

## СЕКЦІЯ 2 СВІТОВЕ ГОСПОДАРСТВО І МІЖНАРОДНІ ЕКОНОМІЧНІ ВІДНОСИНИ

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**Zhang Lei**

*PhD student in Economics*  
*Sumy National Agrarian University*  
ORCID: <https://orcid.org/0000-0001-6187-3145>  
E-mail: 3567437709@qq.com

**Maslak Nataliia**

*Associate Professor of Finance*  
*Sumy National Agrarian University*  
ORCID: <https://orcid.org/0000-0003-1482-4118>  
E-mail: n.maslak@ukr.net

### RISK ASSESSMENT OF FOREIGN DIRECT INVESTMENT OF CHINESE AGRICULTURAL ENTERPRISES

With the global trend of foreign direct investment, Chinese agricultural enterprises have also increased the pace of foreign direct investment. At present, Chinese agricultural enterprises have invested in development in more than 30 countries, including Southeast Asia, Africa and Latin America. Ocean fisheries development is underway in the high seas of the Pacific, Atlantic, and Indian oceans. There are also planting and forestry bases in the Russian Far East and Central Asian countries. The benefits of Chinese agricultural enterprises' overseas investment are obvious. It is not only conducive to Chinese enterprises to use foreign resources, funds and technology, but also to avoid various barriers and increase the international market share. However, while encouraging China's agricultural enterprises to go global, we should also be clearly aware that the overseas direct investment of China's agricultural enterprises is still in the primary stage. The level of agricultural enterprises is still relatively low, and overseas direct investment faces a variety of risks. Analysis and studying these risks will help Chinese agricultural enterprises to effectively prevent and control them in foreign direct investment. By taking into account the integrity and dynamics of the overseas direct investment environment, the risk evaluation index system of foreign investment projects of Chinese agricultural enterprises is constructed. Representative items were selected for risk evaluation using hierarchical analysis and entropy weight coefficient method. The results show that there are prominent risk factors such as international agricultural market risk, political and legal risks of host countries, domestic institutional barriers and enterprise own technical restrictions. In order to prevent and reduce investment risks, the government should increase policy support and set up special agricultural overseas investment service institutions. Enterprises should establish an effective risk evaluation mechanism to promote the research and development and promotion of agricultural technology.

**Keywords:** agribusiness, direct investment, risk assessment, comprehensive environment.

#### **Чжан Лей, Маслак Н.Г. ОЦІНКА РИЗИКІВ ПРЯМИХ ІНОЗЕМНИХ ІНВЕСТИЦІЙ КИТАЙСЬКИХ СІЛЬСЬКОГОСПОДАРСЬКИХ ПІДПРИЄМСТВ**

З глобальною тенденцією прямих іноземних інвестицій, китайські сільськогосподарські підприємства також збільшили темпи прямих іноземних інвестицій. В даний час китайські сільськогосподарські підприємства інвестували у розвиток більш ніж 30 країн, включаючи Південно-Східну Азію, Африку та Латинську Америку. Розвиток океанічного рибальства ведеться у відкритому морі Тихого, Атлантичного та Індійського океанів. На російському Далекому Сході та країнах Центральної Азії також є бази з рослинництва і лісівництва. Переваги зарубіжних інвестицій китайських сільськогосподарських підприємств є очевидними. Це не тільки сприяє використанню китайськими підприємствами іноземних ресурсів, засобів та технологій, а й дозволяє уникнути різних бар'єрів та збільшити частку на міжнародному ринку. Однак, заохочуючи китайські сільськогосподарські підприємства до виходу на міжнародний ринок, потрібно чітко усвідомлювати, що прямі закордонні інвестиції китайських сільськогосподарських підприємств усе ще перебувають на початковій стадії. Рівень сільськогосподарських підприємств ще відносно низький, і прямі закордонні інвестиції стикаються з різними ризиками. Аналіз та вивчення цих ризиків допоможе китайським сільськогосподарським підприємствам ефективно запобігати та контролювати їх при здійсненні прямих зарубіжних інвестицій. Зважаючи на цілісність та динаміку середовища прямих зарубіжних інвестицій, побудовано систему показників оцінки ризику зарубіжних інвестиційних проектів китайських сільськогосподарських підприємств. Для оцінки ризиків було відібрано репрезентативні пункти за допомогою ієрархічного аналізу та методу вагового коефіцієнта ентропії. Результати показують, що існують значні фактори ризику, такі як ризик міжнародного сільськогосподарського ринку, політичні та правові ризики приймаючих країн, внутрішні інституційні бар'єри та власні технічні обмеження підприємств. Для запобігання та зниження інвестиційних ризиків уряд має посилити політичну підтримку та створити спеціальні установи з обслуговування сільськогосподарських інвестицій за кордоном. Підприємства мають створити ефективний механізм оцінки ризиків для сприяння дослідженням, розробкам та просуванню сільськогосподарських технологій.

**Ключові слова:** агробізнес, прямі інвестиції, оцінка ризиків, комплексне середовище.

**Introduction.** Science and technology have been developed rapidly, and modern information technology has been widely used in various fields. At the same time, economic resources are large and widely flowing and allocated among countries around the world, and the integrated economic operation pattern of multinational enterprises producing in other countries and using global factories has been further strengthened in the world. In this process, foreign direct investment (Foreign Direct Investment), as an essential form of capital flow, is very active in world economic growth among countries. Although developed countries are still dominant in global foreign direct investment, foreign direct investment in developing countries, including China, has begun to gradually occupy an important place. In particular, China, as the largest developing country, since the late 19 70s, with the deepening of reform and opening up and the implementation of international strategy, FDI has become one of the important models of Chinese enterprises and growing. After China officially joined the WTO in 2002, the government issued a series of encouraging policies, and enterprises were highly motivated and competing to carry out transnational operations, and foreign direct investment grew more rapidly. In 2010, China's net foreign direct investment (flow) was US \$68.81 billion, accounting for 5.2% of the global flow, ranking fifth in the world, for the first time to surpass traditional foreign investors such as Japan (US \$56.26 billion), Britain (US \$11.02 billion); By the end of 2010, China's total net foreign direct investment reached US \$3 17.21 billion, ranking 17th in the world. In the 1990s, the average annual flow of FDI was only \$2.195 billion, accounting for 0.45% of the total FDI flow in the same period; China's FDI stock was only \$4.455 billion, accounting for 0.14% of the total FDI stock in that year. In 2010, China's foreign direct investment flow and stock increased by 31 times and 71 times respectively than in the 1990s. By the end of 2010, China had 16,000 overseas enterprises in 178 countries (regions), with an investment coverage of 72.7%, including 90% and 85% in Asia and Africa, respectively.

Therefore, it is crucial to prevent risks for foreign direct investment projects of Chinese agricultural enterprises. Risk identification and evaluation are the primary premise and necessary conditions for risk prevention. The existing research mainly focuses on the analysis of investment risks in host countries, mostly with a single risk classification. The proposed measures are also based on the analysis results of investment risks in host countries, ignoring the integrity and dynamics of the overseas direct investment environment. In this context, this study constructs the risk evaluation index system of foreign direct investment projects of agricultural enterprises, starting from four dimensions: international environment, host country environment, investment country environment and enterprise internal environment. Through empirical research, the effectiveness of the evaluation model in the risk

evaluation of agricultural overseas investment is verified to provide reference for preventing agricultural overseas investment risks.

**Problem statement.** Analysis of recent research and publications. In terms of risk research on enterprise foreign investment, foreign scholars classify risks from different perspectives, mainly Beamish, etc. According to the risk level of the host country, the risk is divided into situational risk and trading risk. According to the environment of overseas investment, industry and specific enterprises, Kent and others make a risk measurement mode of three-part variables, dividing the risk into macro environmental risk (social general environment), moderate environmental risk (industry competitive environment) and micro environmental risk (enterprise internal environment). Keith et al. divide the risk into management control risk and market complexity risk according to the enterprise strategic management theory.

According to the focus content and the importance of all kinds of risks, Liu Xiliang divides the risks into two categories: political risk (including policy and legal risk) and economic risk (macroeconomic risk, business risk, market risk, competition risk and human resource risk, etc.). Shi Shurong divided the macro environmental risks of overseas investment into political, macroeconomic, cultural and legal risks. She used artificial neural network methods to build a macro environmental risk early warning model of overseas investment, and rated and early warning the macro environmental risks of China's overseas investment. From the perspective of overseas investment in Chinese enterprises and sovereign wealth, [8] of the National Risk Rating Research Group has built five indicators of economic foundation, solvency, social resilience, political risk and relations with China. Standardized treatment of quantitative indicators is adopted, and quantitative indicators are the quantitative results of other institutions or scored by the evaluation committee, and then standardized.

In terms of agricultural overseas investment risk research, Chen Wei Chinese agricultural enterprises facing foreign national risk, divided into political policy risk, economic policy risk, national legal risk, national debt crisis risk and non-traditional risk, on the basis of the national risk assessment and prediction institutions and methods, put forward targeted national risk prevention measures Ancient Guangdong analyzed the risks of foreign direct investment of Chinese agricultural enterprises, and believed that the risks include political risk, economic risk, agricultural project decision-making risk, natural disaster risk, agricultural technology and human resource risk. Mei Shiwen and others believe that the agricultural overseas investment is faced with the changeable foreign investment environment, the resistance of the host countries and the lack of misunderstanding talents, and the investment risk is more difficult for financing.

**Analysis of recent research and publications.** In terms of risk research on enterprise foreign invest-

ment, foreign scholars classify the risk from different perspectives. According to the risk level of the host country, the risk is divided into two categories: scenario risk and transaction risk to make three-part variables according to the environment of overseas investment, industry and the uncertainty of specific enterprises mode risk into macro environmental risk (social general environment), medium environmental risk (industry competitive environment) and micro environmental risk (enterprise internal environment). According to the focus content and the importance of all kinds of risks, the risks are divided into political risk (including policy and legal risk) and economic risk (macroeconomic risk, business risk, market risk, competition risk and human resource risk, etc.). Shi Shurong divides the macro environmental risks of overseas investment into political, macroeconomic, cultural and legal risks, uses artificial neural network methods to build a macro environmental risk early warning model of overseas investment, and rating and early warning the macro environmental risks of China's overseas investment. Chen wei, the Chinese agricultural enterprises facing foreign direct investment national risk, divided into political policy risk, economic policy risk, national legal risk, national debt crisis risk and non-traditional risk, on the basis of analyzing the national risk assessment and prediction institutions and methods, put forward the targeted national risk prevention measures.

**Emphasizing the unresolved parts of the general problem.** This paper analyzes and studies the more risks faced by foreign direct investment of agricultural enterprises in China, especially combined with the characteristics of agricultural enterprises, and analyzes the natural disaster risk as the external direct investment of agricultural enterprises, which was not noticed in the previous case of foreign direct investment research. Based on the characteristics of agriculture itself, investment projects often have natural risks. Agricultural investment may encounter common natural disasters such as floods and droughts. From the perspective of social environment, the requirements for environmental protection in developed economies are constantly improving, and the labor protection laws tend to be improved. The risks of cultural and religious conflict, labour market control risks and environmental protection risks all need the focus of enterprises.

**Purpose statement.** The overall scale of agricultural enterprises invested in China is small and weak in strength, and there is a serious lack of key leading enterprises in national agricultural industrialization, especially aircraft carrier agricultural enterprises. Some agricultural enterprises of large scale in China, but compared with multinational enterprises in developed countries, they are still small and medium-sized enterprises, and their international competitiveness is very weak. Especially in foreign direct investment, enterprises have a process of gradually becoming familiar with the politics, economy, culture and customs of the host country. In addition, China's agricultural enterprises generally lack international management talents, and the basic

quality, communication language and decision-making level of management personnel are still uneven. There are still many gaps between the industrialization level, information source and national policies of China's agricultural enterprises and the international operation. China's agricultural enterprises are participating globally competition with international competition, with western international agricultural enterprises for the international market, inevitably encounter various difficulties and risks.

From the existing experience of FDI in developed countries, the analysis of FDI risks is not only of important theoretical significance, but also plays a guiding role at the policy level. However, according to the existing literature, there is still a lack of research on China's foreign direct investment by scholars at home and abroad, and most of the existing research lies in examining the basic movements of China's foreign direct investment.

In terms of aircraft, development strategy, industry and regional distribution characteristics, the risk control of such transnational business behavior has not been paid enough attention, especially the research on the risks and countermeasures faced by foreign direct investment of Chinese agricultural enterprises is still very scarce. Therefore, it is very necessary for us to carry out in-depth study on the huge risks facing foreign direct investment of Chinese agricultural enterprises, and conduct practical analysis of the risk prevention countermeasures that may be faced.

**Construction of the evaluation index system.** Based on the existing index system, combined with the Ministry of Commerce foreign investment cooperation countries (region) guide (2015 edition " Ministry of Agriculture China foreign agricultural investment cooperation report (2014), overseas investment research results, such as professor Chen design principle of overseas investment project evaluation index, agricultural enterprise risk evaluation index system, strive to dynamically and comprehensively evaluate the existing risks of investment projects, help enterprises to clear advantages and disadvantages, timely adjust their own management strategy, and prevent investment risks. The specific indicators are set as follows (Table 1).

The characteristics of the indicators are reflected in two aspects. One is the integrity and dynamics of the investment environment from the international environment, the environment of the investment country and the internal environment of the enterprise.

**Identification of the risk level evaluation rating.** From the perspective of risk, the overseas investment risks of agricultural enterprises are divided into five evaluation levels: excellent, normal, concern, risk and high risk. The higher the score, the lower the risk of the enterprise, the stronger the market competitiveness; the lower the score is vice versa. Risk levels are defined in Table 2.

**Risk assessment of overseas investment projects of Chinese agricultural enterprises.** In order to verify the feasibility and effectiveness of the risk evaluation model for agricultural overseas

Table 1

**Risk evaluation index system for foreign investment projects of Chinese agricultural enterprises**

Standard	Sub-criteria	index
A1 International Environment	A11 The role of the United Nations Food and Agriculture Organization	B1 Political stability B2 agricultural protectionism B3 agriare nationalized B4 Risk of War B5 Legal Risk
	A12 International Investment Law and the Investment Treaty	
	A13 International Agricultural Market Changes	
	A14 financial market integration	
A2 Host Country Environment	A21 political Environment	B6 Agricultural Science and Technology Resources B7 Macroeconomic development level B8 solvency B9 logistics development degree B10 inflation rate B11 exchange rate status B6 Agricultural Science and Technology Resources
	A22 economic Environment	
	A23 natural Environment	
	A24 social Environment	
A3 Investment Country Environment	A31 political Environment	B12 climate conditions B13 natural disaster risk B14 Agricultural Resource Conditions B15 Degree of cultural conflict B16 workforce quality B17 Labour Market Regulation B18 environmental protection importance B19 Agricultural Overseas Investment Policy B20 Agricultural Products Market Size B21 Bank Financing Environment B22 total assets B23 return on net equity B24 operating margin B25 The speed-moving ratio B26 asset-liability ratio B27 inventory turnover rate B28 Total assets turnover rate B29 accounts receivable turnover rate B30 Management B31 Enterprise Competition Strategy B32 Agricultural Science and Technology Assets B33 Agricultural Science and Technology Talent
	A32 economic Environment	
	A41 profitability	
	A42 solvency	
A4 internal enterprise environment	A43 operating capability	
	A44 Basic quality of enterprise	

Table 2

**Standards for risk level classification of overseas investment in Chinese Agricultural Enterprises**

Risk level	Evaluation score interval
Excellent	[80,100)
Normal	[60,80)
Focus on risk	[40,60)
High risk	[20,40)
	[0,20)



Table 3

## 5 Investment projects of the listed enterprises

Enterprise name	Investment projects
Shuanghui Group	Buy the largest U. S. producer of pork and live pigs
New Hope Group	Acquisition Australia's fourth largest beef processors
Cofco Group	Acquisition famous Dutch agricultural and commodity trade groups
Bright Dairy Co., Ltd	Buy Israel's largest food company
Changyu Grape Brewing Co., Ltd	Buy the French Honeyflower Agriculture Company

Table 4

## Conversion value of enterprise raw financial data

Financial indicators	Shuanghui Group	New Hope Group	COFCO	Bright Dairy Co., Ltd	Changyu Grape Brewing Co., Ltd
B22 total assets	100.00	84.47	39.65	72.40	100
B23 return on net equity	100.00	100	31.49	100	100
B24 operating margin	58.47	.00	28.52	100	100
The B25 speed-moving ratio	70.71	38.46	58.61	36.78	76.57
B26 asset-liability ratio	100	44.47	85.08	53.99	100
B27 inventory turnover rate	100	100	87.20	81.44	0.00
B28 Total assets turnover rate	100.00	100	79.50	100.00	39.33
B29 accounts receivable turnover rate	100.00	100.00	95.04	100.00	91.47

Source: Financial statements of listed enterprises

Table 5

## Comprehensive risk assessment score of the overseas investment projects of the 5 agricultural enterprises

Enterprise	International environment	The host country Domestic environment	Domestic environment of the investment country	Internal environment of the enterprise	Comprehensive score
Shuanghui Group	15.18	15.18	15.18	15.18	15.18
New Hope Group	16.08	16.08	16.08	16.08	16.08
Cofco Group	14.88	14.88	14.88	14.88	14.88
Bright Dairy Co., Ltd	15.16	15.16	15.16	15.16	15.16
Changyu Grape Brewing Co., Ltd	15.75	15.75	15.75	15.75	15.75

Source: The calculate of Author

investment constructed in this study, an empirical study was carried out on the overseas investment projects of Chinese agricultural enterprises. Based on operability and data availability, the investment projects of 5 listed enterprises are selected as the research objects, among which both state-owned enterprises and private enterprises are certain representative. Investment projects are respectively:

The financial data of the 5 listed enterprises in 2014 are all derived from Juchao Information Network. The original data of large listed Chinese agricultural companies is relatively complex, and the value units of various indicators are not unified. In order to facilitate calculation, the original financial data is pre-processed by interpolation method. The interpolation method is mainly to find the substitution value, namely a value is inserted between two values, using the characteristics of the linear function to obtain a substitution value with equal effect. The total interval was set to 0-100 and divided into five excellent,

good, medium, low and difference, each representing 0~20,20~40,40~60,60~80, and 80~100 respectively. The conversion values of the raw financial data of 5 enterprises are shown in Table 4.

Fifteen experts were selected to score and the average, all 60-80 and the risk assessment was normal.

According to the score results of financial indicators and non-financial indicators and the weights of each index, the weighted score value of each indicator is calculated. Finally, the comprehensive risk assessment score of overseas investment projects of 5 listed agricultural enterprises is all located at 60-80, and the risk assessment is normal.

**Conclusions.** Under the background of China's implementation of the "Belt and Road" strategy, vigorously advocating foreign investment of agricultural enterprises and encouraging agricultural science and technology innovation, this study draws on the theory and practice of domestic and foreign investment risk evaluation, and combined

with the foreign investment situation of Chinese agricultural enterprises, and constructs the risk evaluation index system of overseas investment projects of agricultural enterprises. For further analysis, there are many risks and problems in the project, such as large fluctuations in the international agricultural market; prominent host country legal risks and environmental protection risks; insufficient domestic policy support for overseas agricultural investment, high bank financing threshold; and lack of agricultural science and technological talents within the enterprise. These should be paid attention to by the government and enterprises, and we should actively prevent investment risks in the process of overseas investment.

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