The Impact of Corporate Green Bonds on Stock Returns

**Abstract**

I replicate with a different dataset the analysis of Flemmer (2020) on corporate green bonds, which are debt securities whose proceeds are used for projects with a positive impact on the environment and/or climate. As these bonds are getting more traction on the financial markets, it is interesting to analyse their impact on the stock price of traded companies.

Although, like Flammer, I find a positive response for the issuance of green bonds in the period from 5 days prior to the first announcement until 10 days following it, I find a bigger response for second-time issuers than for first-time issuers. Moreover, I find a statistically significant one for second-time issuers but a statistically insignificant response for first-time issuers. This finding goes against Flammer’s argumentation that green bonds represent a form of ‘signalling’. I propose possible explanations for this difference in results.

# Introduction

After the first climate-focused bond by the European Investment Bank in 2007, the World Bank issued the first “green” bond in 2008[[1]](#footnote-1). Worth SKr 3.35 billion (USD 440 million), this security was meant to:

* Meet the Scandinavian pension funds’ interest for a simple fixed-income product supporting climate-focused projects;
* Attract investors willing to invest sustainably and responsibly;
* Innovate climate finance;
* Show financial markets that developing countries will be affected by climate change but can tackle it.

In 2010, another member of the World Bank, the International Finance Corporation, and other public entities such as municipalities, governments and agencies issued USD 4 billion of green bonds. In 2013, private corporations started issuing this kind of debt securities too, resulting in USD 10 billion of green bonds issued worldwide during that year alone.

After starting this new trend across financial markets, the World Bank is now a small player in a sector that is expected to raise USD 250 billion in 2020[[2]](#footnote-2), notwithstanding the impact of the pandemic on the bond market and without considering other USD 70 billion of social and sustainability bonds in the same year.

The International Capital Markets Association provides some guidelines that “recommend transparency, disclosure and reporting” for the issuance of green bonds in order to provide markets with the information and transparency that are required for these financial products. According to the Green Bond guidelines provided by the International Capital Markets Association, the four components of a green bond are:

* Use of Proceeds: definition and description of the eligible project categories
* Project evaluation and selection: description of the decision-making processes
* Management of Proceeds: guaranteeing that no projects or assets that do not comply with the stated use of proceeds will be financed nor refinanced
* Reporting: description of reporting intentions, including impact reporting

According to the International Capital Markets Association, projects financed through the issue of green bonds should provide “clear environmental benefits” that must be quantified by the issuer whenever feasible.

In order to give a clearer picture of the possible categories under which the use of green bonds’ proceeds can fall, the International Capital Markets Association specifies that green projects include:

• renewable energy (including production, transmission, appliances and products);

• energy efficiency (e.g. new and refurbished buildings, energy storage, district heating, smart grids, appliances and products);

• pollution prevention and control (including reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/emission-efficient waste to energy);

• environmentally sustainable management of living natural resources and land use (including environmentally sustainable agriculture; environmentally sustainable animal husbandry; climate smart farm inputs such as biological crop protection or drip-irrigation; environmentally sustainable fishery and aquaculture; environmentally-sustainable forestry, including afforestation or reforestation, and preservation or restoration of natural landscapes);

• terrestrial and aquatic biodiversity conservation (including the protection of coastal, marine and watershed environments);

• clean transportation (such as electric, hybrid, public, rail, non-motorised, multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions);

• sustainable water and wastewater management (including sustainable infrastructure for clean and/or drinking water, wastewater treatment, sustainable urban drainage systems and river training and other forms of flooding mitigation);

• climate change adaptation (including information support systems, such as climate observation and early warning systems);

• eco-efficient and/or circular economy adapted products, production technologies and processes (such as development and introduction of environmentally sustainable products, with an eco-label or environmental certification, resource-efficient packaging and distribution);

• green buildings which meet regional, national or internationally recognised standards or certifications.

From this list of green projects categories, we can confirm that companies choosing to issue green bonds are constrained in regards to the projects they choose to finance.

Given the need of transparency and in order to ensure that the criteria for a green bond are met, corporations can obtain a certification from a third party that ensures the proceeds finance only green projects.

Literature agrees that if green bonds bring no benefit, companies would

# The dataset

# The analysis

# Conclusions

# Bibliography

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1. International Bank for Reconstruction and Development, The World Bank (2015) [↑](#footnote-ref-1)
2. Unicredit Bank (2020). [↑](#footnote-ref-2)