

Article

Investigating the Impact of Institutional Quality on FDI: Are There Promotional Effects in Economic Integration Regions?

Fuzhong Chen *  and Guohai Jiang *

School of International Trade and Economics, University of International Business and Economics, Beijing 100029, China

* Correspondence: uibesitechen@uibe.edu.cn (F.C.); jiangguohai_1996@126.com (G.J.)

Abstract: The purpose of this study is to examine the impact of institutional quality on foreign direct investment (FDI) using panel data of 117 countries around the world from the period of 2001 to 2018. To enhance the accuracy of the estimation results, this study includes various statistical tests to select the estimation method that best fits the sampling data used in this study. Furthermore, while the robust standard error is applied to correct the problem of heteroscedasticity, this study addresses the potential endogeneity problem by system GMM estimation. The results indicate that the improvement in institutional quality significantly and positively contributes to FDI. More importantly, the results also reveal that economic integration has improved the role of institutional quality, indicating that the promotional effects of institutional quality on FDI are greater in economic integration areas. The results also suggest that the launch of China's Belt and Road Initiative has greatly enhanced the promotional effects of institutional quality on FDI. The findings of this study offer policy implications for policymakers to take measures to improve institutional quality and thereby to enhance FDI and further accelerate the formation of economic integration in a more sustainable way.



Citation: Chen, F.; Jiang, G. Investigating the Impact of Institutional Quality on FDI: Are There Promotional Effects in Economic Integration Regions? *Sustainability* **2021**, *13*, 11309. <https://doi.org/10.3390/su132011309>

Academic Editors: Xiaohang Ren, Yukun Shi, Kun Duan and Cheng Cheng

Received: 16 September 2021
Accepted: 11 October 2021
Published: 13 October 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Keywords: institutional quality; foreign direct investment; panel data model; economic integration; Belt and Road Initiative

1. Introduction

The world today is in a period of tremendous development, change and transition, and the governments of most countries are paying more and more attention to economic integration [1,2]. Based on the World Bank, all countries and principalities in the world except 12 island countries have participated in at least one Regional Trade Agreement (RTA), with an average of five for each country or region. This implies that there is a new scenario of economic integration. In the process of building a sustainable open economy, the formation of capital is vital, especially for foreign direct investment (FDI) [3]. Previous studies have found that attracting FDI may serve as an effective way to reach the Sustainable Development Goals (SDGs) for 2030, because FDI is a fundamental stimulus to a nation's sustainable economic growth [4]. For that reason, substantial studies have examined the roles of FDI from the perspectives of technology transfer, the productivity of domestic firms, and capital accumulation, as well as total factor productivity (TFP) [5], which implies that the issues about FDI have been increasingly highlighted, especially under the context of economic integration and sustainable development.

With the development of neo-institutional economics, substantial studies have addressed the roles of institutional quality in sustainable and healthy development. Institutions are designated as a series of rules that shape economic behaviors, which are of great help to economic sustainable development [6]. High institutional quality may optimize economic growth in various ways and then influence the progress of constructing an open economy worldwide. Having domestic favorable economic institutions and high institutional quality is often considered to be crucial for attracting capital inflows and establishing balanced economic structures, as well as stable long-run growth [7]. Therefore, countries

with high institutional quality will develop more sustainably, especially under the context of an open economy. The world includes both countries with satisfactory institutional quality such as Australia and countries with unsatisfactory institutional quality such as Zimbabwe, which shows the complexity of institutional quality in different countries. The differences in institutional quality among different countries have become a crucial factor affecting FDI activities and sustainable development, mainly through the costs of investment risks and macroeconomic risks [8]. Unlike previous research, this study aims to investigate the impact of institutional quality on FDI, and further examines the policy effects of economic integration, and the role of China's Belt and Road Initiative (BRI) in this process.

This study is well-positioned to contribute to the literature on institutional quality and FDI in at least three ways. First, this study incorporates most countries across the world into the sample data, avoiding the shortcomings of existing studies that only consider a few countries or the member countries of some economic integration organizations. Second, this study employs a linear logarithmic model, which has a semi-elasticity explanation. Third, this study uses dummy variables to investigate whether the effects of the improvement in institutional quality will be greater in economic integration areas such as OECD and BRICS, which proves the existence of promotional effects in economic integration regions. Moreover, unlike most extant literature using the difference-in-differences (DID) to estimate policy effects on economic growth, this study utilizes DID to investigate whether the launch of the BRI has promotional effects on FDI, which gives richer implications for sustainable development.

The rest of this paper is organized as follows. Section 2 reviews related literature. Section 3 proposes hypotheses and displays the model specification, variable definitions as well as the statistical description of the sample data. Section 4 empirically examines the roles of institutional quality in FDI. Section 5 carries out further discussion on the effects of economic integration and the BRI. The first analysis is to investigate whether the promotional effects of institutional quality on FDI will be greater in economic integration areas, and the second is to examine whether the launch of the BRI has a promotional effects on institutional quality. Section 6 offers conclusions and puts forward the underlying policy implications.

2. Literature Review

2.1. Literature on Institutional Quality

Concerning institutional quality, prior studies have shed light on three perspectives, namely, the relationships between economic growth, income gaps, and mergers and acquisitions.

First, previous studies about the associations between institutional quality and economic growth can be retrospect to the emergence and development of institutional economics. Several studies have confirmed that the more advanced a country's institutions, the better its economic development. For instance, institutional quality is considered to be conducive to promoting the growth rate of GDP through the productivity of using resources and the maintenance of the law [9]. Nevertheless, the roles of institutional quality in economic growth are various, and the detailed effects also depend on other factors such as income level [10]. Moreover, it is argued that there is a reverse causality—that is, economic growth also causes the improvement of institutional quality [11]. Additionally, it is indicated by threshold models that the factors affecting economic growth take effect only when a threshold level of institutional quality has been reached [12].

Second, on the associations between institutional quality and the inequality of income distribution, most previous studies have suggested that higher institutional quality will decrease the income gap [13]. Specifically, improvements in most aspects of institutional quality, such as illegal behaviors, democratic accountability, and administrative quality, serve to decrease the inequality of income distribution. In particular, by employing threshold regression, previous studies also indicate a threshold effect of institutional quality on the income gap [14]. The results reveal that related factors tend to alleviate the degree of

income inequality only when a certain threshold value of institutional quality has been reached.

Third, as to the impact of institutional quality on mergers and acquisitions, previous research has shown that if the target country or home country has weaker institutional quality, the likelihood of successful mergers and acquisitions tends to decrease [15]. The institutional quality of the host country and the home country is also important in mergers and acquisitions [16]. Moreover, some researchers employed the gravity model and claimed that although institutional quality plays a decisive role in mergers and acquisitions, this significant effect may disappear when transacting among the countries with similar stages of economic development [17].

2.2. Literature on FDI

Prior studies primarily shed light on three issues of FDI, mainly on the determinants of FDI, the associations between FDI and economic growth, and the spillover effects from FDI.

First, prior studies have recognized the decisive factors of FDI. Previous studies have suggested that FDI is decided by the degree of political risk, cultural approach, market scale, and geographic distance of the host country [18]. Additionally, FDI is considered to be affected by the degree of corruption [19], GDP and fiscal deficit [20], the exchange rate [21], the return rate of FDI, the situation of infrastructure, the degree of openness [22,23], and intellectual property protection [24].

Second, there is mixed evidence about the associations between FDI and economic growth. It is claimed that FDI cannot contribute to economic growth directly but does so indirectly through some related ways, such as human capital [25]. Generally, FDI plays an uncertain role in promoting economic growth [26]. The roles of FDI vary with country-specific characteristics. For example, when the host country follows free trade institutions and has good human capital conditions, FDI is more inclined to promote economic growth, and the promotional effects seem to rise over time and to be stronger in coastal than inland regions [27]. Moreover, prior research also provides evidence that economic growth may affect the inflows of foreign capital [28].

Third, substantial studies have focused on the spillover effects of FDI on technology, domestic productivity, and knowledge. Concerning the spillover effects of FDI on technology, technological spillovers from FDI will not arise until a worker is employed by a local firm [29]. Simultaneously, pecuniary spillovers will not appear until foreign affiliates pay skilled workers a higher salary to prevent them from hopping to local competitors. In terms of the spillover effects from FDI on domestic productivity, positive productivity spillovers from FDI will occur via contacts between overseas affiliates and their domestic suppliers in upstream sectors [5]. Regarding the spillover effects from FDI on knowledge, Branstetter (2006) employed Japan as an example and argued that FDI has a positive spillover that positively contributes to the spread of knowledge [30].

2.3. Literature on the Relationship between Institutional Quality and FDI

First, on the basic relationships between institutional quality and FDI, substantial studies have concluded that institutional quality significantly and positively affects FDI [31]. Second, prior studies primarily employed various data to investigate the effects of various indicators of institutional quality on FDI. According to political risk, it is suggested that among the indicators measuring institutional quality, political stability, internal and external clashes, corruption and ethnic pressures, legitimacy and order, democratic accountability of politics, and quality of authority are all decisive factors of foreign investment inflows [32]. Regarding institutional distance, institutional proximity between the home country and host country matters [33]. Meanwhile, the most crucial institutional aspects affecting FDI are related to property rights [34]. Third, the associations between institutional quality and FDI have also been investigated in more detailed fields. It is indicated that Chinese domestic firms situated in areas with a higher level of FDI are more likely to benefit from preferential institutional policies and higher institutional quality, such as a

lower degree of tax and fee duties, and better legal safeguards [35]. Focusing on the BRICS economies and dividing FDI into two categories according to different purposes, namely being motivated by a market-seeking purpose and not, it is suggested that the effect of institutional quality in these two kinds of FDI is various. Based on samples from MENA countries, institutional variable is a key determinant of FDI inflows [36].

From the perspective of promotional effects, previous studies have found that the regional integration process, such as Regional Integration Agreements (RIAs) and Bilateral Investing Treaties (BITs), may promote the positive effect of institutional quality on FDI [37]. Specifically, for RIAs, institutions in those regions with deeper integration processes might have greater effects than shallower ones. This is mainly because RIAs decrease the gaps in institutions among countries, make the economic distance closer, and improve investment confidence [38]. For BITs, they promote developing countries' FDI inflows once a certain degree of institutional quality is reached [39], because BITs tend to complement institutions and make institutional quality sounder. However, for countries with unsatisfactory institutional quality, BITs turn to substitute institutions. Furthermore, the promotional effects of RIAs are larger than BITs [40]. The economic integration agreements between two regions with many political barriers may turn Pareto-inefficient into Pareto-efficient, thereby decreasing institutional challenges [41].

2.4. Literature Gaps

Although previous research has made great efforts in the field of FDI-related issues, there are still limitations. To begin with, previous studies measure institutional quality in various ways, generating inconsistent or conflicting results. Second, prior studies have primarily shed light on specific detailed fields, but this fails to provide a comprehensive discussion. Finally, few studies focus on detailed policies such as economic integration and especially the BRI as promotional factors for evaluating the policy effects of institutional quality on FDI. Therefore, this study bridges the existing gap in the stock of knowledge and enriches the literature on the relationships between institutional quality and FDI, and is of high importance for OECD, BRICS, and the BRI countries to promote economic integration. This study is also beneficial to fill the gaps concerning the roles of the BRI in FDI. Thus, this study can be informative for policymakers, investors, and companies to formulate effective measures to improve institutional quality and thereby to enhance FDI and further accelerate the formation of economic integration sustainably.

3. Methodology and Data

3.1. Hypotheses

According to the discussion of the extant literature above, the institutional quality may be vital in appealing to FDI in that favorable administration infrastructure, such as high productivity, is regarded as playing a pivotal role in introducing sustainable foreign investment. On the contrary, low institutional quality, such as poor administrative institutions, will generate extra expenses when investing in overseas countries, given, for instance, the cost of political risks and corruption [42]. Thus, this study puts forward the following hypothesis:

Hypothesis 1 (H1). *The improvement in institutional quality plays a significantly positive role in promoting FDI.*

The goal of economic integration is to share the economic markets of member countries through the establishment of free trade areas and customs unions [43]. In economic integration areas, more than two countries gradually transfer part or even all of their economic sovereignty, employ uniform economic policies, and shape exclusive economic groups. In the context of economic integration, the flows of FDI among countries have been increasing [44]. In an economic integration area, all countries enjoy a high degree of facilitation of FDI, which is conducive to the sustainable flows of foreign capital [45]. For

instance, China launched the BRI in 2013, and it links China with three broad continental areas, connecting the countries along the Belt and Road and dramatically promoting the sustainable flows of international capital [46]. Thus, this study proposes the following hypotheses:

Hypothesis 2 (H2). *The promoting effects of institutional quality on FDI are greater in economic integration areas.*

Hypothesis 3 (H3). *The launch of the BRI positively and significantly contributes to FDI.*

3.2. Model Specification and Variables

This study aims to investigate the impact of institutional quality on FDI, and the baseline model is specified as follows:

$$\begin{aligned} \ln fdi_{it} = \alpha_0 &+ \alpha_1 insqua_{it} + \beta_1 \ln gdppc_{it} + \beta_2 \ln inflacpi_{it} \\ &+ \beta_3 laborpar_{it} + \beta_4 patentapp_{it} + \beta_5 natural_{it} \\ &+ \beta_6 \ln goodexp_{it} + \varepsilon_{it} \end{aligned} \quad (1)$$

where i stands for the country, t denotes the year, and ε is the error term. fdi and $insqua$ denote FDI and institutional quality, respectively. To make the magnitudes of FDI and the institutional quality identical, this study takes the natural logarithm form of the stock of FDI, represented by $\ln fdi$. Moreover, the advantage of natural logarithms is that the model has a semi-elastic interpretation.

To quantify institutional quality more adequately, this study follows the usual practice and employs the sum of ten indicators (see Table 1) [31]. Data on the stock of FDI were collected directly from the World Bank Database. Moreover, since the stock of FDI is still affected by many other factors, this study also incorporates related control variables to alleviate omitted variable problems. Accordingly, we chose 6 control variables: the GDP per capita ($gdppc$), the annual inflation rate measured through CPI ($inflacpi$), the total natural resources rent ($natural$), the labor participation rate ($laborpar$) [38], the patent application volume ($patentapp$), and the exports ($goodexp$) [47]. We selected patents as a control variable is because most of the investments flowing into developed countries or high technology-intensive industries are for the purpose of seeking advanced technology or new knowledge, so the technological innovation capabilities and innovative behaviors of domestic enterprises (mainly reflected in patents) inevitably affect FDI inflows [48]. For GDP per capita and exports, we used their forms of natural logarithms, represented by $\ln gdppc$ and $\ln goodexp$, respectively, to make magnitudes closer to $insqua$. All the variables are detailed in Table 1.

3.3. Data Description

The dataset was collected from the American Heritage Foundation Database and the World Bank Database. Due to the limitation of data availability, we incorporated the panel data of 117 countries around the world from 2001 to 2018. To be more specific, in these sampling countries, 84 are developing countries and 33 are developed countries (see Table 2). Regarding the developing countries, there are 12 countries in East Asia and the Pacific, 17 countries in Europe and Central Asia, 20 countries in Latin America and the Caribbean, 14 countries in the Middle East and North Africa, 5 countries in South Asia, and 16 countries in Sub-Saharan Africa. In this study, all of the developed countries are members of the Organization for Economic Co-operation and Development (OECD). Therefore, the sampling countries in this study are highly representative.

Table 1. Variable specification.

Variables	Indicators	Code	Calculation Method	Sources
Independent Variable	Institutional quality	<i>insqua</i>	The sum of commercial freedom, trade freedom, fiscal freedom, government expenditure, currency freedom, investment freedom, financial freedom, property rights, trade-off index, and labor freedom index	American Heritage Foundation Database
Dependent Variable	The natural logarithm form of stock of FDI	<i>lnfdi</i>	Obtained directly	World Bank Database
Control Variables	The natural logarithm form of GDP per capita	<i>lngdppc</i>	Obtained directly	World Bank Database
	The annual inflation rate measuring through CPI	<i>inflacpi</i>	Obtained directly	
	The labor participation rate	<i>laborpar</i>	Obtained directly	
	The patent application volume	<i>patentapp</i>	Obtained directly	
	The total natural resources rent	<i>natural</i>	Obtained directly	
	The natural logarithm form of export scale	<i>lngoodexp</i>	Obtained directly	

Note: All variable names are italicized in the table.

Table 2. The 117 countries used in the sample.

Country Name	Country Name	Country Name	Country Name	Country Name	Country Name
Albania	Colombia	Haiti	Macedonia	Panama	Syria
Algeria	Costa Rica	Honduras	Madagascar	Papua New Guinea	Tajikistan
Armenia	Croatia	Hong Kong	Malawi	Paraguay	Tanzania
Australia	Cyprus	Hungary	Malaysia	Peru	Thailand
Austria	Czech Republic	Iceland	Malta	Philippines	The Bahamas
Bahrain	Côte d'Ivoire	India	Mauritius	Poland	Tunisia
Bangladesh	Denmark	Indonesia	Mexico	Qatar	Turkey
Barbados	Djibouti	Ireland	Moldova	Romania	Uganda
Belarus	Dominican Republic	Israel	Mongolia	Russia	Ukraine
Belgium	Ecuador	Italy	Montenegro	Rwanda	United Kingdom
Bolivia	Egypt	Jamaica	Morocco	Samoa	United States
Bosnia and Herzegovina	El Salvador	Japan	Namibia	Saudi Arabia	Uruguay
Botswana	Estonia	Jordan	Nepal	Singapore	Venezuela
Brazil	Ethiopia	Kazakhstan	Netherlands	Slovakia	Vietnam
Bulgaria	Finland	Kenya	New Zealand	Slovenia	Yemen
Burkina Faso	France	Kyrgyz Republic	Nicaragua	South Korea	Zambia
Cambodia	Germany	Latvia	Nigeria	Spain	Zimbabwe
Canada	Ghana	Lebanon	Norway	Sri Lanka	
Chile	Greece	Lithuania	Oman	Sweden	
China	Guyana	Luxembourg	Pakistan	Switzerland	

Table 3 presents the descriptive statistics. The sample size is 2028 since the data of some variables are missing. Therefore, the panel data used in this study are not balanced. For the dependent variable, the stock of FDI, the mean value is 10.0170, and the minimum and maximum values are 2.7670 and 15.6100, respectively, suggesting significant differences in FDI among various countries. Regarding the independent variable of institutional quality,

the mean value is 63.1960, and the standard deviation is up to 9.8440, which reveals that the countries with various levels of institutional quality are included in this study. Moreover, GDP per capita ranges from 19.4250 to 30.6510, which indicates that both high-income and low-income countries are incorporated, as well. For the variable of the inflation rate, the mean value is 5.3030, and the minimum and maximum values are -30.8560 and 72.7400 , respectively. Moreover, there are significant differences in the total natural resources rent among sampling countries, ranging from 0.0000 to 55.3120. The average of the patent application is low, with a mean value of 1.1379.

Table 3. Descriptive statistics.

Variables	Obs.	Mean	Std. Dev.	Min	Max
<i>insqua</i>	2028	63.1960	9.8440	21.4000	90.2000
<i>lnfdi</i>	2028	10.0170	2.1930	2.7670	15.6100
<i>laborpar</i>	2028	69.7430	18.7440	8.8700	100.6160
<i>lngdppc</i>	2028	24.9530	2.0270	19.4250	30.6510
<i>inflacpi</i>	2028	5.3030	7.3990	-30.8560	72.7400
<i>natural</i>	2028	5.4400	8.6270	0.0000	55.3120
<i>patentapp</i>	2028	1.1379	6.6401	0.0001	124.5709
<i>lngoodexp</i>	2028	23.5590	2.2310	16.2620	28.5140

Note: All variable names are italicized in the table.

To ensure that collinearity was not a major issue here, we conducted a correlation coefficients test (see Table 4). The results indicate that this study did not need to concern the problems caused by the collinearity, because most of the correlation coefficients are smaller than 0.3.

Table 4. Correlation coefficient matrix.

Variables	<i>insqua</i>	<i>lnfdi</i>	<i>laborpar</i>	<i>lngdppc</i>	<i>inflacpi</i>	<i>natural</i>	<i>patentapp</i>	<i>lngoodexp</i>
<i>insqua</i>	1							
<i>lnfdi</i>	0.2651 ***	1						
<i>laborpar</i>	0.1684 ***	0.1350 *	1					
<i>lngdppc</i>	0.3091 ***	0.2278 ***	0.0110	1				
<i>inflacpi</i>	-0.2561 ***	-0.1942 ***	-0.0150	-0.1342 ***	1			
<i>natural</i>	-0.2683 ***	-0.1179 ***	-0.2371 ***	-0.0612 ***	0.2042 ***	1		
<i>patentapp</i>	0.0424 *	0.2642 ***	0.0581 ***	0.1671 ***	-0.0783 ***	-0.0743 ***	1	
<i>lngoodexp</i>	0.2937 ***	0.3013 ***	0.1071	0.3461 ***	-0.1424 ***	0.0130	0.2431 ***	1

Notes: All variable names are italicized in the table. *** and * stand for the significance levels of 1% and 10%, respectively.

4. Empirical Results

4.1. The Test of Estimation Specification

Utilizing the panel data of 117 countries from 2001 to 2018, we econometrically investigated the effects of institutional quality on FDI. To avoid the estimation bias from non-stationary panel data series, especially for the inaccurate estimation results by spurious regressions, we appropriately performed a unit root test and a cointegration test. (The unit root test and cointegration test require the data to be a balanced panel. To meet the requirement, this study excludes a few clusters that there are missing values.) In detail, the approaches of LLC test, HT test, Breitung test, IPS test, and Fisher test were utilized to examine whether the panel data used in this study were stationary. The null hypothesis of these tests was that all the panels contain a unit root. The results of the unit root test are displayed in Table 5. In terms of the unit root test, most of the first-order difference terms were stationary under the tests with comprehensive methods. To ensure that the estimates conducted in this study were not spurious regressions, a cointegration test was carried out through the approaches of the Pedroni test and the Westerlund test. Accordingly, the results of the cointegration test statistically rejected the null hypothesis at a significance of

1%. Thus, together with the results of the unit root test, the panel data series in this study were appropriate be utilized to perform accurate and robust estimations, and there was no spurious regression.

Table 5. Unit root tests.

Variables	LLC Test	HT Test	Breitung Test	IPS Test	Fisher Test
<i>lnfdi</i>	−6.0861 ***	0.8036	7.8671	2.9270	595.9076 ***
<i>D.lnfdi</i>	−19.7803 ***	0.2860 ***	−8.4048 ***	−13.7933 ***	459.2396 ***
<i>insqua</i>	−8.8316 ***	0.5869 *	−0.0251	−6.0622 ***	421.0387 ***
<i>D.insqua</i>	−25.9855 ***	0.0156 ***	−11.6607 ***	−17.3620 ***	567.7297 ***
<i>laborpar</i>	−9.5655 ***	0.6058	2.1374	−4.5565 ***	358.0652 ***
<i>D.laborpar</i>	−25.5670 ***	0.0768 ***	−14.8200 ***	−16.8214 ***	576.3696 ***
<i>lngdppc</i>	−5.6163 ***	0.7454	3.4057	−3.0981 ***	429.1625 ***
<i>D.lngdppc</i>	−16.7432 ***	0.3539 ***	−8.7420 ***	−12.2034 ***	542.5381 ***
<i>inflacpi</i>	−19.1671 ***	0.3605 ***	−6.6789 ***	−12.8295 ***	512.6505 ***
<i>D.inflacpi</i>	−31.7407 ***	−0.1372 ***	−16.2044 ***	−19.1731 ***	750.6611 ***
<i>natural</i>	−7.8930 ***	0.5467 ***	−1.0015	−5.9080 ***	495.6830 ***
<i>D.natural</i>	−18.5085 ***	−0.0351 ***	−10.9835 ***	−14.9475 ***	489.7913 ***
<i>patentapp</i>	−11.1344 ***	0.3677 ***	31.7823	−2.0492 **	396.7856 ***
<i>D.patentapp</i>	−20.4389 ***	0.5941	30.0123	30.2285	343.9009 ***
<i>lngoodexp</i>	−7.8536 ***	0.7010	1.0424	−2.9490 ***	487.8713 ***
<i>D.lngoodexp</i>	−21.4283 ***	0.1464 ***	−13.0622 ***	−15.3507 ***	548.9473 ***

Notes: All variable names are italicized in the table. ***, **, and * represent the significance level of 1%, 5%, and 10%, respectively. All of the tests add individual fixed-effect and linear time-trend. To eliminate cross-section correlation, the tests were conducted after subtracting the mean value of each cross-section. The operator of *D* represents one order difference.

The estimation methods for the panel data incorporated the pooled Ordinary Least Squares (OLS), the fixed-effect model, and the random-effect model. To enhance the accuracy of the estimation results, it was necessary to test which estimation method was appropriate for the sampling data used in this study. Concerning whether to choose pooled OLS regression or the fixed-effect estimation model, this study employed an F-test to verify the null hypothesis. (The null hypothesis is that all the intercept terms are not significant.) The result indicated that $F(116, 1904) = 68.5900$, and the *p*-value was 0.0000. Hence, the null hypothesis was significantly rejected, and pooled OLS regression was not suitable be utilized for empirical estimation in this study. Regarding whether to use the random-effect or the fixed-effect estimation, this study utilized the approach of the Hausman test. (The null hypothesis is that the intercept term representing the individual heterogeneity is irrelevant to all the independent variables.) The result showed $\chi^2(8) = 211.2800$ and the *p*-value was 0.0000. Thus, the null hypothesis of the Hausman test was statistically rejected, as well. Therefore, this study employed the fixed-effect model to investigate the roles of institutional quality in FDI.

4.2. Baseline Estimation Analysis

Table 6 presents the baseline estimation results. In Model (1), the control variables are excluded and only the independent variable of the institutional quality is entered. All of the control variables are incorporated in Model (2), and the R-squared is better than that of Model (1). Moreover, the coefficient of *insqua* remains significantly positive at a significance level of 1%. Therefore, the results indicate that institutional quality positively and significantly contributes to FDI, as set forth in Hypothesis 1. The coefficients of the labor force, GDP per capita, and the export of the goods were all significantly positive, which was expected and conducive to FDI.

Consistent with previous literature and economic intuitions, the coefficients of *laborpar*, *lngdppc*, and *lngoodexp* were significantly positive [49,50]. However, it was surprising that the coefficient of *patentapp* was significantly negative. This was mainly because of the

endogeneity problem. In fact, the quantity of patents and FDI inflows were mutually determined [51,52]. The endogeneity problem is addressed in Section 4.3.

Table 6. Regression results.

Variables	(1) <i>lnfdi</i>	(2) <i>lnfdi</i>	(3) <i>lnfdi</i>	(4) <i>lnfdi</i>	(5) <i>lnfdi</i>	(6) <i>lnfdi</i>
<i>insqua</i>	0.0783 *** (0.0055)	0.0208 *** (0.0028)	0.0783 *** (0.0144)	0.0208 *** (0.0076)	0.0101 *** (0.0034)	0.0033 ** (0.0014)
<i>laborpar</i>		0.0383 *** (0.0031)		0.0383 *** (0.0087)		−0.0005 (0.0010)
<i>lngdppc</i>		1.0353 *** (0.0347)		1.0353 *** (0.1031)		0.8281 *** (0.1596)
<i>inflacpi</i>		0.0014 (0.0018)		0.0014 (0.0035)		−0.0001 (0.0010)
<i>natural</i>		−0.0050 * (0.0030)		−0.0050 (0.0089)		−0.0004 (0.0015)
<i>patentapp</i>		−0.0028 (0.0022)		−0.0028 ** (0.0014)		0.0016 ** (0.0008)
<i>lngoodexp</i>		0.3189 *** (0.0322)		0.3189 *** (0.0955)		0.0673 *** (0.0197)
<i>L.lnfdi</i>					1.0937 *** (0.1033)	1.1440 *** (0.1013)
<i>L2.lnfdi</i>					−0.0269 (0.1315)	−0.0773 (0.1355)
<i>L3.lnfdi</i>					−0.2243 *** (0.0573)	−0.2148 *** (0.0587)
<i>L4.lnfdi</i>					0.0650 (0.0399)	0.0415 (0.0417)
Constant	5.0664 *** (0.3477)	−27.2938 *** (0.4686)	5.0664 *** (0.9094)	−27.2938 *** (1.3951)	0.3940 ** (0.1601)	−0.8181 ** (0.3434)
Obs.	2028	2028	2028	2028	1556	1556
R-squared	0.0961	0.7796	0.0961	0.7796		
F-statistics/Wald's test	203.1600	962.1800	29.6300	206.8900	14,696.9000	12,030.1700

Notes: All variable names are italicized in the table. ***, **, and * represent 1%, 5%, and 10% significance level, respectively. In Models (1) and (2), the data in parentheses are standard errors, and these in Models (3) to (6) are robust standard errors. From Models (5) to (14), dynamic generalized moment estimation and limited dependent variable estimation are utilized, and hence, the R-squared statistics are not reported.

4.3. The Check of Heteroscedasticity and Endogeneity

Using the panel data of 117 countries from 2001 to 2018, we examined the impact of institutional quality on FDI. Due to multiple cross-sectional panel data, there may have been heteroscedasticity, which causes bias in model estimations. To produce more accurate estimates, we applied the modified Wald's test to further examine the heteroscedasticity. The results showed the statistics of $\chi^2(117) = 32,395.8800$ at a significance of 1%. Therefore, the null hypothesis (The null hypothesis is that there is no heteroscedasticity.) of the modified Wald's test was statistically rejected. Thus, we utilized robust standard errors to eliminate the estimation bias from heteroscedasticity. In Model (3), only the variable of institutional quality is added, and the coefficient remains statistically positive. In Model (4), the control variables are included, as well. Accordingly, the results were unchanged. Therefore, institutional quality has promotional roles in FDI, which indicates that the results are consistent with Hypothesis 1.

Simultaneously, prior research suggests that FDI may have an elucidative effect on the improvement of institutional quality [53]. Hence, there may have been an endogeneity problem caused by a reverse causality in the above estimations. Therefore, the lag terms of the FDI and the method of System GMM estimation were utilized. Concerning the choice of the lag orders of the dependent variable of FDI, we took the current value of the variable of FDI (*lnfdi*) as the dependent variable and its first-order to sixth-order lag terms as the independent variables, and the method of OLS regression was employed to verify the significant levels of the lag-term coefficients [54]. The results showed that the fourth-order lag term is not significant, and hence, the fourth-order lag was chosen as the critical lag order. Moreover, we also examined whether there is a disturbance term specific to second-order autocorrelation. The result of the Arellano-Bond test showed that the p-value was 0.9370. Hence, the null hypothesis (The null hypothesis is that there is no

second-order autocorrelation of the disturbance term.) could not be statistically rejected. Thus, the GMM estimations performed in this study were consistent.

Furthermore, we conducted an over-identification test to verify whether there were excessive instrumental variables. The Sargan test showed that $\text{Chi}^2(955) = 822.0600$ and the p-value was 0.9990. Hence, the null hypothesis (The null hypothesis is that the instrumental variables are appropriate.) could not be statistically rejected. Thus, the instrumental variables involved in this study were appropriate. To be more specific, Model (5) is without any control variables, which are instead introduced in Model (6). Nevertheless, in Models (5) and (6), institutional quality positively contributes to FDI. In Model (6), the estimated coefficient of institutional quality is suggested to be significantly positive as expected. Therefore, after controlling the endogeneity and other factors remain unchanged, FDI increased by approximately 0.33% for every unit improvement of institutional quality. Thus, all results agree with Hypothesis 1. Moreover, after dealing with the endogeneity, the signs of *lngdppc*, *patentapp*, and *lngoodexp* were all significantly positive, identical to economic logic.

4.4. Robustness Check

To produce more robust and accurate estimates, we performed a comprehensive robustness check. First, we divided the sampling countries into three subgroups in terms of geographic location and re-estimated the relationship. Second, to remove the disturbance of outliers by GDP per capita, we kept the samples of which the GDP per capita (*lngdppc*) was between the 10th percentile and the 90th percentile. Third, the alternative approaches of the truncated estimation and the Tobit estimation were performed. Finally, to ensure that the means of dealing with the ten indicators did not change the conclusion, we employed the principal component analysis (PCA) to extract the principal component of the ten indicators.

Since the population and land size are various for all geographic locations, and such factors may affect the empirical results, we conducted regressions in terms of different areas of countries' locations to justify the robustness of the results. Following the methods of the World Bank, we divided the 117 countries into three subgroups. The first group included 34 countries situated in East Asia, the Pacific, Europe, Central Asia, and South Asia, and the second group incorporated 16 countries located in Sub-Saharan Africa. The third group consisted of the remaining 67 countries. Accordingly, we re-estimated the GMM model specifically for these three subgroups. Based on the results shown in Models (7), (8), and (9) in Table 7, the coefficients of institutional quality were significant and positive. Thus, the results were unchanged.

According to the results of descriptive statistics, the standard deviation of the variable of GDP per capita (*lngdppc*) was as high as 2.0270, which implies that there are substantial differences in economic development among the 117 countries. To eliminate the estimation bias from the outliers by GDP per capita, we dropped all countries that are very rich (above 90th percentile of GDP per capita) or very poor (below 10th percentile of GDP per capita). The results are displayed in Model (10). Moreover, the coefficient of *insqua* was still statistically positive, implying that the results were unchanged.

Although the variable of FDI (*lnfdi*) ranged from 2.7670 to 15.6100, in some countries, its value was concentrated below e6.5. Therefore, we alternatively utilized the methods of the truncated estimation and the Tobit estimation to re-estimate the impact of institutional quality on FDI. In light of the results reported in Models (11) and (12) in Table 8, the coefficients of institutional quality remained positive and significant.

Although it is a usual practice to measure institutional quality by the sum of the ten indicators, there are still some concerns about the accuracy and robustness of this method. To address this problem, we employed PCA to extract the principal component of the ten indicators for every country and then used the total scores (represented by *insqua_1*) to replace the original variable. The overall value of KMO was 0.7477, indicating that the ten secondary indicators were adequate to conduct PCA. (Subject to space, KMO for each

country is not reported. Most of them are larger than 0.7.) As is presented in Model (13), the coefficient of *insqua_1* remained significantly positive. Thus far, all the robustness checks support Hypothesis 1.

Table 7. Robustness check-I.

Variables	(7) <i>lnfdi</i>	(8) <i>lnfdi</i>	(9) <i>lnfdi</i>	(10) <i>lnfdi</i>
<i>L.lnfdi</i>	0.9430 *** (0.2020)	1.2781 *** (0.0888)	1.2246 *** (0.0857)	1.1562 *** (0.1104)
<i>L2.lnfdi</i>	0.2111 (0.2034)	−0.4068 *** (0.1230)	−0.1935 * (0.1112)	−0.0552 (0.1567)
<i>L3.lnfdi</i>	−0.1931 * (0.1038)	0.1051 (0.1352)	−0.2448 ** (0.0964)	−0.2621 *** (0.0668)
<i>L4.lnfdi</i>	−0.0606 (0.1027)	−0.0842 (0.0877)	0.1158 ** (0.0541)	0.0615 (0.0500)
<i>insqua</i>	0.0034 * (0.0019)	0.0021 * (0.0011)	0.0039 *** (0.0014)	0.0027 ** (0.0013)
<i>laborpar</i>	−0.0007 (0.0014)	0.0033 *** (0.0011)	−0.0005 (0.0007)	−0.0007 (0.0009)
<i>lngdppc</i>	0.1000 ** (0.0441)	0.0601 *** (0.0207)	0.0127 (0.0246)	0.0021 *** (0.0006)
<i>patentapp</i>	0.0002 (0.0005)	0.00002 (0.0002)	0.0021 (0.0035)	−0.0027 (0.0041)
<i>inflacpi</i>	0.0017 ** (0.0008)	−0.0002 (0.0014)	0.0008 (0.0007)	0.0003 (0.0008)
<i>lngoodexp</i>	−0.0100 (0.0318)	0.0527 ** (0.0250)	0.0448 ** (0.0174)	0.0714 *** (0.0221)
<i>natural</i>	0.0051 ** (0.0021)	−0.0003 (0.0015)	−0.0015 (0.0014)	−0.0012 (0.0011)
Constant	−1.3759 *** (0.4417)	−1.9989 *** (0.4888)	−0.5085 * (0.2924)	−0.4424 (0.3895)
Obs.	442	211	903	1259
Wald's test	511,577.3200	160,813.1500	38,406.4600	39,257.1000

Notes: All variable names are italicized in the table. ***, **, and * represent 1%, 5%, and 10% significance level, respectively. The data in parentheses are the robust standard errors.

Table 8. Robustness check-II.

Variables	(11) <i>lnfdi</i>	(12) <i>lnfdi</i>	(13) <i>lnfdi</i>
<i>insqua</i>	0.0323 *** (0.0021)	0.0326 *** (0.0021)	
<i>L.lnfdi1</i>			1.1227 *** (0.0801)
<i>L2.lnfdi1</i>			−0.0563 (0.0912)
<i>L3.lnfdi1</i>			−0.1789 *** (0.0333)
<i>L4.lnfdi1</i>			0.0876 (0.0891)
<i>insqua1</i>			0.0047 *** (0.0008)
<i>laborpar</i>	0.0040 *** (0.0010)	0.0019 ** (0.0009)	0.0383 *** (0.0087)
<i>lngdppc</i>	0.5567 *** (0.0289)	0.5155 *** (0.0282)	1.0353 *** (0.1031)
<i>patentapp</i>	−0.0145 *** (0.0027)	−0.0142 *** (0.0028)	0.0017 *** (0.0005)
<i>inflacpi</i>	−0.0027 (0.0025)	−0.0036 (0.0025)	−0.0001 (0.0002)
<i>lngoodexp</i>	0.3315 *** (0.0269)	0.3831 *** (0.0260)	0.0451 *** (0.0066)
<i>natural</i>	−0.0138 *** (0.0022)	−0.0135 *** (0.0022)	−0.0005 (0.0005)
Constant	−13.8457 *** (0.2844)	−13.9323 *** (0.2683)	−0.7194 ** (0.3129)
Obs.	1930	2028	1556
Wald's test	10,781.7300	4120.6900	9917.2800

Notes: All variable names are italicized in the table. *** and ** represent 1% and 5% significance level, respectively. The data in parentheses are robust standard errors.

5. Further Discussion on the Effects of Economic Integration and the Belt and Road Initiative

5.1. The Effects of Institutional Quality on FDI in Economic Integration Areas

With the current limitations of the WTO's multilateral trade mechanism and the setbacks encountered in multilateral trade negotiations, a large number of economic integration areas have been emerging. Previous research has suggested that the degree of facilitation of FDI is higher in economic integration areas [42]. To investigate whether institutional quality has a greater effect on FDI in economic integration areas, this study takes BRICS and OECD countries as samples. BRICS can be treated as an economic integration area. For instance, in April 2011, the first meeting of economic and trade ministers of the BRICS member countries was held successfully in Sanya, China. During this meeting, the ministers reached a consensus for further promoting economic, trade, and investment cooperation among the five countries, and at the same time, truly breaking down trade barriers. Facing the novel coronavirus epidemic, in November 2020, the members of the BRICS countries reached a consensus on strengthening international anti-epidemic cooperation, further enhancing the level of trade facilitation and maintaining the multilateral trade system. Similarly, OCED is also an active defender of the multilateral trade system and holds that overturning the trade agreements that have been reached may hurt the interests of all parties; in particular, the increase in trade barriers may have a major negative impact on trade. Therefore, OCED and BRICS can be treated as two economic integration areas.

First, we generated two dummy variables, namely *oecd*, and *brick*. If a country is a member of OECD (The OECD incorporates 36 member countries, such as Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, and Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.), the variable of *oecd* is encoded 1, otherwise, it is 0. Similarly, if a country is a member of BRICS (the BRICS includes five member countries, such as Brazil, Russia, India, China, and South Africa. In this study, South Africa is not included due to the limitation of missing values), the variable of *brick* is encoded 1, otherwise, it is 0. Second, we constructed the interaction term of *oecd* and *insqua*, which is represented by *oecd_insqua*, and the interaction term of *brick* and *insqua*, which is represented by *brick_insqua*. The estimation results are displayed in Table 9. In terms of Models (14) and (15), the coefficients of both *brick_insqua* and *brick_insqua* were significantly positive, which implies that economic integration improves the roles of institutional quality in promoting FDI. Meanwhile, the coefficient of *brick_insqua* was greater than that of *oecd_insqua*. Thus, the results are consistent with Hypothesis 2.

5.2. The Effects of Institutional Quality on FDI under the Context of Belt and Road Initiative

Since the BRI was launched in 2013 by China's government, 65 countries have been engaged. (There are 65 countries along the Belt and Road, they are Mongolia, Singapore, Malaysia, Indonesia, Myanmar, Thailand, Laos, Cambodia, Vietnam, Brunei, Philippines, Iran, Iraq, Turkey, Syria, Jordan, Lebanon, Israel, Palestine, Saudi Arabia, Yemen, Oman, United Arab Emirates, Qatar, Kuwait, Bahrain, Greece, Cyprus, Egypt, India, Pakistan, Bangladesh, Afghanistan, Sri Lanka, Maldives, Nepal, Bhutan, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Kyrgyzstan, Russia, Ukraine, Belarus, Georgia, Azerbaijan, Armenia, Moldova, Poland, Lithuania, Estonia, Latvia, Czech Republic, Slovakia, Hungary, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Serbia, Romania, Bulgaria, and Macedonia.) With the advancement of the BRI, FDI has been turned out to be one of the most crucial ways for China to implement the strategy of Going Global. To examine the policy effects of institutional quality on FDI under the context of the BRI, the method of difference-in-differences (DID) was utilized in this study. The detailed empirical strategy is as follows. First, we constructed two dummy variables, *treated* and *post*. If a country is in the BRI, then *treated* is encoded 1, otherwise 0. Since the BRI was launched in 2013, *post* is

encoded 1 if the year is 2013 or later and 0 otherwise. Second, we generated the interaction term of *post* and *treated*, represented by *did*. Then, the policy effects under the context of the BRI were evaluated in terms of the coefficient and significance of *did*. Meanwhile, a Parallel Trend Test ensured that the study captured the net effect of the BRI. We also employed a Placebo test to justify the validity of DID. In detail, we counterfactually assumed first that the BRI was proposed in 2012 and then that it was proposed in 2014, and generated two dummy variables matching these assumptions, *placebo* and *placebo1*. If the year is 2012 or later, then the *placebo* is encoded 1, otherwise 0. Meanwhile, if the year is 2014 or later, then the *placebo1* is encoded 1, otherwise 0. Moreover, we had the dummy variables interact with *treated* and generate *placebotreat* and *placebotreat1*. As shown in Models (16) and (17), the coefficients of *placebotreat* and *placebotreat1* are all insignificant, so the parallel trend was verified. The results of DID are presented in Model (18). The coefficient of *did* was statistically significant, implying that the launch of the BRI positively and significantly contributes to FDI, and therefore, it also supports sustainable economic development. Thus, the results are as described in Hypothesis 3.

Table 9. Further discussion.

Variables	(14) <i>lnfdi</i>	(15) <i>lnfdi</i>	(16) <i>lnfdi</i>	(17) <i>lnfdi</i>	(18) <i>lnfdi</i>
<i>L.lnfdi</i>	1.1587 *** (0.0989)	1.1527 *** (0.0976)			
<i>L2.lnfdi</i>	−0.0782 (0.1378)	−0.0648 (0.1358)			
<i>L3.lnfdi</i>	−0.2154 *** (0.0577)	−0.2222 *** (0.0582)			
<i>L4.lnfdi</i>	0.0363 (0.0420)	0.0378 (0.0429)			
<i>oecd_insqua</i>	0.0009 ** (0.0004)				
<i>brick_insqua</i>		0.0018 ** (0.0008)			
<i>lngdppc</i>	0.0015 (0.0256)	−0.0309 (0.0275)	0.9936 *** (0.0383)	0.9901 *** (0.0354)	0.9782 *** (0.1014)
<i>patentapp</i>	0.0015 ** (0.0007)	0.0006 (0.0005)	−0.0060 (0.0038)	−0.0047 * (0.0025)	−0.0033 (0.0025)
<i>inflacpi</i>	−0.0005 (0.0011)	−0.0009 (0.0011)	0.0043 ** (0.0018)	0.0043 ** (0.0018)	0.0008 (0.0033)
<i>lngoodexp</i>	0.0656 *** (0.0209)	0.0937 *** (0.0218)	0.2287 *** (0.0355)	0.2711 *** (0.0328)	0.2698 *** (0.0869)
<i>natural</i>	−0.0004 (0.0015)	−0.0019 (0.0014)	0.0055 (0.0037)	0.0057 * (0.0032)	0.0027 (0.0073)
<i>laborpar</i>	−0.0008 (0.0010)	−0.0012 (0.0010)	0.0241 *** (0.0039)	0.0256 *** (0.0034)	0.0267 *** (0.0056)
<i>placebo</i>			0.1982 *** (0.0317)		
<i>placebotreat</i>			0.0189 (0.0441)		
<i>placebo1</i>				0.3316 *** (0.0303)	
<i>placebotreat1</i>				0.0383 (0.0444)	
<i>did</i>					0.3493 *** (0.0586)
Constant	−0.4733 (0.3636)	−0.2997 (0.3415)	−22.0226 *** (0.6166)	−22.9999 *** (0.5295)	−22.6520 *** (1.1817)
Obs.	1556	1556	1608	1837	2028
Wald's test/F-statistics	124,842.1200	72,762.5900	636.6400	782.2600	1237.1700
R-squared			0.7745	0.7852	0.7814

Notes: All variable names are italicized in the table. ***, **, and * represent 1%, 5%, and 10% significance level, respectively. The data in parentheses are the robust standard errors.

6. Conclusions and Implications

Since 1978, China has launched the mighty progress of reform and opening up. Not only China but also other countries all over the world attach increasing significance to establishing a sustainable open economy. Institutional quality and worldwide economic integration premised on FDI are critical factors affecting the multinational investment

activities. Hence, it is crucial to explore the roles of institutional quality in FDI. In this study, we used 2001–2018 panel data from 117 countries all over the world to econometrically examine the impact of institutional quality on FDI. The results indicate that institutional quality positively contributes to FDI. More specifically, the estimated results of semi-elasticity estimations suggest that after controlling the endogeneity, if other factors remain unchanged, FDI will increase by approximately 0.33% for every unit improvement of institutional quality. The results also show that the promotional effect of institutional quality on FDI is greater in economic integration areas such as OECD and BRICS. Moreover, the launch of the BRI has greatly enlarged the promotional effects of institutional quality on FDI.

The findings of this study pinpoint crucial policy implications in improving institutional quality to enhance FDI and further accelerate the sustainable formation of economic integration. The first is to improve institutional quality in a sustainable way. In light of the empirical results, the more advanced the institutional quality, the greater the development of FDI. Therefore, it is vital to optimize the institutional design and improve institutional quality around the world. In line with this study, institutional quality can be enhanced according to elements such as commercial freedom, trade freedom, and fiscal freedom. The second strategic recommendation is to speed up the process of sustainable regional economic integration. In terms of the empirical results, the promotional effects of institutional quality are greater in the economic integration areas. Therefore, the greater the scope and number of economic integration organizations, the better the development of FDI. More specifically, the attention of policymakers should be geared towards eliminating human factors that hinder the most efficient operation of the economy, such as tariffs and non-tariff barriers, trade protectionism, and excessive intervention in economic operations. The third recommendation is to actively implement policies conducive to economic integration and to build a sustainable community of interests, a community of destiny, and a community of responsibility. According to the empirical results, policies such as the BRI have significantly improved the promotional effects of institutional quality on FDI. Therefore, strongly advocating and actively urging appropriate measures are crucial. Thus, policies are encouraged to be formulated to establish a concept of “win-win cooperation”, implement effective measures to attract the participation of talents from home and abroad, and coordinate all aspects of resources.

Author Contributions: Conceptualization, F.C.; methodology, F.C. and G.J.; resources, G.J.; data collection, G.J.; writing—original draft preparation, F.C. and G.J.; writing—review and editing, F.C. and G.J.; supervision, F.C.; project administration, F.C.; funding acquisition, F.C. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the National Natural Science Foundation of China (grant no. 71603049); the Social Science Foundation of Ministry of Education of China (grant no. 16YJC790006); the Program for Young Excellent Talents in UIBE (grant no. 18YQ07); and Fundamental Research Funds for the Central Universities in UIBE (grant no. CXTD9-05).

Informed Consent Statement: Not applicable.

Data Availability Statement: Publicly available datasets were analyzed in this study. The data of the World Development Indicators can be found here: <https://databank.worldbank.org/reports.aspx?source=world-development-indicators&preview=on>. (accessed on 2 July 2021).

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Ren, X.; Cheng, C.; Wang, Z.; Yan, C. Spillover and dynamic effects of energy transition and economic growth on carbon dioxide emissions for the European Union: A dynamic spatial panel model. *Sustain. Dev.* **2021**, *29*, 228–242. [\[CrossRef\]](#)
2. Ren, X.; Lu, Z.; Cheng, C.; Shi, Y.; Shen, J. On dynamic linkages of the state natural gas markets in the USA: Evidence from an empirical spatio-temporal network quantile analysis. *Energ. Econ.* **2019**, *80*, 234–252. [\[CrossRef\]](#)
3. Calin-Adrian, C.; Bunduchi, E.; Vasile, V.; Stefan, D. The impact of foreign direct investments and remittances on economic growth: A case study in central and eastern Europe. *Sustainability* **2018**, *10*, 238. [\[CrossRef\]](#)

4. Suehrer, J. The future of FDI: Achieving the Sustainable Development Goals 2030 through impact investment. *Glob. Policy* **2019**, *10*, 413–415. [\[CrossRef\]](#)
5. Javorcik, K.; Smarzynska, B. Does foreign direct investment increase the productivity of domestic firms? Is search of spillovers through backward linkages. *Am. Econ. Rev.* **2004**, *94*, 605–627. [\[CrossRef\]](#)
6. North, D.C. Institutions and economic growth: An historical introduction. *World Dev.* **1989**, *17*, 1319–1332. [\[CrossRef\]](#)
7. Challe, E.; Lopez, J.; Mengus, E. Institutional quality and capital inflows: Theory and evidence. *J. Int. Money Financ.* **2019**, *96*, 168–191. [\[CrossRef\]](#)
8. Liu, H.; Tang, Y.; Chen, X.; Poznanska, J. The determinants of Chinese outward FDI in countries along “One Belt One Road”. *Emer. Mark. Financ. Trade* **2017**, *53*, 1374–1387. [\[CrossRef\]](#)
9. Butkiewicz, J.L.; Yanikkaya, H. Institutional quality and economic growth: Maintenance of the rule of law or democratic institutions, or both? *Econ. Model.* **2006**, *23*, 648–661. [\[CrossRef\]](#)
10. Aixalá, J.; Fabro, G. Does the impact of institutional quality on economic growth depend on initial income level? *Econ. Aff.* **2010**, *28*, 45–49. [\[CrossRef\]](#)
11. Chong, A.; Calderon, C. Causality and feedback between institutional measures and economic growth. *Econ. Politics* **2010**, *12*, 69–81. [\[CrossRef\]](#)
12. Law, S.H.; Azman-Saini, W.; Ibrahim, M.H. Institutional quality thresholds and the finance-growth nexus. *J. Bank. Financ.* **2013**, *37*, 5373–5381. [\[CrossRef\]](#)
13. Law, S.H.; Tan, H.; Azman-Saini, W.N.W. Financial development and income inequality at different levels of institutional quality. *Emer. Mark. Financ. Trade* **2014**, *50*, 21–33. [\[CrossRef\]](#)
14. Asamoah, L.A. Institutional quality and income inequality in developing countries: A dynamic panel threshold analysis. *Prog. Dev. Stud.* **2021**, *21*, 123–143. [\[CrossRef\]](#)
15. Zhang, J.; Zhou, C.; Ebberts, H. Completion of Chinese overseas acquisitions: Institutional perspectives and evidence. *Int. Bus. Rev.* **2011**, *20*, 226–238. [\[CrossRef\]](#)
16. Buckley, P.J.; Yu, P.; Liu, Q.; Munjal, S.; Tao, P. The institutional influence on the location strategies of multinational enterprises from emerging economies: Evidence from China’s cross-border mergers and acquisitions. *Manag. Organ. Rev.* **2016**, *12*, 425–448. [\[CrossRef\]](#)
17. Hyun, H.J.; Kim, H.H. The determinants of cross-border M&As: The role of institutions and financial development in the gravity model. *World Econ.* **2010**, *33*, 292–310. [\[CrossRef\]](#)
18. Buckley, P.J.; Clegg, L.J.; Cross, A.; Liu, X.; Zheng, P. The determinants of Chinese outward foreign direct investment. *J. Int. Bus. Stud.* **2010**, *38*, 499–518. [\[CrossRef\]](#)
19. Habib, M.; Zurawicki, L. Corruption and foreign direct investment. *J. Int. Bus. Stud.* **2002**, *33*, 291–307. [\[CrossRef\]](#)
20. Schneider, F.; Frey, B.S. Economic and political determinants of foreign direct investment. *World Dev.* **1985**, *13*, 161–175. [\[CrossRef\]](#)
21. Froot, K.A.; Stein, J.C. Exchange rates and foreign direct investment: An imperfect capital markets approach. *Quart. J. Econ.* **1991**, *106*, 1191–1217. [\[CrossRef\]](#)
22. Asiedu, E. On the determinants of foreign direct investment to developing countries: Is africa different? *World Dev.* **2002**, *30*, 107–119. [\[CrossRef\]](#)
23. Yan, D.; Ren, X.; Kong, Y.; Ye, B.; Liao, Z. The heterogeneous effects of socioeconomic determinants on PM2.5 concentrations using a two-step panel quantile regression. *Appl. Energy* **2020**, *272*, 115246. [\[CrossRef\]](#)
24. Lee, J.Y.; Mansfield, E. Intellectual property protection and U.S. foreign direct investment. *Rev. Econ. Statist.* **1996**, *78*, 181–186. [\[CrossRef\]](#)
25. Li, X.; Liu, X. Foreign direct investment and economic growth: An increasingly endogenous relationship. *World Dev.* **2005**, *33*, 393–407. [\[CrossRef\]](#)
26. Alfaro, L.; Chanda, A.; Kalemli-Ozcan, S.; Sayek, S. Fdi and economic growth: The role of local financial markets. *J. Int. Econ.* **2004**, *64*, 89–112. [\[CrossRef\]](#)
27. Zhang, K.H. How does foreign direct investment affect economic growth in China? *Econ. Transit.* **2010**, *9*, 679–693. [\[CrossRef\]](#)
28. Berthélemy, J.; Démurger, S. Foreign direct investment and economic growth: Theory and application to China. *Rev. Dev. Econ.* **2000**, *4*, 140–155. [\[CrossRef\]](#)
29. Fosfuri, A.; Motta, M.; Rnde, T. Foreign direct investment and spillovers through workers’ mobility. *J. Int. Econ.* **2001**, *53*, 205–222. [\[CrossRef\]](#)
30. Branstetter, L. Is foreign direct investment a channel of knowledge spillovers? Evidence from Japan’s FDI in the United States. *J. Int. Econ.* **2006**, *68*, 325–344. [\[CrossRef\]](#)
31. Chen, F.; Jiang, G.; Wang, W. Institutional quality and its impact on the facilitation of foreign direct investment: Empirical evidence from the Belt and Road countries. *J. Chin. Econ. Foreign Trade Stud.* **2019**, *12*, 167–188. [\[CrossRef\]](#)
32. Busse, M.; Hefeker, C. Political risk, institutions and foreign direct investment. *Eur. J. Political Econ.* **2007**, *23*, 397–415. [\[CrossRef\]](#)
33. Bénassy-Quéré, A.; Coupet, M.; Mayer, T. Institutional determinants of foreign direct investment. *World Econ.* **2010**, *30*, 764–782. [\[CrossRef\]](#)
34. Ali, F.A.; Fiess, N.; Macdonald, R. Do institutions matter for foreign direct investment? *Open Econ. Rev.* **2010**, *21*, 201–219. [\[CrossRef\]](#)
35. Long, C.; Yang, J.; Zhang, J. Institutional impact of foreign direct investment in China. *World Dev.* **2015**, *66*, 31–48. [\[CrossRef\]](#)

36. Mohamed, S.E.; Sidiropoulo, M.G. Another look at the determinants of foreign direct investment in MENA countries: An empirical investigation. *J. Econ. Dev.* **2010**, *35*, 75–95. [\[CrossRef\]](#)
37. Florensa, L.M.; Ramos, M.L.; Maria, R.L. The effect of economic integration and institutional quality of trade agreements on trade margins: Evidence for Latin America. *Rev. World Econ.* **2015**, *151*, 329–351. [\[CrossRef\]](#)
38. Gounder, A.; Falvey, R.; Rajaguru, G. The effects of preferential trade agreements on foreign direct investment: Evidence from the African Caribbean Pacific region. *Open Econ. Rev.* **2019**, *30*, 695–717. [\[CrossRef\]](#)
39. Tobin, J.L.; Rose-Ackerman, S. When BITs have some bite: The political-economic environment for bilateral investment treaties. *Rev. Int. Organ.* **2011**, *6*, 1–32. [\[CrossRef\]](#)
40. Bengoa, M.; Sanchez-Robles, B.; Shachmurove, Y. Do trade and investment agreements promote foreign direct investment within Latin America? Evidence from a Structural Gravity Model. *Mathematics* **2020**, *8*, 1882. [\[CrossRef\]](#)
41. Kang, M.; Park, S. Institutional economic integration between south and north Korea and the economic impacts of integration. *Asian Econ. J.* **2018**, *32*, 257–276. [\[CrossRef\]](#)
42. Daude, C.; Stein, E. The quality of institutions and foreign direct investment. *Econ. Politics* **2010**, *19*, 317–344. [\[CrossRef\]](#)
43. Sayouba, O.; Drabo, D. Dynamics of integration and economic growth of the West African Economic and Monetary Union (WAEMU). *Mod. Econ.* **2019**, *10*, 1121–1133. [\[CrossRef\]](#)
44. Bryant, C.E.; Javalgi, R.G. Global economic integration in developing countries: The role of corruption and human capital investment. *J. Bus. Ethics* **2016**, *136*, 1–14. [\[CrossRef\]](#)
45. Kawai, M.; Naknoi, K. Asean's trade and foreign direct investment: Long-term challenges for economic integration. *Singap. Econ. Rev.* **2016**, *62*, 643–680. [\[CrossRef\]](#)
46. Du, J.; Zhang, Y. Does One Belt One Road Initiative promote Chinese overseas direct investment? *China Econ. Rev.* **2018**, *47*, 189–205. [\[CrossRef\]](#)
47. Li, S.; Fabus, M. Study on the spatial distribution of China's outward foreign direct investment in EU and its influencing factors. *Entrep. Sustain. Issues* **2019**, *6*, 1280–1296. [\[CrossRef\]](#)
48. Artz, K.W.; Norman, P.M.; Hatfield, D.E.; Cardinal, L.B. A longitudinal study of the impact of R&D, patents, and product innovation on firm performance. *J. Prod. Innov. Manag.* **2010**, *27*, 725–740. [\[CrossRef\]](#)
49. Maskus, K.E.; Milani, S.; Neumann, R. The impact of patent protection and financial development on industrial R&D. *Res. Policy* **2019**, *48*, 355–370. [\[CrossRef\]](#)
50. Todo, Y. Quantitative evaluation of the determinants of export and FDI: Firm-level evidence from Japan. *World Econ.* **2011**, *34*, 355–381. [\[CrossRef\]](#)
51. Yang, Y. Domestic R&D, foreign direct investment and welfare. *Rev. Dev. Econ.* **2015**, *19*, 908–924. [\[CrossRef\]](#)
52. Bottazzi, L.; Peri, G. Innovation and spillovers in regions: Evidence from European patent data. *Eur. Econ. Rev.* **2003**, *47*, 687–710. [\[CrossRef\]](#)
53. Witt, M.A.; Lewin, A.Y. Outward foreign direct investment as escape response to home country institutional constraints. *J. Int. Bus. Stud.* **2007**, *38*, 579–594. [\[CrossRef\]](#)
54. Wintoki, M.B.; Linck, J.S.; Netter, J.M. Endogeneity and the dynamics of internal corporate governance. *J. Financ. Econ.* **2012**, *105*, 581–606. [\[CrossRef\]](#)