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Editorial: Special issue on green finance and the post-COVID-19 world

The onset of the COVID-19 pandemic in late 2019/early 2020 and the subsequent global economic contraction resulted in there being a dramatic reduction in fossil fuel prices. Low fossil fuel prices harm the development of renewable energy projects, making solar, wind, and other renewable energy resources less competitive. Consequently, there have been drastic declines in the new investments made in renewable energy and energy efficiency projects. The economic recovery plans for 2021–2022 increased the global energy demand, resulting in there being a sharp increase in the prices of oil and other fossil fuels. However, the increase in the prices of fossil fuel could not stimulate new investments in renewable energy and energy-efficiency projects. The main reason behind this low level of investment and the reluctance of private investors toward the green sector is the existence of various risks and economic uncertainty (Sachs, Woo, Yoshino, & Taghizadeh-Hesary, 2019; Taghizadeh-Hesary & Yoshino, 2019), which has forced the investors to look for safer assets. This low level of interest toward renewable energy and green infrastructure investments threatens the Paris Agreement on Climate Change and the achievement of several sustainable development goals (SDGs) (Yoshino, Taghizadeh-Hesary, & Otsuka, 2021).

Therefore, at the current insufficient investment level in the green sector, imperative financial and fiscal policy reforms are required to fill this finance gap. The required policies include global or regional carbon taxation, regulations and strategies on green financing, supporting the policies facilitating the issuance of green bonds, establishing a green credit rating to measure the greenness of the projects, targeting the energy subsidies, reducing the direct and indirect subsidies provided for fossil fuels, and introducing public de-risking tools such as green credit guarantee schemes to reduce the risk of green investments.

This special issue contains seven analytical studies focused on the characteristics of green finance instruments and the ways to utilize them to fill the finance gap of green projects in the post-COVID-19 world. These studies provide clear policy recommendations and are designed to be helpful to policymakers and other stakeholders to fill the green project finance gap.

Each of the seven papers in this special issue makes a unique contribution to this debate. The first of these, Tiwari, Abakah, Gabauer, and Dwumfour (2022), assess the dynamic spillover effects seen among green bonds, renewable energy stocks, and carbon markets during the COVID-19 pandemic. Their empirical results indicate that the dynamic total connectedness across these assets is heterogeneous over time. Moreover, their findings suggest that clean energy dominates all the other markets and is the leading net transmitter of shocks in the entire network. This study has clear policy implications for hedging and investment strategies.

Baldi and Pandimiglio (2022) analyzed the role of environmental, social, and governance (ESG) scoring and greenwashing risk while explaining the yields of green bonds. This study investigates the factors that influence the yields of the public sector and corporate green bonds the most, in addition to those conveyed by the conventional finance theory (e.g., rating, volatility, and maturity). The results show that investors are inclined to accept lower returns in exchange for contributing to the funding of infrastructure projects with a more significant impact on the sustainability of target communities or territories. Investors require higher premiums as compensation when exposed to a higher risk of greenwashing by issuers.

Naqvi, Mirza, Rizvi, Porada-Rochoń, and Itani (2021) answered the following question: Is there a green fund premium? The study answered this question by analyzing a comprehensive dataset of 2339 funds across 27 emerging markets. This study shows the traditional energy funds to outperform the renewable ones. Further, while conventional fund managers exhibit market and volatility timing, this study could not deduce any support for the same in the case of renewables. These results indicate the existence of disincentives for investors who would like to go green.

Sharma, Sarker, Rao, Talan, and Jain (2022) examined the causality and spillover effects between the NASDAQ clean energy

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indices and their corresponding alternatives. The study found the total connectedness between conventional and green indices to increase in the wake of COVID-19. Investors and fund managers shifted their focus toward sustainable indices during the pandemic. The study suggests that the investors will not lose the risk-adjusted returns if they choose to go green.

Arif, Hasan, Alawi, and Naeem (2021) presented the time-frequency connectedness between the green and conventional financial markets covering the COVID-19 era. The results of the study show the competing energy investments to not be connected and there to be only a one-way spillover from conventional bonds in fixed-income investments. Additionally, they observed low (high) intergroup connectedness in conventional (green) investments. Moreover, the frequency-based analysis speculates the connectedness between these competing markets to be more pronounced in the short run.

Gholipour, Arjomandi, and Yam (2022) investigated the relationship between green property finance and the building industry's CO₂ emissions across 98 high-income and developing economies. The results show that, although green property finance expansions are significantly and negatively related to the industry’s CO₂ emissions in the entire sample, this result is more evident in the case of developing nations. This is a significant outcome for these countries as many of them are experiencing rapid but unchecked population growth and huge oil consumption. This study provides recommendations for maintaining this policy in the post COVID-19 period.

Kong, Shen, Li, and Wong (2021) evaluated the impact of high-speed railway (HSR) openings on the green productivity of Chinese cities by incorporating green finance. The empirical results of the study show, first, the HSR openings to be conducive to the sustained improvement of green productivity in Chinese cities. Second, the opening of HSR makes a significant contribution to the improvement of green productivity in the large-scale cities located in the eastern and central regions. Third, HSR openings can positively impact urban green productivity through green finance development.

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