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FINANCIAL TOOLS FOR THE FORMATION OF ENVIRONMENTAL RESPONSIBILITY OF BUSINESS

The acceptance of global warming as a critical policy area across governments has heightened the demand for solutions to reach a balance between economic growth and ecological sustainability [1, p. 478]. One of the feasible ways to achieve this goal is to build a green financial system. Wang and Zhi [2, p. 312] describe the green finance market as "a credit intermediary of environmental protection's capital", reflecting the hope that the market mechanism will allocate funds toward more socially acceptable drivers of economic growth via social investment.

Greening the financial system represents a crucial initial step towards fostering a sustainable economy. The concept gained global traction following the G20 Summit in 2016 and took concrete form with the establishment of the Network for Greening the Financial System (NGFS) in December 2017 during the Paris One Planet Summit. As of November 24 2023, the NGFS consists of 129 members and 21 observers [3]. This network plays a pivotal role in advancing environmental and climate risk management within the financial sector, actively contributing to the ongoing transition towards a more sustainable and ecologically responsible economy. The green finance market includes market-oriented mechanisms and financial products that can control pollution emissions, protect the ecosystem, and avoid enterprises from unexpected natural changes; the former is represented by emissions trading and the latter has various types, such as environmental funds, weather derivatives, nature-linked securities, and ecological options [2, p. 313].

An illustrative instance where environmental regulators employed financial market mechanisms to address air and water pollution, as well as biodiversity issues, is the 2002 agreement between the Slovak government and Japan's Sumitomo corporation. This agreement, involving the trading of 200,000 tons of emissions, is recognized as the initiation of the global emissions trading market.

According to the practice activities, the environmental funds and biodiversity funds promote organic agriculture, ecological tourism, and sustainable development of forests and fishery.

A creditor nation and a less developed country can agree to forgive the latter's debt in exchange for contributions to an environmental fund, vital for biodiversity preservation. Notably, the United States, Sweden, and Germany are actively engaged in debt-for-environment swap projects, benefiting over 30 countries. A standout example is the influential $370 million project between the United States and Poland.

The enterprises of forestry exploitation that set up securities transfer all of the business profits to a new legal subject which then will obtain funds from the investors by issuing securities in the capital market and will loan the revenues to the enterprises of forestry exploitation, for instance, the system of mitigation banking of wetland and endangered species in the United States and the system of tradable native vegetation obligations in Brazil.

If the level of climate change exceeds the prescribed standard, the enterprise signing a weather derivative contract may require a certain amount of compensation. Weather derivatives were derived from the energy sector in the middle of the 1990s, according to data from CME, the transactions of weather derivatives since 2002 have been up to billions of dollars.

Nature-linked Securities can transfer the risk of natural disasters and climate change to investors in the global capital market. The sponsors of the natural disaster securities generally set up a special purpose vehicle (SPV) and then issue debt securities. SPV and the sponsors follow that SPV agrees to pay compensation to sponsors in the event of natural disasters on condition that the sponsors must pay a certain amount of insurance fee to SPV regularly.

Investment companies and trust funds invest by the "environmentally friendly", "moral", "green", "social responsibility" or "sustainable" standards, for instance, many investment companies decline investment in securities of companies that produce pollution. Equator principles of green finance promoted more and more fund managers to use environmentally friendly investment strategies.

In addition to international organizations, the European Union (EU) has played a substantial role in fostering sustainable global economic growth. The EU established a Technical Expert Group (TEG) comprising experts from various facets of the investment chain, encompassing industry

representatives, academia, environmental experts, civil society, and public bodies. To facilitate green investments, the TEG devised a taxonomy to identify economic activities making significant contributions to climate change mitigation, adaptation, water and marine resource protection, circular economy transition, pollution prevention, control, and biodiversity protection.

The EU taxonomy classifies economic activities into transitional and enabling categories. Transitional activities significantly contribute to climate change mitigation, while enabling activities facilitate substantial contributions to other endeavors. For instance, using solar panels for electricity generation is a transitional activity, while manufacturing the solar panels is an enabling activity.

Aligning with the approach of the International Finance Corporation, green loans are identified as those where the borrower derives revenue from EU taxonomy-defined green economic activities. Figure 1 depicts the aggregated values of green loans by year. On average, the amount of green loans kept stably in a relatively low level during the first five years. Until 2022, the investment in green loans has increased almost four times. According to the investigation by the Green Finance Portal of the Japanese Ministry of Environment [4], the dramatic increase in the size of green loans can be attributed to the fast development of the green financial market in Europe, North America, and Asia Pacific.

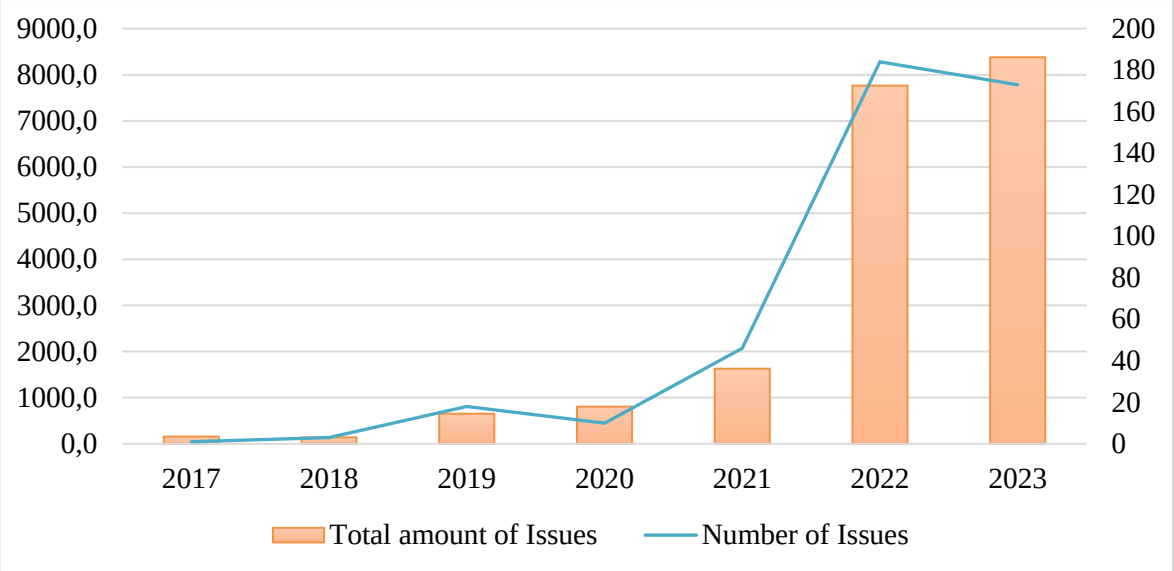

Figure 1. Global Green Loan Amount

Source: Green Finance Portal

A key challenge will be aligning economic with environmental or climate-related returns to avoid separating and prioritizing economic returns

over other considerations. Not every new label has strong arguments to offer for the sustainable bond market [5, p. 253].

Amidst escalating inflation triggered by factors like the Ukraine conflict and a hawkish Federal Reserve increasing rates, concerns reminiscent of the 1970–80s Latin American debt crisis have resurfaced [6]. Gallagher [7] suggests linking debt relief to climate and development goals, citing Seychelles' precedent of exchanging sovereign debt for marine conservation. This innovative approach, similar to previous debt forgiveness initiatives, challenges the conventional reliance on green bonds and underscores the often-overlooked distributional concerns in finance-driven transitions. It highlights the importance of research expanding beyond generational to geographical divides in understanding the dynamics of green finance and calls for a just transition globally.

On July 1, 2021, a new version of the law "On Capital Markets and Organized Commodity Markets" entered into force in Ukraine, introducing "green" bonds as a separate subtype of securities.

Before the full-scale invasion, it was expected that by 2030, Ukraine would be able to raise $36 billion through the issuance of "green" bonds. According to the International Finance Corporation (IFC), the potential of the Ukrainian market for energy efficiency and "clean" energy services by 2030 was $73 billion.

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