Causes of Restrictiveness Policies on Foreign Direct Investment in OECD and Non-OECD Countries

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ABSTRACT

Foreign direct investment (FDI) is considered a significant tool to transform modern technologies and innovation from developed to developing countries. Unfortunately, some countries impose FDI restrictions for economic, political, and social reasons. The present study assesses the role of different restrictive policies on FDI inflows in OECD and non-OECD countries. The empirical results are estimated by using panel quantile regression (PQR) at the median quantile from 1998 to 2022. It uses the all-restrictiveness policies index and its four subtypes: equity, key foreign personnel, screening and approval, and operational restrictions; the data is extracted from the OECD database. The study concluded that all restrictiveness policy indexes and their subtypes in OECD countries propose the inverted U-shaped curve. In contrast, in non-OECD countries, it shows the U-shaped relationship to determine the FDI inflows. Furthermore, this study also examines the individual countries using the marginal effect. In OECD countries, Australia, Canada, Mexico, and New Zealand have imposed higher restrictions, which reduces the FDI, while in non-OECD countries case, China, Indonesia, Malaysia, and the Philippines imposed higher restrictions, which increased FDI inflows. This study recommends that OECD countries reduce the FDI restrictiveness policies while non-OECD countries should increase it.

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1.   Introduction

No one ignores the importance of foreign direct investment (FDI) in this modern age of globalization because it is considered the engine of contemporary growth (Behera, Haldar, & Sethi, 2023; Ullah, Luo, Nadeem, & Cifuentes-Faura, 2023). It facilitates the developing countries to join the race of development following the developed countries. FDI helps to transform modern technology from developed to developing countries (Tabassum, Kamboyo, Mangrio, & Siddiqui, 2021). At present, the economic development of many countries depends

upon mega and continuous inflows of FDI by providing new paths of investments. The formation of the World Trade Organization (WTO) has opened a new way of investment through trade liberalization worldwide. FDI is an important source of development, and it promotes economic growth in the host country due to a higher rate of capital formation (Magbondé & Konté, 2022).

The present study examines the role of different restrictive policies on FDI inflows in OECD and non-OECD countries. Restrictive policies play a significant role in influencing the flow of investment from international borders. Several governments impose different restrictive policies for various reasons, showing a complex interplay of political, economic, and strategic considerations. Many countries impose restrictions to safeguard domestic industries from foreign competition. The governments feared that unrestricted foreign investment led to the dominance of foreign firms, harming local firms (Mueller & Farhat, 2022; Nettesheim, 2021). Some countries impose restrictions to protect their national security concerns, particularly in the defense, telecommunications, and energy sectors (Rajavuori & Huhta, 2020; Ufimtseva, 2020; Wu, 2020).

To measure the level of restrictions on FDI, the OECD has developed different FDI restrictiveness policies for both OECD and non-OECD countries (OECD, 2023). Its value lies between zero and one; closer to zero presents the weak restrictiveness policies, and closer to one outlines the strong restrictiveness policies. Four subtypes of restrictive policies are sovereign equity, key foreign employment, screening, and operational restrictions (Golub, 2023).

Equity restrictions include the laws regulating foreign ownership of a country's local business. Countries impose equity restrictions to control the influence of FDI in a critical sector. Its higher score displays the higher restrictions that hinder the FDI in local enterprises (Ghebrihiwet & Motchenkova, 2017). Screening and approval refer to a country's process and criteria to approve and allow specific FDI within its borders. It serves as a gatekeeping system, allowing the host country to analyze the possible risks of this FDI. Usually, these considerations frequently revolve around national security and other strategic issues that may damage a country's well-being and sovereignty (Vlasiuk Nibe, Meunier, & Roederer-Rynning, 2024). Key foreign personnel limitations involve regulations restricting foreigners from holding a particular position in a firm operating in a specific country. This restriction limits the number of foreigners with a certain position, such as senior management or board of directors. The countries imposed this restriction to ensure national security and other national interests (Liu-Farrer & Shire, 2021). Operational restrictions encompass a set of limitations that restrict the day-to-day operational activities of foreign investors in the host country. These restrictions also limit the establishment of branches, repatriating profits, or ownership of land.

In the literature, several studies explore that restrictiveness policies reduced FDI inflows in the host country (Ahrend & Goujard, 2012; Contractor, 2021; Golub, 2003). When a country imposes restrictions on any sector, it enhances the cost of production for foreigners, which reduces FDI inflows. The present study focuses on the restrictiveness policies and their types on FDI inflows in OECD and non-OECD countries. Most of the selected countries are higher-income countries and are keen to reduce foreign restrictiveness to attract more FDI. The key objective of this study is to explore the non-linear analysis of restrictiveness policies and their subtypes on FDI inflows. This study is significant because limited studies in the literature explore such a relationship in the context of OECD and non-OECD countries.

2.   Literature review

This section discusses the previous literature to examine the different restrictiveness policies to determine FDI inflows. Initially, Golub (2023) created various restrictiveness indicators like foreign ownership, screening and approval, and other operational prohibitions by the host country. He collected information from GAT, IMF, OECD, and World Bank databases. He computed the restrictiveness indices using the nine sectors and eleven sub-sectors; most sectors are related to the service sectors. He developed each indicator on the individual sector and then

combined them into the overall country-level index. He found that after the 1990s, most of the OECD countries liberalized the FDI restrictions. Busse and Groizard (2008) assessed the political risk regulation on FDI in 89 countries. The study explored that poor government political risk reduced FDI.

In OECD and non-OECD countries, Ahrend and Goujard (2012) pointed out that restrictiveness policies enhanced the financial instability that reduced FDI inflows in the host country. In Indonesia, Duggan (2013) highlighted the restrictiveness policieon FDI in the service and manufacturing sector from 1997 to 2009. The study explored that liberalization in restrictiveness in the service and manufacturing sectors attracted FDI. Manenti and Scialà (2013) observed the restriction on the telecommunication sector hindered the FDI.

Adams and Opoku (2015) examined different restrictions in labor markets, credit markets, and business on FDI in African countries. It revealed that restrictions in all the selected sectors discourage FDI inflows. Ketteni and Kottaridi (2019) illustrated the restrictions on business activities to determine the FDI in 66 countries during 2000-2015. It showed that credit and labor restrictions created financial instability that reduced FDI.

Mistura and Roulet (2019) pointed out the role of FDI restrictions on bilateral FDI in 60 countries from 1997 to 2016. The study suggested that reforms liberalization in FDI restrictiveness policies increased bilateral FDI. In India, Sabharwal and Singh (2020) examined the restrictiveness policies declined FDI inflows.

In different emerging markets, Contractor (2021) explored the connection between FDI regulatory restrictiveness policies like tax regulation, financial, and labor on FDI by using the OLS approach. It explored those tight restrictions declined FDI. Gregori and Nardo (2021) outlined the restrictiveness policies on FDI using the gravity model in EU countries. It concluded that restrictiveness policies reduced FDI.

Albori, Corneli, Nispi Landi, and Schiavone (2021) assessed the role of FDI restrictiveness policies on FDI inflows in 17 OECD countries of 23 sectors from 2012 to 2018. The study outlined that restrictiveness policies dampened the FDI inflows, especially in the serves and manufacturing sectors. Nyiwul (2021) displayed that many countries implemented FDI restrictions during COVID-19, reducing FDI and development. In OECD, Bauerle Danzman and Meunier (2021) explored that screening restrictions deteriorated the FDI during 2007-2021. In Asia, Gopalan and Sharipova (2021) indicated the different restrictions on firms reduced the FDI in the last two decades.

Rajput et al. (2022) examined the role of restrictive policies on FDI in India during 1991-2011. It showed that higher scores of restrictiveness policies caused lower FDI. In OECD countries, Zongo (2020) and OECD and emerging countries Zongo (2020) explored that restrictions in different sectors discouraged FDI.

Borozan, Giannelos, and Strbac (2022) outlined the role of different environmental policies on FDI during 2000-2015 in BRICS and G7 countries. It concluded that environmentally friendly regulation attracted more FDI. Jungmittag and Marschinski (2023) outlined the service trade restrictions from the OECD on FDI in 43 destinations and 41 source countries from 2014 to 2020. The study explored that services trade restrictions negatively influenced the FDI inflows.

Export is considered an essential determinant of FDI. It makes a country more appealing to investors by providing access to a larger market for goods and services. It increases commodity demand and provides the opportunity for economies of scale, making the country more desirable to international investors. In MENA countries, Jabri, Guesmi, and Abid (2013) examined that exports increased FDI. In D-8 countries Shah and Samdani (2015) displayed the role of trade openness on FDI from 1991 to 2021. The study explored that trade increased FDI.

In Sri Lanka, Sultanuzzaman, Fan, Akash, Wang, and Shakij (2018) during 1980-2016, and in Vietnam, LIEN (2021) during 2005-2019 employed the connection between trade openness and FDI by using the ARDL approach. These studies explored that trade openness escalated the FDI. Labor force is also an important determinant of the FDI. In Mexico, Saucedo, Ozuna Jr, and Zamora (2020) outlined at the role of employment of low- and high-skilled people affected the FDI. It discovered that the manufacturing sector usually preferred unskilled people, which attracted more FDI.

Industrialization also influences the FDI across the literature. Gui-Diby and Renard (2015) evaluated how industrialization affected FDI between 1980 and 2009 in African countries. According to the report, industrialization is minimal, but market size and political stability are important predictors of FDI inflows into African nations.

By reviewing the literature on different restrictiveness policies, export, labor forces, and industrialization on FDI inflows in various nations and regions. It was discovered that there is a wide literature that explored regulatory policies that discouraged FDI (Bauerle Danzman & Meunier, 2021; Borozan et al., 2022; Gopalan & Sharipova, 2021; Gregori & Nardo, 2021; Jungmittag & Marschinski, 2023; Nyiwul, 2021; Rajput et al., 2022; Zongo, 2020). This literature investigated the linear relationship between regulatory regimes and FDI inflows. To our knowledge, no prior work has examined the non-linear influence of restrictiveness policies on FDI inflows. This study is new in several respects. It determines FDI inflows using a non-linear analysis of FDI regulatory policies and their sub-types. Second, it investigates the current FDI regulatory regulations in OECD and non-OECD countries. Third, this study is based on panel data and applies it to individual countries to investigate the linear effect, representing each country's actual image of FDI regulatory policies and FDI inflows.

3.   Data and methodology

This study focuses on a sample of 36 OECD 12 non-OECD member countries. The panel data from 1998 to 2022 from different sources was used in this study; further details are discussed in Table 1. The availability of FDI restrictiveness policy data established by the OECD is the main reason for selecting these specific nations. The OECD's data-collection programs seek to provide a complete and consistent picture of the legislation and policies that affect FDI inside these nations. Enterprises and investors routinely use this data to make informed investment decisions, while governments utilize it to evaluate the effectiveness of their own FDI initiatives. Furthermore, the statistics show similarities and differences in FDI regulatory frameworks across various nations and regions, contributing to international discussions and negotiations on investment-related issues.

Table 1
Data sources, Symbols, and Units

symbol	Variable	Unit	Source
FDI	Foreign direct investment, net inflows	% of GDP	(WDI, 2022)
ATR	All types of restrictions	Index (0-1)	(WDI, 2022)
EQR	Equity restriction	Index (0-1)	(OECD, 2023)
KFR	Key foreign personnel	Index (0-1)	(WDI, 2022)
SAR	Screening & approval	Index (0-1)	(WDI, 2022)
RR	operational restrictions	Index (0-1)	(WDI, 2022)
IND	Industry, value added	% of GDP	(WDI, 2022)
LF	Labor force	Total	(WDI, 2022)
EXPO	Exports of goods and services	% of GDP	(WDI, 2022)

Multiple empirical models are developed to explain the different restrictiveness policies on FDI inflows. Figure 1 displays the bi-variate analysis between all FDI restrictiveness policies and FDI inflows. It is noted that all figures demonstrate non-linear behavior. To capture the non-linearity, several researchers used the quadratic function (Amjad, Arsalan Khushnood, & Ali

Memon, 2023; M. Amjad et al., 2023; Amjad, 2023; Aslam, Zhang, Amjad, Guo, & Ji, 2023; Rani & Kumar, 2022). This study will use the quadratic term for all restrictiveness policies to determine the FDI inflows. Multiple regressions are displayed as follows:

$$LNFDI_{it} = \alpha_1 + \alpha_2 ATR_{it} + \alpha_3 ATR_{it}^2 + \alpha_4 LNIND_{it} + \alpha_5 LNLF_{it} + \alpha_6 LNEXPO_{it} + \varepsilon_{it} \qquad (1)$$
$$LNFDI_{it} = \beta_1 + \beta_2 EQR_{it} + \beta_3 EQR_{it}^2 + \beta_4 LNIND_{it} + \beta_5 LNLF_{it} + \beta_6 LNEXPO_{it} + \varepsilon_{it} \qquad (2)$$
$$LNFDI_{it} = \gamma_1 + \gamma_2 KFR_{it} + \gamma_3 KFR_{it}^2 + \gamma_4 LNIND_{it} + \gamma_5 LNLF_{it} + \gamma_6 LNEXPO_{it} + \varepsilon_{it} \qquad (3)$$
$$LNFDI_{it} = \delta_1 + \delta_2 SAR_{it} + \delta_3 SAR_{it}^2 + \delta_4 LNIND_{it} + \delta_5 LNLF_{it} + \delta_6 LNEXPO_{it} + \varepsilon_{it} \qquad (4)$$
$$LNFDI_{it} = \rho_1 + \rho_2 RR_{it} + \rho_3 RR_{it}^2 + \rho_4 LNIND_{it} + \rho_5 LNLF_{it} + \rho_6 LNEXPO_{it} + \varepsilon_{it} \qquad (5)$$

Equation (1-5) displays the multiple regression model, $\alpha_1, \beta_1, \gamma_1, \delta_1,$ and ρ_1 shows the constant terms of the model, α_2 and α_3 presents the level and quadratic coefficient of all types of restrictiveness policies. While the remaining equations present the level and square of the sub-types of restrictiveness policies.

Cut-off value of the all-restrictiveness policies

$$\frac{\delta FDI_{it}}{\delta ATR_{it}} = \alpha_2 + 2\alpha_3 ATR_{it} = 0$$
$$ATR_{it}^* = -\frac{\alpha_2}{\alpha_3} \qquad (6)$$

Cut-off value of the equity restrictiveness policies

$$\frac{\delta FDI_{it}}{\delta EQR_{it}} = \beta_2 + 2\beta_3 EQR_{it} = 0$$
$$EQR_{it}^* = -\frac{\beta_2}{\beta_3} \qquad (7)$$

Cut-off value of the Key foreign personnel restrictiveness policies

$$\frac{\delta FDI_{it}}{\delta KFR_{it}} = \gamma_2 + 2\gamma_3 KFR_{it} = 0$$
$$KFR_{it}^* = -\frac{\gamma_2}{\gamma_3} \qquad (8)$$

Cut-off value of the Screening and approval restrictiveness policies

$$\frac{\delta FDI_{it}}{\delta SAR_{it}} = \delta_2 + 2\delta_3 SAR_{it} = 0$$
$$SAR_{it}^* = -\frac{\delta_2}{\delta_3} \qquad (9)$$

Cut-off value of the Screening and approval restrictiveness policies
$$\frac{\delta FDI_{it}}{\delta RR_{it}} = \rho_2 + 2\rho_3 RR_{it} = 0$$
$$RR_{it}^* = -\frac{\rho_2}{\rho_3} \qquad (10)$$

Equations (6-10) present the cut-off value of the non-linear curve. The empirical results of this study are estimated using panel quantile regression (PQR). This technique helps in the presence of outliers and non-normality.

4.   Result and discussions

Table 2 presents the mean and standard deviation (S.D) of the 36 OECD and 12 non-OECD countries. The mean values of all variables are larger than their S.D, shows that factors

are under-dispersed (Abid, Mehmood, Tariq, & Haq, 2022; Asghar, Amjad, & Rehman, 2023; Rafique, Ahmad, & Ilyas, 2023; Sial et al., 2022).
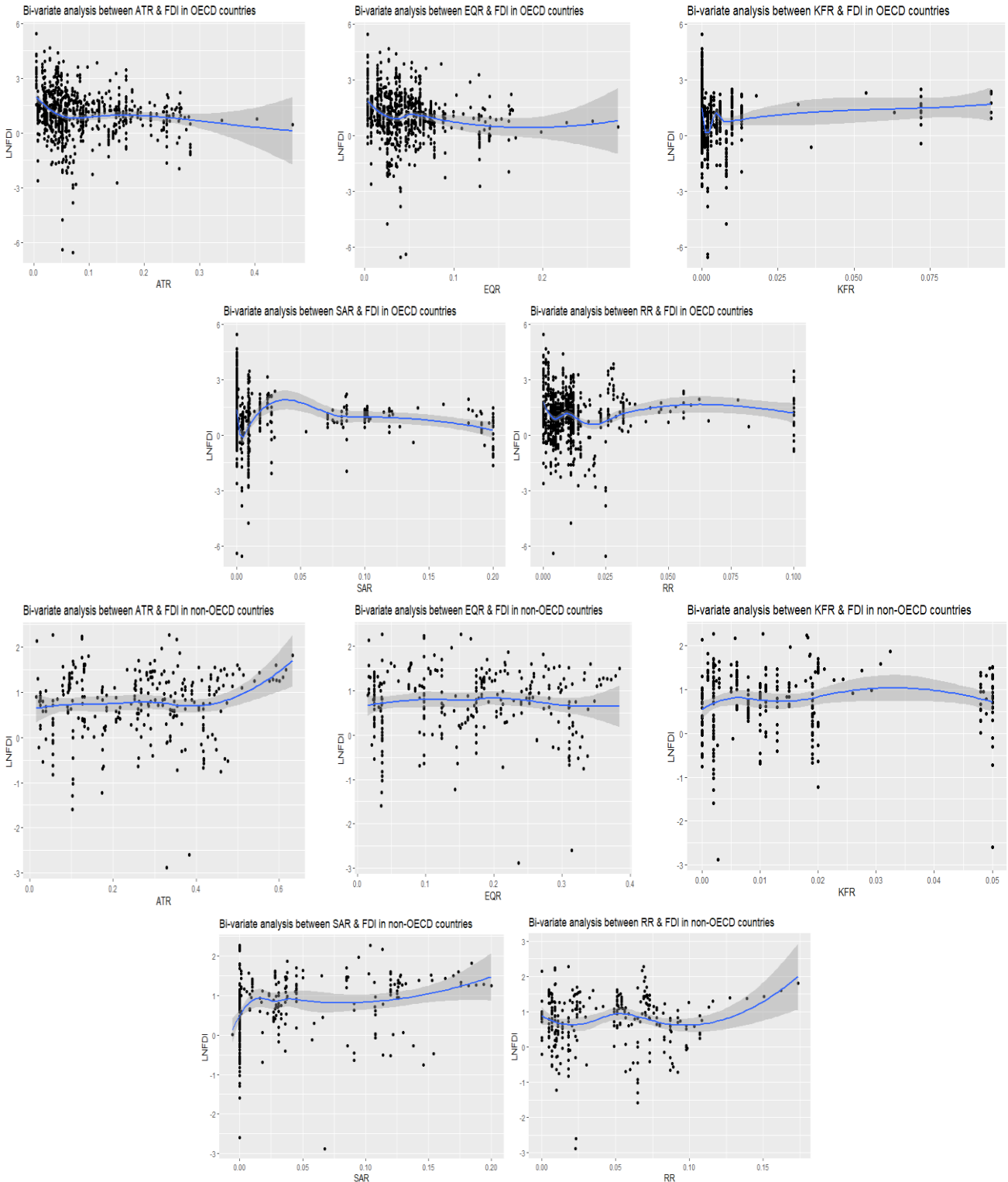

Figure 1: Bi-variate Analysis

Table 3 shows empirical results of the different normality tests. Shapiro (1965) W' tests shows that all variables are not normality distributed in both models. The non-zero skewness and higher Kurtosis values shows that the variables are non-normal.
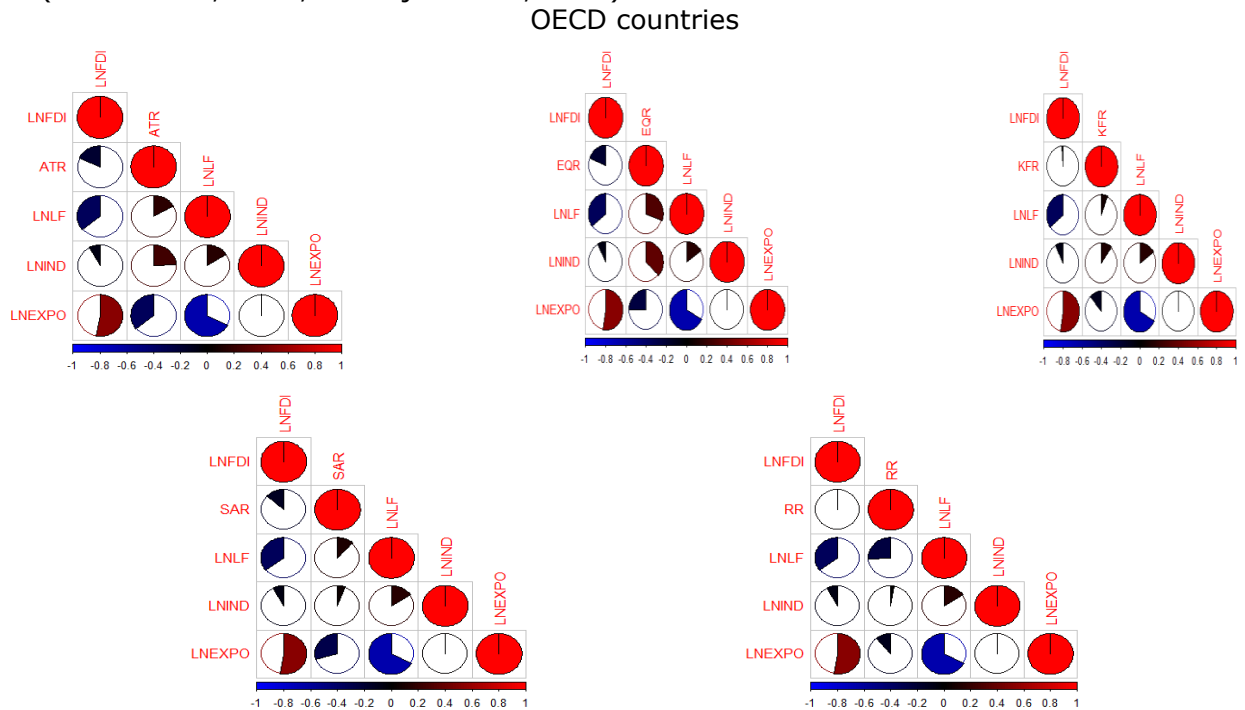
Table 2
Descriptive Statistics

Variable	OECD				Non-OECD			
	Mean	Std. dev.	Min	Max	Mean	Std. dev.	Min	Max
LNFDI	1.0955	1.2561	-6.5237	5.4573	0.7438	0.7429	-2.8701	2.2725
ATR	0.0792	0.0695	0.0040	0.4680	0.2575	0.1508	0.0150	0.6317
EQR	0.0442	0.0350	0.0030	0.2843	0.1636	0.1070	0.0150	0.3925
KFR	0.0037	0.0112	0.0000	0.0950	0.0158	0.0066	0.0000	0.0500
SAR	0.0192	0.0464	0.0000	0.2000	0.0779	0.0511	-0.0060	0.2000
RR	0.0125	0.0181	0.0000	0.1000	0.0418	0.0349	0.0000	0.1735
LNIND	3.1946	0.2300	2.3444	3.8854	3.4811	0.2326	2.9008	3.8822
LNLF	15.6338	1.5029	11.9793	18.9466	17.9213	1.2075	15.9900	20.4771
LNEXPO	3.7288	0.5524	2.2012	5.3539	3.3929	0.6195	1.9503	4.7984

Table 3
Normality Tests

	OECD				Non-OECD			
	W	W'	Skewness	Kurtosis	W	W'	Skewness	Kurtosis
LNFDI	0.9517	0.9498	-0.7560	7.1324	0.9407	0.93864	-1.1146	5.6859
ATR	0.84733	0.85191	1.4677	5.1450	0.96089	0.9637	0.2109	2.1144
EQR	0.85908	0.86384	1.9146	8.9939	0.93787	0.94339	0.2209	1.8227
KFR	0.42697	0.4332	5.9467	41.1908	0.82214	0.82211	1.2368	3.2744
SAR	0.65069	0.65875	2.8028	10.0895	0.86454	0.88068	1.2925	3.5289
RR	0.57301	0.57345	3.5293	16.9650	0.90244	0.91361	0.7353	2.9988
LNIND	0.97332	0.97322	-0.6311	3.9065	0.97478	0.97743	-0.2464	2.2678
LNLF	0.97487	0.97588	-0.1885	2.7545	0.9055	0.90852	0.8082	2.6765
LNEXPO	0.98929	0.98973	0.0562	3.3915	0.96591	0.96797	0.3725	2.3583

Figure 2 shows the correlation plot of both samples of all models separately. This shows the lower correlation between the values, which shows the weak issue of multicollinearity in the models (Abbas et al., 2024; H. Amjad et al., 2023).

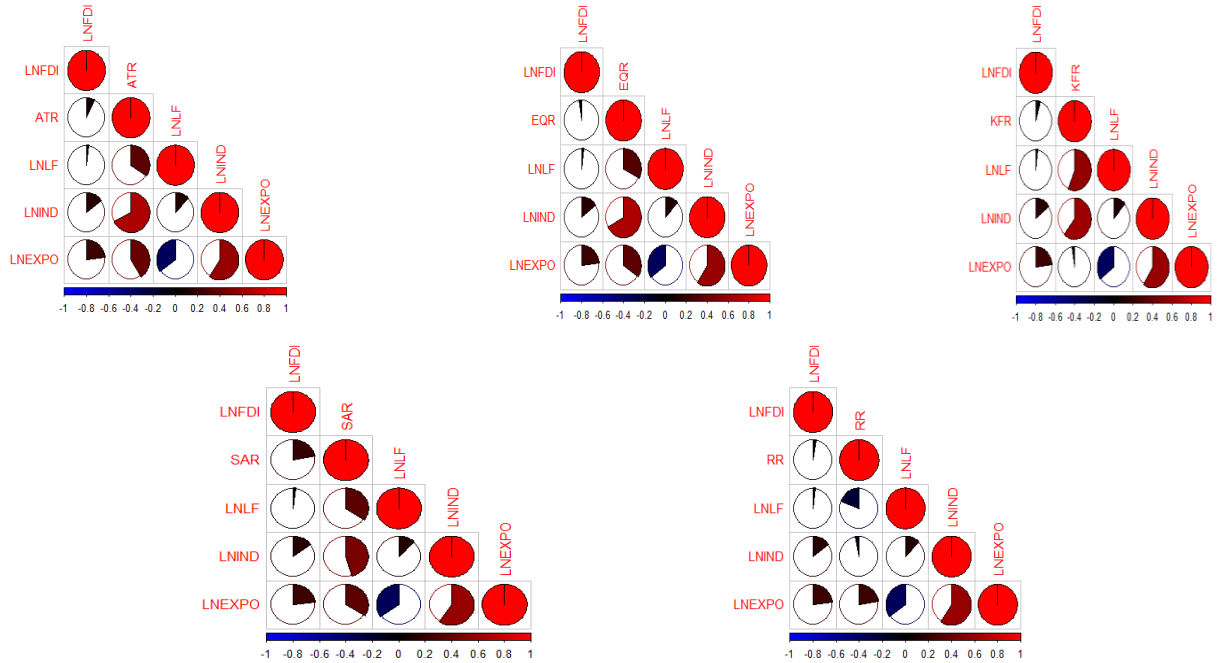OECD countries

Non-OECD countries

Figure 2 Correlation Plot

Table 4 shows the Pedroni test of long-run co-integration of all models of both samples of this study. The significant probability values show the existence of long-run co-integration in the model.

Table 4
Pedroni Test for Cointegration

Models	Tests	OECD Statistics	p-value	Non-OECD -7.2472	p-value
LNFDI ATR ATR2	Modified Phillips–Perron t	-3.1765	0.0000	1.3863	0.0000
LNIND LNLF LNEXPO	Phillips–Perron t	-12.145	0.0000	-2.8910	0.0000
	Augmented Dickey–Fuller t	-10.265	0.0000	7.5114	0.0000
LNFDI EQR EQR2	Modified Phillips–Perron t	-2.8117	0.0025	1.4527	0.0000
LNIND LNLF LNEXPO	Phillips–Perron t	-11.9103	0.0000	-2.7590	0.0000
	Augmented Dickey–Fuller t	-10.7486	0.0000	-7.2472	0.0000
LNFDI KFR KFR2 LNIND	Modified Phillips–Perron t	-3.2929	0.0005	1.3863	0.0000
LNLF LNEXPO	Phillips–Perron t	-12.0023	0.0000	-2.8910	0.0000
	Augmented Dickey–Fuller t	-10.1827	0.0000	7.5114	0.0000
LNFDI SAR SAR2	Modified Phillips–Perron t	-3.1426	0.0000	1.4527	0.0000
LNIND LNLF LNEXPO	Phillips–Perron t	-11.375	0.0000	-2.7590	0.0000
	Augmented Dickey–Fuller t	-10.328	0.0000	7.724	0.0000
LNFDI RR RR2 LNIND	Modified Phillips–Perron t	-3.4967	0.0002	1.250	0.0000
LNLF LNEXPO	Phillips–Perron t	-12.3717	0.0000	2.9120	0.0018
	Augmented Dickey–Fuller t	10.3717	0.0000	-0.9451	0.1723

Table 5 presents the PQR at the middle quantile results of the sample. In OECD countries, the level coefficient of all restrictiveness policies index (ATR) is positive, while its quadratic coefficient is positive, showing the inverted U-shaped curve. Simply, it shows lower restrictions increase FDI while higher restrictions reduce FDI in OECD countries. No specific study in the literature explores the inverted U-shaped relationship between ATR and FDI in OECD countries. However, there are several studies in the literature that explore the adverse association between restrictions and FDI (Ahrend & Goujard, 2012; Contractor, Nuruzzaman, Dangol, & Raghunath, 2021; Ketteni & Kottaridi, 2019; Manenti & Scialà, 2013; Rajput et al., 2022).

After discussing all types of restrictions, we also discuss their sub-types to better understand the clear picture of which subtype of restriction affects the FDI more. The level and quadratic coefficient of equity restriction (EQR) are insignificant, so we fail to capture this EQR on FDI accurately. The level coefficient of Key foreign personnel (KFR) is positive, while its quadratic coefficient is negative, showing the inverted U-shaped relationship to determine the FDI. These results show lower foreign employment restrictions increase FDI while higher foreign employment diminishes the FDI in OECD countries. Similar linear analysis was explored in OECD countries by Albori et al. (2021) from 2012-2018 and Bauerle Danzman and Meunier (2021) from 2007-2021 panel datasets.

Like the other restrictions, the operation restrictions (RR) level coefficient is positive and its quadratic coefficient is negative, which also shows the inverted U-shaped relationship. It presents the lower operational restriction escalates the FDI while higher operational restrictions deteriorate the FDI. Similar results were estimated by Zongo (2020) and Albori et al. (2021) in OECD countries and found that higher operational restrictions declined the FDI.

Table 5
Panel Quantile Regression Results of the OECD Countries

| | OECD | | | | | Non-OECD | | | | |
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
ATR	3.9412** (1.8913)					-4.9932* (1.0368)				
ATR^2	-10.7613*** (6.3634)					7.1968* (1.6248)				
EQR		3.6240 (2.9988)					-6.7175* (1.6490)			
EQR^2		-18.4368 (16.3483)					12.7022* (4.0548)			
KFR			27.2062** (12.5594)					-2.3883 (11.4326)		
KFR^2			-256.9120* (153.3032)					94.3837 (223.9115)		
SAR				8.1132* (3.0920)					-0.1148 (3.3353)	
SAR^2				-48.4572* (17.5608)					17.7243 (20.3754)	
RR					28.2824* (6.3734)					-4.6597 (3.8286)
RR^2					-285.4087* (70.4980)					42.6086 (31.7581)
LNIND	-0.5585* (0.1975)	-0.4400** (0.1978)	-0.4564* (0.1882)	-0.4674* (0.1795)	-0.6204* (0.1702)	0.3536 (0.2375)	0.7465* (0.2428)	-0.2077 (0.4267)	-0.3104 (0.2569)	-0.1983 (0.2845)
LNLF	-0.0294 (0.0391)	-0.0186 (0.0381)	-0.0281 (0.0387)	-0.0795** (0.0372)	-0.0245 (0.0397)	0.1303* (0.0394)	0.1407* (0.0362)	0.0377 (0.0518)	0.0262 (0.0471)	0.0754** (0.0449)
LNEXPO	1.0958* (0.1174)	1.0550* (0.1074)	1.0604* (0.1077)	0.9000* (0.1045)	1.0805* (0.1028)	0.5713* (0.0898)	0.4878* (0.0827)	0.4832* (0.1300)	0.3894* (0.1225)	0.4844* (0.1128)
CONS	-0.7859 (1.0048)	-1.0907 (0.9985)	-0.8979 (0.9845)	0.5657 (0.9605)	-0.6769 (0.9817)	-4.0459* (0.9979)	-5.3035* (0.9713)	-0.7455 (1.5744)	0.0790 (1.0168)	-1.3648* (0.9603)

Now, we examine the results of different restrictiveness policies in non-OECD countries by using quantile regression at middle quantiles. The level coefficient of all types of restrictiveness policies (ATR) is negative, while its quadratic coefficient is positive, showing the U-shaped relationship to determine the FDI in non-OECD countries. In the literature, Rajput et al. (2022) examined the role all restrictive policies on FDI during 1991-2011 in India. It showed that higher scores of restrictiveness policies caused lower FDI. Zongo (2020) in emerging countries, explored those restrictions in different sectors discouraged FDI. The level coefficient of equity restriction (EQR) is negative, and its positive quadratic coefficient shows the U-shaped relationship. It shows that lower EQR declines FDI while higher EQR increases FDI.

In the case of non-OECD countries, most countries are developing countries with lower resources. These countries applied stricter restrictive policies to preserve national security and essential industries, making them more appealing to foreign investors interested in those industries. Furthermore, a nation may have a high index score because it has policies to promote certain forms of FDI, such as greenfield investments or investments in specific regions. In such

circumstances, laws and limits may be intended to attract specific sorts of investments aligned with the country's development goals, increasing FDI inflows.

A few control variables also influence the FDI in the literature. In OECD countries, the industrial value added (LNIND) shows the inverse relationship to determine the FDI inflows in most models. Most of the OECD countries have the most developed and higher-income countries and spend a lot of resources on new technologies in their industrial sectors. They have owned too many resources that do not need foreign investment. In contrast, in non-OECD countries, the LNIND increases the FDI inflows. These countries are developing countries. Usually, foreign investment brings technological innovation in their industrial sector, which attracts more FDI (Saucedo et al., 2020). In OECD countries, the Labor force (LNLF) reduces the FDI, while in non-OECD countries, it attracts more FDI (Gui-Diby & Renard, 2015). The export sectors attract more FDI in both samples (Jabri et al., 2013; LIEN, 2021; Shah & Samdani, 2015; Sultanuzzaman et al., 2018).

Table 6
Marginal Effect of Restrictiveness Policies in OECD Countries

	Country	ATR	KFR	SAR	RR	ATR	KFR	SAR	RR
1	Australia	0.1844	0.0018	0.1424	0.0074	-0.0278	26.2608	-5.6892	24.0469
2	Austria	0.1250	0.0000	0.0090	0.0099	1.2519	27.2062	7.2411	22.6085
3	Belgium	0.0522	0.0000	0.0000	0.0268	2.8188	27.2062	8.1132	12.9617
4	Canada	0.2081	0.0130	0.0805	0.0050	-0.5370	20.5265	0.3147	25.4283
5	Chile	0.0605	0.0100	0.0000	0.0055	2.6389	22.0680	8.1132	25.1315
6	Czech R.	0.0180	0.0000	0.0000	0.0075	3.5549	27.2062	8.1132	23.9899
7	Denmark	0.0351	0.0000	0.0000	0.0038	3.1860	27.2062	8.1132	26.0905
8	Estonia	0.0313	0.0000	0.0036	0.0074	3.2686	27.2062	7.7644	24.0355
9	Finland	0.0686	0.0266	0.0000	0.0253	2.4658	13.5385	8.1132	13.8636
10	France	0.0478	0.0050	0.0000	0.0120	2.9126	24.6371	8.1132	21.4326
11	Germany	0.0259	0.0000	0.0000	0.0068	3.3831	27.2062	8.1132	24.3780
12	Greece	0.0456	0.0020	0.0040	0.0084	2.9604	26.1786	7.7256	23.4761
13	Hungary	0.0517	0.0000	0.0000	0.0102	2.8278	27.2062	8.1132	22.4601
14	Iceland	0.1670	0.0000	0.0100	0.1000	0.3471	27.2062	7.1442	-28.799
15	Ireland	0.0459	0.0000	0.0000	0.0097	2.9527	27.2062	8.1132	22.7569
16	Israel	0.1175	0.0060	0.0180	0.0318	1.4125	24.1233	6.3690	10.1304
17	Italy	0.0540	0.0020	0.0000	0.0048	2.7800	26.1786	8.1132	25.5196
18	Japan	0.0576	0.0080	0.0090	0.0142	2.7026	23.0956	7.2411	20.1882
19	Korea	0.1796	0.0014	0.0161	0.0128	0.0759	26.4868	6.5531	20.9759
20	Latvia	0.0389	0.0000	0.0000	0.0176	3.1050	27.2062	8.1132	18.2132
21	Lithuania	0.0209	0.0030	0.0000	0.0113	3.4911	25.6647	8.1132	21.8436
22	Luxembourg	0.0040	0.0000	0.0000	0.0000	3.8553	27.2062	8.1132	28.2824
23	Mexico	0.2162	0.0000	0.1005	0.0242	-0.7109	27.2062	-1.6252	14.4686
24	Netherlands	0.0171	0.0000	0.0000	0.0020	3.5734	27.2062	8.1132	27.1408
25	New Zealand	0.2386	0.0000	0.1978	0.0050	-1.1948	27.2062	-11.057	25.4283
26	Norway	0.0888	0.0060	0.0000	0.0088	2.0306	24.1233	8.1132	23.2706
27	Poland	0.0838	0.0060	0.0009	0.0149	2.1369	24.1233	8.0260	19.7772
28	Portugal	0.0171	0.0000	0.0000	0.0040	3.5738	27.2062	8.1132	25.9991
29	Slovak R.	0.0519	0.0002	0.0009	0.0004	2.8248	27.1034	8.0260	28.0769
30	Slovenia	0.0199	0.0000	0.0005	0.0034	3.5122	27.2062	8.0648	26.3530
31	Spain	0.0273	0.0000	0.0000	0.0025	3.3538	27.2062	8.1132	26.8439
32	Sweden	0.0674	0.0000	0.0257	0.0034	2.4908	27.2062	5.6190	26.3302
33	Switzerland	0.1128	0.0302	0.0090	0.0110	1.5132	11.6682	7.2411	22.0034
34	Türkiye	0.1313	0.0020	0.0580	0.0091	1.1155	26.1786	2.4969	23.1108
35	United K.	0.0498	0.0011	0.0000	0.0102	2.8704	26.6307	8.1132	22.4372
36	United States	0.0890	0.0100	0.0050	0.0110	2.0259	22.0680	7.6287	22.0034

Table 6 shows the marginal effect of OECD countries' restrictiveness policies, estimated using the mean score from 1998 to 2022. All types of restrictions (ATR) show that Australia,

Canada, Mexico, and New Zealand have imposed higher ATR, reducing the FDI, while the remaining countries imposed lower restrictions.

Table 7 displays the marginal effect of the non-OECD countries by using the mean score from 1998 to 2022. The results show that China, Indonesia, Malaysia, and the Philippines faced higher restriction scores, increasing FDI inflows.

Table 7
Marginal Effect of Restrictiveness Policies in Non-OECD Countries

	Country	Mean value		Marginal effect	
		ATR	EQR	ATR	EQR
1	Argentina	0.0436	0.0238	-4.3662	-6.1129
2	Brazil	0.0946	0.0311	-3.6313	-5.9274
3	China	0.4298	0.2655	1.1932	0.0269
4	Egypt	0.1380	0.1118	-3.0075	-3.8773
5	India	0.3033	0.2363	-0.6270	-0.7149
6	Indonesia	0.3660	0.2701	0.2754	0.1447
7	Malaysia	0.3494	0.2441	0.0356	-0.5158
8	Philippines	0.4139	0.3098	0.9646	1.1523
9	Russia	0.2553	0.1060	-1.3188	-4.0251
10	South Africa	0.0750	0.0359	-3.9134	-5.8065
11	Thailand	0.3053	0.1862	-0.5991	-1.9862
12	Viet Nam	0.3153	0.1431	-0.4543	-3.0816

5. Conclusion and policy recommendations

The present study assesses the role of restrictiveness policies on FDI inflows of the 36-OECD 12-non-OECD countries from 1998 to 2022. This study's empirical results are estimated using panel quantile regression at the middle quantile. This econometric approach is beneficial in this study due to the presence of outliers and non-normality. This study considers FDI inflow as the dependent variable, and different restrictiveness policies are used as the key independent variables in different models. The data set of restrictiveness policies and their subtypes are taken from the OECD database. The empirical results show the inverted U-shaped curve between all types of restrictions and FDI in OECD countries. Meanwhile, a U-shaped relationship exists between all types of restrictions and FDI in non-OECD countries. Additionally, the marginal effect of the OECD countries is that Australia, Canada, Mexico, and New Zealand have imposed higher restrictions, which reduces the FDI, while the remaining countries imposed lower restrictions. The marginal effect of non-OECD countries demonstrates China, Indonesia, Malaysia, and the Philippines imposed higher restrictions, which increased FDI inflows.

This study demonstrates that restrictiveness policies of OECD countries are different from those of non-OECD countries. This study recommends that OECD countries should reduce the FDI regulatory restrictiveness policies to boost the FDI inflows, and non-OECD countries should increase the restrictiveness policies to boost the FDI inflows. This research is extended for future perspective by applying the moderator role of ease of doing business and institutional quality. Furthermore, this study can be extended by analyzing the individual sectors of specific counties. This study has some limitation as it based on only selected countries while a large number of counties are excluded in this study due to non-availability of the data set.

Author's Contribution:
Muhammad Mudassar Naushahi: writing original draft, literature reviewing & editing, data analysis & interpretations.
Asma Kanwal: Data curation, methodology, visualization, revising the draft & editing.
Irem Batool: Conceptualization and review the study.
Hafeez ur Rehman: Conceptualization, review, and editing.

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