The Investment Attractiveness and Financial Risks in Central Asia

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Topics covered in presentation

- ✓ The foreign direct investments (FDI) inflow and factors, affecting investors' decisions in Central Asia.
- ✓ Factors constraining investment attractiveness of the Central Asia region.
- ✓ Factors negatively affecting investors' decision to invest in Central Asia
- ✓ The economic impact of Covid-19 in Central Asia

1. Introduction

This research focuses on the FDI inflows in post-Soviet Central Asian countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. Central Asia has become not only a great trade route but the melting pot of two very different civilizations of the East and the West, with their specific cultural traditions, religious beliefs, and scientific and technical achievements. In addition, Central Asia is situated between China and India in the east and borders on the European world in the west. Therefore, Central Asia emphasizes regional free trade and trade facilitation, including reducing trade barriers, improving trade regulation, simplifying customs formalities, and coordinating policy. On the other hand, it also emphasizes energy pipelines and infrastructure development including oil-gas pipeline networks, roads, bridges, electric power, and railways.

Key drivers of economic growth

Kazakhstan
- Oil production growth (Kashagan oil field);
- Positive growth dynamics of service sectors

Uzbekistan
- Development of service sector;
- Growth of agriculture;
- Growth of industries.

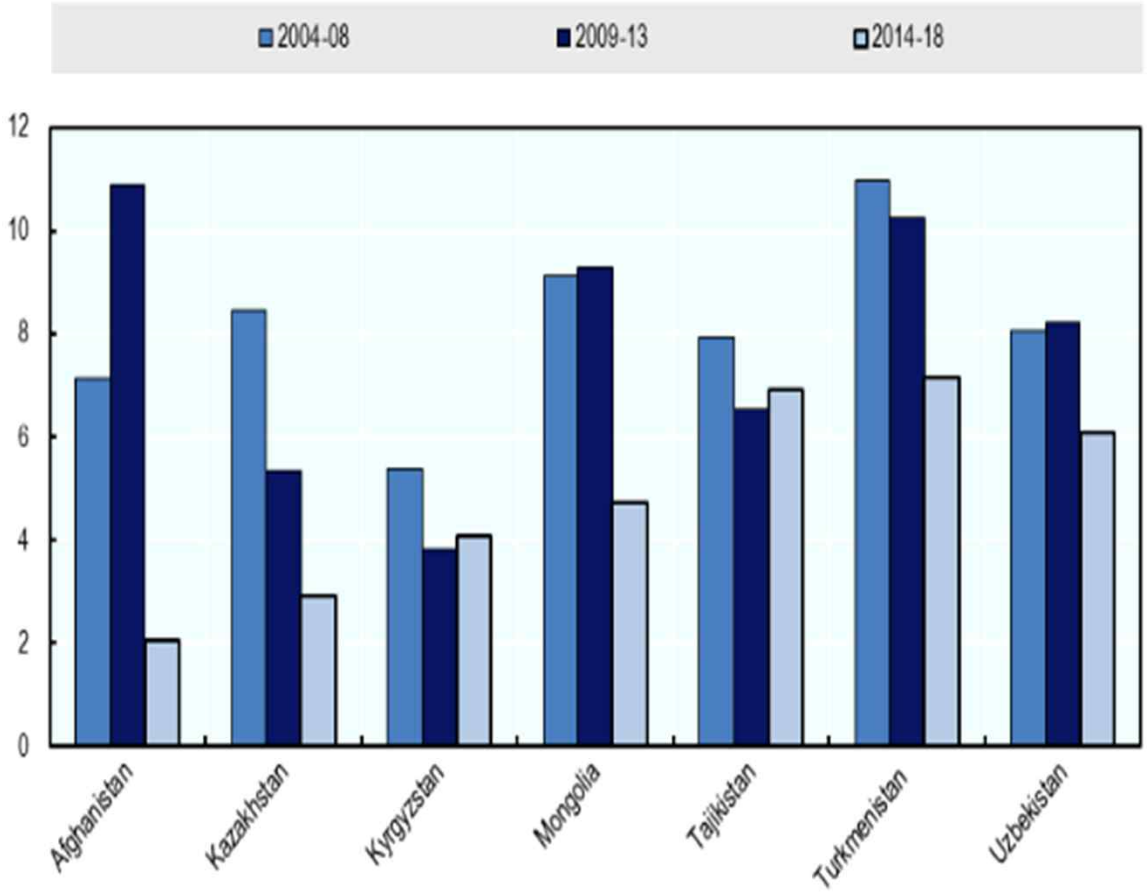
Turkmenistan
- Growth of gas exports to China;
- Growth of gas prices.

Kyrgyzstan
- Exports of migrant workers (remittances contributed to growth of domestic consumption and services);
- Gold mined in a large deposit;
- "Bazaar trading" based on import and re-export.

Tajikistan
- Exports of migrant workers (remittances);
- Growth of the mining industry boosted net exports and GDP growth.

Source: Statistical committees of Central Asian countries, SK, 2018

Average real GDP growth rates in five-year increments, 2004-18



Source: (World Bank, 2019)

2. Literature Review

- ✓ In summary, previous empirical studies on the determinants of FDI focused on Eastern Europe and Central Asia obtained different results which tend to depend on the studied countries and periods. Therefore, this study investigates the main factors in attracting FDI using representative data of the main determinants of FDI inflows in developing and transition economies as follows.

1) Economic conditions. GDP could provide a general view of how a country is performing in terms of its economy. Various studies pointed out the positive relation between FDI and GDP (Pantulu and Poon, 2003; Liu, Wang, and Wei, 2001).

2) Reliability. We consider stock of FDI (in millions of USD, current (2018) in a host country as a proxy for reliability, as already accumulated stocks of FDI reflect the investment environment. FDI stocks include the amount of capital, reserves, retained profits, and net indebtedness of the affiliates of FDI enterprises. Potential investors will be positively affected by the investments the country has already received (Frawsen and Josefsson 2004).

3) Exports. One of the main factors which could affect the level of FDI in a host country is exports. Exports could have different effects on FDI which could differ from one country to another. For instance, exports increase FDI by providing information about the host country that helps to reduce the investor's transaction costs (Eaton and Tamura, 1994; Hsiao, 2006).

4) Imports. Imports sometimes can be measured as a substitute for FDI. Liu et al. (2001) showed that changes in the number of imports can alter the FDI in a country. Specifically, the growth of imports caused the growth in inward FDI from the home country.

5) Economic stability. One of the most critical factors which can significantly affect the FDI inflow in countries is inflation. This factor can reveal many aspects of the economy. When inflation is not stable and fluctuates frequently, investors are most likely to turn away from such countries since investing in those economies can fail (Azam, 2013).

5) Fiscal freedom. The fiscal freedom component is a composite measure of the burden of taxes that reflects both marginal tax rates and the overall level of taxation, including direct and indirect taxes imposed by all levels of government, as a percentage of gross domestic product (GDP). The component score is derived from three quantitative sub-factors (Mudenda, 2015): the top marginal tax rate on individual income, the top marginal tax rate on corporate income, and the total tax burden as a percentage of GDP.

6) Economic Freedom. Economic freedom is the fundamental right of every human to control his or her labor and property. Therefore, the index of economic freedom is often described as one of the most critical factors influencing a country's attractiveness to FDI. Each of the twelve economic freedoms within these categories is graded on a scale of 0 to 100. A higher value of the index indicates higher economic and political freedom in the analyzed country. In an economically free society, individuals are free to work, produce, consume, and invest. Therefore, we can consider the index of economic freedom as a proxy for economic and political freedom.

7) Market size. A small size of the market in a developing country is associated with non-market-seeking FDI activities. In the eclectic theory, the number of people in the host country is one of the factors which affect the amount of FDI inflow (Dunning, 1979). Therefore, we consider the amount of the total population in a country as a proxy of market size (Azam, 2013; Barauskaite, 2012).

8) Labor force. The total labor force comprises people ages 15 to 64 who the economically actived population as employment in country. Many empirical papers in the literature review section have considered the labor force as a significant driver of FDI inflow (Labes, 2015).

9) Infrastructure. An adequate supply of infrastructure services is an essential factor for productivity and growth. The economy of a region cannot operate with significant distortions of good infrastructure (Frawsen and Josefsson 2004). Therefore, the infrastructure of a country is another crucial factor for FDI inflows. We apply the percentage of internet users in the total population as a proxy for infrastructure (Baibekova and Hoang, 2010).

10) Trade openness. Export possibilities and access to other international markets determine the trade openness of a host country. This is an important factor in promoting investment climate especially for export-oriented FDI (Azam, 2013). An index of trade openness [(EXP+IMP)/GDP] is considered as a proxy for trade openness (Demirhan and Masca, 2008).

3. Data

This analysis will show FDI inflows movements for 18 years: from 1999 to 2016. The data for GDP growth rate, exports (million USD), imports (million USD), inflation (consumer price index, percentage), trade openness, population, labor force and infrastructure were obtained from the World Bank Database. The data for the stock of FDI were obtained from the United Nations Conference on Trade and Development (UNCTAD) database. The data fiscal freedom and the index of economic freedom were collected from the Heritage Foundation.

This study hypothesizes relationships between IFDI and eleven variables that represent the determinants of FDI to Central Asia as determined by a review of literature. The variables are selected economic conditions (GDP growth rate), reliability (FDI stocks), exports, imports, economic stability (inflation rate), economic freedom, fiscal freedom, market size (total population), labor force (employment), infrastructure (internet users), and trade openness.

4. Economic Model

According to Hair, Anderson, Tatham, and B. lack (1998) and Keller and Yeaple (2009), the statistical form of the model is:

- $$FDI = \alpha_0 + \alpha_1 GDP_{i,t} + \alpha_2 FDS_{i,t} + \alpha_3 EXP_{i,t} + \alpha_4 MP_{i,t} + \alpha_5 CPI_{i,t} + \alpha_6 FSF_{i,t} + \alpha_7 ECOF_{1,t} + \alpha_8 POP_{i,t} + \alpha_9 EMP_{i,t} + \alpha_{10} INF_{i,t} + \alpha_{11} OPEN_{i,t} + \varepsilon_i \quad (1)$$

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We use two different econometric regression methodologies, namely, ordinary least squares (OLS) in model (1) and two-stage least squares (2 SLS) with fixed effect in model (2)

Table 1. OLS Test Results.

Model	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan
GDP growth (%)	19.198 (0.745)	22.853 (1.127)	39.691* (1.758)	-22.19 (-0.488)	37.122 (-0.483)
FDI stock (mln USD)	0.448** (2.616)	0.103 (0.157)	-0.019 (-0.067)	0.031 (0.242)	0.524 (1.575)
Export (mln USD)	0.443*** (3.373)	-0.13 (-0.564)	-0.121 (-0.42)	-0.23 (-1.132)	0.295** (2.722)
Import (mln USD)	0.404* (2.252)	-0.033 (-0.336)	0.033 (0.385)	0.378 (1.151)	-0.315*** (-3.984)
Inflation (%)	8.391** (2.581)	21.746 (1.333)	-1.365 (-0.203)	-13.62* (-2.663)	39.935 (1.247)
Fiscal freedom (index)	-12.532** (-3.202)	-8.573 (-0.234)	30.366*** (3.426)	-27.809 (-2.291)	13.323 (0.562)
Economic freedom (index)	28.502 (0.793)	-34.472 (-0.64)	25.615* (0.813)	-71.235* (-0.795)	-38.755 (-0.876)
Population (unit)	-0.027** (-2.343)	0.002 (0.339)	0.002* (1.818)	0.002* (1.218)	-0.002 (-1.5)
Employment (unit)	0.03* (2.111)	0.004** (2.413)	0.007* (2.138)	0.010* (2.163)	0.002 (1.481)
Internet users (% of total people)	19.861 (1.068)	-88.955 (-1.502)	73.166* (1.402)	-13.358 (-0.902)	-2.268 (-0.047)
Trade openness (index)	8.169 (0.518)	-1.87* (-0.164)	-1.419* (-0.522)	-1.419* (-0.522)	8.677* (0.511)
R^2	0.967	0,900	0.825	0.985	,943

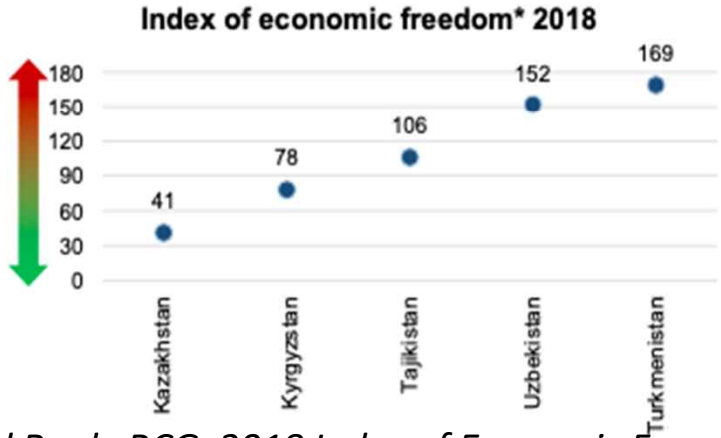
Table 2. The results of 2SLS test

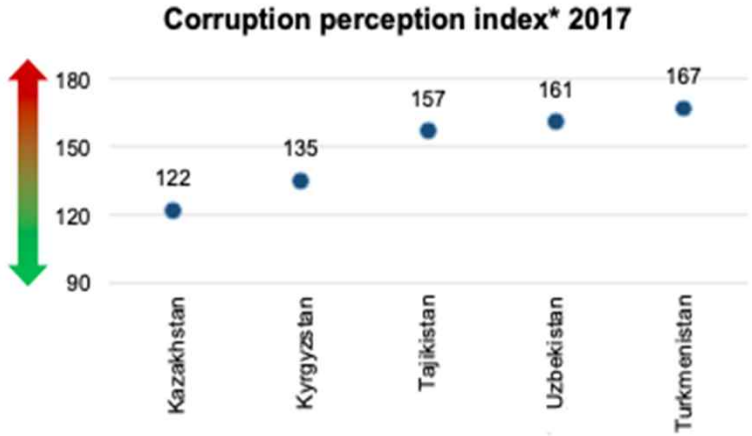
Model	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan
GDP growth (%)	4.198 (1.745)	2.853 (1.127)	3.901* (1.858)	-2.191 (-0.488)	2.122* (1.103)
FDI stock (mln USD)	1.047*** (2.916)	0.203 (0.187)	-0.041 (-0.168)	0.031 (0.242)	0.926* (2.978)
Export (mln USD)	0.873*** (3.703)	-0.13 (-0.564)	-0.121 (-0.42)	-0.23 (-1.132)	0.505** (2.802)
Import (mln USD)	0.825* (2.650)	-0.133 (-0.382)	0.303 (0.782)	0.392 (1.101)	-0.910*** (-4.083)
Inflation (%)	5.391** (2.581)	2.746* (1.333)	-1.365 (-0.203)	-0.672* (-2.663)	1.935* (1.042)
Fiscal freedom (index)	2.532 (0.402)	-1.573 (-0.234)	3.366*** (3.426)	-1.712 (-0.291)	1.323 (0.562)
Economic freedom (index)	2.502 (0.793)	-3.472 (-0.64)	5.615* (0.813)	-1.235* (-0.795)	3.755 (0.876)
Population (unit)	0.027* (0. 843)	0.002 (0.339)	0.002* (1.818)	0.002* (1.218)	-0.002 (-1.5)
Employment (unit)	0.03* (2.111)	0.004** (2.413)	0.007* (2.138)	0.010* (2.163)	0.002 (1.481)
Internet users (% of total people)	1.861 (1.068)	-8.955 (-1.502)	7.166* (1.402)	-3.358 (-0.902)	-2.268 (-0.047)
Trade openness (index)	0.709 (0.308)	-1.97 (-0.594)	-1.419 (-0.522)	-0.807 (-0.122)	3.607* (1.518)
Year (fixed effect)	Yes	Yes	Yes	Yes	Yes
Country (fixed effect)	Yes	Yes	Yes	Yes	Yes

The international rankings and indexes of Central Asian countries

Country and Doing business ranking 2019 (WB)

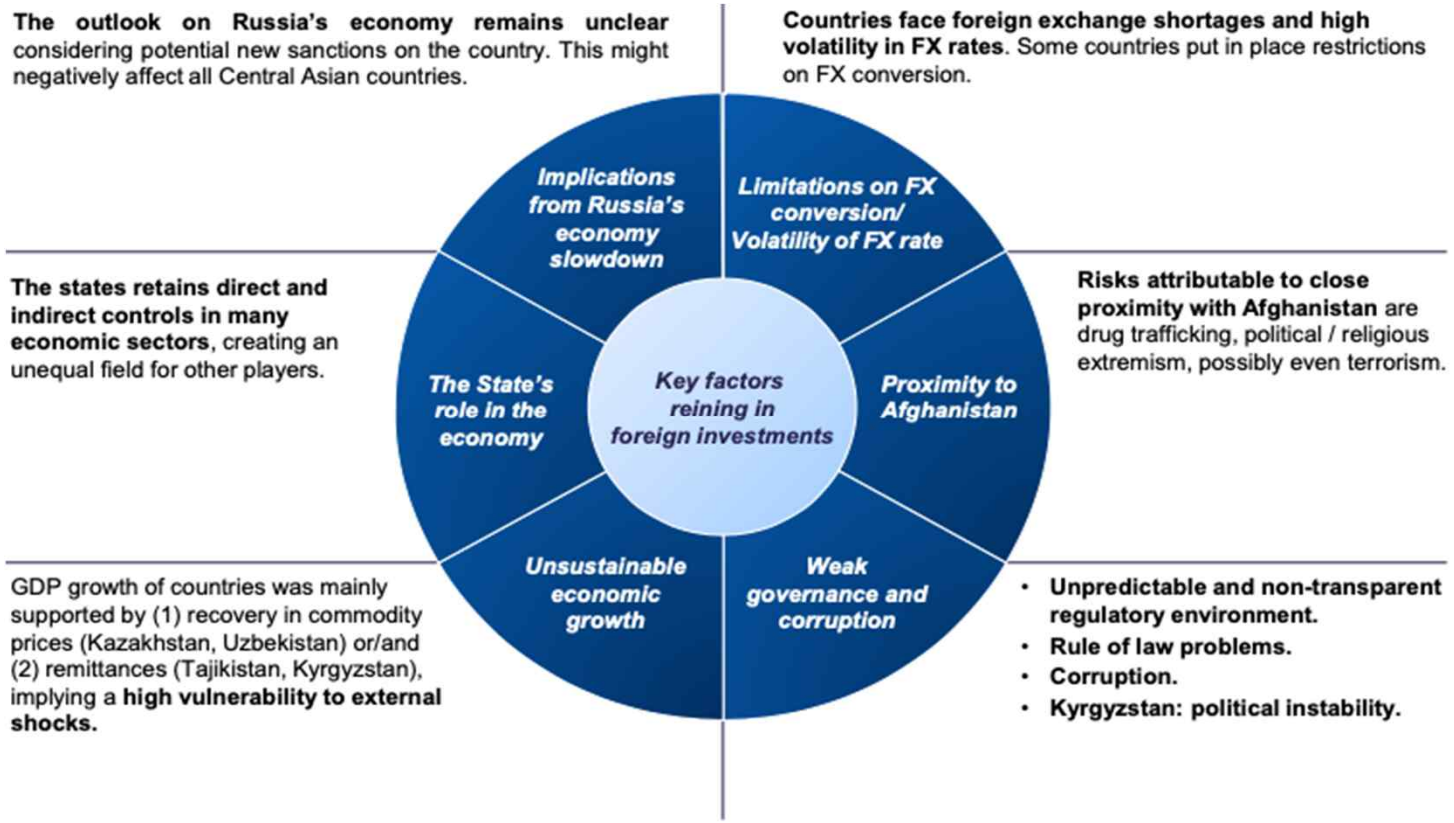
- **Kazakhstan 28 (2008: 71)**
- **Uzbekistan 76 (2008: 138)**
- **Kyrgyzstan 70 (2008: 94)**
- **Tajikistan 126 (2008: 153)**





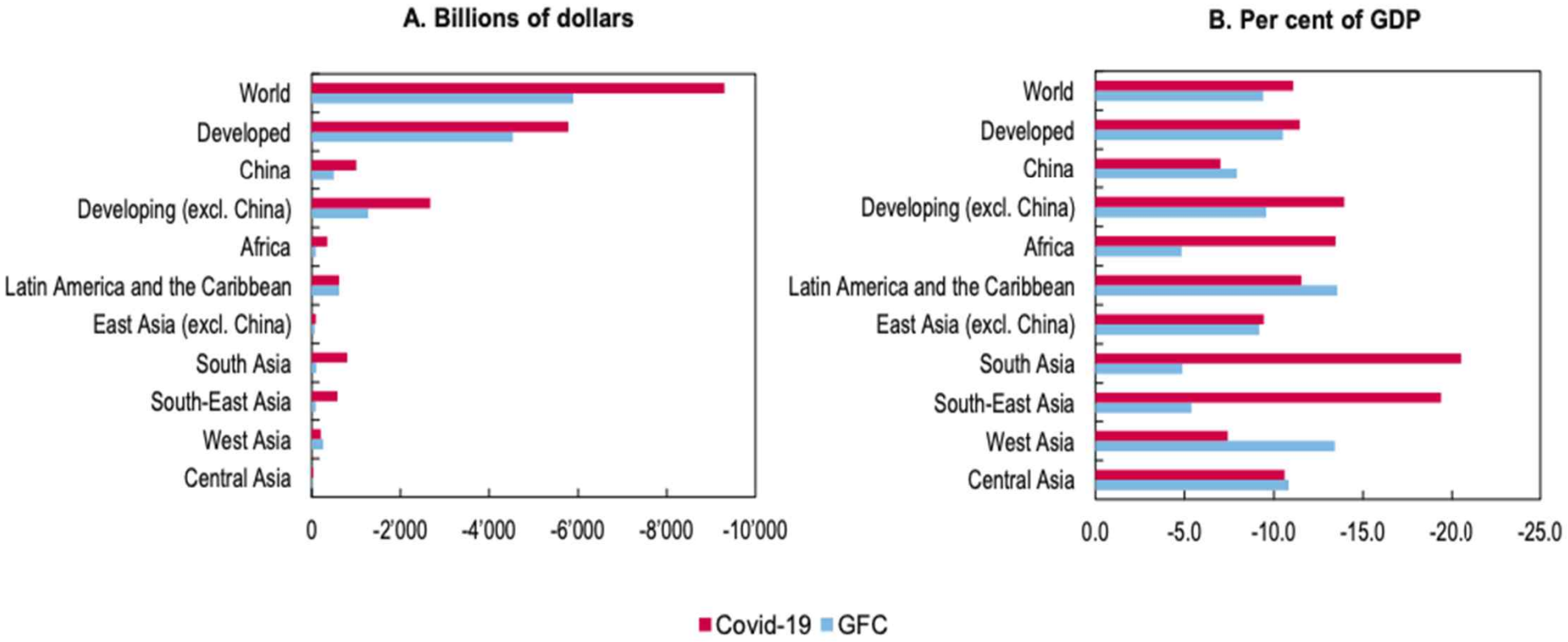
Source: World Bank, BCG, 2018 Index of Economic Freedom

5. Factors negatively affecting investors' decision to invest in Central Asia



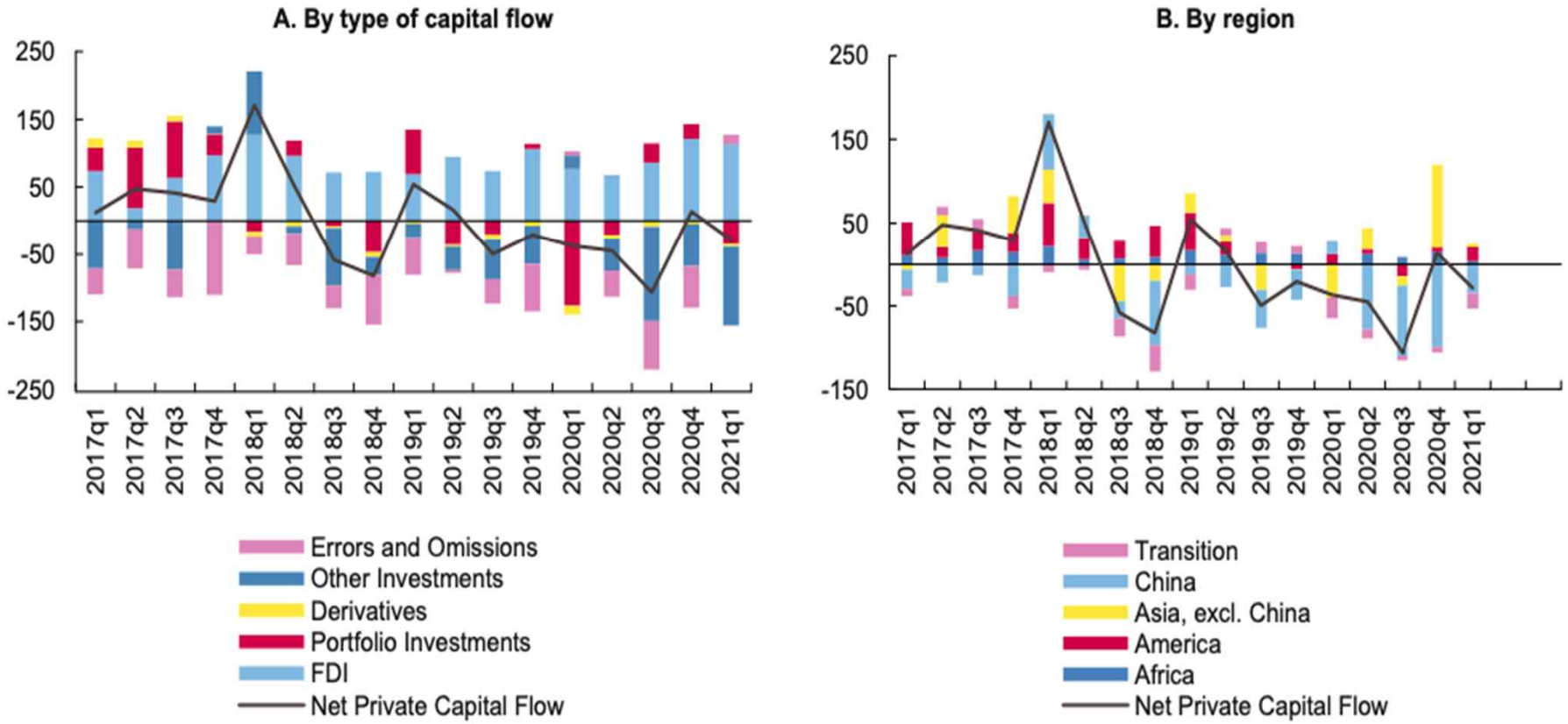
Source: World Bank, BCG

6. The economic impact of GFC, 2009–2010, vs. Covid-19, 2020–2021



Source: UNCTAD secretariat calculations, based on official data and estimates generated by United Nations Global Policy Model.
Note: Estimated loss from GFC corresponds to the accumulated income loss of 2009 and 2010, relative to 2006 to 2008 trend; and the estimated loss from Covid-19 corresponds to the accumulated income loss of 2020 and 2021, relative to 2017 to 2019 trend.

Net private capital flows to developing countries, 2017–2021



Source: UNCTAD secretariat calculations based on national data.
Note: Negatives values indicate outflows. The samples of economies by country group are as follows:
Transition Economies: Kazakhstan, Kyrgyzstan, the Russian Federation and Ukraine.

Table 3. COVID-19 crisis response in Central Asia

	China rank in share of FDI stock	China share of total FDI stock (%)	Russia share of total FDI stock (%)
Kazakhstan	4	7%	3%
Kyrgyz Republic	1	27%	21%
Mongolia	1	27%	2%
Tajikistan	1	43%	17%
Turkmenistan	1	-	-
Uzbekistan	3	15%	34%

Source: Risk assessment and mitigation in Central Asia: implications for foreign direct investment and the Belt and Road Initiative, EBRD

Table 4. Inflation Rate (2017-2022)

Source: Statistica

Characteristic	2017	2018	2019	2020*	2021**	2022**
Armenia	1%	2.5%	1.5%	1.2%	4%	6%
Azerbaijan	12.9%	2.4%	2.7%	2.8%	3.2%	3.5%
Georgia	6%	2.6%	4.9%	5.2%	3.9%	4.1%
Kazakhstan	7.4%	5.3%	5.2%	6.8%	5.8%	5.2%
Kyrgyzstan	3.2%	1.6%	1.1%	6.3%	5.3%	2.8%
Tajikistan	7.4%	3.9%	7.8%	8.6%	8.7%	8%
Turkmenistan	5.6%	13.6%	5.1%	12.1%	8.3%	8.2%
Uzbekistan	18.8%	17.8%	14.6%	12.9%	13.5%	11.5%

Table 5. Offical Exchange rate (2015-2020)

Source: World Bank Data

Country Name	2015	2016	2017	2018	2019	2020
Kazakhstan	222	342	326	345	383	413
Kyrgyz Republic	64	70	69	69	70	77
Uzbekistan	2568	2965	5114	8070	8837	10054
Tajikistan	6	8	9	9	10	10
Mongolia	1970	2140	2440	2472	2664	2813

7. Conclusion

- *Kazakhstan* is in the first place in attracting FDI inflow during 1999-2016. Kazakhstan receives most of its FDI inflow from the Netherlands, the United States, Switzerland, and France. The oil and mining sectors are still the most attractive for investors more than half of the FDI is in these sectors. 2SLS analysis shows that reliability, exports, imports, economic stability, and labor force are significant determinants for the model.

- *Turkmenistan* is in second place for average FDI inflow. Hydrocarbons and petrochemicals are increasingly attracting more foreign investors, who recently showed interest in the manufacturing sector as well. The main investors in Turkmenistan are Germany, Russia, and Austria. The regression analysis showed that economic factors (economic condition, economic freedom, market size, and labor force) are significant for the model.

- *Uzbekistan* is in third place, with average FDI inflow of $470 million due to its large interior market (more than 30 million people), diversified economy, personnel resource base, and political stability in the wake of a recent political transition. The main investors of Uzbekistan are China, which is interested in gas pipeline industry, South Korea, and Japan. Findings from the 2SLS regression analysis showed that economic condition, reliability, exports and imports, and trade openness are statistically significant variables in the model.

- *Kyrgyzstan* took fourth place in average FDI inflow. Most FDI inflows have been driven toward mining-related activities and other sectors such as finance and manufacture of petroleum products, but overall non-mining FDI remains low. Kyrgyzstan's main investors are Canada, China, the United Kingdom, Russia, and Kazakhstan. An explanation for this result may be the small size of the economy and fewer natural resources of Kyrgyzstan, suggesting the effective of government policy to increase the FDI inflows.

- *Tajikistan* attracted the lowest amount of FDI among all Central Asian countries. Aluminum, cotton, and energy are the sectors that attract most foreign investment. Tourism is also revealing its potential. Tajikistan offers a favorable environment for regional and cross-border investment. The main investing countries are, in order, China, Russia, Kazakhstan, the United Kingdom, and the United States. Regression analysis showed that economic condition, market size and government policy (fiscal freedom, economic freedom, human capital and infrastructure) are significant determinants of FDI inflow into the country.

8. Discussion

The differences between oil exporters and non-oil exporters and their dependence on different export commodities imply that a one-size-fits-all approach may not be suitable for the transition economies of Central Asia. Reliance on favorable world commodity prices and concentration only on a few export products may prove difficult in the future, given that natural resources will eventually be exhausted and that global commodity prices remain volatile. For its sustainable development, Central Asia needs to consider diversifying into new products and markets. A stable political environment, reliable institutions, and infrastructure all help to increase FDI flows. Free trade is another important factor in increasing FDI, given that trade and FDI are complementary. Opening up trade increases FDI flows, and a higher FDI stock in a country leads to a higher volume of trade.

Thank you very much !