BULLETIN
OF
ECONOMIC THEORY AND ANALYSIS

Journal homepage: https://dergipark.org.tr/tr/pub/beta

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To cite this article: Koç, N. & Durusu-Ciftci, D. (2024). The Role of Institutional Quality on FDI: A Comparison for Pre and Post – Global Financial Crises. *Bulletin of Economic Theory and Analysis*, *9*(3), 699-717.

Received: 29 May 2024

Accepted: 8 Jul 2024

Published online: 31 Oct 2024

Bulletin of Economic Theory and Analysis

Volume 9, Issue 3, pp. 699-717, 2024
https://dergipark.org.tr/tr/pub/beta

Original Article / Araştırma Makalesi
Received / Alınma: 29.05.2024 Accepted / Kabul: 08.07.2024

The Role of Institutional Quality on FDI: A Comparison for Pre and Post – Global Financial Crises

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ABSTRACT

In this study, the relative importance of institutional quality indicators on foreign direct investment (FDI) is investigated using a dynamic panel regression model for the countries that attracted the most FDI between 1996-2021. The World Bank (2023) data shows that FDI inflows gained a significant momentum at the beginning of the 2000s and reached its highest level in 2007. However, the Global Financial Crises (GFC) created a turning point in FDI inflows and it followed a very volatile course in the following years. For this reason, the analysis focused on the periods pre and post the global financial crisis. As a result of the study, it is revealed that all institutional quality indicators (except the rule of law) have positive effects on FDI inflows in the pre-crisis period, and regulatory effectiveness, government effectiveness and corruption control have a relatively higher impact on FDI inflows. On the other hand, it has been determined that no institutional quality indicator has a significant effect on foreign direct investments in the post-crisis period when FDI inflows are highly volatile.

Keywords
Foreign Direct Investments, Institutional Quality, Panel Data Analysis

JEL Classification
E02, F21, C23

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Doğrudan Yabancı Yatırımlarda Kurumsal Kalitenin Rolü: Küresel Finansal Kriz Öncesi ve Sonrası İçin Bir Karşılaştırma

ÖZ

Bu çalışmada, kurumsal kalite alt bileşenlerinin doğrudan yabancı yatırım (DYY) üzerindeki göreceli önemi, 1996-2021 yılları arasında en çok doğrudan yabancı yatırım çeken ülkeler için dinamik panel regresyon modeli kullanılarak araştırılmaktadır. Dünya Bankası (2023) verileri, doğrudan yabancı yatırım girişlerinin 2000'li yılların başında ciddi bir ivme kazandığını ve 2007 yılında en yüksek seviyesine ulaştığını göstermektedir. Ancak küresel finansal kriz, doğrudan yabancı yatırım girişlerinde bir dönüm noktası oluşturmuş ve sonraki yıllarda oldukça dalgalı bir seyir izlemiştir. Bu sebeple analizde küresel finansal kriz öncesi ve sonrası dönemlere odaklanılmıştır. Çalışma sonucunda, tüm kurumsal kalite göstergelerinin (hukukun üstünlüğü hariç) kriz öncesi dönemde doğrudan yabancı yatırım girişleri üzerinde olumlu etkileri olduğu ve düzenleme etkinliği, hükümet etkinliği ve yolsuzluğun kontrolünün doğrudan yabancı yatırım girişleri üzerinde nispeten daha yüksek etkiye sahip olduğu ortaya koyulmuştur. Öte yandan, doğrudan yabancı yatırım girişlerinin oldukça değişken olduğu kriz sonrası dönemde herhangi bir kurumsal kalite göstergesinin doğrudan yabancı yatırımlar üzerinde anlamlı bir etkisinin olmadığı tespit edilmiştir.

Anahtar Kelimeler
Doğrudan Yabancı Yatırımlar,
Kurumsal Kalite,
Panel Veri Analizi

JEL Kodu
E02, F21, C23

1. Introduction

The question of what affects FDI inflows of a country has attracted much attention in the literature, as it provides great benefits for the host country such as being a catalyzer for domestic capital stock, improving the skills of the managers, transferring the know-how and technological innovations, and creating new job opportunities. Since the pioneering study of Calvo et al. (1993), the literature posits that there may be many determinants of FDI inflows such as GDP, trade openness, financial development etc. (e.g. Çulha, 2006; De Vita and Kyaw, 2008; Fernandez-Arias, 1996; Lee et al., 2022; Mody et al., 2001; Taylor and Sarno, 1997). Additionally, in the last two decades, some studies have begun to emphasize the role of institutional quality (IQ) on FDI inflows using the arguments of institutional economics doctrine. The institutionalist approach basically argues that the Neoclassical economics is insufficient to find solutions to the changing problems over time and cannot adapt to the developing society (Hamilton, 1919). In addition, the institutions in the countries and the rules that shape the course of the economy separate the countries from each other (Acemoglu and Robinson, 2022). One of the factors causing this distinction may be the relationship between the institutionalization of countries and their ability to attract FDI.

Accordingly, more institutionalized countries are expected to attract more investment.[1] However, empirical literature provides ambiguous results on the effect of IQ on FDI since there are many indicators that represent different aspects of IQ. Moreover, some IQ indicators may reveal different effects depending on the time interval or the structure of the countries.

Some of the studies focus on a single indicator to represent IQ. For example, Wei, (2000), Habib and Zurawicki, (2002), Azam and Ahmad, (2013) Belgiboyeva and Plekhanov (2015) show that corruption negatively affects FDI inflows on the grounds that it increases transaction costs and uncertainties. On the other hand, some others (e.g. Shittu et al., 2018; Tullock, 1996; Qureshi et al., 2021) conclude that corruption may increase FDI because it speeds up transactions in countries with weak bureaucracies. Similarly, some researchers (e.g. Busse, 2003; Gossel, 2018; Jensen, 2003) concentrate on the link between democracy and FDI and find that higher levels of democracy lead to more FDI inflows. Some other studies analyze the relationship between IQ and FDI with index series created by principle component analysis. Using the Worldwide Governance Indicators (WGI) (e.g. Buchanan et al., 2012; Owusu-Nantwi, 2019; Sabir et al., 2019), the International Country Risk Guide (ICRG) Index, (e.g. Aziz, 2017; Busse and Hefeker, 2005), and the Economic Freedom Index (EFI) (e.g. Bengoa and Sanchez-Robles, 2003; Economou, 2019; Ghazalian and Amponsem, 2018; Imtiaz – Bashir, 2017; Pearson et al., 2012; Tag et al. 2016) find that the IQ index has positive effects on FDI.

Several authors have examined the different effects of more than one IQ indicator separately, rather than focusing on a single variable (e.g. Adegboyeva et al., 2020; Asiuedu, 2006; Bouchoucha and Benammou, 2020; Hamid et al., 2023; Peres et al., 2018; Quazi, 2014, Ciftci and Durusu-Ciftci, 2022). The general conclusion of these works is that political stability, rule of law, and government effectiveness enhance foreign investments, whereas corruption decreases FDI. Apart from these, there are also contradictory findings. Bellos and Subasat (2012) find that all the IQ indicators represented by bureaucratic quality, rule of law, and voice & accountability have negative impact on FDI inflows for 14 transition countries. It is stated that multinational companies in well-managed countries may prefer to make more comfortable, easy and manageable investments in relatively poorly-managed countries due to their limited range of action. Masron and Nor (2013) find that all of the IQ indicators, except regulatory quality, affect positively FDI

[1] North (1991) described that countries that better fulfill the rules of the game in society are more institutionalized.

inflows for ASEAN countries. Similarly, Kurul and Yalta (2017) show that among the WGI, only control of corruption, government efficiency, and voice & accountability have significant positive impact on FDI inflows for 113 emerging countries. Awadhi (2022) also validates the positive impacts of control of corruption and government effectiveness on FDI inflows for Sub-Saharan African countries. On the other hand, Saha et al. (2022) provide similar results on the link between IQ and FDI for control of corruption and regulatory quality, but it is also determined that the rule of law, and voice & accountability have negative effects on FDI inflows for lower-middle income countries. Khan et al. (2023) provide that only regulatory quality has a positive impact on FDI inflows within the global panel. Conversely, the remaining factors exhibit a negative influence. Furthermore, the study reveals detrimental effects of control of corruption for both the developed and Asian panels, while regulatory quality has adverse effects on FDI inflows for both developed and developing country panels.

On the one hand, the gap between countries that can and cannot attract FDI is gradually widening, on the other hand, the 2008 Global Financial Crisis (GFC) interrupted the rapid rise of the global FDI. Therefore, it is timely and important to ask the following questions (i) What is the impact of IQ on FDI inflows for the countries that attract the most FDI in the world? (ii) Which institutional quality indicators, if any, have more impact on FDI inflows? (ii) Has the impact of IQ on FDI changed for pre-crisis and post-crisis periods? Unlike the studies reviewed above, this study focuses on whether the effect of IQ has changed in the changing dynamics of FDI inflows over time for the most FDI attracting countries. Until the mid-1980s, FDI inflows were negligible in the world. With the rapid acceleration of financial liberalization, FDI inflows increased 30 times in twenty years and reached $1.5 trillion. However, in the early 2000s, it slowed down for a short time with the economic crises in emerging markets such as Argentina, Russia, Türkiye and Venezuela. Afterwards, it gained a significant momentum again and reached its highest level ($3.1 trillion) in 2007 (World Bank, 2023). The GFC created a turning point in FDI flows and it followed a very volatile course in the following years. World average net FDI inflows in the 1996-2021 period were $9 billion. In this study, we focus on the group of 28 countries[2] which can attract FDI

[2] These countries are respectively, the USA, China, the Netherlands, Germany, Hong Kong, Brazil, Singapore, France, Ireland, Belgium, Canada, Spain, Australia, Mexico, Russia, India, Hungary, Italy, Sweden, Japan, Poland, Chile, Indonesia, Saudi Arabia, South Korea, Türkiye, Switzerland and Israel.

above this average value and call them as the *most FDI attracting countries*[3]. As can be seen from Figure 1, FDI inflows of the most FDI attracting countries account for the world's total FDI inflows to a very large extent. These two series, which almost coincided until the GFC, started to diverge after the crisis, with the capital shifting to other developing countries. Moreover, after the GFC, net investment inflows in most FDI attracting countries followed a rather volatile course compared to the pre-crisis period. However, as far as we know, none of the previous works take into account the changing course of FDI inflows before and after the 2008 GFC.

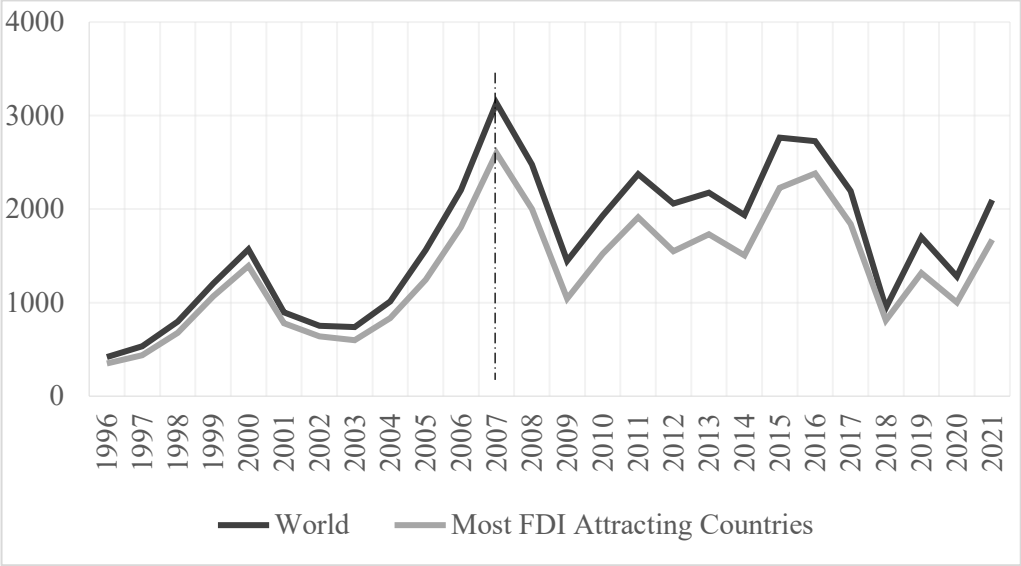

Figure 1. Foreign Direct Investment, Net Inflows (Billion US$).

Source: The average values are the authors calculations by using data from WDI.

Due to the short-time dimension of IQ indicators, prior research has taken the form of panel data analyses. These studies generally construct the data set according to three ways: (i) income groups, (ii) geographical location, or (iii) level of development. However, in these groups some countries have high levels of FDI, while some others can attract almost no FDI. Obviously, countries that attract more FDI can be both high-income and low-income, as well as both developed and emerging markets. For instance, Chile and Indonesia are low-income countries and Brazil, China, Hong Kong, and Mexico are emerging markets and draw more FDI than the global average. In order to take into account this special occasion for the FDI inflows, unlike the previous works, our study aims to determine both the cross-section and time dimension of the panel as guided by

[3] Small island countries (British Virgin Island, Cayman Island and Cyprus) are excluded from the scope of the analysis since their FDI inflows are extremely volatile compared to the other countries in the group.

the descriptive analysis of the data. This is the first attempt that examine the role of IQ on FDI inflows for the country group that attracts the most FDI in the world. Second, we conduct analyzes for two different periods to consider the different structure of the FDI before and after the crisis. Therefore, the only purpose of this study is not fulfilling a gap in the literature for the most FDI attracting countries, but also contribute to the literature by analyzing whether the link between IQ and FDI has changed pre-crisis and post-crisis periods. In this context, we examine the effects of six different IQ indicators on FDI inflows to take into account their own characteristics.

The organization of the paper is as follows: Section 2 consists of data and methodology. Section 3 encompasses empirical results. Finally, Section 4 summarizes empirical findings and policy implications.

2. Materials and Methods

In this section, using a panel of annual data covering the period 1996 – 2021 for the 28 countries that attract the most FDI in the world, we examine the link between IQ and FDI inflows. The dependent variable that we use is the ratio of FDI inflows to GDP. Institutional quality is one of our independent variables and has six sub-indicators. (i) *Control of corruption* evaluates public perceptions of bribery, corruption, and illicit conduct among government officials. It also gauges the extent to which the government is influenced or dominated by powerful elites and special interest groups, all the while ensuring that foreign investors are shielded from making unlawful payments to government authorities. (ii) *Government efficiency* measures the effectiveness of the country's public services and their degree of freedom from political restrictions. (iii) *Political stability* measures perceptions of social peace and the presence of both internal and external conflicts in the country and indicates the governance stability of a country. (iv) *Regulatory quality* evaluates how well-organized and effective the government is at putting various regulations and laws into place. (v) *Rule of law* gauges how well a country upholds social norms, how well property rights are safeguarded, and how well the judicial system and security forces are functioning. (vi) *Voice and accountability* stands for freedoms including the degree to which citizens can openly express their thoughts, freedom of the press and the media, and freedom of association. Real GDP per capita, trade openness, and financial development are additional auxiliary variables. FDI inflows, real GDP per capita, and trade openness are obtained from World Development Indicators (WDI) of World Bank. Institutional quality indicators are obtained from World Governance

Indicators (WGI), and the financial development index is obtained from International Financial Statistics (IFS). All variables in estimations are used in natural logarithms.

Because of the widely acknowledged influence of the previous period's value on FDI in existing literature (e.g. Awadhi, 2022; Muhammed and Khan, 2022; Sabir et al., 2019), this study conjectures the following dynamic panel data model to estimate the impact of different IQ indicators on FDI inflows:

$$lnFDI_{it} = \beta_{0i} + \beta_1 lnFDI_{it-1} + \beta_2 lnGDP_{it} + \beta_3 lnTO_{it} + \beta_4 lnIQ_{it} + v_i + \mu_t + \varepsilon_{it} \quad (1)$$

where i indicates the country ($i = 1, \dots, N$) and t indicates the time period ($t = 1, \dots, T$). FDI represents FDI inflows as a percentage of GDP. FDI_{it-1} is the first lag of dependent variable. GDP is the real GDP per capita. TO represents the share of total trade in GDP and FD is financial development index. All coefficients are expected to be positive. IQ represents institutional quality indicators: control of corruption (COR), government effectiveness (GOV), political stability (POL), regulatory quality (REG), rule of law (ROL), and voice & accountability (VOI). The expected coefficient of control of corruption is positive or negative. Corruption leads to increase in costs and uncertainties (Belgiboyeva and Plekhanov, 2015; Wei, 2000). However, at the same time, corruption may accelerate transactions in countries with weak bureaucracies (Leff, 1964; Tullock, 1996). So, the sign of the coefficient of COR is unclear. The coefficients of GOV, POL, and REG are expected to be positive. The expected sign of the coefficient of ROL is also ambiguous. While a strong legal structure increases investments (Masron and Nor, 2013; Muhammed and Khan, 2022), additional rules may increase the cost of investing in a foreign country (Yuan, 2010). The sign of coefficient of VOI may be positive or negative, too. While a safe investment environment encourages foreign investment (Kurul and Yalta, 2017), rising living standards may increase costs and negatively affect investment, due to high wage demands by workers (Saha et al., 2022). Finally, v_i are country-specific effects, μ_t are period-specific effects, and ε is the error term.

We report the correlation matrices between the institutional quality indicators that we used in our empirical analysis (See, Table 1). The results indicate that institutional quality indicators are highly and positively correlated with each other. To avoid the multicollinearity problem in the regression analysis, IQ indicators will be included separately in the estimated models.

Table 1

Correlation Matrix of the Institutional Quality Indicators

	COR	GOV	POL	REG	ROL	VOI
COR	1.000					
GOV	0.920	1.000				
POL	0.801	0.780	1.000			
REG	0.932	0.908	0.806	1.000		
ROL	0.972	0.932	0.807	0.933	1.000	
VOI	0.708	0.647	0.656	0.743	0.753	1.000

Using OLS estimator with lag variables leads to severe econometric problems such as autocorrelation. In addition, the inclusion of fixed effects that remain unchanged over time in the error term might exhibit a correlation with the explanatory variables which may cause an endogeneity problem between the dependent variable and explanatory variables. To overcome these issues, the Generalized Method of Moments (GMM) estimator is widely used in the literature. Arellano and Bond (1991) proposed utilizing the initial changes of the variables to eliminate the fixed effects, which is also known as the Standard or Difference GMM. First difference of Eq. (1) can be rewritten as follows:

$$\Delta lnFDI_{it} = \beta_{0i} + \beta_1 \Delta lnFDI_{it-1} + \beta_2 \Delta lnGDP_{it} + \beta_3 \Delta lnTO_{it} + \beta_4 \Delta lnIQ_{it} + \Delta v_i + \Delta \mu_t + \Delta \varepsilon_{it} \quad (2)$$

Nevertheless, the difficulty of addressing the correlation between the lagged dependent variable and the error term remains, requiring the use of instrumental variables. To tackle this issue, Arellano and Bond (1991) recommended a solution involving the incorporation of appropriate lags of both dependent and independent variables as instruments. Lagged levels of regressors can be useful as instruments, but there is a potential drawback when working with differenced variables that cannot be resolved by a difference estimator. To go even further, Blundell and Bond (1998) pointed out that the first-difference GMM estimator might perform poorly, notably resulting in considerable sample biases, when the independent variables show persistence over time. It is also worth noting that a substantial portion of the total variance within the data might be lost due to the absence of information regarding the focus variables in their level form (Arellano and Bover, 1995).

To address the aforementioned challenges of Difference GMM, a solution was put forth by Arellano and Bover (1995) as well as Blundell and Bond (1998), known as the System GMM (SGMM) estimator. This method integrates both regression in first differences and regression in levels within a systematic framework and produces a more effective estimator (Baltagi, 2005; Blundell and Bond, 1998). In the SGMM technique, difference equations and level equations are solved together, and therefore it is a system of simultaneous equations. By taking the differences of the dependent variable in the level equation and by taking the levels of the dependent variable in difference equation, the mean variable matrix is formed and then the coefficients are estimated. Because of these advantages, we prefer to use the two-step SGMM estimator to analyze the dynamic impact of IQ on FDI.

In order to interpret parameters from SGMM estimation, instrumental variables must be valid. We therefore start with checking the consistency of instruments by using two specification tests suggested by Arellano and Bover (1991, 1995). First, the null hypothesis of the overall validity of instruments is tested by Hansen test. Second, the presence of autocorrelation in the error terms is controlled by applying tests for first-order and second-order autocorrelation (AR1 and AR2) to assess whether there are serial correlations among the error terms.

3. Results and Discussion

Table 2 and 3 report the estimation results of Eq. (2) for the pre-crisis and post-crisis period, respectively and each column in the tables indicate that a different IQ indicator is included in the model. The first step of the SGMM analysis is to investigate the consistency of the parameters through the estimated models on the validity of the instruments. To verify that the error term does not have second order serial correlation and overall validity of the instruments, we report results of Arellano-Bond test for no serial correlation in error terms and Hansen test of overidentifying restrictions at the bottom of the tables. According to these tests all SGMM equations are properly specified. As expected, lagged FDI inflows and trade openness have statistically significant positive effects on FDI for all models. A 1% rise in the lagged value of FDI has an average impact of 0.37% on FDI inflows. Likewise, FDI inflows rise by an average of 0.60% for every 1% increase in trade openness. In the pre-crisis period, the findings indicate that the effect of GDP on FDI is statistically significant but negative in models including COR and REG variables. FDI inflows decrease by 0.19% and 0.21% for every 1% increase in GDP. The possible reasons of why GDP

affects negatively FDI in the pre-crisis period may be explained in four ways: (i) The local currency is typically strong in countries with high GDP and foreign investments, particularly export-oriented, may have to incur higher costs if the currency is strong. (ii) High growth rates may trigger inflation in the economy and create financial crises in some sectors. The 2008 global financial crisis is a dramatic example. Therefore, investment decisions may be adversely affected. (iii) Despite high growth rates, there may be inequality in income distribution in the country. This, in turn, may adversely affect local demand and discourage investment. (iv) Also, another potential factor could be the unstable economic growth that these countries experienced in the pre-crisis period. Lastly, the financial development index is found to be not statistically significant in any models.

Table 2

Dynamic Model Estimation Results (Pre-Crisis Period)

	(1)	(2)	(3)	(4)	(5)	(6)
$lnFDI_{(-1)}$	0.355**	0.380**	0.379***	0.372**	0.406***	0.394***
	(0.147)	(0.152)	(0.146)	(0.155)	(0.148)	(0.151)
lnGDP	-0.194*	-0.153	-0.132	-0.217*	-0.047	-0.042
	(0.111)	(0.101)	(0.085)	(0.125)	(0.086)	(0.091)
lnTO	0.644***	0.587***	0.592***	0.575***	0.596***	0.631***
	(0.174)	(0.187)	(0.170)	(0.170)	(0.188)	(0.197)
lnFD	0.283	0.223	0.260	0.309	0.326	0.365
	(0.204)	(0.171)	(0.197)	(0.201)	(0.207)	(0.228)
lnCOR	0.692**	-	-	-	-	-
	(0.277)					
lnGOV	-	0.893**	-	-	-	-
		(0.350)				
lnPOL	-	-	0.362**	-	-	-
			(0.170)			
lnREG	-	-	-	0.975***	-	-
				(0.370)		
lnROL	-	-	-	-	0.223	-
					(0.166)	
lnVOI	-	-	-	-	-	0.162*
						(0.093)
Hansen	24.46	27.68	25.35	26.28	27.72	26.67
	(1.000)	(1.000)	(1.000)	(1.000)	(1.000)	(1.000)
AR(1)	-2.72	-2.64	-2.67	-2.66	-2.60	-2.57
	(0.007)	(0.008)	(0.008)	(0.008)	(0.009)	(0.010)
AR(2)	1.27	1.28	1.34	1.33	1.31	1.29
	(0.204)	(0.201)	(0.181)	(0.185)	(0.190)	(0.199)

Notes. Numbers in parentheses are robust standard errors. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively. AR(1) and AR(2) represent the serial correlation of the error terms. Hansen test is a test of validity of instrumental variables.

The findings show that all IQ indicators are also found to be statistically significant and positive, except the ROL. This finding confirms that IQ positively affects FDI for the pre-crisis period and REG stands out as the most influential indicator on FDI inflows. After REG, the IQ indicators with the highest impact on FDI are GOV, COR, POL, and VOI, respectively. Improvements in the quality of regulation boost FDI by enhancing the potential for business growth, the competitive environment, business confidence, and the ease of doing business. Therefore, our findings for pre-crisis period confirms that more clear, stable, and friendly business regulations promote FDI. The findings also point to the relative importance of control of corruption and verify that a decrease in corruption can help a country to use its public resources more effectively, which will also encourage FDI inflows. Additionally, low corruption supports FDI by creating a safer and more competitive investment environment for investors.

In the pre-crisis period, our results indicate that POL and VOI have relatively smaller but positive impact on FDI inflows. Obviously, political instability is another important consideration for investors as it is mostly accompanied by economic unpredictability. The security of investors' investments and their financial expectations are adversely affected in an environment of economic uncertainty. Therefore, our finding for political stability is in line with the theoretical expectation. In like manner, increased freedom of speech and accountability leads to greater transparency and a safe environment for foreign investors. Additionally, freedom of expression boosts FDI by fostering innovation and competitiveness.

Table 3 reports the results for the post-crisis period. It appears that the impact of lagged value of FDI inflows and trade openness on FDI inflows are statistically significant and positive for all models. These results are consistent with those obtained in Table 2. However, during the pre-crisis period, the impact of trade openness decreased by approximately half in the post-crisis period. It is not surprising that trade openness positively affects FDI since increase in openness allows companies to reduce costs and also gain a larger market share (Adhikary, 2011; Ho ve Rashid, 2011). The reduction or elimination of barriers and restrictions to trade is particularly important for FDI which seeking new markets and focusing on exports (Sahoo, 2006). On the other hand, when we look at the other control variables, the impact of GDP on FDI inflows is found to

be statistically insignificant in all models for the post-crisis period. As before, the impact financial development on FDI inflows is not statistically significant for the post-crisis period.

Taking a closer look at the IQ indicators in the post-crisis period, which are statistically significant for all indicators, except for the rule of law, in the pre-crisis period, the effects of all IQ indicators on FDI inflows become statistically insignificant for the post-crisis period. The disappearance of a significant relationship may be attributed to the pronounced volatility in FDI during the post-crisis period. In the same way, another reason may also be due to the increased risk perception of investors and the possibility that they began to attach more importance to some other socio-economic or political factors after the crisis.

Table 3

Dynamic Model Estimation Results (Post-Crisis Period)

	(1)	(2)	(3)	(4)	(5)	(6)
$lnFDI_{(-1)}$	0.432***	0.433***	0.432***	0.429***	0.432***	0.432***
	(0.127)	(0.128)	(0.129)	(0.125)	(0.127)	(0.128)
lnGDP	-0.074	-0.066	-0.048	-0.134	-0.059	-0.038
	(0.096)	(0.091)	(0.099)	(0.134)	(0.092)	(0.095)
lnTO	0.388*	0.387*	0.401*	0.378*	0.392*	0.395**
	(0.210)	(0.210)	(0.225)	(0.213)	(0.213)	(0.206)
lnFD	-0.049	-0.047	-0.003	-0.017	-0.034	-0.007
	(0.297)	(0.318)	(0.295)	(0.269)	(0.311)	(0.275)
lnCOR	0.082	-	-	-	-	-
	(0.140)					
lnGOV	-	0.093	-	-	-	-
		(0.369)				
lnPOL	-	-	-0.023	-	-	-
			(0.144)			
lnREG	-	-	-	0.317	-	-
				(0.370)		
lnROL	-	-	-	-	0.033	-
					(0.189)	
lnVOI	-	-	-	-	-	-0.055
						(0.089)
Hansen	26.33	23.70	24.22	24.72	25.79	25.99
	(1.000)	(1.000)	(1.000)	(1.000)	(1.000)	(1.000)
AR(1)	-2.45	-2.45	-2.45	-2.43	-2.45	-2.46
	(0.014)	(0.014)	(0.014)	(0.015)	(0.014)	(0.014)
AR(2)	1.34	1.34	1.33	1.34	1.34	1.34
	(0.180)	(0.181)	(0.182)	(0.180)	(0.181)	(0.180)

Notes. See Table 1.

4. Conclusion

There is no clear-cut general agreement on the role of institutions on FDI inflows. While some developed countries in the world have relatively low FDI inflows, some developing countries can attract quite high FDI. In light of this knowledge, we prefer to focus on the group of countries that attract the most FDI in the world while examining the effects of IQ on FDI inflows. Moreover, the 2008 Global Financial Crisis created a turning point on the positive trend in FDI flows and it followed a very volatile course in the following years. We conduct analyzes for two different periods to consider whether the link between IQ and FDI has changed pre-crisis and post-crisis periods. In this regard, this study proposes to empirically examine the effects of 6 different IQ indicators on FDI inflows in a sample of 28 most-attracted FDI countries over the period 1996–2021.

The results of this study suggest that FDI inflows are positively influenced by the lagged value of FDI and trade openness during both periods. Notably, trade openness emerged as the most significant factor for FDI inflows in both timeframes and underscores the pivotal role of trade openness in attracting FDI. In light of these insights, therefore, policymakers may consider easing restrictions on international trade; lowering customs duties and various taxes; and supporting firms by incentives in export-import transactions.

In the pre-crisis period, our findings indicate that IQ positively effects FDI inflows. On the other hand, no significant effect of any IQ indicator on FDI was detected in the post-crisis period. FDI inflows have been quite volatile after the crisis, which may have been caused by the change in investors' risk perception. Our findings also shed light on which IQ indicators are more effective on FDI inflows. The results show that even if all the coefficients of IQ indicators, except ROL, have positive sign, regulatory efficiency, government effectiveness and control of corruption have relatively much higher impact on FDI inflows. Therefore, it may be suggested that policy makers focus relatively more on the following areas to make IQ improvements more FDI-friendly: (i) enhancing transparency, openness of decision-making, and non-discrimination through necessary regulations; (ii) providing flexibility, learning, and innovation within the political leadership; (iii) increasing the ability to manage political shifts without drastic policy changes; (iv) using of international standards as a basis for regulations; (v) shifting processes to electronic platforms in order to struggle with corruption; (vi) strengthening independent regulatory and supervisory

mechanisms; (vii) setting more realistic and robust goals for the country's political, legal, socio-economic future.

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