



# **Analysis of Investment Attractiveness of Countries: A Comprehensive Assessment Using Econometric Models**

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## **Abstract**

This article analyzes the investment attractiveness of various countries by developing ranking systems and econometric models. These models, based on key economic indicators, evaluate countries' investment potential and provide forecasted values for the Global Innovation Index (GII). Using a weighted scoring method, we rank countries according to their investment attractiveness. The study further constructs an econometric model to explore the relationship between investment factors and innovation development, highlighting key areas for policy improvement.

**Keywords:** Investment attractiveness; Ranking; Econometric model; Investment potential

## **1. Introduction**

In an increasingly interconnected global economy, the ability of countries to attract investment is vital to their economic development and long-term sustainability. Thus, the Decree of the President of the Republic of Uzbekistan Shavkat Mirziyoyev "On the Development Strategy of New Uzbekistan for 2022-2026" set tasks for Uzbekistan to join the 50 advanced countries of the world according to the Global Innovation Index rating by 2030. "Goal 26: Improve Uzbekistan's investment climate. Take measures to attract \$120 billion, including \$70 billion in foreign investment, over the next five years.", the document says [1].

A country's investment attractiveness depends on a wide array of economic, social, and institutional factors, which can significantly influence investment decisions and, consequently, its economic growth. To better understand these dynamics, this research aims to analyze the investment attractiveness of various countries through the development of ranking systems and econometric models. By focusing on key economic indicators, this study seeks to provide a comprehensive evaluation of countries' investment potential, offering valuable insights for policymakers and investors alike [2].

The initial phase of our analysis involves the construction of a ranking system, which is based on a weighted scoring method that evaluates countries according to their investment attractiveness. This system takes into account several critical economic indicators, such as market size, infrastructure quality, political stability, and economic openness. By applying this method, we are able to assign a numerical score to each country, providing a clear overview of its relative investment potential. Additionally, we develop econometric models to assess the relationship between investment factors and a country's innovation development, particularly focusing on the Global Innovation Index (GII). These models allow us to forecast the future values of the GII, providing insights into how various investment-related factors might influence innovation over time.

The key research question guiding this study is: "How do critical economic indicators impact a country's investment attractiveness and innovation development, and how can econometric models be used to forecast these relationships?" Through this analysis, we aim to uncover the intricate connections between investment factors and innovation outcomes, offering actionable recommendations for improving national policies and enhancing investment climates. This study not only contributes to the theoretical understanding of investment attractiveness but also provides practical guidance for countries seeking to boost their investment appeal and foster sustainable economic growth.

## 2. Literature analysis

Investment attractiveness is generally seen as a combination of several factors that determine the overall climate for investment in a particular country. Schwab (2017) and World Economic Forum (2020) have highlighted the importance of innovation in fostering investment attractiveness [3]. The Global Innovation Index (GII) has been widely used as a key variable in econometric models to predict the relationship between innovation capacity and economic growth. The GII tracks multiple dimensions of innovation, including infrastructure, human capital, business environment, and market sophistication, which are all critical in attracting investment. Several studies have illustrated that a strong innovation ecosystem correlates with higher levels of foreign investment, particularly in high-tech industries and services.

## 3. Methodology

A particularly valuable approach in assessing investment attractiveness is the use of econometric models. By leveraging statistical data, these models provide a quantitative assessment of investment potential and identify the key factors that enhance a country's appeal to investors.

These countries were selected for comparative analysis: Belarus, Russia, Ukraine, Kazakhstan, Georgia, France, Singapore, South Korea and Uzbekistan, since these states are examples of economies in transition or have recently completed it.

Initially, an investment attractiveness rating was compiled, taking into account seven key areas: macroeconomic stability and development; ease of doing business; volume of investment inflow; innovative development; quality of management, compliance with the law and protection of property rights; risks of interaction with the state; quality of the banking system and availability of credit.

The final indicator of investment attractiveness (rating) is the sum of weighted factors taking into account their importance (table 1).

**Table 1:** The final indicator of investment attractiveness

№	Indicator	Weight
1.	Gross Domestic Product (GDP)	0.07
2.	GDP per capita at PPP	0.06
3.	Inflation rate	0.06
4.	Population growth rate	0.04
5.	Unemployment rate	0.05
6.	Foreign direct investment (FDI) net inflows	0.05
7.	Global innovation index	0.07
8.	Knowledge intensity of GDP	0.06
9.	ICT access	0.05
10.	Operational stability for businesses	0.05
11.	Corruption index	0.07
12.	Government effectiveness	0.06
13.	Regulatory quality	0.06
14.	Policy stability for doing business	0.06
15.	Refinancing rate	0.04
16.	Finance for startups and scaleups	0.08
17.	Availability of credit to private sector	0.07

**Table 2:** Indicators for calculating the investment attractiveness rating of countries

Indicator number	Uzbekistan	Georgia	France	Russia	Kazakhstan	Ukraine	Belarus	Singapore	Korea
1.	70	107	7	11	48	58	86	32	14
2.	117	72	27	47	54	95	65	1	36
3.	164	11	50	161	162	148	150	63	56
4.	69	222	177	221	106	24	216	105	175
5.	87	175	140	55	92	164	64	59	32
6.	47	18	60	116	50	88	74	3	100
7.	83	57	12	59	78	60	85	4	6
8.	94	82	16	44	98	70	59	17	2
9.	76	48	44	54	49	74	38	1	11
10.	85	55	43	131	78	123	119	1	18
11.	121	49	20	141	93	104	98	5	32
12.	91	39	26	110	58	99	117	1	17
13.	102	31	25	126	72	90	131	1	28
14.	20	21	44	94	92	115	114	1	60
15.	125	100	31	132	128	124	110	26	22
16.	19	34	14	67	50	60	80	8	18
17.	84	50	16	58	107	109	98	14	6

**Sources of data:** <http://documents.worldbank.org/curated/en/558271653576525839> [4], World Population Review [5], Corruption Perceptions Index 2024 [6], World intellectual property organization: Global Innovation Index 2024 [7], <https://www.worldometers.info/gdp/gdp-per-capita/> [8], [www.cia.gov/the-world-factbook](http://www.cia.gov/the-world-factbook) [9], <https://www.wipo.int/web/global-innovation-index/> [10]

The formula for calculating the weighted score for each factor:

$$\text{Weighted score for factor} = \text{Score} \times \text{Weight}$$

For each country, sum all the weighted scores:

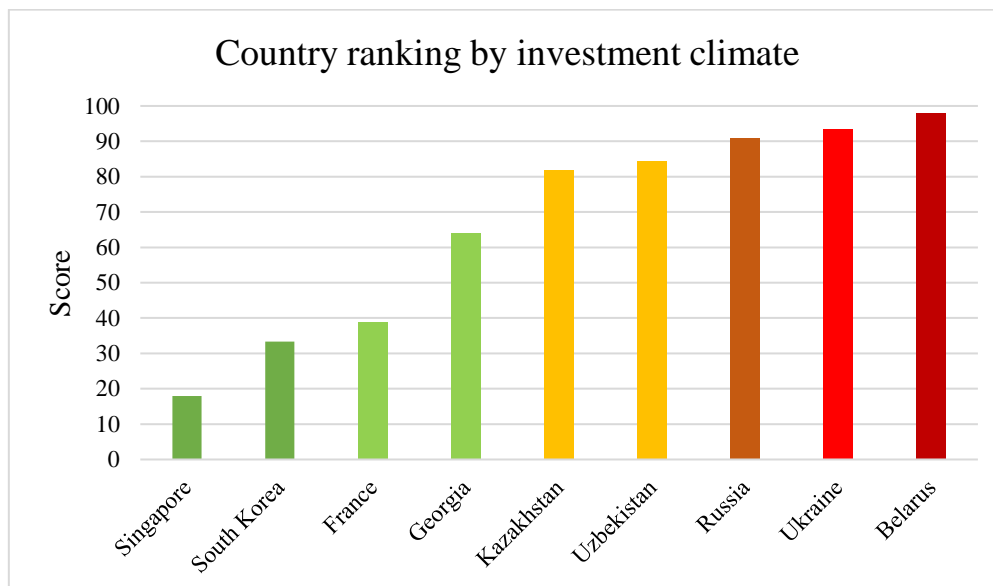
$$\text{Total score} = \sum_{k=0}^n (\text{Score}_k \times \text{Weight}_k)$$

#### 4. Results analysis

The results of the ranking calculations are presented in Table 3 and Graph 1. Investment-attractive countries are those with a well-developed private sector and ongoing reforms in the area of innovation development. These countries are also actively adjusting their social and economic policies. All these characteristics are part of Georgia's development strategy. The country is on the path to improving its investment and innovation potential.

**Table 3:** Country ranking by investment climate

Rank	Country	Score
1.	Singapore	17.97
2.	South Korea	33.37
3.	France	38.92
4.	Georgia	64.17
5.	Kazakhstan	81.79
6.	Uzbekistan	84.37
7.	Russia	91.03
8.	Ukraine	93.36
9.	Belarus	98.04

**Figure 1.** Country ranking by investment climate

The country ranking results show that Singapore ranks first in the rating due to its well-developed private sector and strong innovation policies. South Korea follows closely in second place, benefiting from its advanced technological infrastructure and robust business environment. France occupies the third position, thanks to its stable economy and continued efforts in innovation development. Georgia ranks fourth, as the country is actively pursuing reforms in its social and economic policies, enhancing its investment and innovation potential.

Kazakhstan is ranked fifth, with a relatively high level of property rights protection, though it still faces challenges in fostering a more competitive innovation environment. Uzbekistan follows closely in sixth place, showing progress in attracting foreign investments and improving its governance. Russia is in seventh position, largely due to its substantial investment inflows, though inconsistent policy implementation and governance hold its overall investment climate back issues.

Ukraine takes the eighth spot, as the country continues to struggle with political instability and economic difficulties, which severely affect its investment climate. Belarus ranks last, facing significant challenges with low governance quality and a lack of competitive innovation development, which hampers its overall investment attractiveness.

In constructing the econometric model, the global innovation index (GII) was chosen as the endogenous variable. The exogenous variables included foreign direct investment (FDI), GDP per capita based on purchasing power parity (PPP), and the corruption index (CI). It should be noted that foreign direct investment (FDI) is not an indicator of a country's investment climate but rather one of its components. However, the global innovation index can reflect the investment attractiveness of a country. This index includes 80 indicators that describe the political situation, the country's predisposition towards innovation development, the level of education, infrastructure, the business environment, and more. For this reason, the global innovation index is a good benchmark for investors, as it reflects the level of development in a country, the quality of life, and, consequently, the investment climate. The econometric model was constructed using panel data from nine countries over the period from 2012 to 2023. The final model is as follows:

$$GII_t = 97,28C_t + 0,0000119FDI_t - 0,0009GDP_t - 0,194C_t + e$$

This model can be utilized to analyze the impact of various factors on the global investment attractiveness index and to make predictions. However, its primary value lies in examining the interrelationships between the indicators. The results of the model demonstrated a direct correlation between the global innovation index and GDP per capita. The findings suggest that the growth in the innovation index is directly proportional to the increase in FDI and inversely proportional to the rise in the corruption index.

## 5. Conclusion

The findings of this study highlight key factors influencing the investment attractiveness of countries, with a particular emphasis on the role of innovation development, governance, and economic stability. The rankings and econometric model underscore the importance of fostering a strong private sector, reducing corruption, and promoting innovation policies as central components of a nation's investment strategy. The outcomes of this study identified key "weak points" for each country. The analysis of these relationships provided valuable insights into which areas should be prioritized when defining national policy strategies. For countries like Georgia, which are actively pursuing economic and social reforms, the focus should be on strengthening innovation infrastructure and improving governance to boost their investment potential. Conversely, countries like Belarus and Ukraine must address internal governance issues and improve political stability to attract more investment and improve their global standing. In summary, this study provides valuable insights into how nations can enhance their investment climates, offering a roadmap for policymakers looking to improve their country's investment attractiveness and innovation capabilities.

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