

Green Bond: Advantages and Disadvantages of Its Development in Vietnam

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Abstract: *Not only in Vietnam's bond market, but in the world, green bond is considered to be a useful tool for the businesses to mobilize capital for the benefits of the environment and society. According to opinions from experts, this is a capital mobilization channel for the long-term investors, especially when people are increasingly paying attention to the factor of environment. The study analyzes the level of interest and demand of the investors in the market to evaluate the advantages and disadvantages of green bond development in Vietnam's stock market. The results show that the investors are now interested in environment and green bond which is a great condition for green bond development in Vietnam. However, the limitations on legal corridor, factor of communications and the limited category of green bond are making it difficult to develop green bond in Vietnam.*

Keywords: *Green bond, environment, investor, capital mobilization tool.*

I. Introduction

Climate change and its severe effects on economy and society lead to more serious concerns of various countries on the factor of environment and green growth for the economy. To implement green growth, the countries need a huge fund to do the green environment projects. According to the International Energy Association, to reduce half of the global emission in 2050, the world needs 46 thousand billion USD, equivalent to 1 thousand billion USD per year. To meet that demand, in 2008, green bond was created and became one of the new channels to gain fund, effectively attracting hundreds of billion dollars to serve green development of the global economy.

Vietnam joined the United Nations Framework Convention on Climate Change (UNFCCC) in 1994. Being a developing country that is greatly impacted by climate change, Vietnam has actively implemented different activities to handle climate change and fulfill all the responsibilities of a party that joins UNFCCC, Tokyo Protocol, and Paris Agreement on Climate Change. With domestic resources, until 2030, Vietnam will reduce 9% of total of greenhouse gas in compared with regular projected plan, equivalent to 83.9 million tons of CO₂ and that would be 27%, equivalent to 250.8 million tons of CO₂ (equals to total emission of Vietnam in 2014) when there exists international support via bilateral, multilateral and investments from businesses.

In addition, the Government, in its stable development plan toward 2030, has paid strong attention to green growth as well as green financial products, including green bond. There is no doubt that green bond will gradually become a useful tool of the nations in attracting investment for the environment related projects. Generally, green bond is considered to be a new channel to attract investment for the projects that reduce environmental impact in many nations around the world. However, in Vietnam stock market, green bond is still quite new to many investors and it's still on trial period. Therefore, it's extremely essential to evaluate the advantages and disadvantages of green bond development in Vietnam stock market.

The purpose of the study is to build a theoretical foundation on green bond and then analyze the results of survey conducted on private investors in stock market. The study findings show the advantages and disadvantages in developing a tool to mobilize green bond capital in Vietnam. Accordingly, it shows some suggestions for developing green bond in the future.

II. LITERATURE REVIEW

The characteristics of the green bond market have been debated by a vast number of scholars. Maltais and Nykvist (2020) discussed the role of green bond markets in economic sustainability for the case of Sweden. They identified the potential of the green bond market in economic participants' engagement and sustainable economic and social development. Wang et al. (2020) and Baulkaran (2019) showed that a green bond is an interesting field for investors. They found that stock market investors in China have a positive response to green bond issuing news. This result has also been addressed by Pham and Huynh (2020), who revealed positive linkage between reactions of investors and green bond market performance. In addition, Wang and Zhi (2016) also proved the significant role of green bond markets in environmental protection and combating climate change. Banga (2019) investigated the key factors and barriers influencing the green bond market in developing nations. They found that climate-awareness from investors, inappropriate institutional arrangements, and high transactions costs with green bond issuance are major players in developing the green bond market. Agliardi and Agliardi (2019) argued that improvement in credit quality, lowering cost of capital for green bond issuers, and state support are three main drivers of green bond development. This finding is in line with Dou and Qi (2019), who investigated the factors affecting the choice of green bond issuing by state and private sectors. Broadstock and Cheng (2019) argued that the development of the green bond market depends on various factors. Using the dynamic conditional correlations (DCC) revealed that economic policy instability, energy price, and financial market uncertainty (the effect of financial market has also been proven by Reboredo and Ugolini (2019) are major drivers to accelerate growth of the green bond market.

Investment on green bond is a new area in Vietnam. Thus, there are not many studies on this form of investment. The studies related to green bond in Vietnam mainly focus on studying the experience in developing green bond of various nations like the study of Nong Minh Trang (2015) and Nguyen Thi Tuyet Mai (2019).

Generally, there have been some studies on the characteristics of the green bond market and its development as a tool to capital mobilization tool for the environmental projects. However, there is no study that is actually done from the investor perspective to recognize the advantages and disadvantages in developing green bond in Vietnam.

III. Theoretical Foundation Of Green Bond

Green bonds are an important financial tool used to raise capital for low-carbon projects that benefit the environment (World Bank 2019). This new financial tool is an applicable way to increase emissions reductions policies, long-run development, and improvement of ongoing eco-friendly projects to reach the goals of the Paris Agreement. The first green bond was issued by the World Bank and the Swedish bank SEB in 2008, and its global market has expanded from \$11 and \$36 billion in 2013 and 2014 to nearly \$167 billion in 2018.

In the study of Kidney and Oliver, green bond is just like the regular bond but is issued with the purpose of supporting green investment - the investments to reduce the environmental impact like climate change reduction or increase power usage efficiency (Christoffer Falsen and Patrik Johansson, 2015).

According to G20 Green Finance (2016), green bond is distinguished from the regular bond by the commitment to use the mobilized capital to fund or finance green projects or businesses. Green bond can be issued by the public entities like the government, local authorities or private ones like the bank or businesses to increase capital for the projects related to the environment.

Hence, green bond is also a tool to mobilize capital just like other bonds but it has special characteristics associated with the usage purpose of the mobilized capital. That is the money which is gained via the issuance of green bond must be used to finance the green projects. According to the Green Bond Principles, the green list includes 10 major sectors and some minor ones like preservation of energy, natural resources, biological diversity, and some categories on environment protection like clean traffic, clean energy, and clean water. Green bond can be issued by the government, financial institution, local authorities, bank or businesses to mobilize capital to conduct green projects. To make sure the budget collected from green bond meet the preset purpose, there should be a highly prestigious third party to monitor and manage it to ensure transparency and accuracy. If the green bond does not bring income to the issuer, other resources from the issuer may be used to ensure the creditworthiness such as budget resources of the local government, state budget resources.

Developing green bond brings benefits to the bond issuers, investors and the society. When the organizations issue green bond in the market, it will attract different investors, especially the investors who care about environment, and at the same time, they should be inspected, monitored for the use of capital mobilized via green bond. When green bond is issued in the market, the investor will have more products to choose from, implement the plan of diversifying investment category, diversifying risk as well as creating suitable beneficial resources. At social scale, green bond will help raise awareness of investors on the environmental issues, and at the same time, attracting huge capital from the society to carry out green growth and sustainable growth in the future.

IV. Research Methods

Based on the suggestions of the study by Raymond Ling Leh Bin and Associates (2017), the author determine the survey object to be the investors joining Vietnam stock market in Ho Chi Minh City. The purpose of the survey is to evaluate: Level of interest toward bond; level of interest toward the environment; level of interest and understanding of the investors towards the green bond mobilization and the factors related to green bond that attract the investors. Other than questions related to personal information of the investors, the questionnaire includes 15 questions relevant to the 4 contents above.

The questionnaire is designed on Google Doc after consultation with experts who are university lecturers and department managers of stock trading companies. The questionnaire is emailed to 234 personal investors who are investing in the stock market in Ho Chi Minh City whose account is opened at stock trading companies. After more than a month conducting the survey, from August to September 2021, with the number of collected questionnaires of 164, 160 of which are valid. Using the method of descriptive statistics, the Study will analyze the level of interest of the personal investors in the tool to mobilize bonds, in green bond as well as the factors of environment in the investment decision. Thus, it proposes the conclusions on advantages and disadvantages related to green bond development in Vietnam, Furthermore, the questions related to the factors and characteristics of green bond that attract investors will help the author to make suitable suggestions.

V. RESEARCH RESULTS

Among 160 valid questionnaires, 60% of the investors who join the survey are individuals who have at least 5 years of experience in investment activities. The capital scale in the stock market of the investors is from 300 million Dongs to 500 million Dongs with the rate of 57%, 30% of which is from 500 million Dongs and above, the rest is under 300 million Dongs. The rate of investors who graduated at least from university and higher was 90% of the individuals who participated in the survey. The average income of the investors who joined the survey is 25 million Dongs a month. The statistical results of this survey show that most of the investors who joined the survey have experience and knowledge in investing in the stock market in Vietnam.

Table 1. The number years of experience in investment activities

The number years	The number of investors	The rate (%)
< 5	64	40
> 5	96	60
Total	160	100

Table 2. The capital scale in the stock market of the investors

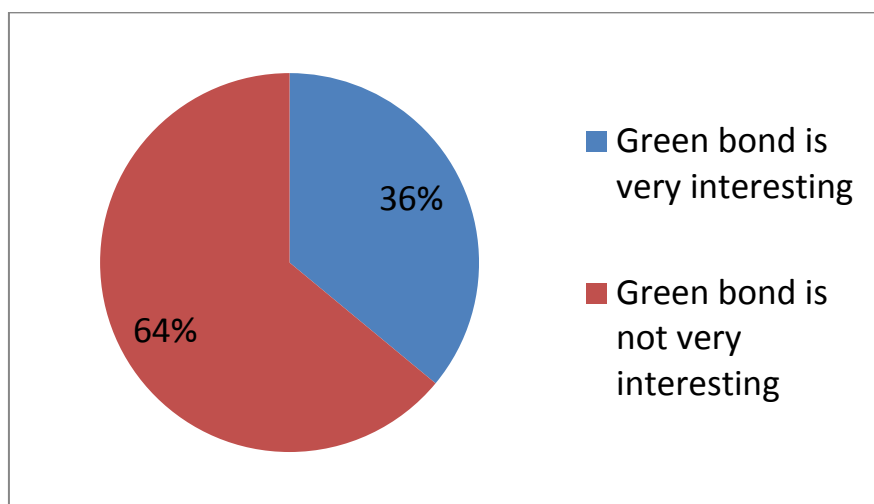
The capital (million Dongs)	The number of investors	The rate (%)
< 300	21	13
300 - 500	91	57

> 500	48	30
Total	160	100

The level of interest of investors with green bonds

With the development of the market in general, particularly the stock market, bond and stock are common investment assets in the market. However, in Vietnam bonds are not an interesting investment asset for the private investors in the market. Although there are 90% of the private investors who joined the survey know of bonds in 3 forms government bond, local authority bond, business bond (including financial institution bond) but only 36% of which consider bonds to be an interesting channel of investment, While 64% of which consider bonds to be a not very promising kind of investment. Among 160 people who took part in the survey, only 6 of whom have bond in the investment list with 4 of whom buying business bond, 1 of whom buying government bond and 1 buying local authority bond. The common investment form of the private investors of the questionnaire is mainly savings, stock and real estate. This result is partly shown in the capitalized value of the bond market according to the report of Ministry of Finance until the end of 2018, which was only almost 40% of the GDP, where business bond market only accounted for 8% of the GDP.

Graph 1. The level of interest of investors with green bonds

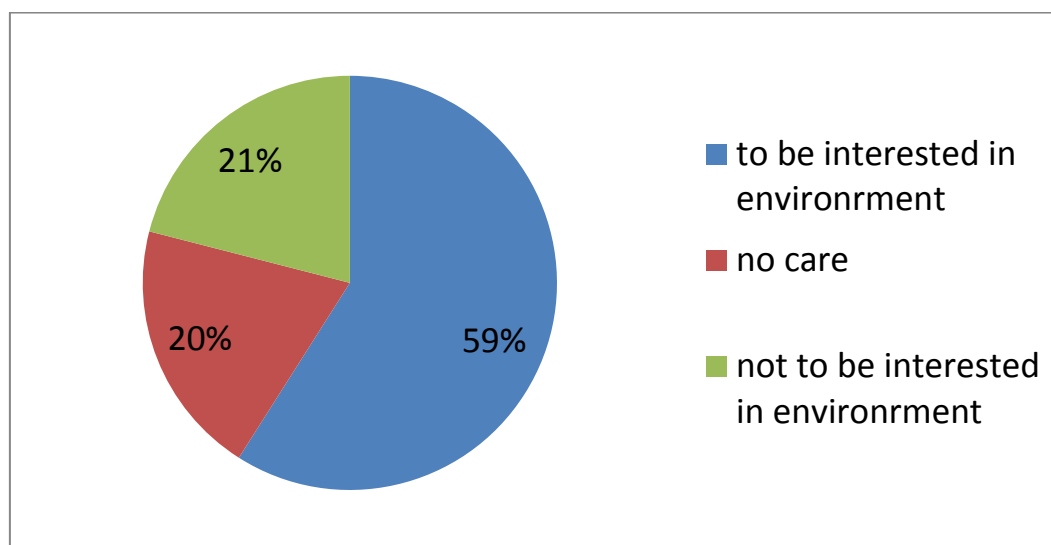


According to Ms. Nguyen Thi Kim Oanh - Chairman of Vietnam Bond Market Association, this number is much lower compared to that of other neighboring countries and it does not match the development potential of Vietnam. The reason for that is the investors think that the interest from bonds is lower than that of other investment channels. Besides, the liquidity of bond, especially business bond is not that high when there is a lack of secondary trading market for bonds. Insufficient information about the market when the investors do not know about the details of the bond issuers and there is no prestigious independent company to evaluate their trustworthiness are ones of the reasons why investors are not that interested in business bond. Therefore, if in the coming time, these disadvantages are solved then the market will prosper.

The level of interest of investors on the factor of environment

The level of interest of the investors on the factor of environment is considered to be one of the important factors affecting the development of the green financial products including green bond. In the actual situation of Vietnam, the climate change is increasing the severe level of the natural disasters like drought, flood, sea level rising, and so on causing serious damages to the development of the society and our life. Studies by international organizations show that climate change can cause Vietnam 15 billion USD each year, equivalent to 5% of our GDP. This number not only make the Government and organizations, but investors and individuals pay more attention to the factor of environment.

Graph 2. The level of interest of investors on the factor of environment

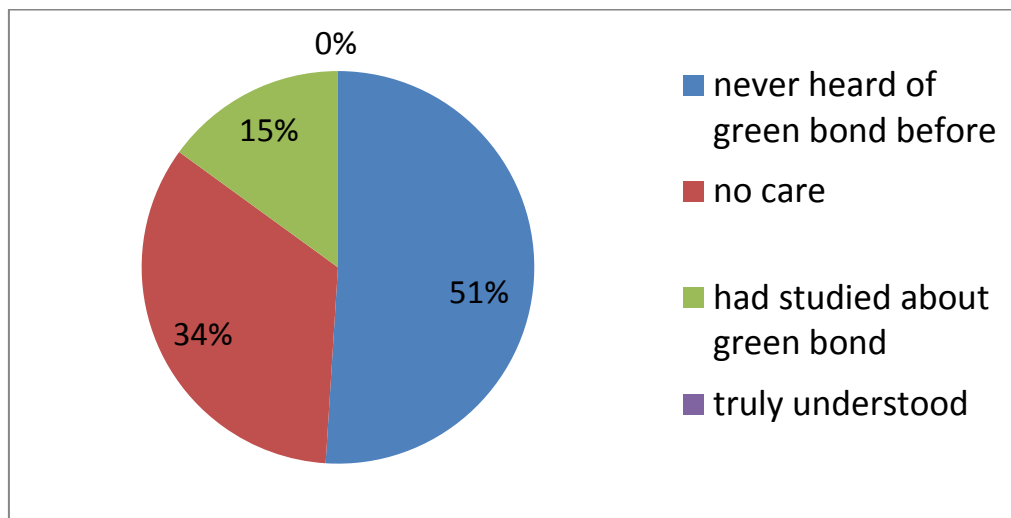


The Survey shows that 98 investors, equivalent to 59% investors are interested and highly interested in the factor of environment when making investment decisions. 20% of the investors are not care about environment. While only 21% of the investors do not care and seldom care about the factor of environment when making investment decisions. The investors are more and more interested in environment which is a good condition for the bond issuers to consider to add the factor of “green” to their capital mobilization plan and is a great foundation to develop the green bond market in Vietnam in the future. However, there are still quite a large number of investors who do not take the factor of environment into account which affects the development of the green investment tools, particularly green bond. Thus, the continuity of raising awareness of people on environment is one of the important contents in the development of green investment in Vietnam.

The level of interest of investors on green bond

On October 20, 2016, the Ministry of Finance approved the Proposal of Trial Launch of Green Bond suggested by the local authorities and instructed relevant units to implement this plan. Accordingly, the two regions that implement this trial plan were Ho Chi Minh City and Ba Ria - Vung Tau and the issued bond was local authority bond, from 2016-2017 with a term of 3-5 years. At the end of 2018, according to a general statistic, Ho Chi Minh City has issued 3000 billion Dongs on green bond for 34 projects. This shows that, in a legal foundation, the Government only issue the orientation documents with general development of green investment market and there was no detailed instruction on green bond, especially the criterion on domestic green bond, monitoring policy, management and use of green capital collected from green bond, responsibilities and benefits of relevant parties. Besides, although was implemented for almost 4 years, until 2019, the issuance of green bond only stopped at trial of local authority bond, without attracting the engagement of the other entities like financial bank and other businesses of green sector. This causes certain impact on the interest of the investors on green bond in the market.

Graph 3. The level of interest of investors on green bond



According to the survey conducted by the author, about 51% of the investors never heard of green bond before, 34% of whom had heard of it but did not care and only 15% of them had studied about green bond and none of them truly understood this kind of bond. This shows that green bond has not become an outstanding green financial product in the market despite the attention from the Government in its development orientation. The reason for that is there aren't many communication channels related to green bond. Green bond in the market is only for trial and is falling within local authority bond which does not attract private investors.

The characteristics that attract private investors toward green bond

One experience from the nations in the development of green bond is issuing beneficial policies to encourage the issuers and investors to care more about green bond. Therefore, under research point of view, the author conducted a survey to see which factors of green bond will attract investors and decide put green bond into their investment category. With 60 investors surveyed, the first thing to attract investors is the green bond that is issued by the prestigious entities in the market, making sure that the mobilized investment is used for the right green projects. This not only ensures the credibility and risk level of green bond for investors but it also has a great significance in the compliance of commitment on environment of green bond. Liquidity of green bond is a characteristic that was chosen by 43 investors. That the capacity to convert green bond into money is slow or fast is an important factor for investors to put green bond into their investment category. This means it is extremely important to develop bond market in order to increase liquidity for the bonds, especially business bond. Apart from liquidity, attractive interest of green bond in comparison to other bonds of the same issuers is also a factor that encourages investors to care about green bond with 41 investors choosing it. In addition, the special policies on tax and expenses need to be considered in the development period of green bond when there 22 investors showed their interest. According to the investors, at the beginning, the Government and relevant authorities need to show more beneficial policies to attract and encourage investors to care more about new green products.

VI. Conclusions And Policy Recommendations

With the analyses from the results of the survey for private investors, the Study indicates the advantages and disadvantages of the development of green bond in Vietnam market as follows:

Regarding the advantages, most of the private investors have certain knowledge and understanding on bond market and kinds of bonds in Vietnam market. The bond market still has great potential to develop if the problems on market, information, and policy are eliminated. Besides, a great number of investors are more and more responsible for their investment and show interest in the factor of environment upon making investment decisions. Furthermore, the Government and relevant authorities are also focusing on developing the bond market, particularly green bond. These will contribute greatly to the development of green bond, a tool to mobilize capital to sponsor the projects associated with environment protection that have development potentials in Vietnam.

However, other than the advantages, the development of green bond in Vietnam still faces a lot of difficulties. First of all, although it was developed in 4 years, the legal corridor, particularly the instruction documents on green bond is yet to be issued. This makes it difficult for entities to issue green bond to mobilize capital when there is no information on standards of green bond in Vietnam or the procedures to issue green bond. It not only affects issuers, the lack of detailed written instructions on green bond makes investors doubt the transparency of capital allocation, level of guarantee of the sustainable projects as well as their benefits when they hold green bond. Secondly, some investors are yet to be aware of the importance of environment in making investment decisions also makes it difficult for the development of green bond in Vietnam, Thirdly, green bond does not really make any strong impressions to attract investors in the market since there are only a few investors know and care about green bond.

For green bond to truly become a channel to attract new capital in an effective manner to meet the demands on capital for green growth, the Study proposes some ideas to enhance the foundation and development of green bond in the market in the future as follows:

First, developing bond market by resolving the problems of the bond market to attract investors to join the market. Also, we should pay special attention to ensure the liquidity of the bond as well as handling the insufficiency of information to reduce risks for the investors. The development of bond market in general will make it easy for the formation and development of green bond in the future,

Second, we need to raise awareness of the entities on the factor of environment. When the subjects of the economy care about environment, it will create great changes in the economy and the financial system to develop the tools to mobilize green investment, partially helping to make green growth feasible. Other than the Government, local authority, businesses in the economy, when they are aware of the importance of the environment, we will consider green bond as an important product in capital mobilization. That the investors care more about the factors of environment will create great conditions to develop tools to mobilize green investment.

Third, building legal frame relevant to green bond. If we want green bond to be an important tool to mobilize capital for green growth, we need to have some legal foundation related to green bond including policies and conditions on green bond, standards selected for green projects for the businesses, local authorities, and governments to make it easy to manage capital resources in green projects. Besides, the code of responsible investment for the entities is needed to be issued to encourage the investment activities in a responsible manner towards the society and environment by the entities of the economy. During the period of building legal foundation, Vietnam, based on international standards, needs to have changes and adjustments to make it suitable for our economy. Therefore, the determination of the schedule of detailed steps, from green bond in domestic market and regional market and international market is an important foundation to develop green bond.

Forth, we need to build special offer policies to encourage development of green bond at the early stage. The issuers need to consider liquidity, risks, and profitability and other special offers for the bond owners to attract investors. The nations at the early development stage of green bond also build a system to encourage investors to care more about green bond like allowing the use of green bond to be guarantee assets and special policy on personal income.

Therefore, with the development orientation of developing green financial products since 2005, green bond was considered to be an important capital mobilization tool in the process of implementing green growth in Vietnam. However, in reality, it is still a new tool to mobilize capital which has not been paid attention by private investors since there exist certain difficulties related to the bond market, relevant policies, and diversification of green bond products and the awareness of the investors on environment. Thus, to for ad develop green bond market in the future, the Government and relevant authorities should have changes to develop the bond market, build and issue legal detailed written instructions related to green bond, encourage diversification of green bond products from various issuers with different characteristics and constantly raise awareness of the entities on environment and responsible investment.

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