

# Investment Risk Assessment of Sporting Goods Manufacturing Enterprises in Countries Along the Belt and Road Initiative

Deqiang Li, Zie Huang\*

School of Economics and Management, Shaanxi University of Science and Technology, Weiyang University Park, Xi'an 710021, China

\*Corresponding author: Zie Huang, 230711025@sust.edu.cn

**Copyright:** © 2025 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

**Abstract:** With the continuous promotion of the Belt and Road initiative, the sporting goods manufacturing industry, as a key sector of Chinese enterprises' "going global" strategy, is actively expanding the markets of countries along the Belt and Road. However, there are significant differences in political, economic, and social environments among countries along the Belt and Road, which bring considerable uncertainties to the transnational investment of enterprises. Based on the investment environment of 70 countries along the Belt and Road, this paper constructs a risk evaluation index system including five dimensions: political and legal, economic and financial, socio-cultural, investment environment, and bilateral relations. The Criteria Importance Through Intercriteria Correlation (CRITIC) method is used to determine weight, Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) method is employed to evaluate the investment risks of each country. Furthermore, cluster analysis is used to classify the countries into low, medium, and high-risk levels. Finally, policy recommendations are proposed based on the characteristics of countries with different risk levels, providing decision-making references for sporting goods manufacturing enterprises in selecting suitable countries for investment, enhancing risk prevention capabilities, and improving investment success rates.

**Keywords:** The Belt and Road Initiative; Sporting goods manufacturing enterprises; Risk assessment; CRITIC method; TOPSIS method

**Online publication:** September 9, 2025

## 1. Introduction

The Belt and Road Initiative (BRI) is an important attempt by China to achieve sustained economic growth by exploring new forms of international economic cooperation with new partners<sup>[1]</sup>. Although the initiative has aroused doubts from some countries, it aims to achieve mutual benefit and win-win with partners and promote common development<sup>[2]</sup>. In the continuous exchanges, the areas of cooperation between China and other co-construction

countries have been continuously expanded, and the level of cooperation has been continuously deepened, which has made contributions to promoting the economic and social progress of the co-construction countries. Since it was put forward in 2013, more than 150 countries and more than 30 international organizations have joined the BRI, with China's cumulative trade with partner countries exceeding USD 21 trillion and direct investment exceeding USD 270 billion. Against the backdrop of the deepening BRI cooperation, the sporting goods manufacturing industry, as one of the important sectors in China's "going global" strategy, is actively participating in the initiative by developing and collaborating in the markets of BRI countries.

In recent years, with the traction of large-scale events such as the Olympic Games and the World Cup, as well as the rising global fitness trend, the demand for sportswear, fitness equipment, and outdoor equipment in countries along the BRI continues to increase. In 2024, China's sporting goods exports totaled US\$29.883 billion, of which US\$5.7 billion was exceeded in the BRI and RCEP regions. Furthermore, 15.6% of Chinese sporting goods enterprises have already established or planned overseas operations. The potential of emerging markets such as Southeast Asia, the Middle East, and Latin America continues to be released, and the export of sporting goods to these regions is growing rapidly, attracting Chinese sporting goods manufacturers to take the initiative to invest. However, opportunities and challenges coexist. Different development stages, social culture, and institutional environment of countries along the BRI have brought many uncertainties to the investment and operation management of sporting goods manufacturing enterprises. How to effectively and scientifically evaluate and manage the risks brought by these uncertainties has become the premise of successful transnational investment.

Based on this, this paper constructs an investment risk evaluation index system from the perspective of five risk dimensions faced by Chinese sporting goods manufacturing enterprises when investing in countries along the BRI, and quantitatively analyzes the risk level of the BRI countries, aiming to improve the success rate and scientific decision-making of transnational investment of sporting goods manufacturing enterprises. The main contributions of this paper are as follows: (1) From the perspective of political and legal, economic and financial, socio-cultural, investment environment, and bilateral relations, appropriate indicators are selected to construct a comprehensive investment risk evaluation index system, which systematically captures the potential risks that sporting goods manufacturing enterprises may encounter in transnational investments; (2) Criteria Importance Through Intercriteria Correlation (CRITIC) and Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) are used to comprehensively evaluate the investment risks of 70 countries along the BRI, and cluster analysis is used to classify them according to the risk levels, which provides investment decision-making reference for sporting goods manufacturing enterprises.

## 2. Literature review

### 2.1. Research on investment risk of the Belt and Road Initiative

Since the Belt and Road Initiative was put forward, the risks faced by Chinese enterprises in foreign investment in BRI countries have attracted wide attention. Existing research has primarily focused on traditional industries such as energy, infrastructure, and mineral resources. Duan *et al.* developed a fuzzy comprehensive evaluation model based on the entropy weight method to assess the energy investment risks in 50 BRI countries<sup>[3]</sup>. Yuan *et al.* put forward a nine-dimensional index system including economic, financial, social, political, power prospect, resources, and environmental risks, and constructed a fuzzy comprehensive evaluation model based on entropy weight to evaluate the power investment risks of 21 BRI countries<sup>[4]</sup>. Andrić *et al.* proposed a novel risk assessment method,

which combined fuzzy matrix, fuzzy logic, and this road theory, and assessed the risks of BRI infrastructure projects<sup>[5]</sup>. Xiang *et al.* constructed a six-dimensional investment index evaluation system including political, socio-economic, resource potential, environmental risks, and China factors, and evaluated the investment risks of mineral resources in 50 BRI partner countries<sup>[6]</sup>. Yang *et al.* systematically studied the political risks of China's energy infrastructure investment in countries along the BRI within a unified framework<sup>[7]</sup>. Tang *et al.* used the game theory model combined with global entropy method and the analytic hierarchy process to determine the combination weight and utilized the TOPSIS-GRA model to evaluate the oil and gas investment risk in BRI countries<sup>[8]</sup>.

In the existing literature, the sporting goods manufacturing industry is a non-resource-dependent, asset-light, export-oriented industry; its overseas investment-related risk research is relatively few. Although representative enterprises such as Anta, Li-Ning, and Peak have actively carried out international layout in recent years, systematic identification, evaluation, and analysis of investment risks faced by this industry under the BRI framework are still insufficient. Therefore, this paper focuses on the investment risks of sporting goods manufacturers in BRI countries and enriches the research system of foreign investment risks from the perspective of specific industries.

## 2.2. Research on risk factors of foreign investment

The identification of foreign investment risk factors is the core content of constructing an investment risk evaluation system. Scholars mostly used qualitative analysis and quantitative empirical approaches in this field. Nikjow *et al.* identified 11 major risks in BRI infrastructure projects by systematic literature review, and constructed a hierarchical relationship model among risks by interpretative structure modeling and the MICMAC analysis method. It was found that economic, environmental, and political risks were highly influential and significantly affected project outcomes<sup>[9]</sup>. Jiang and Jiang argued that improper supervision will cause the host country to interrupt the development of overseas investment projects to protect its own interests. It is necessary to standardize the investment behavior of Chinese overseas investors and improve their adaptability in the BRI countries, so as to better achieve the sustainable development goal of overseas investment<sup>[10]</sup>. Li and Tang, based on panel data from 58 BRI countries, empirically tested the influence mechanism of national financial risks on China's OFDI. They concluded that the host country's financial risks will inhibit China's OFDI inflow and squeeze investment into neighboring countries<sup>[11]</sup>. Guo combed the tax risks and concrete performances faced by enterprises in participating in the construction of BRI, and proposed coping strategies from the perspectives of enterprises, governments, and international cooperation<sup>[12]</sup>. Xiang *et al.* constructed an investment risk evaluation index system for BRI countries from five dimensions—political, social, economic, construction environment, and relations with China—and revealed the dynamic temporal and spatial patterns of railway investment risks in BRI countries from 2010 to 2018<sup>[13]</sup>.

Existing research generally categorizes outbound investment risks into multiple dimensions, such as political, economic, and social risks. Building on the established frameworks of outbound investment risk identification and considering the characteristics of the sporting goods manufacturing industry, this paper constructs a risk evaluation index system suitable for sporting goods enterprises investing in BRI countries from five dimensions: political and legal, economic and financial, socio-cultural, investment environment, and bilateral relations.

In summary, the research on the risk of foreign investment under the BRI framework has been sufficient, covering many dimensions such as political, economic, and social factors, and the relevant theoretical framework and evaluation methods have gradually matured, but the research on the specific industry of sporting goods manufacturing is still relatively scarce. The existing literature generally lacks in-depth analysis of the foreign investment risks of this industry and has not yet established a targeted risk identification and evaluation model. Therefore,

combined with the characteristics of the industry, this paper integrates the characteristics of the industry, constructs a multi-dimensional risk assessment index system, and applies the CRITIC method and the TOPSIS method to evaluate the investment risks of BRI countries, with the aim of providing decision-making references for relevant enterprises and contributing to the literature on investment risk research in industry-specific contexts.

### **3. Construction of investment risk evaluation index system for Chinese sporting goods manufacturing enterprises**

Establishing a scientific and reasonable index system is a crucial step in investment risk evaluation. Based on existing research, combined with the industry characteristics of sporting goods manufacturing enterprises, this paper comprehensively evaluates the transnational investment risks of sporting goods manufacturing enterprises from five dimensions: political and legal, economic and financial, socio-cultural, investment environment, and bilateral relations. Each dimension contains several secondary indicators, and ultimately, a risk assessment index system comprising five primary indicators and 24 secondary indicators is constructed.

#### **3.1. Political and legal risk**

Political and legal risks are a key factor affecting the success or failure of enterprises' foreign investment. The stability of the political situation and the soundness of laws and regulations in the host country are directly related to whether enterprises can operate smoothly in the local area, achieve the expected goals, and protect their legitimate rights and interests<sup>[14]</sup>. In cases of political turmoil or weak legal institutions, enterprises may face risks such as contract breach, property right loss, and expropriation. This paper selects the following secondary indicators to describe political and legal risk:

- (1) Government efficiency: Measures the capacity and efficiency of the host government in public service delivery, policy implementation, and public sector management.
- (2) Government stability: Measures the ability of the host government to implement its announced plan and its ability to continue to govern.
- (3) Control of corruption: Measures the ability of the host government to curb corruption.
- (4) Political freedom: Measures the participation degree of citizens in the host country in the election of the government, as well as freedom of speech and press.
- (5) Regulatory quality: Measures the capacity and efficiency of the host government in designing and implementing policies and regulations.
- (6) Rule of law: Measures the effectiveness and fairness of the host country's legal system and its binding effect on social behavior.
- (7) Geopolitics: The geopolitical risk index is used to measure the political stability of the host country, the risk of conflict, and its international strategic position.

#### **3.2. Economic and financial risk**

A country's economic development level and financial system stability will directly affect the profitability and capital security of enterprises<sup>[15]</sup>. High inflation, high unemployment rate, or significant exchange rate fluctuations increase operational uncertainty and financial risk for enterprises. This paper selects the following secondary indicators to describe economic and financial risk:

- (1) Exchange rate fluctuations: Exchange rate stability is used to measure fluctuations in the exchange rate of



the host country's currency.

- (2) Economic development level: Per capita GDP is used to measure the economic development level of the host country.
- (3) Inflation: Inflation is measured by the annual growth rate of the GDP implicit price deflator.
- (4) Investment openness: The proportion of foreign direct investment (FDI) to GDP is used to measure the host country's dependence on foreign capital and its investment openness <sup>[16]</sup>.
- (5) Unemployment rate: Measures the stability of the labor market and the ability of the economy to absorb employment in the host country.

### 3.3. Socio-cultural risk

Socio-cultural risk mainly stems from the unstable social environment of the host country and the differences in language, religion, and values between the host country and the home country <sup>[17]</sup>. This paper selects the following secondary indicators to describe socio-cultural risk:

- (1) Social security: The crime index is used to measure the level of security in the host society.
- (2) Cultural differences: The cultural distance index is used to measure the cultural differences between the home and host countries.
- (3) Labor quality: Measures the quality of the host country's labor force by the average number of years of schooling of the labor force.
- (4) Religious tensions: Measures the level of conflict and tension between different religious groups in the host country.
- (5) Ethnic relations: Measures the degree of tension between different ethnic or racial groups within the host country.

### 3.4. Investment environment risk

The risk of the investment environment is mainly the institutional obstacles and market access costs faced by enterprises carrying out business in the host country. In this paper, the following secondary indicators are selected to describe the investment environment risk:

- (1) Investment profile: Measures the host country's institutional guarantee ability for foreign-funded enterprises in terms of contract guarantee, profit repatriation, and government payment.
- (2) Taxation: Measures the complexity and cost burden of tax payment procedures of enterprises in host countries.
- (3) Dispute resolution: Measures the timeliness and fairness of the host country in contract dispute resolution.
- (4) Business environment: Measures the business environment of the host country using the ease of doing business index.

### 3.5. Bilateral relations

With the continuous evolution of the international situation, bilateral relations have become an important external risk variable affecting the overseas investment decisions and security of enterprises <sup>[18]</sup>. This paper selects the following secondary indicators to describe bilateral relations:

- (1) BIT signing status: Whether the host country has signed a Bilateral Investment Treaty (BIT) with China, with 1 for signed and 0 for not signed.
- (2) Diplomatic relations: The time when China and the host country established diplomatic relations is used to measure the foundation of political cooperation and the stability of relations between the two countries.

(3) Scale of Chinese investment: China's investment stock in the host country is used to measure the close degree of bilateral economic relations.

This paper is based on data from 2022, with data primarily obtained from official databases. The attributes of each indicator and their data sources are detailed in **Table 1**.

**Table 1.** Investment risk evaluation indicators for sporting goods manufacturing enterprises

First-level indicators	Second-level indicators	Type	Data source
Political and legal risk	Government efficiency	+	WGI
	Government stability	+	WGI
	Control of corruption	+	WGI
	Political freedom	+	WGI
	Regulatory quality	+	WGI
	Rule of law	+	WGI
	Geopolitics	–	CEIC
Economic and financial risk	Exchange rate fluctuations	+	ICRG
	Economic development level	+	WDI
	Inflation	–	WDI
	Investment openness	+	WDI
	Unemployment rate	–	WDI
Socio-cultural risk	Social security	–	Numbeo
	Cultural differences	–	Hofstede
	Labor quality	+	UNDP
	Religious tensions	+	ICRG
	Ethnic relations	–	ICRG
Investment environment risk	Investment profile	+	ICRG
	Taxation	–	WDI
	Dispute resolution	–	WDI
	Business environment	–	WDI
Bilateral relations	BIT signing status	+	Ministry of Commerce
	Diplomatic relations	+	Ministry of Foreign Affairs
	Scale of Chinese investment	+	Bulletin on Foreign Investment

## 4. Investment risk evaluation of Chinese sporting goods manufacturing enterprises

### 4.1. Sample selection

Since the Belt and Road Initiative was put forward, Chinese sporting goods manufacturers have actively expanded overseas markets and carried out multi-form and multi-level cooperation with BRI countries. Based on available data, this paper selects 70 representative countries as the research objects. The names and regional distribution of these countries are presented in **Table 2**.

**Table 2.** Countries and regions of distribution

Region	Country
Asia	Afghanistan, United Arab Emirates, Pakistan, Philippines, Kazakhstan, South Korea, Kyrgyzstan, Cambodia, Qatar, Laos, Bangladesh, Myanmar, Nepal, Saudi Arabia, Tajikistan, Thailand, Turkey, Turkmenistan, Brunei, Uzbekistan, Singapore, Syria, Iran, Indonesia, Vietnam.
Africa	Ethiopia, Burundi, Ghana, Cameroon, Kenya, Mali, Morocco, Mozambique, Sudan, Nigeria, Senegal, Tanzania, Uganda, Zambia.
Europe	Albania, Austria, Poland, Russia, Czech Republic, Latvia, Lithuania, Luxembourg, Romania, Moldova, Serbia, Ukraine, Hungary, Italy.
North America	Panama, Costa Rica, Cuba, Nicaragua, Jamaica.
South America	Argentina, Brazil, Peru, Colombia, Guyana, Suriname, Venezuela, Uruguay, Chile.
Oceania	Fiji, Tonga, New Zealand.

#### 4.2. Comprehensive evaluation of investment risk based on the CRITIC-TOPSIS method

Based on the established risk evaluation index system, this paper uses the CRITIC method and TOPSIS method to build a comprehensive evaluation model. CRITIC method is an objective weighting method, which can reasonably determine the weights of indexes by evaluating the variation degree and conflict among indexes, and avoid subjective deviation to a certain extent <sup>[19]</sup>. TOPSIS is a commonly used multi-criteria decision-making method. By constructing positive and negative ideal solutions and calculating the proximity of countries to ideal states, the risk ranking can be realized <sup>[20]</sup>. The specific steps are as follows:

(1) Construct evaluation matrix  $X$ .

For the evaluation of  $n = 70$  countries, there are  $m = 24$  indicators,  $x_{ij}$  represent the  $j$ th indicator value of the  $i$ th country and  $X$  is the evaluation matrix.

$$X = \begin{bmatrix} x_{11} & x_{12} & \cdots & x_{1n} \\ x_{21} & x_{22} & \cdots & x_{2n} \\ \vdots & \vdots & x_{ij} & \vdots \\ x_{m1} & x_{m2} & \cdots & x_{mn} \end{bmatrix} \quad (1)$$

(2) The normalized matrix is obtained by dimensionless processing,  $Z = [z_{ij}]$ .

For benefit indicators,

$$z_{ij} = (x_{ij} - x_{imin}) / (x_{imax} - x_{imin}) \quad (2)$$

For cost indicators,

$$z_{ij} = (x_{imax} - x_{ij}) / (x_{imax} - x_{imin}) \quad (3)$$

(3) Indicator variability.

$$\bar{z}_j = 1/m \sum_{i=1}^m z_{ij} \quad (4)$$

$$S_j = \sqrt{\sum_{i=1}^m (z_{ij} - \bar{z}_j)^2 / (m - 1)} \quad (5)$$

Where  $\bar{z}_j$  is the average value of the  $j$ th index,  $S_j$  is the standard deviation of the  $j$ th index, reflecting the variability of the  $j$ th index.

(4) Indicator conflict.

$$r_{jk} = \frac{\sum_{i=1}^m (z_{ij} - \bar{z}_j)(z_{ik} - \bar{z}_k)}{\sqrt{\sum_{i=1}^m (z_{ij} - \bar{z}_j)^2} \sqrt{\sum_{i=1}^m (z_{ik} - \bar{z}_k)^2}} \quad (6)$$

$$R_j = \sum_{k=1}^n (1 - r_{jk}), k \neq j \quad (7)$$

Where  $r_{jk}$  is the correlation coefficient between index  $j$  and index  $k$ ,  $R_j$  is the conflict of index.

(5) Index weight.

$$C_j = S_j \sum_{k=1}^n (1 - r_{jk}) = S_j \times R_j \quad (8)$$

$$w_j = \frac{C_j}{\sum_{j=1}^n C_j} \quad (9)$$

Where  $C_j$  is the information amount of the  $j$ th index,  $w_j$  is the weight of the  $j$ th index.

(6) Standardized weighting matrix.

$$V = [v_{ij}]_{m \times n} = [z_{ij} \times w_j]_{m \times n} \quad (10)$$

(7) Positive and negative ideal solutions of the index.

$$v_j^+ = \max\{v_{1j}, v_{2j}, v_{3j}, \dots, v_{mj}\}, j = 1, 2, \dots, n \quad (11)$$

$$v_j^- = \min\{v_{1j}, v_{2j}, v_{3j}, \dots, v_{mj}\}, j = 1, 2, \dots, n \quad (12)$$

(8) Weighted Euclidean distances from countries to positive and negative ideal solutions.

$$D_i^+ = \sqrt{\sum_{j=1}^n (v_{ij} - v_j^+)^2} \quad (13)$$

$$D_i^- = \sqrt{\sum_{j=1}^n (v_{ij} - v_j^-)^2} \quad (14)$$

(9) Comprehensive evaluation index of investment risk.

$$G_i = \frac{D_i^-}{D_i^+ + D_i^-}, G_i \in [0, 1] \quad (15)$$

Where the larger the  $G_i$  value, the closer the  $i$ th country is to the ideal value and the smaller the risk.

In this paper, MATLAB R2024b software was used to achieve comprehensive evaluation of cooperation risks in various countries, the risk evaluation results of each country are shown in **Table 3**.

**Table 3.** TOPSIS score results and rankings of countries

State	Score	Rank	State	Score	Rank
Venezuela	0.341	1	Laos	0.571	36
Suriname	0.401	2	Tajikistan	0.573	37
Nicaragua	0.402	3	Turkmenistan	0.574	38
Mozambique	0.406	4	Tanzania	0.575	39
Cameroon	0.408	5	Cuba	0.586	40
Burundi	0.412	6	Cambodia	0.591	41
Colombia	0.426	7	Guyana	0.593	42
Uganda	0.443	8	Kyrgyzstan	0.594	43
Senegal	0.451	9	Morocco	0.596	44
Costa Rica	0.451	10	Russia	0.601	45
Panama	0.454	11	Ghana	0.604	46
Brazil	0.456	12	Albania	0.605	47
Nepal	0.464	13	Uzbekistan	0.613	48
Zambia	0.474	14	Kazakhstan	0.624	49
Kenya	0.475	15	Uruguay	0.625	50
Syria	0.480	16	Peru	0.627	51
Sudan	0.492	17	Philippines	0.630	52
Serbia	0.492	18	Moldova	0.634	53
Brunei	0.495	19	Saudi Arabia	0.643	54
Tonga	0.496	20	Vietnam	0.647	55
Fiji	0.500	21	Indonesia	0.648	56
Chile	0.501	22	Thailand	0.654	57
Jamaica	0.502	23	Italy	0.662	58
Afghanistan	0.514	24	Qatar	0.663	59
Latvia	0.524	25	Romania	0.670	60
Iran	0.532	26	Hungary	0.670	61
Ethiopia	0.537	27	Lithuania	0.677	62
Ukraine	0.539	28	Poland	0.688	63
Nigeria	0.541	29	Luxembourg	0.695	64
Myanmar	0.548	30	Austria	0.700	65
Mali	0.550	31	Singapore	0.704	66
Bangladesh	0.554	32	UAE	0.705	67
Argentina	0.555	33	Korea	0.707	68
Turkey	0.568	34	Czech Republic	0.728	69
Pakistan	0.569	35	New Zealand	0.735	70

### 4.3. Classification of investment risk based on cluster analysis

In order to further identify the differences in the level of cooperation risks in different countries, this paper uses a hierarchical cluster analysis method to classify the risks of different countries. Based on the tree structure analysis of hierarchical clustering, the best cluster number is determined to be  $K = 3$ , and the clustering results are shown in Table 4.

**Table 4.** Results of cluster analysis

Risk level	Country
High risk	Venezuela, Suriname, Nicaragua, Mozambique, Cameroon, Burundi, Colombia, Uganda, Senegal, Costa Rica, Panama, Brazil, Nepal, Zambia, Kenya, Syria, Sudan, Serbia, Brunei, Tonga, Fiji, Chile, Jamaica.
Medium risk	Afghanistan, Latvia, Iran, Ethiopia, Ukraine, Nigeria, Myanmar, Mali, Bangladesh, Argentina, Turkey, Pakistan, Laos, Tajikistan, Turkmenistan, Tanzania, Cuba, Cambodia, Guyana, Kyrgyzstan, Morocco, Russia, Ghana, Albania, Uzbekistan.
Low risk	Kazakhstan, Uruguay, Peru, Philippines, Moldova, Saudi Arabia, Vietnam, Indonesia, Thailand, Italy, Qatar, Romania, Hungary, Lithuania, Poland, Luxembourg, Austria, Singapore, United Arab Emirates, South Korea, Czech Republic, New Zealand.

## 5. Results and discussion

According to the previous research results, the 70 countries are classified into three categories according to their risk levels: low-risk, medium-risk, and high-risk. Low-risk countries include Kazakhstan, Uruguay, Peru, the Philippines, Moldova, Saudi Arabia, and 16 other countries. Among them, Asian countries are mainly concentrated in Southeast Asia and West Asia. Most of these countries have close economic and trade exchanges with China under the Belt and Road Initiative framework, relatively stable political environments, and favorable policies, make them priority destinations for Chinese enterprises' transnational investments. European countries, such as Italy, Austria, Poland, the Czech Republic, etc., are mostly EU member States, with highly legalized market economic systems, high policy transparency, perfect social security, and mature labor systems, which are also important areas for enterprises to invest. As a developed country, New Zealand has a superior business environment, is friendly to foreign investment, and has a high degree of integration between the sports industry and culture, which can bring a higher value-added market to sporting goods manufacturers, and is one of the most attractive countries for transnational investment.

Medium-risk countries include Afghanistan, Latvia, Iran, Ethiopia, Ukraine, Nigeria, Myanmar, Mali, and 17 other countries, mainly distributed in Asia and Africa. Most of these countries are in the stage of institutional transition or development, and have certain investment potential, but they still face many challenges such as policy and economy. For example, Afghanistan, Iran, and Ukraine have had frequent geopolitical conflicts in recent years, with ongoing domestic political instability, which increases the uncertainty of investments. Nigeria and Ethiopia have imperfect legal systems and weak government supervision. For foreign-funded enterprises, weak legal frameworks and insufficient government oversight result in high risks for foreign enterprises in terms of contract enforcement and property rights protection. Countries like Ghana and Tajikistan suffer from underdeveloped infrastructure and high logistics costs, which reduce investment efficiency and returns. In addition, Cambodia, Uzbekistan, and other Southeast Asian and Central Asian countries maintain good relations with China under the Belt and Road Initiative. Significant differences in cultural identity and institutional environments, coupled with low levels of economic development and immature business environments, constrain enterprises in market entry and



operational management.

High-risk countries include Venezuela, Suriname, Nicaragua, Mozambique, Cameroon, Burundi, Colombia, Uganda, and 15 other countries, mainly distributed in Africa and Latin America. Mozambique, Cameroon, and other African countries have weak rule-of-law systems, poor governance capacity, and high levels of corruption, leaving foreign enterprises without effective legal remedies and subject to high institutional transaction costs. Venezuela, Zambia, and other American countries have been facing the influence of civil strife and extremist forces for a long time, with frequent regime changes, weak law enforcement, widespread economic risks such as hyperinflation and high foreign debt pressure, which have seriously affected the entry of foreign capital. Countries such as Nepal and Syria have undiversified economic structures, poor public security, and tense labor relations, which may threaten the personal safety of foreign enterprise staff. In some Pacific Island countries such as Tonga and Fiji, due to their limited market demand, obvious language and cultural barriers, it is difficult to localize sporting goods brands and expand the market, which constitutes the main obstacle for enterprises to invest.

## 6. Conclusion and policy recommendations

This paper constructed a risk evaluation index system including 5 first-level indicators and 24 second-level indicators. Based on the CRITIC method, the weighting results show that political and legal risk and socio-cultural risks are the two dimensions that have the greatest impact on enterprise investment. Among the secondary indicators, BIT signing status, business environment, diplomatic relations, social security, unemployment rate, inflation, and geopolitics have higher weights and warrant particular attention from enterprises. The comprehensive evaluation of investment risk in 70 Belt and Road countries using the TOPSIS method reveals that Asian and European countries generally exhibit lower investment risks. These countries typically maintain close trade ties with China, have relatively stable political environments, and higher levels of economic development. In contrast, some African and American countries show higher risks, mainly due to geopolitical instability, weak economic foundations, and poor public security.

Based on the above conclusions, this paper puts forward the risk prevention measures for Chinese sporting goods manufacturing investing in Belt and Road countries, from both the enterprises and government perspectives:

For enterprises, it is essential to enhance risk awareness and management capabilities. First, conduct comprehensive multidimensional risk assessments of the host country—including political, legal, economic, and socio-cultural aspects—prior to investment decisions, and select investment destinations scientifically based on their own resources and capabilities. Second, establish and improve the overseas investment risk management system, strengthen the ability of contract management and tax planning, and improve the level of coping with sudden risks such as exchange rate fluctuations and legal disputes.

For the government, it is necessary to optimize the external investment environment and support services. First, strengthen diplomatic coordination with countries along the route, promote more countries to sign bilateral investment agreements and other documents, and provide legal and institutional guarantees for overseas investment of enterprises. Second, establish and improve external investment service platforms, regularly release investment environment assessments and risk warning information for Belt and Road countries, and provide enterprises with timely and authoritative decision-making references.

## Disclosure statement

The authors declare no conflict of interest.

## References

- [1] Huang Y, 2016, Understanding China's Belt & Road Initiative: Motivation, Framework and Assessment. *China Economic Review*, 40: 314–321.
- [2] Dunford M, 2021, China's Belt and Road Initiative and Its Implications for Global Development. *Acta Via Serica*, 6(1): 91–118.
- [3] Duan F, Ji Q, Liu BY, et al., 2018, Energy Investment Risk Assessment for Nations along China's Belt & Road Initiative. *Journal of Cleaner Production*, 170: 535–547.
- [4] Yuan J, Zeng Y, Guo X, et al., 2018, Electric Power Investment Risk Assessment for Belt and Road Initiative Nations. *Sustainability*, 10(9): 3119.
- [5] Andrić JM, Wang J, Zou PXW, et al., 2019, Fuzzy Logic-Based Method for Risk Assessment of Belt and Road Infrastructure Projects. *Journal of Construction Engineering and Management*, 145(12): 04019082.
- [6] Xiang Y, Zhang Q, Wang D, et al., 2022, Mining Investment Risk Assessment for Nations along the Belt and Road Initiative. *Land*, 11(8): 1287.
- [7] Yang F, Gan Q, Guo L, 2023, Political Risks to China's Energy Infrastructure Investment in Countries along the Belt and Road. *Energies*, 16(18): 6461.
- [8] Tang BJ, Ji CJ, Zheng YX, et al., 2024, Risk Assessment of Oil and Gas Investment Environment in Countries along the Belt and Road Initiative. *Petroleum Science*, 21(2): 1429–1443.
- [9] Nikjow MA, Liang L, Xijing Q, et al., 2022, Risk Analysis of Belt and Road Infrastructure Projects Using Integrated ISM-MICMAC Approach. *Journal of Modelling in Management*, 17(4): 1410–1431.
- [10] Jiang ZL, Jiang ML, 2022, Research on the Sustainability of China's Overseas Investment under the "Belt and Road" Initiative. *On Economic Problems*, (7): 35–43.
- [11] Li T, Tang JQ, 2022, Research on the Influence of Financial Risks in the Countries Along the Belt and Road on China's OFDI. *International Economics and Trade Research*, 38(03): 36–50.
- [12] Guo M, 2023, Research on Tax Risks of Enterprises' Overseas Investment under the New Situation of the Belt and Road Initiative. *Communication of Finance and Accounting*, (16): 131–136.
- [13] Xiang PC, Liu SJ, Duan X, 2025, Research on Comprehensive Evaluation of Railway Investment Risk in Countries Along "the Belt and Road." *Journal of Industrial Technology and Economy*, 44(02): 139–149.
- [14] Hou J, Li G, Ling J, et al., 2023, Mineral Investment Risk Assessment of Host Countries Based on a Cloud Matter-Element Model. *Gospodarka Surowcami Mineralnymi*, 39.
- [15] Zhang M, Pang Z, Liu L, et al., 2024, Risk Assessment of China's Overseas Energy Investments Considering the Response Ability to Major Risk Events: A Case Study of COVID-19. *Energy*, 288: 129783.
- [16] Jiang J, Ao L, 2023, Risk Evaluation and Prevention of China's Investment in Countries along the Belt and Road. *Journal of Intelligent & Fuzzy Systems*, 44(2): 1645–1659.
- [17] Li B, 2022, Risk Assessment of OFDI for Technology-Based Enterprises under the Background of "One Belt One Road." *Discrete Dynamics in Nature and Society*, 2022(1): 6113930.
- [18] Wu Y, Wang J, Ji S, et al., 2020, Renewable Energy Investment Risk Assessment for Nations along China's Belt & Road Initiative: An ANP-Cloud Model Method. *Energy*, 190: 116381.
- [19] Diakoulaki D, Mavrotas G, Papayannakis L, 1995, Determining Objective Weights in Multiple Criteria Problems:

The Critic Method. Computers & Operations Research, 22(7): 763–770.

- [20] Hwang CL, Yoon K, 1981, Methods for Multiple Attribute Decision Making. Multiple Attribute Decision Making: Methods and Applications a State-of-the-Art Survey, 1981: 58–191.

**Publisher's note**

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.