

The Political Risk Factors in Central Asia and Their Impact on China

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Abstract: Taking President Xi Jinping's statement of "improving prevention and control capabilities to prevent and defuse major risks, maintaining sustained and healthy economic development and overall social stability" as a guiding ideology, a series of factors affecting the external environment in Central Asia and the existence of national risks in Central Asia affecting China's external environmental security are analyzed. Empirical methods are used to study the impact of risks in countries in Central Asia on investments, personnel, and projects sponsored by China and located in Central Asia. Recommendations are made in relation to preventing and resolving major risks in the external environment of Central Asia. Uncertain policy trends in Central Asia, competing interests in multilateral cooperation, regional terrorism, and wrestling between great powers will pose risks for security and stability in northwest China in the context of China's Belt and Road Initiative and global development.

1. Introduction

Taking President Xi Jinping's statement of "improving prevention and control capabilities to prevent and defuse major risks, maintaining sustained and healthy economic development and overall social stability" as a guiding ideology¹, empirical methods are used to study the impact of risks in countries in Central Asia on investments, personnel, and projects sponsored by China and located in Central Asia. Recommendations are made in relation to preventing and resolving major risks in the external environment of Central Asia. Uncertain policy trends in Central Asia, competing interests in multilateral cooperation, regional terrorism, and wrestling between great powers will pose risks for security and stability in northwest China in the context of China's Belt and Road Initiative and global development.

A series of factors affecting the external environment in Central Asia and the existence of national risks in Central Asia affecting China's external environmental security are analyzed. The direct effects of risk on China's security are examined. For example, the increasing terrorism in Central Asia endangers the security and stability of northwest China². The interaction of different risks on the political and economic policies of Central Asian countries are also examined, which threaten the security of China's westward strategy^[3].

2. Methodology

Based on the national characteristics of Central Asian countries, influencing factors are identified at global, regional, and national levels, including political risk (corruption, government effectiveness and government stability), economic risk (inflation), and social risk factors (terrorism). The causes and effects of said factors are also analyzed. Analysis of the influencing factors and causes of Central Asia's threat to China's external environment is carried out at the global, regional and national level.

Table 1 A series of risk factors affecting the external environment in Central Asia

Study area level	Central Asia		
global	Government effectiveness		
regional	Terrorism index		
national	Inflation	Corruption	Government Stability

Based on the theory of the gravity model, drawing on lessons from McCallum (1995) and Fitzgerald (2014), among others, and according to the national risks in Central Asia and the actual situation of China's major risks in Central Asia, a model is improved, dummy variables are introduced, and the equation is developed as follows:

$$\ln Profit_{ijt} = \alpha_0 + \alpha_1 \ln pop_{it} + \alpha_2 \ln pop_{jt} + \alpha_3 \ln gdp_{it} + \alpha_4 \ln gdp_{jt} + \alpha_5 \ln r_{ij} / \delta_{ij}^t + \alpha_6 \ln CPI_{jt} + \ln government_{jt} + \alpha_8 \ln corrput_{jt} + \alpha_9 \ln efficiency_{jt} + \ln terrorism_{jt} + \alpha_{11} SCO_{ij} + \alpha_{12} Boundary_{ij} + \varepsilon_{ijt} \quad (1.1)$$

In the Formula table 1.1, i represents China, j represents the five countries in Central Asia, t represents time; and ε_{ijt} represents the residual term.

Table 2 Description of Gravity Model Variables

Variable	Symbol	Variable description	Data source
CPI	-	Consumer Price Index	WDI
government	+	The country's political stability and determines the consistency and stability of economic policies is measured.	WGI
corrput	+	The political system's ability to control corruption	WGI
efficiency	+	The government's governance and execution capabilities are measured.	WGI
terrorism index	-	The impact of terrorism on a country is measured.	IEP
Variable	Symbol	Variable description	Data source
POP	+	Total population	WDI
GDP	+	GDP at constant prices	WDI
r_{ij} / δ_{ij}^t	-	The ratio of the distance between the capitals of the two countries to the degree of transportation development	Google Earth WDI
SCO	+	members of the Shanghai Cooperation Organization	official website of Shanghai Cooperation Organization
boundary	+	common border	Google Earth

3. Research context

This article uses data from China and five Central Asian countries from 2003 to 2018. The population, railway length, land area, gross domestic product, and annual inflation rate of China and the five Central Asian countries over this period are collected from the World Bank WDI database^[4]. The distances between Beijing and the capitals of the five Central Asian countries are measured using Google Earth data^[1]. The stock of China's direct investment in the five Central Asian

countries is gleaned from the annual China Direct Foreign Statistics Bulletin. The turnover of underwriting projects, the number of underwriting projects and the number of migrant workers are collected from the National Bureau of Statistics. Data about government stability, corruption, and government effectiveness are from the World Bank's Worldwide Governance Indicators (WGI) database. Finally the terrorism index is sourced from the annual report (2003-2018) of the Institute of Economics and Peace (IEP).

The data showed a correlation between the global, regional, and national risk factors in Central Asia and China's direct investment stock in the five Central Asian countries, the turnover of underwriting projects and the number of expatriates, where the p value is less than 0.1, showing that the correlation was statistically significant. Thus, the risk factors have a significant impact on the safety of personnel and engineering projects in our country. A positive correlation indicates that personnel and engineering project safety has increased; a negative correlation indicates that the personnel and engineering project safety has decreased. When the risk factors corresponding to the three levels have a significant impact, relevant countermeasures can be analyzed.

According to the objectives of this article, OLS and SPSS software was used to analyze how risk in each of the five Central Asian countries impacted the stock of China's direct investment in the five Central Asian countries, the turnover of underwriting projects and the number of expatriates. The first column of data shows the result of regression where all variables are included in the equation. The model was continuously adjusted by performing a significance screening, deleting the insignificant variables one by one, and then performing regression analysis on the remaining variables in the formula. Finally, the most ideal regression results in the third, sixth, and ninth columns of the two tables are obtained. The regression results are shown in Tables 3, 4, and 5. All of the variables in the third column are significant.

Table 3 Empirical results of the influencing factors of China's OFDI in the five Central Asian countries^[2]

method variables	OLS		
	(1)	(2)	(3)
C	- (1.131*)	- (-13.058***)	- (-13.921***)
$\ln pop_{it}$	-0.294 (-1.309)	-	-
$\ln pop_{jt}$	-0.221 (-3.926***)	-0.228 (-4.13***)	-0.247(-4.714***)
$\ln gdp_{it}$	0.842 (3.685***)	0.543 (12.170***)	0.580 (13.699***)
$\ln gdp_{jt}$	0.180 (2.372**)	0.223 (3.385***)	0.135 (1.939***)
$\ln r_{ij}/\delta_{ij}^t$	-0.077 (-0.811)	-	-
CPI_{jt}	-0.117 (-2.759***)	-0.109 (-2.718***)	-0.113(-2.905***)
$\ln government_{jt}$	0.109 (1.443)	0.081 (1.184)	0.148 (2.750***)
$\ln corrput_{jt}$	-0.04 (-0.504)	-0.077 (-1.14)	-0.32 (-0.572*)
$efficiency_{jt}$	0.096 (1.088)	0.163 (2.227**)	0.107 (1.725**)
$\ln terrorism_{jt}$	0.34 (0.648)	0.045 (0.903)	-
SCO_{ij}	0.004 (0.043)	-	-
$boundary_{ij}$	0.383 (3.547***)	0.338 (5.925***)	0.305 (5.531***)
R^2	0.913	0.910	0.915
adjusted R^2	0.898	0.899	0.905
F-statistic	58.759	79.034	95.214

Table 4 Empirical results of factors affecting the turnover of completed underwriting projects

method variables	OLS					
	(4)		(5)		(6)	
C	(2.782 ^{***})		(3.852 ^{***})		(-3.983 ^{***})	
$\ln pop_{it}$	-0.805	(-3.19 ^{***})	-0.958	(-4.154 ^{***})	-0.885	(-4.088 ^{***})
$\ln pop_{jt}$	-0.18	(-2.852 ^{***})	-0.161	(-2.733 ^{**8})	-0.166	(-2.833 ^{***})
$\ln gdp_{it}$	1.571	(6.111 ^{***})	1.701	(7.197 ^{***})	1.614	(7.365 ^{***})
$\ln gdp_{jt}$	-0.44	(-5.165 ^{***})	-0.475	(-5.612 ^{***})	-0.456	(-5.773 ^{***})
$\ln r_{ij}/\delta_{ij}^t$	0.388	(3.628 ^{***})	0.263	(3.217 ^{***})	0.24	(3.253 ^{***})
CPI_{jt}	-0.145	(-3.056 ^{***})	-0.17	(-3.737 ^{***})	-0.169	(-3.717 ^{***})
$\ln government_{jt}$	0.18	(0.211)	0.086	(1.107)	0.096	(1.91 ^{**})
$\ln corrput_{jt}$	0.056	(0.631)	0.076	(0.937)	-	-
$efficiency_{jt}$	-0.058	(-0.591)	-	-	-	-
$\ln terrorism_{jt}$	-0.071	(-1.213 [*])	-0.062	(1.063 [*])	-0.158	(-1.994 ^{**})
SCO_{ij}	0.238	(2.092)	-	-	-	-
$boundary_{ij}$	-0.81	(-6.662 ^{***})	-0.652	(-7.378 ^{***})	-0.597	(-9.129 ^{***})
R^2	0.890		0.883		0.890	
adjusted R^2	0.871		0.886		0.866	
F-statistic	45.276		52.099		65.015	

Table 5 Empirical results of the influencing factors of Chinese expatriates in Central Asia

method variables	OLS					
	(7)		(8)		(9)	
C	-	(4.192 ^{***})	-	(5.109 ^{***})	-	(7.761 ^{***})
$\ln pop_{it}$	-1.730	(-4.735 ^{***})	-1.748	(-5.692 ^{***})	-2.016	(-8.124 ^{***})
$\ln pop_{jt}$	-0.208	(-0.365)	-	-	-	-
method variables	(7)		(8)		(9)	
$\ln gdp_{it}$	2.492	(7.619 ^{**})	2.447	(8.677 ^{***})	2.588	(10.418 ^{***})
$\ln gdp_{jt}$	0.564	(1.251)	0.419	(1.871 [*])	0.140	(2.050 ^{**})
$\ln r_{ij}/\delta_{ij}^t$	0.157	(0.849)	0.23	(1.784 [*])	-	-
CPI_{jt}	0.012	(0.112)	0.02	(0.27)	-	-
$\ln government_{jt}$	-0.118	(-0.58)	-0.155	(-0.826)	-	-
$\ln corrput_{jt}$	-0.377	(-1.431)	-0.173	(-0.918)	-	-
$efficiency_{jt}$	0.092	(0.452)	0.081	(0.475)	-	-
$\ln terrorism_{jt}$	-0.081	(-0.44)	-0.226	(-1.493 ^{**})	-0.232	(-3.409 ^{***})
SCO_{ij}	0.336	(0.553)	-	-	-	-
$boundary_{ij}$	0.1	(0.214)	-	-	-	-
R^2	0.843		0.836		0.817	
adjusted R^2	0.785		0.793		0.798	
F-statistic	14.359		19.747		44.572	

Notes1. <https://www.google.com/earth>2. The left side of the data in the table is the standardized coefficient β , and the statistical value of t is in the brackets; *** means $p < 1\%$, ** means $p < 5\%$, * means $p < 10\%$ (table3, table4, table5).

4. Conclusion

This article uses OLS to explore the national risk factors affecting the safety of Chinese personnel and projects in Central Asia, and the following conclusions can be drawn.

First of all, “government stability” and “common border” are positively correlated with outward foreign direct investment (OFDI), indicating that the political stability of the host country government and its neighbors play a significant role in ensuring the security of Chinese investment. The variable “annual inflation rate” is negatively correlated and statistically significant, indicating that the devaluation of the host country’s domestic currency will affect China’s investment security. In addition, terrorism and government effectiveness have significantly decreased and increased China’s investment security, respectively. In terms of political risks, the degree of corruption control has relatively little influence and exhibits a certain decreasing effect. The five Central Asian countries generally have authoritative governments. Even if some countries gradually transition to a parliamentary system, they will still basically be in a state of “controllable democracy.” During transitional process, there will inevitably be a certain degree of corruption, but this has little impact on the security of China’s investments.

Secondly, the model shows that the “inflation” variable is significantly negatively correlated, which shows that currency depreciation is also an important factor that affects the safety of China’s engineering projects in Central Asia. The current lower quality of economic development and economic structural imbalance in Central Asian countries pose a risk to domestic Chinese capital interests in the countries that have negative correlations. At the same time, comparing the “terrorism index” and “government stability”, the coefficient of inflation rate is larger, indicating that the sound economic development of Central Asia can better safeguard the safety of China’s engineering projects in the region. The “boundary” variable is significantly negatively correlated, which may be due to the fact that the economies of Kyrgyzstan and Tajikistan in the five Central Asian countries, which are adjacent to China, are too small. In comparison with the other three countries, there are relatively few projects in these two countries. At the same time, the coefficient of the “terrorism index” is negative and the value is relatively large, which shows that the domestic impact of terrorism in the five Central Asian countries threaten the safety of China’s engineering projects. This may be due to the geo-strategic position of Central Asia, the causes of terrorism in Central Asia, and internal conflicts have become the purpose of the geopolitical game among major powers^[5]. Some major powers fund and train extremists and secretly promote extremist forces in Central Asia^[6].

Thirdly, the economic construction personnel include personnel deployed to Central Asian countries for underwriting projects and migrant workers. Among the risk factors, only the “terrorism index” is significant, and the coefficient is negative. The result shows that terrorism has a greater impact than OFDI and the turnover of underwriting projects. It shows that the host country is facing the threat of terrorism, which will threaten China’s safety and hinder the influx of Chinese construction personnel. The influence of being a member of the Shanghai Cooperation Organization (SCO) is not significant, indicating that the SCO can still make progress in terms of guaranteeing security in Central Asia. Central Asian countries have higher expectations for the SCO’s comprehensive ability to deal with the Afghan issue^[7].

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References

[1] Jue Qing, Yafeng Zhu. The Northwest Frontier Governance from the Perspective of Geopolitics[J]. Lanzhou Academic Journal, Vol.62, No.01, PP.33-43,2019.

- [2] Fangyu Zong, Jiangyong Lu, Changqi Wu. Bilateral Investment Agreements, Institutional Environment, and Location Selection of Enterprises' Direct Foreign Investment[J]. Economic Research, Vol.47, No.05, PP.71-82, 2012.
- [3] Yabo Zhao, Zhiding Hu, Yuejing Ge, Xiaofeng Liu. The temporal and spatial evolution and type division of the geo-economic correlation between China and Central Asia[J]. World Geographical Research, Vol.28, No. 02, PP.105-113, 2019.
- [4] Ning Zhang. Anti-extremism cooperation between China and Central Asian countries under the framework of China's Belt and Road Initiative [J]. International Security Research, Vol.36, No.05, PP.137-154+160, 2018.
- [5] Yazhou Chen, Xianghong Zeng. The Central Asian Member States' Expectations of the Shanghai Cooperation Organization and Their Responses after the Expansion[J]. International Outlook, Vol.11, No.06, PP.90-108+153-154, 2019.