

# *Institutional Investors in the Green Transformation of Modern Financial Markets*

Kuznetsova Natalia Petrovna<sup>1,\*</sup>, Pisarenko Zhanna Victorovna<sup>1</sup>, Nguyen Kahn Toan<sup>2</sup>,  
Brylev Andrei Alexeevitch<sup>1</sup>, Xie Wenkai<sup>1</sup>

<sup>1</sup>*Risk Management and Insurance Department, St Petersburg University, St Petersburg, 199034, Russia*

<sup>2</sup>*Vietnamese Academy of Social Science (VASS), Socialist Republic of Vietnam, Hanoi, Vietnam*

*\*Corresponding author*

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**Abstract:** A wide range of economic, social, environmental, demographic problems is characteristic of the modern world and is focused on achieving the goals of sustainable development, uniting the efforts of civil society, in which the main actors of socio-economic life are involved: political and economic elites, consumers and producers of the entire aggregate of material and intangible goods and services. The world community has come to the concept of sustainable development and the transition to a "green" economy, which combine the achievement of self-sustaining economic growth with the provision of social protection of the population and minimization of negative impact on the environment. Today, institutional investors play a system-forming role in the implementation of this triune development strategy. The purpose of the article is to identify the increasing significance of institutional investors in the "green" socially responsible transformation of the global and national financial markets in the implementation of the UN SDGs in a number of developed and developing economies. Objectives, findings and discussion of the study: consideration of the prerequisites for analyzing the role of institutional investors in achieving the UN SDGs; global investors' certain initiatives assessment that have been proposed as a paradigm for socially responsible and infrastructure investment at the national and international level; determination the role of various green institutional investors (quasi-public sector, banks, sovereign welfare funds, with the special attention to the insurance companies' and pension funds' role in green investments process) in the implementation of the green transformation of financial markets in some countries and regions of the world economy; identification the importance of the main investment channels of institutional investors in green infrastructure in the light of types of investment (direct, indirect mixed), kinds of investments (corporate, project, investment-target), general characteristics (description, advantages, scaling, profitability).

## **1. Relevance. Research background**

The development of the financial market in the new conditions of transition to a low-carbon

economy can become a platform for the successful launch of economic growth. In the Russian literature, the problem of transforming multi-scale (resource-abundant and resource-poor) economies to innovative, green, self-sustaining economic growth in the context of the formation of the rental capitalism model has been on the agenda of significant research in economic science for at least two decades [1, 2, 3, 4]. However, modern science and practice have yet to answer the question of what tools and technologies of institutional investors - banks, insurance and investment companies, pension and charitable funds - will ensure a quick positive transmission of monetary impulses to a sustainable economy, while guaranteeing its financial stability, accessibility and transparency of financial services for consumers. Achieving these characteristics in the process of "green transformation" is possible only with the transfer of significant amounts of capital from fossil fuels and resource-intensive, polluting technologies to newer, cleaner technologies and infrastructure [5, 6, 7]. According to some estimates to achieve this transformation between 2012 and 2030 total investment in green infrastructure of US\$ 36-42 trillion may be required or about US\$ 2 trillion equal to 2% of world GDP per year [8].

Institutional investors are an important part of the global financial market. The increase in the role of institutional investors, the lion's share of which is made up of the largest TNCs, is predetermined not least by the active participation of governments, businesses and citizens. With the growing influence of transnational corporations in the global economy, more and more global companies in the financial and non-financial sectors are introducing the principles of sustainable development into their business models [9]. It was the largest corporate investors at the end of the twentieth century. put forward initiatives directly related to the implementation of a responsible investment mechanism to achieve the priority goals of a highly developed and environmentally sustainable world economy [10].

However, attracting capital for infrastructure especially for green investments is constrained by geopolitical tensions, market and technological uncertainties and risks. In addition, there is a clear reluctance on the part of investors (despite reputational gains to increase competitiveness) to take on broad, long-term risks when financing relatively illiquid assets associated with infrastructure development.

On the other hand, it is clear to the global community that investments in green infrastructure bring various benefits to human health, the environment and the economy. Such volumes of investments cannot be financed only from traditional public sources, therefore institutional investors are becoming an important part of the global financial market.

## **2. Features, participants and forms of green investment in some countries**

Quasi-public sector. According to the studies of P. Benois [11], in large emerging market economies and other developing countries (the so-called fast-growing giant countries), where a significant amount of investment in green infrastructure is required, in countries such as China and Brazil and a number of post-socialist countries and post-Soviet republics, state-owned enterprises (quasi-state enterprises, sometimes called public-private partnerships - PPPs) operating in China and Brazil in key industries - energy, cement, steel, banking and transport - are called upon to play a central role in financing and implementation of these investments, and domestic financial resources will become an important source of capital [12]. However, due to the high degree of uncertainty and risk even in China, these entities are still looking for foreign investors for additional capital in their green infrastructure investment plans. Green investment-oriented states are focusing their investment policies on the quasi-public sector, which is central to achieving a low-carbon future, and on how investment plans can be realized through a combination of foreign direct investment and investments from quasi-public enterprises.

Banking sector. Despite the important role that banks play in financing green infrastructure, conditions for bank lending and refinancing are likely to become less favorable and more expensive under the terms of the contract. Structural deficiencies in the banking sector against the backdrop of restrained lending growth lead to a reduction in the share of borrowed funds, primarily in the European Union. New banking standards, such as Basel III, also negatively affect the ability of banks to provide long-term financing [13]. And lending banks are forced to offer shorter loan terms and, in some cases, higher interest rates, exacerbating green infrastructure financing problems. This leads to a growing mismatch between the volume, time horizon of available capital and demand for long-term financing.

Institutional investors. Due to the declining role of bank lending and quasi-public financing, institutional investors, with large amounts of capital, act as the leading source for long-term investments and constitute the main layer of capital in the investment value chain and are commonly referred to as “asset owners” or “distributors”. Given low interest rates and weak economic growth prospects in recent years, institutional investors are increasingly looking for new sources of long-term income that are protected from inflation. Direct investments in real green infrastructure productive assets have the potential to provide the level and type of income for these investors, while maintaining sufficient investments and stimulating high-quality green growth.

Institutional investors - in particular, non-state and state pension funds, insurance and investment companies, as well as organizations that provide other forms of institutional savings - are becoming increasingly important players in financial markets [14]. Other forms of institutional investors include charitable and endowment funds, non-state pension funds managed by banks, private investment partnerships, etc.

Therefore, the connection of low-carbon economic development scenarios with the activities of institutional investors lies in their ability to finance this transition for the following reasons: globalization, the impact of the global trend of orientation towards institutional investment of "green transformation", pressure from regulators, changing the role and influence of stakeholders (shareholders, investors, employees, etc.), increased competition, which requires compliance with the principles of information disclosure (formation of non-financial reporting in accordance with voluntary standards GRI, TCFD, etc.) [15].

Pension funds are responsible for providing a stable, inflation-adjusted retirement income for their members. As the population ages, pension fund managers play an increasingly important social function, working in partnership with governments to provide support for retirement incomes and improve living standards. They account for more than 30% of household savings, which show strong competition with bank deposits.

Sovereign Welfare Funds have less capital available than other institutional investors and are the most frequently approached for funding green activities in emerging markets due to greater public confidence in such funds.

Insurance companies have huge assets and help society to manage and adapt to risks. In developed countries, insurers can participate in low-carbon economic development in several ways. Most importantly, they can help to spread the costs of day-to-day as well as catastrophic losses if not insured, making it much more expedient and appropriate for economic actors to participate in the risk-taking process necessary for economic growth.

Insurers also play an important role in risk assessment and communication for public and private decision making, as well as direct investment of some of their significant assets in green infrastructure. The insurance industry as a long-term asset manager assessing and responding to the major risks society faces, plays an important role in quantifying climate risks and helping to develop adaptation strategies for those affected: cities, companies, farmers and individuals. For example, studies by the German reinsurance company Munich Re show that the frequency of catastrophic meteorological and

hydrological events has increased significantly over the past 60 years compared to other types of natural catastrophes.

Insurance companies also invest money for external clients, as well as funds and assets of their own - those arising from the implementation of the life insurance process and the annuity business. The OECD has estimated that insurance companies have been involved in about US\$10 billion in net energy asset financing deals, mainly in wind power (\$7.9 billion) and geothermal energy (\$1.6 billion) dollars) [17]. More broadly, over the past decade, 25 insurers have collectively invested \$40 billion in investments related to climate and environmental issues. Of the total amount, US\$ 23 billion were directed to climate change mitigation [18].

Increasingly, institutional investors in emerging and developing markets are being viewed as a potential source of private investment in infrastructure. In fact, institutional investors in such countries may be better able to deal with local risks (such as foreign exchange risk) than some foreign investors.

### 3. The institutional investors: main channels of green infrastructure investment

Table 1: Investment channels for institutional investors in green infrastructure\*

|                    | Corporate investments (indirect )   | Via financial intermediaries  | Financial projects financing (direct)   |
|--------------------|---|---|---|
| Discription        | Debt and equity securities traded on exchanges  | Investments in VC/PE infrastructure funds, YieldCos, Exchange Traded Funds (ETFs), Private Equity funds, aggregator bonds, etc.                     | Direct investments into long-term “green projects”  |
| Advantages         | Highly liquid markets, low transaction costs;<br>- Studied investments, available investment studies, set benchmarks, historical data | - A wide range of design and customization of funds;<br>- Benefits of aggregation; private equity or asset manager as conduit                       | - Reasonably sustainable, lower risk, predictable returns with a potential illiquidity premium of 1-3% for a given project type;<br>- Direct connection with the asset (and control over it) - the potential to reduce the cost of capital;<br>- Inflationary hedging;<br>- Large deal size |
| Case               | Ontario Teachers' Pension Fund Purchases Over \$46 Million in Corporate Bonds from Chilean Utility Company Esval                      | Dutch pension funds ABP and PGGM invest more than €500 million in private equity fund Ampere, which invests in wind parks and biomass fuel projects | Pension Denmark invested \$200 million in mezzanine financing (received a share of the investment) Cape Wind Nantucket Offshore Wind;<br>PGGM invests in Walney Offshore Wind   |
| Target yield range | Target return on equity: 5-20%, debt: 3-6%; actual return: n/a  | High volatility. Target yield of infrastructure fund 7-20%+; actual yield: from -51% to 106%  | Project capital target yield 12-18%; debt 6-10%; actual yield: -13 - 21%  |

\*Compiled by the authors: based on OECD 2013 data.

There are big differences in how institutional investors can access infrastructure investments: through debt and equity markets, indirect corporate investment through stocks and bonds, direct

investment in projects, or investment through funds. Therefore, it is useful to illustrate the three main channels via which investments can be made, their benefits, scaling issues, and target returns. Let us consider the channels of investment by institutional investors in green infrastructure analysis in the light of the types of investment (direct, indirect, through financial intermediaries - mixed), the type of investment (corporate, project, investment-targeted), the characteristics of the investment process (description, advantages, scaling, profitability) (See: Table 1).

Today, taking into account the transformation of the economy and the new stage of the Energy Transition, projects focused on green and environmentally friendly technologies have great prospects in terms of obtaining funding from institutional investors. The potential circle of participants in such financing is constantly increasing. The total amount of green and responsible in 2020 has already reached \$ 35 trillion. Investors can choose different strategies, but the focus on ESG, social responsibility and alignment with the goals and targets of the UN Sustainable Development Goals remains unchanged.

#### 4. Conclusion

In the current economic and geopolitical turbulence, institutional investors are showing increasing interest in green finance opportunities while looking for viable alternatives to increasingly fading traditional fixed income vehicles. A massive greening of investment strategies can (and should) be triggered by a powerful political push from national governments, namely a major legal reformatting in the light of the Sustainable Development Goals. It can be expected that with such a push in the coming years, institutional investors can change the rules, as well as the entire landscape of the global green finance system.

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