

Olena Ivanenko
*PhD in Economics, Docent,
Associate Professor of the Department of Statistics,
Information and Analytical Systems and Demography
Taras Shevchenko National University of Kyiv*

Іваненко О.І.
*кандидат економічних наук, доцент,
доцент кафедри статистики,
інформаційно-аналітичних систем і демографії
Київського національного університету імені Тараса Шевченка*

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INTEGRATION OF ESG PRACTICES IN THE INTERNATIONAL SPACE: A COMPARATIVE ASSESSMENT OF ENVIRONMENTAL ESG RISKS

ІНТЕГРАЦІЯ ESG-ПРАКТИК У МІЖНАРОДНОМУ ПРОСТОРИ: ПОРІВНЯЛЬНА ОЦІНКА ЕКОЛОГІЧНИХ ESG-РИЗИКІВ

Rating agencies such as MSCI, S&P Global, Moody's, and Fitch Ratings play a crucial role in integrating environmental factors into management and investment decision-making processes. This is achieved through the implementation of international reporting standards, the use of ESG ratings and regulatory disclosure requirements, and the development of sustainable finance. One example is the key characteristics of MSCI's climate indices. These rule-based indices account for the opportunities and risks associated with the transition to a low-carbon economy. These metrics help investors reduce carbon emissions and make a positive contribution toward achieving the goals of the Paris Agreement.

Potential indicators of the environmental ESG component of operational, financial, and reputational risks faced by an organization due to its environmental, social, and governance practices include CO₂ emissions, energy intensity, and the share of renewable energy.

The data in Table 1 confirm that Germany maintains a balanced position, characterized by low energy intensity and a high share of renewable energy. Although CO₂ emissions are high, resource efficiency and the institutional environment indicate a low level of ESG risks. In contrast to Germany, China has a significant environmental footprint, while demonstrating an active transformation of the energy sector, with renewable energy accounting for 15–16% of total consumption, indicating positive structural changes. Due to high levels of CO₂ emissions and energy intensity in the economy, elevated environmental risks are emerging, which impact the overall ESG profile. Based

on the analyzed indicators, Ukraine faces elevated ESG risks due to its low share of renewable energy and average energy intensity, indicating a low level of ESG practice implementation.

Table 1

Comparative assessment of countries’ ESG risks

Indicator	Germany	China	Ukraine
CO ₂ (t/person)	~6.9	~8.7-9.0	~3.1-3.6
Renewable energy (% of final consumption)	~19-21%	~15-16%	~8-9%
Energy intensity (MJ/\$ GDP, PPP)	~3.0-3.5 (low)	~5.5-6.5 (high)	~4.0-4.5 (average)

Source: compiled by the author based on data from the World Bank (World Development Indicators), the International Energy Agency (IEA), Transparency International [1; 2; 3]

The level of ESG risks directly depends on the effectiveness of government policy in the energy and environmental sectors, as well as the country’s ability to adhere to the principles of sustainable development. A comparative risk assessment allows for the identification of the strengths and weaknesses of business environment development models.

Table 2 provides a comparative overview of the returns of ESG-oriented stock indices, specifically MSCI’s climate indices, which meet the standards as of May 4, 2026:

- PAB (Paris-Aligned Benchmark) aligned with the goals of the Paris Climate Agreement;
- CTB (Climate Transition Benchmark) indices tracking the transition to a low-carbon economy [4].

The data reflects the performance trends of the indices, the effectiveness of ESG investments over time, and various regional markets—namely the U.S., Europe, Japan, Germany, and the global market—enabling an assessment of the investment strategy.

A comparative analysis shows that ESG indices demonstrate consistent positive performance over the medium and long term, specifically:

- long-term returns;
- competitiveness with traditional indices;
- regional performance.

In particular, the global MSCI World Climate Change indices (PAB and CTB) have grown by over 27% since the beginning of the year and by approximately 23% on an annualized basis, demonstrating the high investment potential of climate-responsible strategies. This indicates that the integration of ESG factors not only increases returns but can also serve as a driver of financial growth.

Table 2

Returns of the MSCI climate change indices (CTB and PAB) by region

Index	Index code	Last	Day, %	MTD, %	3M, %	YTD, %	1YR, %	3YR, %	5YR, %	10YR, %
MSCI World Climate Change Paris Aligned Select PAB Index	731391	4388,7	-0,52	-0,01	4,5	4,4	27,4	23,2	12,9	14,7
MSCI World Climate Change CTB Index	726315	4281,2	-0,55	-0,08	4,2	4,3	27,2	23,3	13,0	14,5
MSCI Japan Climate Change CTB Index	726319	2328,3	-0,27	-0,26	3,3	8,8	25,6	15,3	6,8	8,4
MSCI Japan Climate Change ESG Select CTB Index	735125	2321,3	-0,27	-0,22	2,8	7,7	23,4	14,8	6,4	8,3
MSCI World Climate Change CTB Select Index	735478	4364,3	-0,54	-0,05	4,4	4,5	27,5	23,3	12,9	14,7
MSCI Germany Climate Change ESG Select CTB Index	728908	1826,3	-2,31	-2,00	-2,9	-2,8	3,1	14,4	4,5	--
MSCI World Climate Change ESG Select CTB Index	728912	4439,8	-0,56	0,06	5,1	3,8	28,3	23,7	13,2	14,9
MSCI EMU Climate Change ESG Select CTB Index	729003	2335	-2,12	-1,82	-2,9	-1,1	10,8	14,1	8,2	9,5
MSCI USA Climate Change ESG Select CTB Index	729005	6390,9	-0,30	0,50	8,5	5,1	33,5	27,5	15,5	--
MSCI Europe Climate Change ESG Select CTB Index	729004	2177,3	-1,60	-1,33	-3,0	-0,1	11,9	12,1	7,6	--

Source: created by the author based on MSCI data [4; 5]

The MSCI USA Climate Change ESG Select CTB demonstrates the highest performance among the markets under review, with a return exceeding 33% year-to-date and nearly 27.5% on an annualized basis. This performance is explained by the high level of development of the U.S. stock market, the significant share of technology companies, and the active integration of ESG principles into corporate strategies; markets with a more developed institutional framework and access to innovation have better opportunities for implementing climate investment strategies.

European indices, specifically the MSCI Europe Climate Change ESG Select CTB and the MSCI EMU Climate Change ESG Select CTB, have shown more moderate returns of 10–12% year-to-date.

This may be due to the impact of macroeconomic factors, energy challenges, and a stricter regulatory environment, which, while promoting sustainable development, also limits short-term profitability.

The MSCI Germany Climate Change ESG Select CTB deserves special mention, as it has the lowest returns among developed economies (around 3% year-to-date). This reflects structural issues in the German economy,

particularly its reliance on industrial production and the energy transition, which entails significant costs.

The Asian segment, represented by Japanese climate indices, is showing stable, albeit moderate, growth (over 23% year-to-date), indicating the gradual integration of ESG principles into regional financial markets.

It is also important to consider short-term fluctuations: most indices recorded a slight decline on the last trading day. This reflects the general volatility of financial markets and does not affect the long-term growth trend of ESG investments.

In summary, it can be concluded that ESG investing, particularly through MSCI climate indices, is an effective tool for ensuring both financial returns and the achievement of sustainable development goals. The high growth rates of global and U.S. indices confirm the competitiveness of ESG strategies, while regional differences highlight the importance of considering macroeconomic and institutional factors when constructing an investment portfolio.

Thus, integrating ESG criteria into the investment decision-making process is not only an ethical approach but also an economically sound one in the current global economic climate.

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