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The Role of Investment in Creating a Sustainable Financial Future: Strategies and Tools

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Abstract: The relevance of the modern formation of the investment market depends on many aspects of socio-economic life, which makes it possible to evaluate the role of investment mechanisms

in forming financial stability differently. The study aims to explore the role of investments in creating sustainable financial environments and to analyse relevant opportunities, strategies and tools that can be used in the future. The study employed the systematic review method with data selection following PRISMA guidelines. The search for publications was conducted in the Scopus and Web of Science databases from 2015 to 2024. As a result of applying inclusion and exclusion criteria, 36 scientific papers were selected. The study results established that the stable existence of modern financial systems is based on attracting investments. It is shown that states with a high level of development of social indicators and human capital simultaneously have higher indicators of financial stability. States with high indices of economic freedom and human capital attract the attention of investors due to the comprehensibility of the functioning of local business environments. Current investment trends dictate the preference for projects related to environmental friendliness, opposition to fraudulent schemes and dishonesty. Setting sustainable development goals aims to develop financial markets, which impacts human capital processes, technological solutions in production, etc. It has been demonstrated that, in some cases, it is not easy to fulfil the current requirements of investors, taking into account certain cultural, economic and social development features. The conclusion emphasises that it is especially worth considering the complexity of implementing investment projects in times of instability, particularly those related to a state of emergency or military operations.

Keywords: investment sustainability, green investment strategies, risk management, financial innovations, economic growth.

Introduction

Investment instruments play an important role in the modern development of financial systems and the national economy. In accordance with existing global practices, countries with post-industrial economic systems, which are focused on a large service market, are unable to develop their national economies without using and effectively attracting investments. The qualitative and quantitative characteristics of investment activity have a direct impact on the financial system, the economic potential of the country, the ability to further reproduction, effective development, transformations in the overall structure of social production, and the direction of strategies for the socio-economic evolution of financial markets at the national and international levels (Bolton, 2015). In the system of reproduction of economic resources, in accordance with the existing economic models of development of the socio-economic sphere, investments play an extremely important role in the renewal of production resources and increase of available capacities, respectively, and in the organisation and increase of the existing rates of economic development.

Considering social reproduction to be a system of production, redistribution, exchange and consumption of products, investments are classified as one of the elements of production, i.e. they belong to the material basis of its development. In fact, the term investment (originating from the Latin language, from *investio* – to put on) is understood as the investment of capital in certain economic sectors both within a single country and in the international market. In today's globalised world, investment transactions have accelerated significantly (Lutsiak et al., 2020; Weber, 2014). They have become an important element of financial strategies, and their role in determining the financial future is extremely high.

Research Problem

Within a single country, the financial system and the national economy function as a single socio-economic system consisting of many other smaller subsystems. Accordingly, in order to further actualise development processes, there is a need for continuous and necessary resolution of contradictions that arise as a result of disagreements between some components of the economic system. The study and detailed consideration of the structure of such systems, determination of the functioning of its individual

elements and the interrelationships formed between them constitute an important theoretical basis for further state regulation of the market economy and implementation of the state's economic and financial policy in the future. Financial systems and elements of the national economy are characterised by interrelationships between production conditions and its consequences, which also take into account the historical and cultural traditions, geographical location of countries, their role in international labour market distributions, etc. In general, the problem of the impact of financial instruments on the national economy covers entire systems of social life in countries, i.e. it is directly interconnected with a set of industries, types of production and territorial complexes. Although national economies are based on individual enterprises, industries, firms, financial organisations, households, etc. that are in economic relations and united in a common system, foreign investments are also active instruments of financial market formation. In such circumstances, the problem of identifying and studying these elements is extremely relevant and will require further research.

Research Focus

The research focus on the use of investments is primarily related to the study of this financial instrument as an integral part of financial activity. While the importance of using investments is discussed, it is also necessary to draw attention to the possibilities of developing the investment market in the future, which opens up a certain debate among scholars, especially given the growing role of digitalisation of the economy, robotisation of production, integration of artificial intelligence into the service sector and many other innovations that have a direct impact on modern economic life and are a new phenomenon for economies (Lysenko et al., 2024). Accordingly, it is important to trace the possible role of investments in further financial transformations at the global and regional levels.

Research Aim and Research Questions

The purpose of the study is to investigate the role of investments in creating a sustainable financial future, to analyse relevant opportunities, strategies and tools that can be used in the future.

Literature Review

Modern researchers have characterised various aspects of sustainable economic development. In particular, Alkaraan et al. (2023) described different practices of strategic investment in English companies focused on sustainable development. The authors identified the main impact of governance mechanisms on the process of synergy between the fourth industrial revolution and the circular economy. In general, this study has identified the importance of innovative technologies and effective management for sustainable development. Ari and Koc (2019) presented agent-based modelling to analyse alternative financial models aimed at clean energy investments. These authors also characterised the process of perception of sustainable development by these financial mechanisms. Arnone and Crovella (2023) described the importance of green finance in the system of support for the formation of sustainable development of the maritime industry. The authors identified how certain sustainability-oriented financial instruments affect sustainable infrastructure development practices. Båk and Cheba (2020) described the risk associated with environmental, social and governance (ESG) factors as a new challenge for modern financial markets. They analysed how ESG risks affect financial sustainability and investment decisions.

However, reviewing theoretical studies, the authors note that there is currently no single definition that applies to all situations; the authors work within the framework of the principles of sustainable development of society, economy and environment (Bolton, 2015; Popescu et al., 2021). Environmental, social and governance (ESG) factors are often used as a proxy for sustainability in the investment context. While the terms are sometimes used synonymously, sustainability is more related to how people impact the environment and the community, while ESG frames the idea in terms of the material risks that environmental and social elements present to companies (Fulton et al., 2012; Iradianty & Ajeng, 2022; Kholjigitov, 2023).

Recent theoretical and empirical work notes that while general research on responsible investing has expanded, measuring the sustainability performance of such investing has received insufficient attention (Man-Kit, 2015; Yilan, 2022). To the best of our knowledge, despite a number of important works highlighting this as a notable gap (Dluhopolskyi et al., 2023; Popescu et al., 2021), there are currently few published academic reviews that examine and compare different sustainability measurement tools for the industry, analysing different investment funds. Modern authors' reviews related to sustainable investment analysis focus on the significant link between ESG and financial performance (Kwilinski & Trushkina, 2023). A separate prominent topic of analysis is the development of low-carbon investment strategies and issues related to data selection and accounting. Previous reviews have also described how sustainability measurement is implemented at the level of different companies. The study by Popescu et al. (2021), which identified the main advantages and disadvantages of the current financial sustainability assessment frameworks used in the modern financial sector, is an important work that provided the theoretical basis for this paper. An important practical value of the study is that the authors identified the main shortcomings of existing financial instruments. At the same time, Becchetti et al. (2022) described the Green Investment Financial Tool (GIFT) approach as an important principle for measuring the progress of investments in the environmental transition. However, these studies reveal that there are several gaps, in particular, few works that comprehensively address this issue and characterise the role of investment for a sustainable financial future.

Materials and Methods

The study is qualitative and based on a systematic analysis and review of the latest scientific sources. It was implemented in stages and used modern methods of collecting and analysing scientific information.

Data Collection

Research data was collected from current scientific literature and selected international organisations. In particular, information for the sample was collected from Eurostat's European Union database, the Human Development Index and the Ecological Footprint Index.

The study covers the period from 2015 to 2024 and covers a range of countries, starting with developed countries.

The research process was based on the systematic approach suggested by PRISMA. A combined search using specific scientific keywords in the Scopus and Web of Science databases identified the first pool of 452 articles.

The criteria for including the literature were based on the following areas:

1. Analysing the phenomenon of economic and financial cohesion.
2. Identification of the leading investment mechanisms.
3. The methodology of the study is described.
4. The study has an important scientific novelty.

Therefore, the article's authors primarily focused on studies that combine the three areas discussed in the above literature review: 1. Society; 2. Economy; 3. Environment. These three areas themselves form sustainability.

At the same time, the authors of the article also focused on those works that combined such areas as 'investment' (in particular, the fund), 'sustainability' (sustainable financial environment 'ESG') and the definition of 'instruments' (also, tools or mechanisms). Then, articles were excluded based on title and abstract analysis, which led to the selection of 89 relevant items. After that, a critical review of the results was carried out, and those papers that were not found to have scientific novelty and were not

written in English were excluded. Thus, based on these exclusion criteria, 22 items were selected (see Table 1).

Table 1

Main Stages (According to PRISMA)

Steps of PRISMA	Brief Description
Acceptability	Period of publication: From 2012 to 2024 Main language: English Type: review articles/ empirical studies
Data sources	Primary scientometric database: Web of Scienc Additional sources: Scopus, Ebsco, Google Scholar
Selection and search process	Fields: article topics, abstracts and scientific keywords Search keywords: Sustainability OR Stability Financial stability OR Financial sustainability Investments OR Investing Socially responsible investing OR Green investing OR Responsible investing ESG Fund
Research selection	Main exclusion criteria: 1. Does not correspond to sustainable financial development Other exclusion criteria 2. Not relevant to the investment 3. The study is not in English 4. The work does not contain scientific novelty

Source: Author's development

Additional works were located by utilising the citation chain. Four further articles were found after the critical articles were examined using a combination of direct (documents that cited the examined work) and reverse (examination of the article's list of references) citation searches. Further databases were subsequently searched to locate pertinent papers not present in Scopus and Web of Science. Ten pertinent publications remained after duplicates were removed, which the authors arranged according to the primary research topics. As a result, the study's total number of sources is 36.

Data Analysis

The systematic review was based on a thematic analysis, in particular, based on the analysis of the results from the selected topics, the main trends in the formation of a sustainable financial space were identified. In particular, the coding method was also important, as it allowed us to characterise the adopted mechanisms of sustainable investment. By means of comparison, it was possible to compare the results obtained with those of other scholars.

Results

The study of investment and investment is a fairly young branch of scientific knowledge of economic relations and economic theory. Although some analysis of developments in investment theory has been known since the early twentieth century, the main studies of this process are known from the post-World War II period, when the foundations of modern theories of understanding the investment

portfolio were laid. Thanks to scientific research, the methodology of decision-making in the field of investment management was actually defined, and appropriate scientific tools for interpretation and research were proposed. Modern researchers understand investments as monetary, property, and intellectual resources that are invested in business or other types of activity in order to make a profit (Bolton, 2015). Even in the context of the digitalisation of the financial life of society, investments are still primarily made in fixed assets (various industrial real estate, equipment, etc.) and working capital (primarily the creation and replenishment of production stocks of various inventory items), diverse and profitable intangible values and assets (in particular, shares, patents, and other securities).

Thus, the first part of investments is consumer goods that are not used immediately in the current period but are transformed into financial resources (investments in inventory growth). The other part of investment becomes financial reserves that are created to be used to increase and expand production capacity (i.e., investments in real estate, equipment, etc.). Accordingly, it is fair to say that investments include significant financial resources that are primarily directed towards the growth of real capital of society, in fact, towards the expansion or modernisation of production capacities. This includes the purchase and development of new machinery and electronics, buildings, vehicles, as well as the construction of roads, bridges and other important engineering infrastructure facilities (Oyeleke, 2024; Shirvani et al., 2020) In addition, investments in establishing high-quality educational processes, conducting scientific research and future training of personnel should be taken into account at the same time. Such expenditures are considered to be investments in 'human capital', which, as a result of modern economic and social development, are becoming increasingly important, since the intellectual product obtained as a result of economic activity is one of the indicators of overall financial development (Suehrer, 2019). In the modern economy, trends towards sustainable development and ESG transformation are noticeable. In particular, the concept of sustainable development implies the formation and development of an economy in which the current needs of society are met without direct or indirect harm to future generations in various structures: social, economic, environmental, etc. The HDI is closely linked to the financial stability of a country. The HDI measures the long-term progress of countries in three main human development criteria (See Table 2).

Table 2

HDI Rank by Countries

		HDI	Life expectancy at birth	GNI
HDI rank	Country	Value	Y	
		2022	2022	2022
1	Switzerland	0,967	84,3	69 433
2	Norway	0,966	83,4	69 191
3	Iceland	0,959	82,8	54 689
5	Sweden	0,952	83,5	56 996
7	Germany	0,950	81,0	55 340
9	Singapore	0,949	84,1	88 761
10	Netherlands	0,946	82,5	57 278
12	Belgium	0,942	82,3	53 644
12	Finland	0,942	82,4	49 521
20	Luxembourg	0,927	82,6	78 556
20	United States	0,927	78,2	65 565
22	Austria	0,926	82,4	56 530
37	Latvia	0,879	75,9	32 083

37	Lithuania	0,879	74,3	38 131
39	Croatia	0,878	79,2	34 324
42	Portugal	0,874	82,2	35 315
47	Hungary	0,851	75,0	34 199
91	Colombia	0,758	73,7	15 014
94	Turkmenistan	0,744	69,4	12 860
100	Ukraine	0,734	68,6	11 416

Source: United Nations (2022).

Thus, as Table 1 shows, many developed countries, such as Switzerland, Norway and Germany, have high HDI levels and, accordingly, stable financial systems. Their investments in education, healthcare, and social programmes create a sustainable economic environment that fuels further HDI growth. At the same time, countries with low HDI scores tend to have unstable financial systems. Separately, the lack of various investments in key areas of human development leads to low productivity and economic crises. However, a series of efforts to improve the HDI can gradually stabilise the financial system.

The responsible behaviour of all economic actors is of particular importance, and a properly formed financial market plays a key role in mobilising resources for sustainable development. An important driving force for the development of the economic sector of society is companies that adhere to the concept of a triple bottom line for sustainable business development (Taghizadeh-Hesary & Yoshino, 2020). This is a model where business is aimed at maintaining a balance of social, environmental and economic impacts of the company's activities in the market. This creates a significant need for funding sources, including additional ones. This leads to the emergence and development of a special market - the market for financial instruments for sustainable development. In this system, there is also an inverse relationship: the active development and expansion of specialised instruments affects the ability of business entities to implement or participate in the implementation of ESG projects aimed at effective sustainable development. Currently, there is a noticeable trend towards a significant increase in the number of interested investors investing in various social and environmental projects. The trend of responsible investment is becoming noticeable in this system. At the same time, for the purpose of national economic development, such actions become a powerful incentive to transform their work in accordance with the provisions of corporate social responsibility. This also affects the transformation of business models in accordance with ESG principles, which in turn contributes to the increase in investment attractiveness. Besides, it is worth noting that the modern market of financial instruments for sustainable development has been formed and is currently actively developing in the world's leading countries that implement various innovative solutions. In this sense, green bonds play an important role (Soundarrajan & Vivek, 2016).

At the same time, modern assessments of financial growth and stability require the development of powerful indicators for economic policy, but with due consideration of green growth, including specific indicators that measure the aggregate performance of green bonds (Serdarušić et al., 2019). To assess sustainable development based on green growth, progress in the green economy has assumed importance. For this reason, the process of measuring Green GDP should be considered as an integral subset of the sustainability indices that have an integral role to play in development and sustainable financial progress. According to the schema, $\text{Green GDP} = \text{GDP} - (\text{CO}_2 \text{ emissions in thousand tonnes} \times \text{total CDM in medium prices per thousand tonnes}) - (\text{tonnes of waste} \times 74 \text{ kWh of electricity} \times \text{price per kWh of electricity}) - (\text{GNI}/100 \times \text{natural resource depletion \% GNI})$. When looking at countries according to their level of development, modern researchers find positive results for developed countries (Stjepanović et al., 2022). In particular, there is a difference between green GDP and GDP of 2.38 per cent for high-income OECD countries, 2.36 per cent for high-income Western Bank countries, 2.13 per cent for IMF advanced economies, an impressive 1.60 per cent for the top 25 countries according to HDI,

and especially these differences for the most developed countries in the world, such as Western Europe, North America and Australia (Stjepanović et al., 2022). The result reached by Stjepanović et al. (2019) is that the level of environmental quality and financial stability differs between development stages, i.e. less developed countries tend to have faster growth rates at the expense of sustainable economic development (See Table 3).

Table 3

Average Difference Between GDP and Green GDP Growth Rates

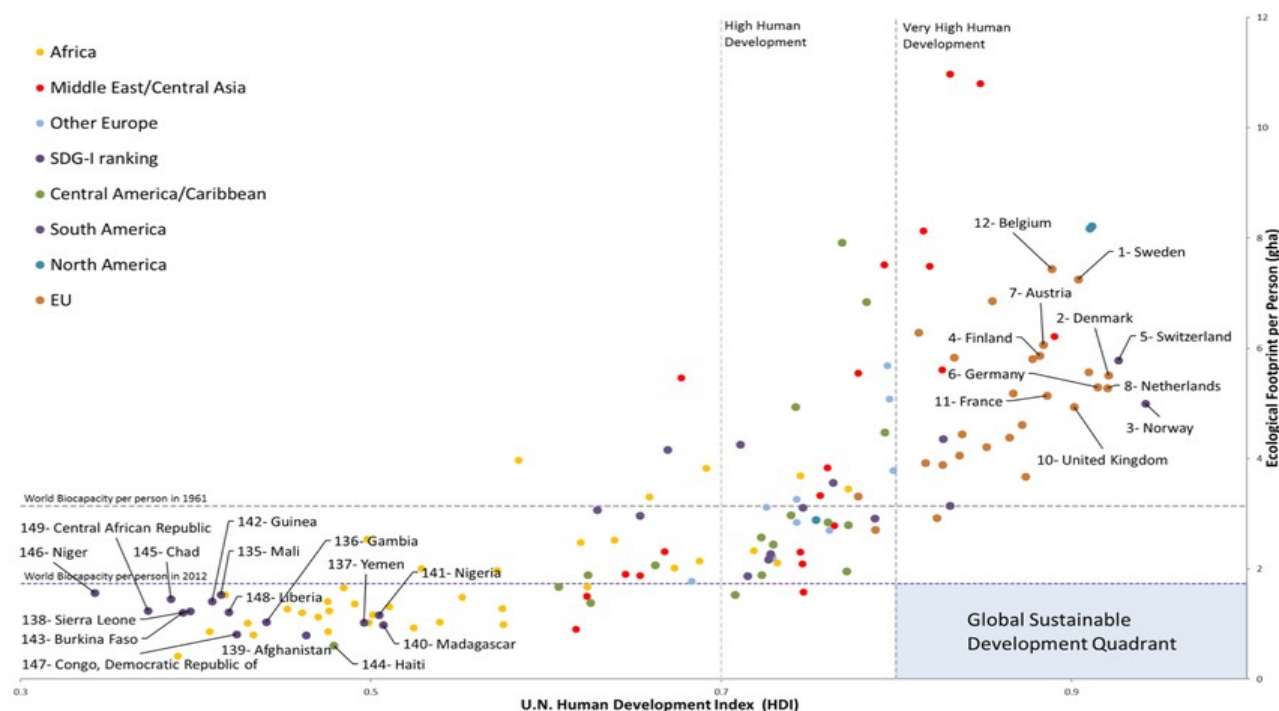
Average difference between GDP and Green GDP growth rates	%
OECD high-income countries	2,38
WB high-income countries	2,36
Advanced IMF economies	2,13
COUNTRIES BY REGIONS	
Africa	10,04
North America	2,43
Central America	5,09
Asia	13,95
Western Europe	1,07
Eastern Europe	5,78

Source: Stjepanović et al. (2022).

For sustainable financial development, the EFI, which is an indicator for a multi-year assessment of human impact on the environment, also plays an important role. It measures natural resources and environmental services, and the need to maintain them, providing an estimate of resources less likely to support a specific population's patterns of consumption and waste generation. The study demonstrates that countries with high levels of EFI have strong legal systems that protect property rights (Mahanama et al., 2024; Kozlovskiy et al., 2022). This promotes investor confidence and encourages long-term investment, which in turn ensures the country's financial stability. At the same time, HDI is also important in this system (see Fig. 1).

Figure 1

Ecological Footprint and HDI with SDG- 1 Ranking



Source: Wackernagel et al. (2017).

Since 2005, researchers have been emphasising that investments based on ESG principles are economically viable and have gained a corresponding popularity in the financial markets. In particular, since then, ESG investments have been growing at a rapid pace. According to estimates, by 2025, almost half of investments in the US will be converted into assets that comply with ESG principles. Importantly, the effectiveness of such investments directly depends on a large number of factors beyond the list of ESG principles. At the same time, many investors have no doubt that ESG investments will become a powerful financial instrument in the future.

For example, in the US, it is planned to quickly introduce mandatory requirements for further disclosure of financial information on climate change and the risks of rising greenhouse gas emissions. The draft law includes a decision on the mandatory disclosure of ESG information, which is a direct implementation of the European experience (Bolton, 2015). To reduce the risk factor in financial investment, ESG funds have been created to address environmental, social, and governance issues. Investing based on ESG principles is an important factor in avoiding cooperation with companies that have been caught in the past and engaged in unethical or risky practices (Addy et al., 2024). Such a system of influence on the financial sector leads not only to the fulfilment of ESG criteria, but also to the overall impact of financial performance and development.

In addition, the sustainability goal and targets serve as plans for achieving a better and more sustainable future for finance. First and foremost, we are talking about the most common approach to sustainable investing as a result of the integration of ESG principles - the consideration of relevant criteria based on the explicit and systematic consideration of ESG criteria in the investment decision. However, because the cultural, economic and social aspects of sustainability principles need to be implemented at the same time, this solution is not easy to implement (Mahanama et al., 2024). In the European Union, since 2010, there have been various rules for complying with sustainable financial development standards. These standards are the basis for companies to operate and comply with. Such companies must submit mandatory non-financial reports, which must include information on human rights, anti-corruption and environmental projects (Mahanama et al., 2024). For this reason, the EU has

a well-developed, structured regulatory framework for the use of financial instruments for sustainable development. In Ukraine, this system is only developing. In general, the regulatory framework for ESG and green finance is in the process of active development and formation. Several strategic areas have been identified to optimise regulatory mechanisms, including decarbonisation, green/sustainable financial instruments and the principle of responsible investment (Shah, 2024). The ESG transformation of enterprises and the organisation of a public reporting system for sustainable development should also play an important role.

In today's reality, however, there are not many standardised criteria for conducting investment activities in accordance with ESG principles in times of crisis, emergency or unstable internal relations. Businesses and firms in critical situations, when there is a need to respond to military or other emergency challenges and difficult situations in countries that tend to change rapidly. For this reason, transformations in market conditions, business trends and economic challenges in general may have a negative impact on the efficiency of investment. Investment policy in times of instability may have a different focus, aimed at overcoming negative trends in society and supporting countries in difficult times.

Discussion

The study demonstrates the important role of investments in shaping a sustainable financial future. Based on the analysed literature, it is indicated that the latest financial investment instruments, in particular those based on ESG principles, play an important role in determining the efficient operation of the financial system and the development of the economy as a whole, form the basis for overcoming existing risks and encouraging investors to invest in fixed and current assets. The findings confirm the views of scholars on the importance of creating investment attractiveness for sustainable economic growth (Hristov et al., 2019). For the financial sector, as rightly noted by Denysenko and Breus (2022), a regular inflow of investment plays the role of a financial source that significantly fills the market with resources for further development. This correlates with the results presented here, which demonstrate separate indices of development not only of the economy but also of human capital. The results also confirm the findings of Ari and Koc (2019) that the development of financial stability requires concerted and thoughtful actions by state regulators: chaotic changes harm the financial market, and even in conditions of potential investment attractiveness, they can have a negative impact that can have a lasting effect and scare investors. From this point of view, active reform efforts in the financial market can be problematic in terms of attracting investment, as investors may not understand the motivation behind certain initiatives.

On the other hand, researchers note the significant impact of certain investment rules in force within the European Union on the investment attractiveness of these countries, which directly shapes sustainable financial development. The relevant regulatory framework has been formed on the basis of existing standards. Researchers consider the use of ESG to be one of the modern investment options that will only develop and receive further support in the future (Mahanama et al., 2024). The importance of ESG for counteracting fraudulent, unethical, and unenvironmental cases is undeniable and is also confirmed in the proposed results. At the same time, researchers note that in modern realities, however, there are not many standardised criteria for conducting investment activities in accordance with ESG principles in times of crisis, emergency or unstable internal relations (Kozlovskiy et al., 2022; Kozlovskiy et al., 2024). Businesses and firms that are in critical situations, when there is a need to respond to military or other emergency challenges and difficult situations in countries that tend to change rapidly (Naeem et al., 2022). For this reason, transformations in market conditions, business trends, and economic challenges in general can have a negative impact on the efficiency of investment. Investment policy in times of instability may have a different focus, aimed at overcoming negative trends in society and supporting countries in difficult times.

The researchers also believe that investments in the green economy, which is friendly to the environment, are effective. Researchers note that the success of green project financing indicators depends on the ability of the global community to develop new tools to address environmental crises (Shah, 2024). Therefore, assessing the possibilities for financial stability in the future will require the generation of necessary, reliable, and adequate data to measure green GDP. Therefore, in the future, the classical models for measuring financial stability and GDP growth will likely be revised to take into account investments in green projects.

It is important to note that the methodology used to obtain the proposed results has certain limitations. First and foremost, they are the use of English-language papers, which was determined by the criteria for selecting scientific literature. Despite the high citation indices and general accessibility, it is worth noting a certain negative manifestation of this methodological decision. It means that some important results regarding the discussion of modern investment instruments and their impacts can also be presented in a foreign language environment. Relevant research papers still require additional analysis and study. It is also worth noting the chronological criteria for selecting scientific sources. Although modern technologies have given rise to certain peculiarities in investment activity, investment theory covers the period at least since the 1950s, so referring to chronologically older works may also have a certain positive effect, which will also require additional evaluation. At the same time, the proposed methodological limitations rather determine the prospects for further research than create real problems with the study and the results obtained.

Conclusions and Implications

Therefore, for the stable existence of modern financial systems, attracting investment is an extremely important process that has an impact on public policy, international stability, market stability and social relations. Given the current understanding of investment activity, it is important to highlight certain aspects that affect the potential development of investment in the future. It is demonstrated that countries with a high level of development of social indicators and human capital have higher indicators of financial stability. On the one hand, this is ensured by the permanent inflow of investments, and on the other hand, countries with high indices of economic freedom and human capital attract investors' attention due to the clarity of the functioning of local business environments. This makes financial systems dependent on investment inflows, but a stable financial environment also plays an important role, which in itself creates a predictable economy and attracts investors who are not prone to risky transactions.

Modern trends related to environmental protection, combating fraudulent schemes and dishonesty lead to ESG processes in investing, which are aimed at building open cooperation relations, avoiding unfair competition, and complying with market rules. The established sustainable development goals include the development of financial markets, but also human capital, technological solutions in production and investment, which together form the financial sustainability of the future. ESG principles take into account relevant criteria based on clear and systematic investment decisions. At the same time, in some cases, they point to the complexity of their implementation, given the peculiarities of cultural, economic and social development that must be carried out simultaneously. The complexity of implementing investment projects in times of instability, in particular those associated with a state of emergency or military operations, should be taken into account. The use of standard investment instruments may be difficult in such circumstances, and existing investment models may need to be further considered.

Suggestions for Future Research

Investment in financial systems will continue to play an important role as the free flow of capital and its use in the economy and finance will be important elements of future development. A sustainable financial framework for the use of investment instruments, however, will require significant changes.

Obviously, the use of the latest analytical digital systems, which will also apply elements of artificial intelligence, will accelerate investment activity, which will include the development of new algorithms for calculating the return on investment, their impact on social life, etc. Obviously, the emergence of new digital tools will affect the specifics of calculations and the identification of promising areas for investment. At the same time, it will also have an impact on the formation of human capital that will take into account cooperation with digital tools in the course of investment activities. The sustainability of the development of financial systems in the future will require further research in terms of the anthropological aspect (emergence of new knowledge and competencies for conducting and calculating investment activities), and the development of new digital tools. At the same time, it is necessary to take into account the non-backdoor initiatives that will protect investments from digital challenges (fraud), corruption, misuse, etc. This aspect is extremely sensitive, as investors tend to withdraw capital rather than invest it in unsafe conditions. Therefore, research on security mechanisms that will be valued in investment activities will require a deeper analysis in the future. In addition, given the current military challenges, it is necessary to point out the possibility of forming an investment market in the context of international instability that will operate in emergency situations through pre-established instruments. The development of such mechanisms may be the subject of more detailed attention, including the existing experience of countries, including Ukraine, that are currently experiencing war and instability.

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References

- Addy, W. A., Ofodile, O. C., Adeoye, O. B., Oyewole, A. T., Okoye, C. C., Odeyemi, O., & Ololade, Y. J. (2024). Data-driven sustainability: How fintech innovations are supporting green finance. *Engineering Science & Technology Journal*, 5(3), 760–773. <https://doi.org/10.51594/estj.v5i3.871>
- Alkaraan, F., Elmarzouky, M., Hussainey, K., & Venkatesh, V. G. (2023). Sustainable strategic investment decision-making practices in UK companies: The influence of governance mechanisms on synergy between Industry 4.0 and circular economy. *Technological Forecasting and Social Change*, 187, Article 122187. <https://doi.org/10.1016/j.techfore.2022.122187>
- Ari, I., & Koc, M. (2019). Sustainable financing for sustainable development: Agent-based modeling of alternative financing models for clean energy investments. *Sustainability*, 11(7), Article 1967. <https://doi.org/10.3390/su11071967>
- Arnone, M., & Crovella, T. (2023). The role of green finance in supporting maritime sustainable development. In T. Walker, H. J. Turtle, M. Kooli, & E. Nikbakht (Eds.), *Fintech and sustainability* (pp. 53–87). Cham: Palgrave Macmillan. https://doi.org/10.1007/978-3-031-40647-8_4
- Bak, I., & Cheba, K. (2020). ESG risk as a new challenge for financial markets. In M. Ziolo (Ed.), *Finance and sustainable development: Designing sustainable financial systems* (pp. 21–39). Routledge. <https://doi.org/10.4324/9781003011132-3>
- Becchetti, L., Cordella, M., & Morone, P. (2022). Measuring investments progress in ecological transition: The green investment financial tool (GIFT) approach. *Journal of Cleaner Production*, 357, Article 131915. <https://doi.org/10.1016/j.jclepro.2022.131915>

- Bolton, B. (2015). Valuation of sustainable financial investments. In *Sustainable financial investments* (pp. 121–180). New York: Palgrave Macmillan. https://doi.org/10.1057/9781137411990_5
- Denysenko, M., & Breus, S. (2022). Economic development of Ukraine: Modern trends in ensuring the state economic security. In *2nd International conference on relationship between public administration and business entities management*. Scientific Center of Innovative Researches OÜ. <https://doi.org/10.36690/rpabm-2022-127>
- Dluhopolskyi, O., Kozlovskyi, S., Popovskyi, Y., Lutkovska, S., Butenko, V., Popovskyi, T. ... Kozlovskyi, A. (2023). Formation of the model of sustainable economic development of renewable energy. *ECONOMICS*, 11(2), 51–78. <https://doi.org/10.2478/eoik-2023-0050>
- Fulton, M., Kahn, B. M., & Sharples, C. (2012). Sustainable investing: Establishing long-term value and performance. *SSRN*. <https://doi.org/10.2139/ssrn.2222740>
- Hristov, I., Chirico, A., & Appolloni, A. (2019). Sustainability value creation, survival, and growth of the company: A critical perspective in the sustainability balanced scorecard (SBSC). *Sustainability*, 11(7), Article 2119. <https://doi.org/10.3390/su11072119>
- Iradianty, A., & Ajeng, A. S. (2022). Analysis of differences financial literacy and investment decisions between student in Bandung city and Cirebon city. In S. Noviaristanti & O. H. Boon (Eds.), *Sustainable future: Trends, strategies and development* (pp. 69–72). Routledge. <https://doi.org/10.1201/9781003335832-18>
- Kholjigitov, G. (2023). Sustainable finance and investments: Principles, tools, and effectiveness assessment. *SSRN*. <https://doi.org/10.2139/ssrn.4541053>
- Kozlovskyi, S., Kulinich, T., Vechirko, I., Lavrov, R., Zayukov, I., & Mazur, H. (2024). Relationship between net migration and economic development of European countries: Empirical conclusions. *Problems and Perspectives in Management*, 22(1), 605–618. [https://doi.org/10.21511/ppm.22\(1\).2024.48](https://doi.org/10.21511/ppm.22(1).2024.48)
- Kozlovskyi, S., Petrunenko, I., Mazur, H., Butenko, V., & Ivanyuta, N. (2022). Assessing the probability of bankruptcy when investing in cryptocurrency. *Investment Management and Financial Innovations*, 19(3), 312–321. [https://doi.org/10.21511/imfi.19\(3\).2022.26](https://doi.org/10.21511/imfi.19(3).2022.26)
- Kwilinski, A., & Trushkina, N. (2023). Green investments as tools for stimulating the sustainable financing of logistics systems development. *E3S Web of Conferences*, 456, Article 01003. <https://doi.org/10.1051/e3sconf/202345601003>
- Lutsiak, V., Lavrov, R., Furman, I., Smitiukh, A., Mazur, H., & Zahorodnia, N. (2020). Economic aspects and prospects for the development of the market of vegetable oils in a context of formation of its value chain. *Montenegrin Journal of Economics*, 16(1), 155–168. <https://doi.org/10.14254/1800-5845/2020.16-1.10>
- Lysenko, S., Bobro, N., Korsunova, K., Vasylchyshyn, O., & Tatarchenko, Y. (2024). The role of artificial intelligence in cybersecurity: Automation of protection and detection of threats. *Economic Affairs*, 69(1), 43–51. <https://doi.org/10.46852/0424-2513.1.2024.6>
- Mahanama, T. K., Shirvani, A., Rachev, S. T., & Fabozzi, F. J. (2024). Environmental indices in global markets: Innovating financial tools for sustainable investments. *SSRN*. <https://doi.org/10.2139/ssrn.4675036>
- Man-Kit, B. (2015, September 1). *Sustainable development and financial markets: Old paths and new avenues*. CFA Institute Research and Policy Center. <https://doi.org/10.2469/dig.v45.n9.7>
- Naeem, M. A., Karim, S., Rabbani, M. R., Bashar, A., & Kumar, S. (2022). Current state and future directions of green and sustainable finance: A bibliometric analysis. *Qualitative Research in Financial Markets*, 15(4), 608–629. <https://doi.org/10.1108/qrfm-10-2021-0174>

- Oyeleke, M. (2024). Digital disruption in the banking and financial sector: Creating a sustainable framework for the future of banking in Nigeria. *SSRN*. <https://doi.org/10.2139/ssrn.4703991>
- Popescu, I.-S., Hitaj, C., & Benetto, E. (2021). Measuring the sustainability of investment funds: A critical review of methods and frameworks in sustainable finance. *Journal of Cleaner Production*, 314, Article 128016. <https://doi.org/10.1016/j.jclepro.2021.128016>
- Shah, D. (2024). Sustainable finance and ESG investing. *International Journal for Research in Applied Science and Engineering Technology*, 12(2), 412–416. <https://doi.org/10.22214/ijraset.2024.58346>
- Shirvani, A., Hu, Y., Rachev, S. T., & Fabozzi, F. J. (2020). Option pricing with mixed lévy subordinated price process and implied probability weighting function. *The Journal of Derivatives*, 28(2), 47–58. <https://doi.org/10.3905/jod.2020.1.102>
- Serdarušić, H., Pancić, M., & Zavišić, Ž. (2024). Green finance and fintech adoption services among croatian online users: How digital transformation and digital awareness increase banking sustainability. *Economies*, 12(3), Article 54. <https://doi.org/10.3390/economies12030054>
- Soundarrajan, P., & Vivek, N. (2016). Green finance for sustainable green economic growth in India. *Agricultural Economics (Zemědělská ekonomika)*, 62(1), 35–44. <https://doi.org/10.17221/174/2014-agricecon>
- Stjepanović, S., Tomić, D., & Škare, M. (2019). Green GDP: An analysis for developing and developed countries. *E+M Ekonomie a Management*, 22(4), 4–17. <https://doi.org/10.15240/tul/001/2019-4-001>
- Stjepanović, S., Tomić, D., & Škare, M. (2022). A new database on Green GDP; 1970-2019: A framework for assessing the green economy. *Oeconomia Copernicana*, 13(4), 949–975. <https://doi.org/10.24136/oc.2022.027>
- Suehrer, J. (2019). The future of FDI: Achieving the Sustainable Development Goals 2030 through impact investment. *Global Policy*, 10(3), 413–415. <https://doi.org/10.1111/1758-5899.12714>
- Taghizadeh-Hesary, F., & Yoshino, N. (2020). Sustainable solutions for green financing and investment in renewable energy projects. *Energies*, 13(4), 788. <https://doi.org/10.3390/en13040788>
- United Nations Development Programme. (n.d.). *Human Development Index*. <https://hdr.undp.org/data-center/human-development-index#/indicies/HDI>
- Wackernagel, M., Hanscom, L., & Lin, D. (2017). Making the Sustainable Development Goals consistent with sustainability. *Frontiers in Energy Research*, 5, Article 18. <https://doi.org/10.3389/fenrg.2017.00018>
- Weber, O. (2014). The financial sector's impact on sustainable development. *Journal of Sustainable Finance & Investment*, 4(1), 1–8. <https://doi.org/10.1080/20430795.2014.887345>
- Yilan, G., Cordella, M., & Morone, P. (2022). Evaluating and managing the sustainability of investments in green and sustainable chemistry: An overview of sustainable finance approaches and tools. *Current Opinion in Green and Sustainable Chemistry*, 36, Article 100635. <https://doi.org/10.1016/j.cogsc.2022.100635>