

An Examination of Yields and the Factors that Influence them in the European Corporate Green Bond Market

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Introduction

The market for green bonds contributes to the mobilization of financial resources for sustainable investments. Unlike conventional bonds, green bonds are specifically designed to raise funds for environmental projects. The presence of greenium, or the lower yield in comparison to "conventional" bonds with the same risk, is a characteristic of green bonds. The inconsistent evidence regarding the existence of "Greenium," particularly in corporate green bond markets, supports the relevance of the paper; a limited amount of research has been conducted on the subject, with a specific focus on the global, US, or Chinese green bond markets. Instead, European debt markets greenium remains unexplored. This study aims to find out if greenium exists and what factors influence it in European corporate debt capital markets, including local markets in Germany, France, the UK and the Netherlands. Between 2007 and 2021, 3851 conventional and green corporate bonds from 33 European nations were included in the sample.

Description

The analysis was conducted using linear regression. The findings indicate that conventional corporate bonds with the same risk are priced higher than climate corporate bonds in Europe. Greenium has a magnitude of about 3 bps. Greenium is determined by having an ESG rating and being in the utility and financial industries. The credit quality (as indicated by the level of credit rating), coupon size, bond tenor, market liquidity and macroeconomic variables (growth of gross domestic product and consumer price index) are the remaining factors that influence bond yields in the European corporate debt market. Our findings are contentious in relation to the local markets for corporate debt. We did not discover sustainable evidence of greenium in any of the markets we looked at, with the exception of the United Kingdom and the Netherlands. Investors, researchers, regulators and potential issuers will gain a better understanding of the green bond market as a result of the research's findings [1].

Our findings are contentious for specific European bond markets. We only found sustainable evidence of greenium in the United Kingdom and the Netherlands in the selected markets. In addition, with the exception of the Netherlands, the variables of the ESG rating dummy were not significant in any of the individual markets. The results of the Chow test confirm the distinct characteristics of these two markets. In contrast, the size of the coupon accounted for the greatest variance in yields across all individual markets. Our expectations are met by the variables positive signs. At a 5% level,

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a green dummy was significant in the UK market. Greenium's magnitude was approximately 2.7 bps (green bonds have prices that are tighter than conventional bonds). Additionally significant at 10%, the utility dummy suggests that bonds issued by a utility corporation are likely to command a 190 bps higher greenium [2].

Tenor and coupon size were, as expected, significant (at a level of 1%) factors in the UK market. At 5%, the variable that reflects the impact of the length of time since the UK's green bond market began was significant and positive. The fact that we examined the size of the greenium and its main determinants in the European corporate bond market is primarily what makes our study scientifically novel. According to a review of the published works, the majority of studies focused on either Chinese markets, US markets, or global bond markets. State and municipal bond markets, on the other hand, were mostly studied in Europe, while green corporate issuer markets were left out. In addition, we widened the scope of our investigation to include the years 2007 to 2021, as opposed to the prior year. The study's limitations include the following: (1) the small sample size; 2) the decision to estimate the value of greenium using linear regression; 3) the sample's insufficient number of green bonds. Particularly, only corporate bonds were included in our sample. Also, there was no analysis of how green regulation and the benefits green projects get affect the greenium's size [3].

The impact of bond labeling and verification on the size of the greenium was not discussed. Lastly, we did not investigate the size differences between the primary and secondary European green bond markets for greenium. A more in-depth examination of the yield drivers in these markets ought to be carried out in light of the contentious outcome for the green bond markets in particular European nations. As such a stimulus may be a key driver of greenium in certain European green bond markets, additional attention should also be paid to regulatory and tax incentives. Additionally, matching method analysis and yield curve analysis can be utilized in in-depth studies of specific European bond markets. The disparity between the sizes of greenium in primary and secondary green markets was another aspect of the issue that our investigation did not address. However, contend that such a distinction exists in some studies. Additionally, a U-shaped dependence between the value of the greenium and its drivers must be examined and evaluated. The analysis of green bonds demand-side characteristics also requires additional research [4].

If we look at the bigger picture, the number of green bond issuances in emerging markets suggests that additional research should be conducted on these markets. However, existing research ignores other markets and focuses primarily on the Chinese market. The differences in green bond taxonomy, carbon and other regulation and tax issues, as well as differences in capital market development at various emerging bond markets, ought to be taken into account in such research. Additionally, we see the investigation of how the issuer's stock prices and the performance of other financial instruments are affected by the issuance of green bonds as promising areas for future research. This field is important because a lot of research suggests that green bonds are a new way to hedge against climate risks, financial risks and other risks that aren't financial, as well.

Last but not least, the yields of green financial instruments can be affected by hidden factors like the sovereigns ESG policy, the unique characteristics of national green taxonomies, the state benefits offered to investors, issuers and

debtors, the quality of management and corporate governance of green bond issuers, the specific terms of the bonds and other factors. Advanced models like latent variable multivariate regression models or artificial intelligence tools should be used to capture these intricate relationships [5].

Conclusion

This paper examines the presence of climate bonds in the European corporate bond market as well as their determinants. We used a linear regression model to examine the sample of 3852 conventional and green bonds from 33 nations between the years 2007 and 2021. The period under review encompasses the entire time that green bonds have existed in Europe, beginning with the first issue in 2007. The findings revealed that there was a negative green premium of approximately 3–3.6 basis points that was statistically significant across the entire European market. Our findings are contentious in relation to the local markets for corporate debt. We did not discover sustainable evidence of greenium in any of the markets we looked at, with the exception of the United Kingdom and the Netherlands. The effects of climate bond issuance on the issuer's stock prices and the performance of other financial instruments should be the focus of additional research.

Acknowledgement

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Conflict of Interest

None.

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