SFC

MARCH 2022

AN INTRODUCTON TO GREEN BONDS AND TRENDS IN THE GREEN BOND MARKET

COPENHAGEN BUSINESS SCHOOL
SUSTAINABLE FINANCE CLUB

CAMINO PÉREZ LÓPEZ

HEAD OF ESG RESEARCH

MICHÈL TIMMY

ESG & PORTFOLIO TEAM ANALYST

ALEXANDER ASPLUND

VICE PRESIDENT

Melting glaciers, devastating storms, and catastrophic floods are standard news all around the world. Sustainability has thus become one of the buzzwords of the 21st century. Now, more than ever, we see companies promoting environment-friendly practices, not only within their industry but also among local and international communities.

Individuals are also doing their part. For instance, many consumers have started to limit their consumption to sustainably manufactured products to protect the planet and people in the Global South against further exploitation.

A change in investment behavior is also discernible. According to Reuters, a total sum of $649 billion was invested in 2021 into ESG-focused funds - that is, funds that emphasize the Environmental, Social and Governmental factors of the investment. This represents a growth of 19,74% compared to 2020 and 127,72% compared to 2019.

Among other financial instruments relevant to ESG investing, we find green bonds, whose issuance has experienced tremendous growth over the past 10 years.

To exemplify, total corporate green bond issuance in the world has increased from $5B in 2013 to a staggering $95.7B in 2018, according to recent numbers reported in a paper on corporate green bonds by Caroline Flammer. Although relatively small compared to the capital inflow into ESG funds, the green bond growth rate corresponds to an 1814% increase from 2013 to 2018.

So what are green bonds? Green bonds are any type of bonds where the proceeds will be exclusively used to finance or refinance, in part or in full, new and/or existing eligible green projects.

In essence, green bonds are the same as any corporate bond but are labeled 'green' because the issuer pledges to use their proceeds for environmentally friendly or climate-focused projects following sustainability standards.

The differentiating feature of bonds compared to other financing instruments is their long-term focus. Precisely for this reason, bonds are thought to be vital to overcoming the tragedy-of-the-horizons problem, which refers to the tendency of the market to exclusively look at benefits, risks, fluctuations, and trends at sight. With bonds, investors expect to see a return on their investment in a time frame from 3 to 10 years.

Another defining characteristic of bonds is the lower risk associated with them. Overall, bonds are considered to be less risky because of the bond holders' prioritized claim (over equity holders) on companies' assets in case of default. Depending on the issuer, the risk of the bond will vary as there innately are large differences in bankruptcy risks between, for example, states and corporations, both of which can and do issue green bonds.

Consequently, bonds are often the preferred form of investment for the most risk-averse investors. It follows that, because of the lower risk associated with bonds, investors have a lower required return on debt; thus, bond issuers have a lower required return on capital than requested by equity holders, generally speaking.

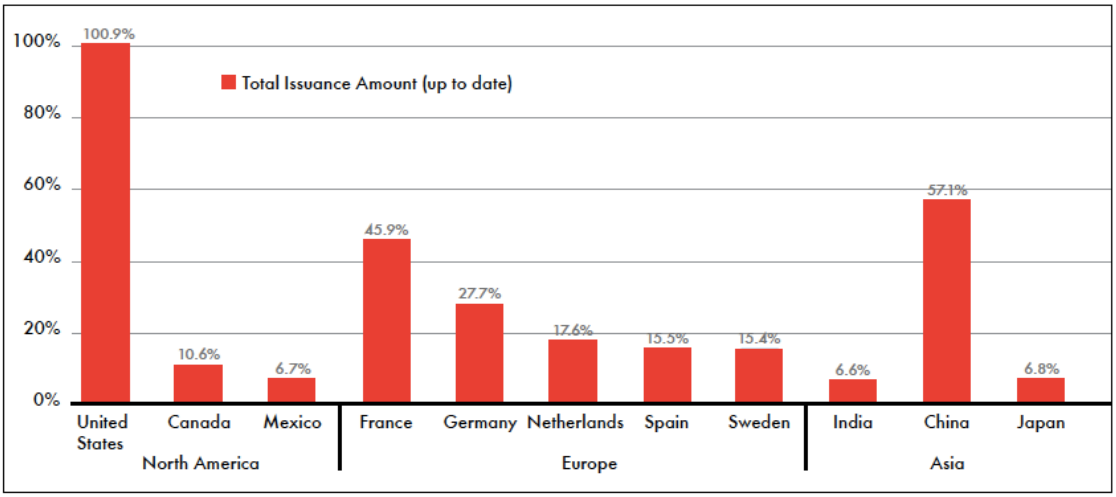
In sum, all factors being equal, the single difference between so-called "vanilla" bonds and green bonds is the use of the invested funds. However, there is a debate about the lower risk associated with green bonds. The argument goes as follows: since green bonds have to go through an additional due diligence exercise to control climate-related risks, then the risk for the investors is lower than what they would be subject to if investing in a conventional bond.

As previously mentioned, green bonds are playing a significant role in ESG investing. Investors who seek to have an environmental and social impact beyond the economic benefit are turning more and more to this green, fixed-income instrument.

Yes, it is true that equity remains the most widely used asset class in ESG investing. However, in the fixed-income ESG market, green bonds are by far winning the popularity race. Indeed, as reported by Moody's ESG Solutions earlier this year, the issuance of green, social, sustainability, and sustainability-linked bonds is expected to reach $1.35 trillion in 2022.

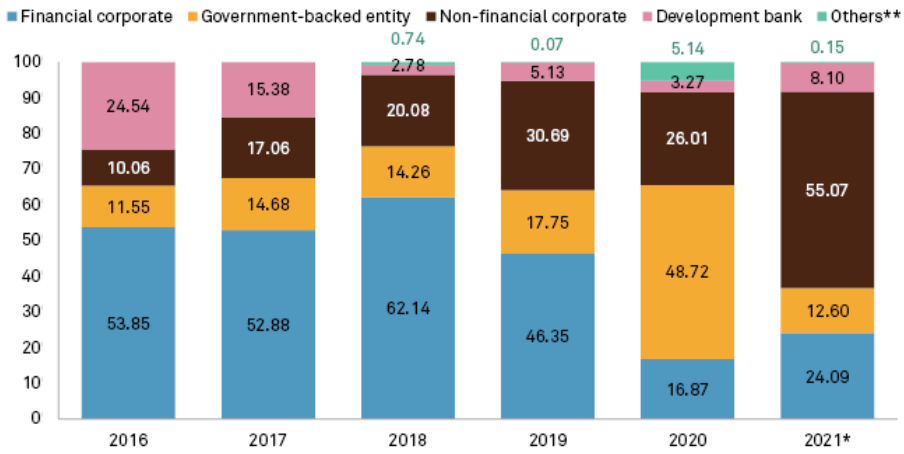
This trend is visible all over the world, with emerging markets such as China, India, and Mexico driving the business case for green bonds. Although the United States has been the driving force behind the growth of the green bond market, China has become the global leader in green bond issuance in recent years (see Figure 1). In 2021, China broke a new record in green bond issuance, surpassing its previous record of US$56.18 billion in 2019. This trajectory, mainly driven by nonfinancial companies such as those in the energy and consumer sectors as well as government-backed entities (see Figure 2), is in line with China's commitment to carbon neutrality by 2060.

Figure 1. Top Green Bond Issuance per country (2018)



(Weber & Saravade, 2019)

Figure 2. Chinese green bonds by issuers type (%)



(S&P Global , 2021)

As in China, the global green bond market encompasses a wide variety of issuers. They range from institutional issuers (such as private pension funds or insurance companies) and multinational companies to municipalities and development banks. Just as sovereign states have played a critical role in conventional bond issuance, evidence shows that they are catching up with other green bond issuers. The first records of green bond issuance by sovereign states date back to 2016, and it's expected to continue to increase.

The growth of the green bond market has gone hand in hand with the increase in the relevant regulation. The development of guidelines and voluntary initiatives like the Green Bond Principles (GBPs) and international Green Bond Standards, specifying which projects are eligible for inclusion in a Certification Scheme, have further encouraged money allocation into green bonds. Furthermore, the development of green bond regulation has been essential to avoid traditional ESG market challenges, such as lack of transparency, lack of legitimacy, and the risk of greenwashing.

Certification under the Climate Bonds Standard confirms that the bond, loan, or other debt instrument is (1) fully aligned with the GBPs and/or the Green Loan Principles, (2) using best practice for internal controls, tracking, reporting, and verification, and (3) financing assets consistent with achieving the Paris Climate Agreement goals.

Still, it can be argued that the green bond market is in its first stages of development. Even though the GBPs and international Green Bond Standards have done a great deal on ensuring certified green bonds are trustworthy, both initiatives lack regulatory power. Moreover, issuers subscribe to them voluntarily. This, together with the wide range of issuers and the peculiarities of financial systems in the world, results in a continuing lack of standardisation.

At this point, you are probably wondering: What is the performance of green bonds? Do they overperform the "vanilla" bonds? And importantly, does green bond issuance by companies lead to an overall improved environmental performance.

Morgan Stanley noted on a website post that "since late 2016, green bonds have outperformed their conventional counterparts." Meanwhile, other experts have questioned this and similar statements. For example, Jan Schalkwijk, from JPS Global Investments, noted in the podcast episode *Green Bonds with Van Eck* that green bonds should provide the same performance or very similar performance to conventional bonds. In short, the existence of evidence with such different conclusions does not make it possible to determine with certainty whether green bonds actually outperform their counterparts.

Nor is it possible to confirm a yield difference between "vanilla bonds" and green bonds. On the one hand, some experts claim that green bonds do not trade at a premium/discount (also called a 'greenium'). That is, green bonds do not cost more money to investors. However, on the other hand, other studies point to the existence of a greenium, albeit usually very small. Last year, the Climate Bonds Initiative found that the premium on green bonds was evident globally and was particularly strong for US dollar debt.

Some point to a demand-supply argument driving green bond prices upwards. Others argue that the due diligence exercise associated with green bonds has to be paid for by the investor. Again, however, there are different arguments in this regard that avoid effectively establishing a greenium rationale.

Lastly, do firms really improve their environmental performance post-issuance? Caroline Flammer's study confirmed that issuers saw higher environmental ratings and lower CO2 emissions following the issuance of corporate green bonds, thus proving their legitimacy. Moreover, Flammer's findings discard the idea of green bonds as greenwashing. They further prove that the reduction in CO2 and increased environmental ratings have a long-term impact on the companies implying that there seems to be a long-term trajectory on which the companies find themselves after issuing green bonds.

Final Words

The goal of this article has been to introduce the topic of green bonds and to provide readers with a better context in order to highlight and understand their importance for the green transition of corporations all around the world. Furthermore, we hope that this article can lay the foundation for future readings and studies and ultimately inspire readers to learn more about green bonds and sustainable investment opportunities as a whole and the important role that sustainable investments play in the green transition. This article has just scraped the surface of the topic of green bonds and for the interested reader who seeks more information, we recommend visiting the sources used for this article found under our reference list.

About SFC

The CBS Sustainable Finance Club was formed as a reaction to the lacking acknowledgment of this point in business school teachings. We believe that investments should reap satisfactory returns simultaneous to creating long-term value. This entails allocating capital in a responsible and sustainable manner. To this end, the goal of the organization is to provide an alternative narrative on how to make sound investment decisions, based on the integration of environmental, social, and governance (ESG) factors.

Our aim is to educate within the whole spectrum of the financial industry and not just within investments. The core purpose of our club is aiming to deliver knowledge and expertise about sustainable financial solutions to the CBS student body and broaden the understanding of how sustainability is integrated into financial services, markets, and the general economy.

The Club was founded on the 13th of June 2019.

Disclaimer

Investing involves risks. This material is not intended to be relied upon as investment advice and is not a recommendation to buy or sell any securities or to adopt any investment strategy. Each investor shall make his/her own investment appraisal.

This post may contain “forward-looking” information such as, among other things, projections and forecasts. There is no guarantee that any forecasts made will come to pass. Reliance upon information in this post is at the sole discretion of the reader. And remember, past performance is no guarantee of future results.

Contact Information

MAIL@CBSSUSTAINABLEFINANCECLUB.COM

CBS Sustainable Finance Club, Solbjerg Plads 3, 2000 Frederiksberg

Reference List

Agliardi, E., & Agliardi, R. (2019). Financing environmentally-sustainable projects with green bonds. Environment and Development Economics Vol. 24, 608–623.

Climate Bonds Initiative. (2020). Climate Bonds Standard V3.0. Retrieved from Climate Bonds Initiative: https://www.climatebonds.net/climate-bonds-standard-v3

ESG Today. (2022). Sustainable Bond Issuance to Surge Past $1.3 Trillion in 2022: Moody's. Retrieved from ESG Today: https://www.esgtoday.com/sustainablebond-issuance-to-surge-past-1-3-trillion-in-2022-moodys/

Flammer, C. (2021). Corporate green bonds. Journal of Financial Economics 142, pp. 499–516.

Investing Forward (2020). Green Bonds with Van Eck. Podcast in Spotify.

J. P. Morgan. (2020). Why COVID-19 Could Prove to Be a Major Turning Point for ESG Investing. Retrieved from J. P. Morgan: https://www.jpmorgan.com/insights/research/covid-19-esg-investing

Morgan Stanley. (2017). Behind the Green Bond Boom. Retrieved from Morgan Stanley: https://www.morganstanley.com/ideas/green-bond-boom

S&P Global. (2021). China green bond market breaks record with policy push, offshore interest. Retrieved from S&P Global - Market Intelligence : https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/china-green-bond-market-breaks-record-with-policy-push-offshore-interest-67105182

S&P Global . (2021). Green bond premium justified by strong secondary market performance, flexibility. Retrieved from S&P Global - Market Intelligence: https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/green-bond-premium-justified-by-strong-secondary-market-performance-flexibility-66696509#:~:text=The%20Climate%20Bonds%20Initiative%2C%20or,global%20basis%2C%20according%20

Weber, O., & Saravade, V. (2019). Green Bonds: Current Development and Their Future. CIGI Papers No. 210.