

U.Berdiyev
Tashkent Institute of Finance

Towards Green Economy: Green bonds

The article aims to shed light on a recent financial innovation tool – green bonds on the way to less carbon economy, in which expectations, impacts and preferences versus other traditional types of bonds resulting from green bonds are attempted to reveal. Having learned many cases of green bond issues, especially in Asian and African countries, we can support the view that these bonds can potentially play a key role in greening the economy without penalizing financially the issuers.

Keywords: green bond, green economy, climate change, values, responsible investment.

Yashil iqtisodiyot sari: Yashil obligatsiyalar

Maqola yashil iqtisodiyotga erishish yoʻlida yaratilgan yangi moliyaviy innovatsion vosita – yashil obligatsiyalar toʻgʻrisida boʻlib, unda yashil obligatsiyalar olib keladigan iqtisodiyot va tabiatga nisbatan taʼsirlar, kutilmalar va anʼanaviy boshqa obligatsiyalarga nisbatan afzalliklar yoritib berilishi maqsad qilingan. Asosan Osiyo va Afrika mamlakatlaridagi yashil obligatsiyalar emissiyalarini tahlil natijalaridan kelib chiqib, ushbu obligatsiyalar emitentlarni moliyaviy jarimaga tortmasdan yashil iqtisodiyotni yaratishda muhim ahamiyatga ega degan fikrni qoʻllab-quvvatlashimiz mumkin.

Kalit soʻzlar: yashil obligatsiyalar, yashil iqtisodiyot, iqlim oʻzgarishi, qadriyatlar, maʼsuliyat investitsiya.

На пути к зеленой экономике: зеленые облигации

Статья направлена на то, чтобы пролить свет на недавний инструмент финансовых инноваций - зеленые облигации на пути к сокращению выбросов углерода, в котором делается попытка выявить ожидания, воздействия и предпочтения по сравнению с другими традиционными типами облигаций, являющихся результатом зеленых облигаций. Узнав о многих случаях выпуска зеленых облигаций, особенно в странах Азии и Африки, мы можем поддержать мнение о том, что эти облигации потенциально могут сыграть ключевую роль в экологизации экономики, не подвергая эмитентов финансовому наказанию.

Ключевые слова: зеленые облигации, зеленая экономика, изменение климата, ценности, ответственное инвестирование.

Introduction

Financing the transition to a low-carbon economy so that the world can achieve a decrease in global average temperature, the Paris Agreement's goal, is crucial. It is evident that in order to reach this destination, a huge amount of financing is necessary. Green bonds have originated in recent years as one of the best candidates to help mobilizing financial resources towards clean and sustainable investments and its popularity is growing significantly in financial markets. Global green bond and

green loan issuance reached an adjusted USD257.7bn in 2019, marking a new global record. The total is up by 51% on the final 2018 figure of USD170.6bn.¹ Green bond issuance in emerging markets has grown thanks to increasing recognition among issuers and investors of the benefits they can provide. For investors, green bonds are traditional fixed-income instruments that offer yields commensurate with the risk exposure while providing assurance that the funds will be channeled to projects with clear environmental benefits. For issuers, green bond issuance provides a means to broaden their investor base and sends a signal to the market on their commitment to environmental considerations.

Literature review

As green bonds are a recent phenomenon with a widespread growth across countries, the scholarly literature on green bonds is limited. Ge and Liu (2015) examining how a firm's corporate social responsibility (CSR) performance is associated with the cost of its new bond issues in the US market, found that firms with better CSR performance are able to issue bonds at lower cost.[1] Similar conclusions have been reached by Oikonomou et al. (2014). Bauer and Hann (2010), analyzing a large cross-industrial sample of US public corporations, found that environmental concerns are associated with a higher cost of debt financing and lower credit ratings, and proactive environmental practices are associated with a lower cost of debt.[2] Dragon Yongjun Tang, Yupu Zhang(2018) focused on the analysis of benefits received by investors in their research work. Gianfrate, Mattia Peri (2019) reveal facts that green bonds are more financially convenient than non-green ones and their advantage is larger for corporate issuers, and it persists in the secondary market after scientifically learning the cost of issuance for corporations.[5]

Analysis and results

The first green bond was called a “climate awareness bond” and was issued by the European Investment Bank (EIB) in 2007. Since then, the green bond market has continued to rise not only in total issue amount but also in other respects. For instance, the geographic base is expanding.² Moreover, bond types are also broadening. Poland became the first country to issue a green sovereign bond in December 2016, followed by France in January 2017. The United States government agency Fannie Mae issued the largest up-to-date \$24.9 billion USD green mortgage-backed securities (MBS). In June 2017, Malaysia launched the world’s first green Islamic bond, “green Sukuk,” to finance climate-resilient growth.³ Furthermore, issuer types are also enlarging meaningfully, including supranational organizations (i.e., World Bank and IFC), development banks (i.e., ADB and AfDB), commercial banks (i.e., Bank of America and HSBC), non-bank financial institutions (i.e., REITs

¹ <https://www.climatebonds.net/resources/reports/2019-green-bond-market-summary>

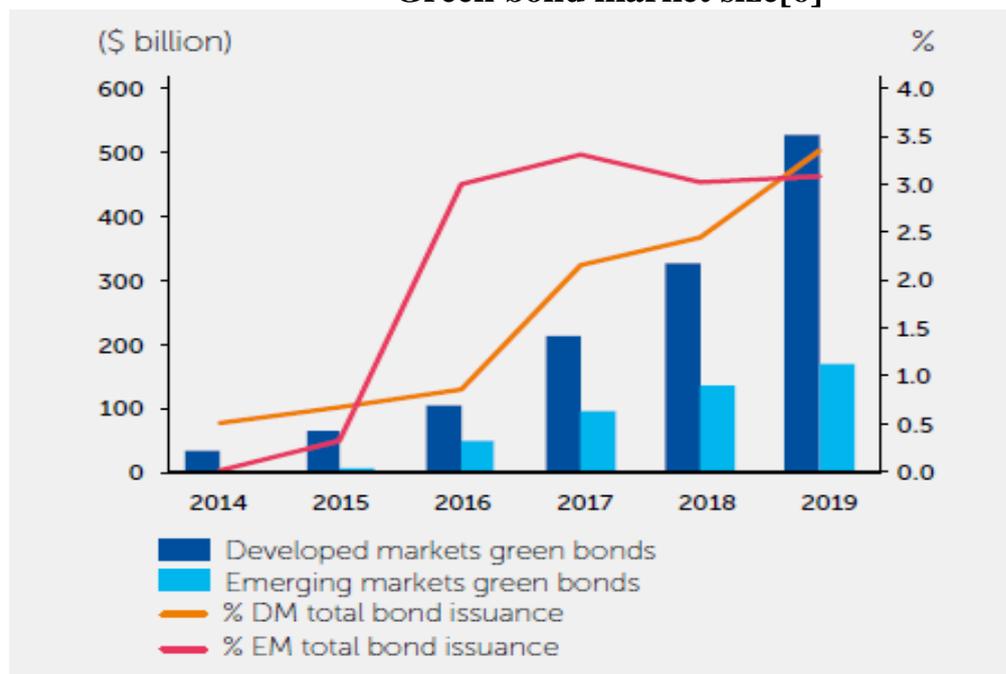
² Although the US, China and France lead the market, issuance is broadening, with first-time issuers from Argentina, Singapore, Chile, Fiji, Lithuania, Malaysia, Nigeria, the United Arab Emirates, Slovenia and Switzerland in 2017.

³ <https://www.worldbank.org/en/news/infographic/2017/09/19/malaysia-green-sukuk>

such as Regency Centers and Link) and corporations (i.e., Apple, Inc., and Tesla). According to Amundi Asset Management (Amundi) and International Finance Corporation (IFC), the annual issuance amount of green bonds reached \$240 billion in 2019 and emerging market green bond issuances rose 21 percent to \$52 billion, bringing the amount outstanding to \$168 billion. Several governments, especially those in Asia, are providing strong support for further market development.

Diagram 1

Green bond market size[6]



The popularity of green bonds has been increasing abruptly in developed countries since 2014. Asian and African countries also have started to issue green bonds actively. China is the largest issuer among emerging markets, as well as the second in the world.

Green bonds are used to finance clean energy, climate adaptation, and other qualified “green” projects and programs. Examples of types of eligible projects and activities from the Green Bond Principles include:⁴

- **Renewable energy** (including production, transmission, appliances and products);
- **Energy efficiency** (such as in 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

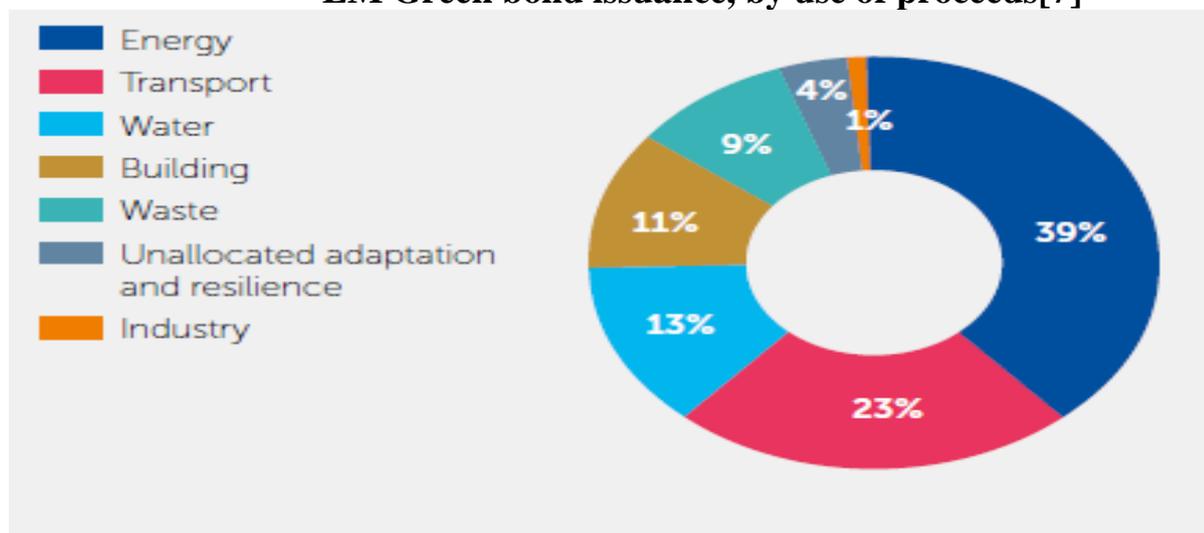
⁴ <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

- 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, rapid transit, 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 flood 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, resources-efficient packaging and distribution);
 - **Green buildings** that meet regional, national or international recognized standards or certifications.

Generally, the issuer (borrower) must track and report on the use-of-proceeds to assure that the funds are spent as promised, ensuring transparency for investors that the “green” infrastructure is built in recognition of climate impacts and designed to maximize environmental benefits and outcomes.

Diagram 2

EM Green bond issuance, by use of proceeds[7]



Most green bonds specify the allocation of use of proceeds for projects that address environmental problems. The largest sector so designated in emerging markets is renewable energy(almost 40 percent), followed by transport, water, green buildings, waste, biodiversity conservation, and climate change adaptation, such as adapting building codes or protecting coastal wetlands.

In terms of the benefits of green bonds for corporations, green bond issuance contains more information about valuable investment opportunities (Myers and

Majluf (1984), Kang and Stulz (1996)), which reduces information asymmetry and leads to the positive announcement effect. In particular, green bond issuers explicitly indicate their use of proceeds in the prospectus and show their ongoing or future environmental beneficial projects. Those statements will be examined externally by a second party to further address their green promise Under normal circumstances, when firms issue straight corporate bonds, they will not disclose information as much as they do when issuing green bonds.

As a result, investors will benefit from additional information that the green bond issuer discloses when issuing a green bond so that the stock market will react positively to the announcement.

The fundamental mechanism suggests that every green bond issuance will contain valuable information and presumably the stock market will respond in every case. Meanwhile, because the investors believe in the firm’s long-term high valuation, they will hold the stock rather than realize the gain in the short run so that stock liquidity may either shrink or hold steady. In sum, the liquidity test can differentiate “investor attention” channel from “fundamental” channel.

Conclusion

Limiting warming to 1.5 Celcius is possible but doing so will require unprecedented changes in the economic and social systems. Financial markets will play a major role in those disruptive changes and practitioners, policymakers, and scholars are converging in stressing how crucial the support of finance is in delivering an actual and timely transition to a low carbon economy. Green bonds are widely assumed to be one of the key instruments to mobilize financial resources towards to achieve the temperature goal of the Paris Agreement. Since the European Investment Bank issued the first green bond in 2007, the growth of these bonds has been exponential.

Overall, corporate green bonds are effective—they not only yield improvements in companies’ environmental footprint, but also contribute to financial performance. Moreover, they help attract an investor base that values the long run and the natural environment. Overall, my results indicate that corporate green bonds bring several benefits to both companies and the natural environment. Accordingly, we can suggest that corporate green bonds represent a powerful tool in climate finance to fight climate change—a tool that can be used by the private sector regardless of government actions.

References

1. Ge, W., Liu, M., 2015. Corporate social responsibility and the cost of corporate bonds. *J. Account. Publ. Pol.* 34 (6), 597-624
2. Oikonomou, I., Brooks, C., Pavelin, S., 2014. The effects of corporate social performance on the cost of corporate debt and credit ratings. *Financ. Rev.* 49, 49-75

3. Bauer, R., Hann, D., 2010. Corporate environmental management and credit risk. Working paper.
https://papers.ssrn.com/sol3/papers.cfm?abstract_idj1660470.
4. Dragon Yongjun Tang, Yupu Zhang, Do shareholders benefit from green bonds?. Corfin (2018), <https://doi.org/10.1016/j.jcorpfin.2018.12.001>
5. Gianfrate, Mattia Peri, The green advantage: Exploring the convenience of issuing green bonds. Journal of Cleaner Production 219 (2019) 127-135
- 6-7. <https://www.ifc.org/wps/wcm/connect/a64560ef-b074-4a53-8173-f678ccb4f9cd/202005-EM-Green-Bonds-Report-2019.pdf?MOD=AJPERES&CVID=n7Gtahg>