a centralized financial system. And recently, Chinese government are summoning for green finance, as well as encouraging Fintech companies, thus, the future tendency of ESG will be still trending upwards. “The demand for green assets by investors and the supply of green assets by enterprises are influenced by the implementation of ESG practices, indicating a close relationship between green asset investment and ESG application. Though the implementation of ESG is undoubtedly headed toward sustainability, there is still a long way to go in terms of the creation of assessment frameworks and tools, as well as the consistency and dependability of data collecting” [1]. However, currently, the ESG factors have not effectively influenced Chinese investment market due to the ESG factors haven't been popular until early 21st century, meaning that there would be a vague for investors to distinguish companies which really have a positive long-term development tendency and which are not. According to analysis of ESG Efficient Frontier in China market, the current optimal portfolios are consisted of corporations which own a relatively low ESG scores, meaning that they might sacrifice their long-term benefits in order to gain more profit during a short period.

3. ESG Affects Sinful Market

Despite financial industry in China, there are still some high sensitivity industries, one of the most representative markets is sinful market. “Social taboos, moral debates, and political pressures

typically characterize sensitive industries (or controversial industries, as they have also been called). This is an overarching term that includes sinful industries, such as tobacco, gambling, alcohol, and adult entertainment, as well as industries involved with emerging environmental, social, or ethical issues, such as weapons, nuclear, oil, cement, and biotech. Traditionally, socially responsible funds have used negative screening (also called ethical screening or exclusion) as the criterion to leave companies operating in such sectors out of investment portfolios [6-8].” Considering the ESG factor, sinful industry would definitely be impacted because some products from sinful industry is environmental-polluted, such as tobaccos. Since planting tobaccos consumes tremendous soil resources and water resources besides massive tobacco smokes and wastes are generated through cultivating procedure, this will be able to cause environmental contamination. Meanwhile, entertainment industry may probably overconsume energies, and further cause energy depletion, sometimes sound pollution would be brought as well. Not only these two sectors under sinful industry, the majority firms under sinful industry are facing same or similar challenges. With increasing social attentions on ESG values, if sinful companies cannot mitigate these environmental risks, financing funds from investors and sales from customers would be affected negatively, which will further arouse companies’ long-term strategy.

Moreover, sinful industry usually located at the innermost place of social public attention “onion”, which means that any societal opinions are able to create large or tiny influences of this industry. Usually, sinful industry is highly possible to generate negative social influence, for example, tobacco market is always full of controversies because some people argue that products like cigarettes are harmful to humans’ well-being whereas the opponents are not. “The tobacco business is compelled by law in the majority of nations and areas to publish graphic health warnings on cigarette packaging, which creates a social milieu that is hostile to sin culture. Comparatively, different cultural images are consistently shown on cigarette items in China, which fosters a sin culture associated with tobacco use” [9]. As Chinese society’s growing interest on ESG considerations, sinful industry will be super sensitive as it challenges humans’ health, ethics, and social responsibilities, thus, public individuals would easily to resist sinful product that makes sin industry downward. Social charitable organizations monitor behaviors of sin market and are able to call publics to against sin market. Social forces like this are able to prompt guilty industries to pay more attention to social responsibility and take positive actions for environmental protection and public welfare in order to improve their image and social status. Therefore, sinful market would face a huge challenge with augmenting societal ESG intellection.

In addition, Chinese government has strict regulation on sinful market. Any policy issue and changes will bring significant obstacles to sinful industry which also one of the sources of environmental pollution in China. “An example of regulations stimulating the use of a product, would be China and the governmental subsidies. In order to tackle the increasing pollution rates in China, the government has decided to give incentives in the form of subsidies. The Chinese government subsidizes up to \$15,000 per fully electric vehicle, giving the second highest subsidy for electric cars behind Norway. By providing subsidies and investing on infrastructure, the Chinese government are hoping to increase the usage and trust in electronic vehicles, and in this case the regulation stimulates electric cars” [10,11]. According to Chinese government subsidy policy, it can be seen that there is an upward trend for ESG considerations of Chinese government, and governance has started to emphasize on green economy and sustainable product aiming to maintain a long-term development. In summary, the G factor (governance) of ESG is high relative and affective to Chinese sinful industry as well.

4. ESG Affects Green Industry

Nowadays, green industry is a highly potential market not only in China but also around the world, because green industry is consisting of activities oriented toward environmental protection and sustainable development. It aims to promote green growth and economic sustainability by means of

limiting resource consumption, reducing environmental contamination and increasing the efficiency of energy use. Green industry is supported by policies, market demand, and technological innovation factors, with global environmentally friendly awareness and popularization of sustainable concepts, more and more countries have begun to pay attention to the development of green industries, formulate relevant policies and regulations, and promote industrial restructuring and transformation and upgrading. In China, currently the environment pollution is severe because of its rapid development, Chinese government has aware this issue and trying to eliminate and constrain factories that are able to cause pollution. “To address the conflict between the environment and economic development, environmental regulation has progressively grown in importance as a governance tool for national governments. Clarified are the effects of environmental regulation on the factors, with an emphasis on identifying the function of environmental regulation. First, environmental regulations hurt economic development by raising firm costs and decreasing competitiveness. According to Haveman and Christiansen, environmental regulations led to a productivity drop of roughly 8–12%. Second, carefully thought-out environmental regulations might support business resource allocation, which would boost innovation capacity and, in turn, encourage economic transformation” [12,13,14]. So far, there are many regulations about environmental protection are issued in China, such as Law of the People’s Republic of China on Prevention and Control of Atmospheric Pollution, Law of the People’s Republic of China on Prevention and Control of Water Pollution, Law of the People’s Republic of China on Prevention and Control of Environmental Pollution by Solid Wastes, etc. With an increasing tendency of Chinese environmental governance, the green industry will definitely show significant impact and flourishing prospect.

As it’s mentioned of sinful industry, inversely, green industry also influenced by social public opinions as its incremental strict criteria in supervising and evaluating environmental protection such as tackling pollution and resource wastage issues behaviors of firms and institutions. Enterprises tend to take the initiative to adopt environmental protection measures, strengthen environmental protection investment and enhance the environmental protection image of enterprises in the face of social opinion and social pressure. Besides, customers’ purchasing preference are influenceable as well, with growing awareness of environmental protection and sustainable development has led to increasing consumer demand for environmentally friendly products and services. This consumer awareness and behavior will drive the development of the green industry, prompting companies to increase their investment and research and development in areas such as environmental technology and clean energy, and to launch more environmentally friendly products and services, and also lead investors regard the ESG factors as one of important considerations before making investment determinations. Meanwhile, as China society is appealing for green industry by social public or non-beneficial organizations, which are able to promote sustainable and green development through their events and activities. In addition, governance policy guidelines are always one of the most direct and crucial factors to affect markets as well as the green industry as an emerging industry in China since this century. “One of the main drivers of the manufacturing sector's green transformation is the actions of the government. By creating policies for industrial transformation, it not only directs the reorganization of industrial resources and its structure but also reinforces establishes a service platform for industrial transformation, oversees the market, and fosters the growth and transformation of the green economy” [12,15]. “Since municipal governments are crucial to the green economy, much research focuses on the rationale for government actions. The result of government macro policies is one reason. Wu et al.'s analysis looked at how power substitution programs affected the green economy” [16]. In order to encourage developing green industry, China government issues some tax deductible or discount and financial subsidies as to reduce the cost of enterprises and improve the competitiveness of industrial development, such green technology research and development, clean energy production, and the construction of environmentally friendly facilities. By clarifying the status and role of green industries in the country's economic development, the Chinese government formulates a macro planning and layout, aiming to promotes the introduction and collaboration of green technology by means of international communication and cooperation.

5. Conclusion

Based in China, this paper examines which markets or industries are susceptible to and may be affected in the near future by taking ESG issues into account. Although many industries could theoretically be impacted, this study concentrates on the financial, sinful, and green industries because these are the three most well-known and delicate businesses. This article can assist investors or those wishing to invest in identifying the future trends of various markets, which is helpful to know ahead of time for industries which are valuable to invest. There are still some flaws of this paper. One would be the paper is lacking for figure and data analysis, and all things mentioned are based on theories without data support since ESG in China is still on early phases. Besides, there are only three industries mentioned, meaning it's focused on some specific markets instead of really macro views of the whole China market.

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