



DETERMINANTS OF EUROPEAN UNION FOREIGN DIRECT INVESTMENT IN CENTRAL ASIA

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ABSTRACT. *This article explores the key factors that impact the foreign direct investment of the European Union in Central Asia. The study analyzes a panel data set of five Central Asian countries - Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, and Tajikistan - between 2013 and 2022 to examine the correlation between EU FDI and seven critical factors. The study shows that market size is negatively correlated with EU FDI flows to Central Asia, whereas the labor force is positively correlated. However, natural resources, trade openness, infrastructure, corruption, and political stability are not significantly associated with EU FDI in Central Asia. The study suggests that EU investors seek to take advantage of the region's abundant and low-cost labor rather than focus on natural resources or other commonly assumed factors. The findings have vital implications for policymakers and businesses operating in Central Asia, highlighting the importance of addressing market and labor force challenges to attract EU FDI.*

KEYWORDS: *foreign direct investment, European Union, Central Asia, determinants.*

INTRODUCTION

Foreign direct investment (FDI) is widely regarded as a significant source of capital inflows and an important contributor to economic growth for both developed and developing countries. In particular, developing nations recognize FDI as a key factor in driving their economic development (Ashurov et al., 2020). The Central Asian region, consisting of Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, and Tajikistan, has been gaining increased attention as a potential investment destination. The region boasts vast natural resources such as oil and gas, relatively untapped markets, and a strategic location that makes it an attractive prospect for investors (Cohen & Grant, 2018; Metaxas & Kechagia, 2016). Despite this potential, the level of foreign investment in Central Asia (CA) remains relatively low compared to other Asian regions (UNCTAD, 2022). Therefore, increasing FDI in the region is crucial to its economic progress.

One of the most significant FDI contributors in the region is the European Union (EU) (Ashurov et al., 2020). Since the 1990s, the EU has been increasingly involved in the

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region, driven by shared interests in prosperity, connectivity, energy, and security (EEAS, 2022c). The EU Central Asia Strategy, adopted in 2007, was updated in 2019, aiming to foster resilience, prosperity, and regional cooperation, particularly through Enhanced Partnership and Cooperation Agreements (EPCAs) between the EU and Central Asian countries (CACs) (Council of the EU, 2019). As of November 2022, more than 42% of the total FDI stock in Central Asia originates from the EU, while the US, Russia, and China contribute 14.2%, 6%, and 3.7%, respectively (EEAS, 2022b). The EU is considered a partner of choice in the region's effort to diversify its economic relations, and there remains significant potential for collaboration between the region and the EU in areas such as economic growth, connectivity, energy, and security (EEAS, 2022a, 2022b). This demonstrates the great attractiveness of Central Asia for EU FDI, which also represents a huge potential for investment-facilitated economic development in this region.

Notwithstanding the attractiveness of CA for EU FDI, the determinants of EU FDI in the region are rarely discussed, and a systematic and holistic study of EU FDI in CA is still lacking. Considering the existing close ties between the EU and CACs in terms of FDI and the promising prospects for future cooperation, understanding the determinants of EU FDI in CA is crucial for the economic development and prosperity of this region. In this regard, to fill this gap, this study aims to determine the significant macro influencing factors that drive or repel EU FDI inflows to CA, based on the consideration that the EU is a single market with a common set of laws & regulations and commercial policy that govern FDI (EC, no date) and CA is a region with similar cultural, political, and economic characteristics. Furthermore, the research question is determined as what are the determinants (influencing factors) of EU FDI in CA? This study adds to the existing literature by identifying the significant macro-level factors that influence EU FDI in CA, and it is the first study to examine the determinants of EU FDI in the context of CA. This study is expected to provide valuable insights for policymakers, investors, and researchers interested in understanding how to increase the level of FDI in CACs. This research will be conducted using a panel data regression analysis, which allows for the analysis of multiple time-series data for multiple countries, making it well-suited for studying the determinants of EU FDI inflows to CA.

The article is structured in the following way: Section one gives the theoretical background of FDI determinants, reviews relevant empirical studies, and proposes hypotheses. Section two describes the data, model specification, and methodology. Section three presents and discusses the findings. The last section summarizes and concludes this study.

LITERATURE REVIEW AND HYPOTHESES

This literature review aims to provide a brief review of existing theoretical frameworks of FDI determinants and develop hypotheses based on previous empirical studies.

A single universal theory explaining the determinants of FDI does not exist. Given the significance of FDI, numerous theories on the determinants of FDI have been developed. Based on the seminal contribution of Hymer (1960) to the theory of internationalization, Buckley and Casson (2016) explain firms' motivation to engage in FDI by exploring

internal firm-specific advantages within the home country, rather than relying on local factor endowments in foreign markets. Following this, Dunning (1977) created the classical and widely used model (OLI paradigm) for FDI determinants, which outlines the four FDI motives of market-seeking, efficiency-seeking, resource-seeking, and strategic asset-seeking. He also explains the three advantages of ownership (O), location (L), and internalization (I) that multinational corporations (MNCs) hold when investing overseas. This model has been widely used in previous studies to explore the determinants of FDI in various countries and regions (Drogendijk & Blomkvist, 2013; Okafor et al., 2015; Varma et al., 2015). The internalization theory developed by Rugman (1980) explains that MNCs promote FDI if the FDI transaction costs are less than the market transaction cost. According to the Differential Rate of Return (DRR) assumption, FDI is the outcome of capital transfers from low-rate to high-rate nations (Faeth, 2009). Location theory suggests that the four factors of resource endowment, availability of strategic assets, geographic proximity, and agglomeration economies can attract FDI (Cheng & Kwan, 2000; Kang & Jiang, 2012). Institutional theory and the resource-based view have been used to justify the importance of government policy and infrastructure in attracting FDI (Cho & Ha, 2009). According to Agarwal (1980), Brewer (1993), and Pajunen (2008), the traditional theories that focus on economic factors alone do not fully explain the determinants of FDI inflows. These scholars suggest that institutional factors, which include economic, legal, political, and social factors, play a significant role in attracting FDI. According to Korsah et al. (2022), various theoretical frameworks can be categorized into four groups: the perfect market theory, imperfect market theory, other FDI theories, and theories that rely on other variables. Tocar (2018) classified the existing determinants of FDI into economic factors, infrastructure, technology, institutional-political factors, specific risk, human factor, legal integration, spatial factor, entrepreneurial matters, and cultural and para-cultural factors. In addition to the traditional theories discussing FDI patterns, several empirical studies examining the determinants of FDI in CACs have been conducted. Accordingly, the research hypotheses are developed as follows:

Natural resources

Previous studies have generally shown a positive correlation between natural resources and FDI (Anarfo et al., 2017; Asif & Majid, 2018). Regarding FDI flows from the EU to CACs, according to the Astana Times (2020) in Kazakhstan, a significant portion of the EU FDI in CA was directed towards the growth and maintenance of the region's primary oil and gas fields, as well as its related transportation infrastructure. This indicates the resource-seeking nature of EU investments in the region and the significant attractiveness of the region's natural resources for EU FDI. In addition, Kasimov and Saydaliev (2022) revealed that natural resources are one of the main determinants of foreign investors' decisions to locate FDI in CA. It can be inferred that the favorable natural resource endowment of CA creates a significant attraction for FDI flows to the region. Therefore, we hypothesize the following:

H1: EU FDI flows to CA are positively correlated with natural resources.

Market size

Market size is widely considered to be positively correlated with FDI in the existing literature on FDI flows to CACs. Ashurov et al. (2020) found that the FDI contributors in the region, including the EU, were mostly attracted by the available economic opportunities in the region (e.g., GDP, a widely used indicator of market size), while the USA was primarily based on security control considerations rather than economic opportunities. Kasimov and Saydaliev (2022) found a positive correlation between market size and FDI flows to CACs. Metaxas and Kechagia (2016) found that Uzbekistan's market size is one of its main attractive factors for FDI. Azam (2010) found a positive effect of market size on FDI flows to Kyrgyzstan and Turkmenistan. These findings indicate that countries with larger markets tend to attract more FDI. Thus, we hypothesize the following:

H2: Market size positively influences EU flows to CA.

Labor force

Existing literature indicates that the labor force has a positive impact on FDI flows (Nistor, 2015; Zheng, 2009). In the context of CA, Ashurov et al. (2020) found a positive correlation between the labor force and FDI flows to the region. Additionally, Lee and Kim (2022) found a significant positive correlation between the labor force and FDI in Kazakhstan, Kyrgyz Republic, Tajikistan, and Turkmenistan. These findings suggest that the availability of the labor force is an influential element in attracting FDI to the region. Thus, we expect:

H3: The labor force in CA has a significant positive impact on EU FDI inflows.

Trade openness

The impact of trade openness on FDI flows to CACs is controversial in existing empirical studies. Ulzii-Ochir (2019) extended the scope of research from the five countries in this region to landlocked developing countries (LLDCs) that additionally include Armenia, Azerbaijan, and Mongolia, and used the ordinary least square (OLS) method to find that trade openness has a positive effect on FDI. Liargovas and Skandalis (2012) found that trade openness is positively correlated with FDI inflows to developing economies. However, Kasimov and Saydaliev (2022) used the Panels Corrected Standard Errors (PCSEs) linear regression method and found a significant negative association between global FDI and trade openness of CACs. Considering the overall downward trend of both EU FDI flows to CACs and the trade openness of the region over the past decade (Eurostat, no date; World Bank, no date), the following hypothesis is proposed:

H4: Trade openness in CA is positively correlated with EU FDI inflows.

Infrastructure

Infrastructure has been generally found to contribute to attracting FDI inflows to CACs in previous empirical studies. Ulzii-Ochir (2019) argued that infrastructure quality has a positive impact on global FDI flows to LLDCs. Additionally, Kasimov and Saydaliev (2022) found that there's a positive correlation between global FDI flows to CACs and infrastructure in the region. Indeed, despite the fact that CACs still have a long way to go to improve their infrastructure, they have invested heavily in improving their

infrastructure over the past two decades, which has provided a measure of a boost to the region's economic development (World Bank, 2021). Therefore, we hypothesize the following:

H5: Infrastructure correlates positively with the EU FDI inflows to CA.

Corruption

Corruption in the host country is generally considered to have a negative impact on FDI inflows, given that it leads to increased transaction costs and uncertainty in doing business. (Al-Sadig, 2009; Hamdi & Hakimi, 2020). Nevertheless, Cuervo-Cazurra (2006) found that the level of corruption in the host country has a negative impact on FDI inflows from home countries with strict anti-corruption laws (e.g., the Organization for Economic Cooperation and Development Convention on Combating Bribery of Foreign Public Officials in International Business Transactions), whereas high levels of corruption in the host country do not necessarily deter FDI flows from highly corrupt home countries. In the context of CA, Mamytova and You (2018) discovered that corruption in CACs negatively affects the inflow of FDI. Therefore, there is reason to believe that corruption is negatively associated with EU FDI flows to CAC. Thus:

H6: Corruption level in CA has a negative impact on the level of EU FDI inflows.

Political stability

Political stability has been generally found to have a negative impact on FDI inflows in previous empirical studies. According to Lucas (1990), political risk is a significant factor that restricts capital flows. Developing nations often have high political risk exposure, leading to increased FDI inflows in politically unstable countries. Ahmad Jafari et al. (2011) found that political stability has a negative impact on FDI in Organization of Islamic Conference (OIC) countries. Ulzii-Ochir (2019) found that political instability has a positive impact on FDI in LLDCs, which includes CACs. In addition, several empirical studies have demonstrated the negative association between political stability and FDI (Asiedu, 2002; Schneider & Frey, 1985). However, political stability has also been found to be a positive factor in attracting FDI. For example, Rashid et al. (2017) found that political stability is the most influential FDI attraction variable for the top 15 most competitive countries in the Asia-Pacific region. Considering the overall decreasing trend of EU FDI flows to CACs in the period 2013-2019, with the improving trend of the overall PV.EST indicator level in the region, thus:

H7: Political stability in CA has a negative impact on the level of EU FDI inflows.

DATA AND RESEARCH METHODOLOGY

This study aims to determine the influencing factors of EU-28 FDI in CACs (i.e., Uzbekistan, Kazakhstan, Tajikistan, Kyrgyzstan, and Turkmenistan) using a panel data analysis. Table 1 presents all variables with their measurements and sources used in this study.

Table 1. Variables with measurements, sources, and references

| | Variable | Label | Measurements | Source |
|------------|---------------------|-------|--|----------------------------|
| DV | EU FDI | FDI | Net EU FDI inflows | Eurostat |
| IVs | Natural resources | NR | Total natural resources rents (% of GDP) | World Bank Database |
| | Market size | MS | GDP (constant 2015 US\$) | World Bank Database |
| | Labor force | LF | Labor force, total | World Bank Database |
| | Trade openness | TO | Trade-to-GDP ratio | World Bank Database |
| | Infrastructure | INF | Mobile cellular subscriptions (per 100 people) | World Bank Database |
| | Corruption | COR | Corruption perceptions index | Transparency International |
| | Political stability | PS | Political Stability and Absence of Violence/Terrorism: Estimate (PV.EST) | World Bank Database |

Source: compiled by the authors

This study covers annual data of the EU-28 and five CACs for the period 2013-2022 from the Eurostat, World Bank database, and Transparency International. The net EU FDI inflows (million euros) are used as the dependent variable (DV), while natural resources (NR), market size (MS), the labor force (LF), trade openness (TO), infrastructure (INF), corruption (COR), and political stability (PS) are used as independent variables (IVs). Table 2 presents the descriptive statistics of variables used in this study.

Table 2. Descriptive Statistics

| Variable | Obs | Mean | Std. Dev | Min | Max |
|----------|-----|-----------|-----------|------------|-----------|
| EUFDI | 50 | -74452000 | 2.532e+09 | -7.403e+09 | 1.395e+10 |
| NR | 50 | 11.327 | 6.466 | 1.329 | 27.493 |
| MS | 50 | 6.516e+10 | 6.944e+10 | 6.678e+09 | 2.366e+11 |
| LF | 50 | 6009604.3 | 4503024.7 | 2032680 | 13613027 |
| TO | 50 | 67.249 | 25.753 | 29.192 | 134.027 |
| INFR | 50 | 117.157 | 24.943 | 70.384 | 175.057 |
| COR | 50 | 25.18 | 5.34 | 17 | 38 |
| PS | 50 | 33.519 | 9.957 | 13.27 | 55.924 |

Source: compiled by the authors

Considering all hypotheses and variables, the estimate equation model is developed as:

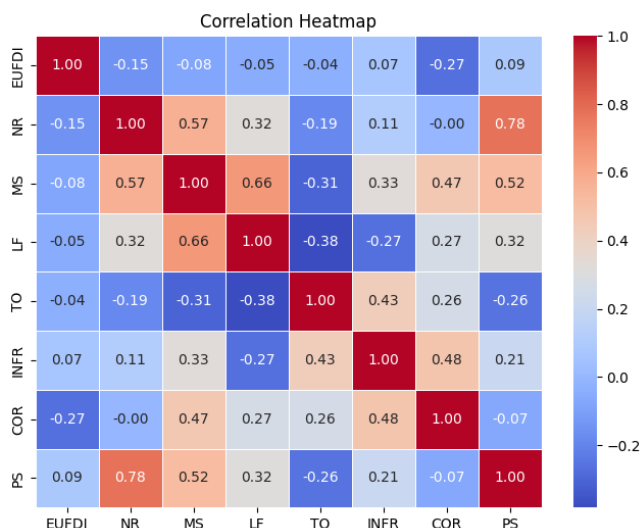
$$FDI_{it} = \alpha + \beta_1 NR_{it} + \beta_2 MS_{it} + \beta_3 LF_{it} + \beta_4 TO_{it} + \beta_5 INF_{it} + \beta_6 COR_{it} + \beta_7 PS_{it} + \varepsilon_{it}$$

where: FDI_{it} = Net FDI inflows of country i at time t ; NR_{it} = Total natural resources rents (% of GDP) of country i at time t ; MS_{it} = Real GDP (constant 2015 US\$) of country i at time t ; LF_{it} = Labor force of country i at time t ; TO_{it} = Trade-to-GDP ratio of country i at time t ; INF_{it} = Mobile cellular subscriptions (per 100 people) of country i at time t ; COR_{it} = Corruption perception index of country i at time t ; PS_{it} = PV.EST of country i at time t ; ε_{it} = Disturbance term of country i at time t ; α = Intercept; β_1 to β_7 = Estimated coefficients of the independent variables.

Since a high correlation between independent variables may lead to multicollinearity, a correlation matrix is used to show any correlation between the variables. As per

Figure 1, the correlations of the IVs are within a reasonable range (<0.8). Thus, multicollinearity does not seem to be a substantial issue in this study.

Figure 1. Correlation matrix of variables



Source: compiled by the authors

RESULTS AND DISCUSSION

The Hausman test determines whether a fixed-effect model or a random-effect model is more appropriate for estimation. As shown in Table 3, the p-value of the Hausman test ($\text{Prob} > \chi^2$) is 0.024, which means that the null hypothesis is rejected, because the difference in coefficients is systematic, indicating that the Fixed Effects (FE) model is more appropriate.

Table 3. Hausman test results

| | |
|---|-------|
| Test: H_0 : difference in coefficients not systematic | |
| Chi-square test value | 11.26 |
| Prob>chi2 | .024 |

Source: compiled by the authors

Table 4 shows the main results of the regression of the EU FDI using the fixed-effect model. The coefficient column shows the estimated coefficients of the equation, and R^2 (0.452) indicates that the model explains 45.2% of the variance in EU FDI inflows to CACs, which is a moderate level of explanatory power.

Table 4. Regression results of the fixed-effect model

| Variables | Coefficient |
|-----------|----------------|
| NR | -120000000.000 |
| MS | -0.227** |
| LF | 12019.978** |

| | |
|--------------|--------------------|
| TO | -28700000.000 |
| INF | -41200000.000 |
| COR | -177000000.000 |
| PS | 1010000000.000 |
| Constant | -43300000000.000** |
| Observations | 35 |
| R2 | 0.452 |

Note: *, **, and *** indicate significance at the 10, 5, and 1% level

Source: compiled by the authors

Natural resources

The results show that the coefficient for NR (-120000000.000) is negative but not statistically significant, so natural resources are not significantly associated with EU FDI in CA. Therefore, H1 is not supported. This suggests that the search for natural resources is not the main motivation for EU investors in the region. The countries in the region with more natural resources do not necessarily attract more EU FDI. The result is in contrast with the findings of Kasimov and Saydaliev (2022). Policymakers in this region should, therefore, promote investment in non-natural resource sectors, such as manufacturing, services, and agriculture, to attract more EU investment. Moreover, EU investors should diversify investment portfolios to reduce reliance on natural resources-based sectors and explore other industries with growth potential. While the region is rich in natural resources, the results suggest that it is not the main motivation for EU investors, and that other factors, such as market size, may be more important.

Market size

The results show that the coefficient for MS (-0.227) is negative and statistically significant, indicating that a one-standard-deviation increase in market size is associated with a 0.227 standard-deviation decrease in FDI. The results suggest that an increase in the region's market size decreases the amount of FDI inflows from the EU, which is contrary to the initial hypothesis H2. This finding suggests that larger market sizes do not necessarily create greater attractiveness for EU investors. It is possible that larger markets may also imply greater competition and higher costs for businesses operating in these markets, which could offset any potential benefits of a larger customer base. This finding is inconsistent with several previous empirical studies (Ashurov et al., 2020; Azam, 2010; Kasimov & Saydaliev, 2022; Metaxas & Kechagia, 2016), which have generally found a positive relationship between market size and FDI flows to CACs. However, the finding by Doytch and Eren (2012) that market size has a negative impact on FDI flows to Eastern Europe and CACs is somewhat consistent with this result, although it uses a different proxy for market size and has a different range of host destinations for FDI flows. In this regard, policymakers in this region may need to re-evaluate the steps they take to boost the accessibility and size of their markets to attract EU investors. Instead of solely focusing on expanding the market, they should prioritize implementing measures that can reduce costs and simplify the process of doing business in the area. Furthermore, EU investors should be aware of the complex relationship

between market size and FDI when assessing investment opportunities in CACs. Before making any investment decisions, they should conduct a comprehensive market analysis that factors in competition, market saturation, and regulatory environment. By adopting a more comprehensive approach, EU investors can maximize their potential for profit and revenue growth in the region while minimizing risks.

Labor force

The results show that the coefficient for LR (12019.978) is positive and statistically significant, indicating that a one-standard-deviation increase in labor force is associated with a 12019.978 standard-deviation increase in FDI. The results suggest that an increase in the region's labor force leads to higher levels of FDI inflows from the EU. Therefore, H3 is supported. This finding reflects the perception of CACs as labor-abundant economies with relatively low labor costs, making them attractive locations for EU firms seeking to reduce their production costs and increase their competitiveness. This result is in line with the findings of Ashurov et al. (2020) and Lee and Kim (2022) who argue that there is a positive correlation between these two factors. Therefore, Policymakers in this region should continue to prioritize measures to improve the education and skill levels of the labor force in CACs to meet the demands of EU investors. This could involve implementing education policies and programs that focus on skill development and upgrading of workforce knowledge. By developing a skilled and educated labor force, CACs can increase their attractiveness to EU investors and potentially secure more FDI in the long term. EU investors should also take note of the positive relationship between the labor force and FDI in CACs when evaluating investment opportunities in the region. They should consider the availability of a skilled & educated labor force as a key factor when making investment decisions and invest in training & education programs to develop the necessary workforce if needed.

Trade openness

The results show that the coefficient for TO (-28700000.000) is negative but not statistically significant, so trade openness is not significantly associated with EU FDI in CA. Therefore, H4 is not supported. This finding suggests that trade openness is not a key consideration for EU investors investing in CA, and it challenges the commonly held belief that greater trade openness leads to increased FDI inflows. The lack of a significant correlation between EU FDI and trade openness in CACs could be related to the region's low level of economic diversification. CACs are heavily dependent on natural resources, such as oil and gas, and often have a limited range of export products. This may limit the potential for increased trade and investment with the EU. This finding does not support Ulzii-Ochir (2019) and Kasimov and Saydaliev (2022), who found a significant correlation between FDI inflows and trade openness of CACs. Thus, policymakers in CA should prioritize trade liberalization policies to enhance the attractiveness of the EU as a destination for FDI. This includes reducing trade barriers, such as tariffs and non-tariff barriers, and negotiating trade agreements with key partners to enhance market access. Besides, EU investors should not assume that greater trade openness necessarily leads to increased FDI inflows in CA. Instead, they should consider the region's level of economic diversification and potential for growth

in non-resource sectors and take advantage of trade agreements and free trade zones to expand market access and improve competitiveness.

Infrastructure

The results show that the coefficient for INF (-41200000.000) is negative but not statistically significant, so there is no significant correlation between EU FDI and infrastructure in CACs. Therefore, H5 is not supported. This finding suggests that infrastructure in CA has a weak role in attracting FDI inflows from the EU. Despite efforts to improve infrastructure, CACs still face significant challenges, such as inadequate transportation networks, limited access to electricity and water, and low internet connectivity. As a result, the impact of infrastructure on FDI inflows may be less pronounced in CA compared to more developed regions. This finding is not consistent with previous studies (Kasimov & Saydaliev, 2022; Ulzii-Ochir, 2019) that found a significant correlation between these two factors. In this respect, policymakers in this region should invest in improving transportation, energy, and communication infrastructure to enhance the region's attractiveness to EU investors. For EU investors, they may need to evaluate infrastructure on a case-by-case basis and consider investing in infrastructure development projects to improve the investment climate in the region.

Corruption

The coefficient for COR (-177000000.000) is negative but not statistically significant, so the region's corruption level has a limited effect on EU FDI inflows, and corruption is not significantly associated with EU FDI in CACs. Thus, H6 is not supported. This finding suggests that corruption is not as significant a factor in driving EU FDI inflows to CA as previously thought. In this case, corruption is a less important consideration for EU investors compared to other factors (e.g., market size) that could impact the potential return on investment. This finding is not consistent with previous studies (Cuervo-Cazurra, 2006; Mamytova & You, 2018). In this regard, policymakers in this region should take measures to tackle corruption, including improving transparency and accountability, improving the business environment, and increasing confidence in the region's potential for investment. In addition, although the study found that corruption is not a significant factor influencing FDI inflows, EU investors should still be aware of the potential risks and challenges associated with corruption in CACs and they should prioritize due diligence and transparency when evaluating potential investments and consider implementing strong corporate governance policies.

Political stability

The coefficient for PS (1010000000.000) is positive but not statistically significant, indicating that the region's political stability has a limited effect on EU FDI inflows. Therefore, H7 is not supported. This finding suggests that political stability is not a significant factor in discouraging EU FDI flows to the region as previously thought. This finding is not consistent with some previous studies that suggest a positive relationship between political instability and FDI inflows (Ahmad Jafari et al., 2011; Asiedu, 2002; Lucas, 1990; Schneider & Frey, 1985; Ulzii-Ochir, 2019). However, it is worth noting that the area has undergone significant changes recently, as some authorities have endeavored to improve the business environment and draw foreign

investment. Consequently, the influence of political turmoil on FDI inflows may have dwindled over time. Although political instability seems to have no significant impact on FDI inflows, policymakers should still prioritize enhancing political stability since it's a crucial factor in overall economic advancement. This encompasses refining administration, lowering corruption, and tackling other socio-economic difficulties that may fuel instability. EU investors must also be mindful of potential hazards linked with political instability in the region and mull over implementing sturdy risk management and corporate governance policies.

CONCLUSION

This study aims to determine the significant macro-influencing factors that drive or repel EU FDI inflows to CACs, focusing on natural resources, market size, labor, trade openness, infrastructure, corruption, and political stability. The panel data analysis with the fixed-effect model is used to examine panel data of five CACs (i.e., Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, and Tajikistan) for the period of 2013 to 2019. The results show that natural resources, trade openness, infrastructure, corruption, and political stability are not significant factors influencing EU FDI inflows to CA. The study provides evidence to support the importance of the labor force in attracting EU FDI, which has been consistently identified as a key factor in previous research (Ashurov et al., 2020; Lee & Kim, 2022). The findings suggest that the CACs' abundant and relatively low-cost labor force is a strong attraction for EU companies seeking to reduce production costs and improve competitiveness. However, the market size is found to be negatively correlated with EU FDI inflows, suggesting that larger markets may imply greater competition and higher costs for businesses operating, which could offset any potential benefits of a larger customer base.

Based on these findings, several policy recommendations for policymakers in CA and EU investors are proposed. Policymakers in this region should prioritize promoting investment in non-natural resource sectors, prioritize the implementation of measures that reduce costs and streamline business processes, address labor force challenges, promote trade openness, improve infrastructure, address corruption, and enhance political stability. For EU investors, they may focus on diversifying investment portfolios, prioritizing pre-market entry market research, investing in education & training programs, taking advantage of trade agreements and free trade zones, investing in infrastructure development projects, conducting thorough due diligence, and implementing robust risk management systems.

The limitations of the study include limited annual data and a relatively small sample size, which may impact the generalizability of the findings. For example, data on fixed telephone subscriptions, an infrastructure measure commonly used in previous studies (Kamal et al., 2014; Liu et al., 2017), is missing in large numbers from some of the five CACs, and Mobile cellular subscriptions (per 100 people) is thus chosen for this study. Additionally, other factors that may influence EU FDI in this region, such as regulatory quality or cultural differences are not considered. Nevertheless, the findings of this study provide valuable insights for policymakers and investors seeking to understand the dynamics of EU FDI inflows to CA. Further research is needed to explore the underlying mechanisms that drive EU FDI inflows to the region and to

identify potential policy interventions that could enhance the attractiveness of CA as a destination for foreign investment.

In conclusion, this study provides valuable insights into the factors that drive EU FDI inflows in CACs. The findings challenge some commonly held assumptions and highlight the importance of market size in attracting foreign investors' investment decisions in CACs. These insights have important policy implications for both governments and businesses interested in promoting FDI in the region. Overall, this research makes a significant contribution to the field by shedding new light on the factors that shape EU FDI inflows in CACs and providing a foundation for future research.

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CONFLICTS OF INTEREST

The authors declare no conflict of interest.

AUTHORS' CONTRIBUTIONS

JY: writing – original draft, investigation, methodology, formal analysis, software, data curation, conceptualization; BAM: writing – original draft, investigation, methodology, formal analysis, software, conceptualization; TM: writing – review and editing.

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