JOURNAL FOR SOCIAL SCIENCE STUDIES
An International Peer-Reviewed Open Access Journal

ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
Volume 4 • Issue 6 • October 2026

ASYMMETRIC EFFECTS OF SOCIOECONOMIC CONDITIONS AND CONFLICT ON FOREIGN DIRECT INVESTMENT DYNAMICS IN MIDDLE EASTERN ECONOMIES

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DOI: https://doi.org/10.5281/zenodo.23154722

Keywords
Foreign Direct Investment; Socioeconomic Conditions; Conflict; Political Stability; Institutional Quality; Nonlinear Panel ARDL; Middle East

Article History
Received: 25 June 2026
Accepted: 16 September 2026
Published: 05 October 2026

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Abstract

As geopolitical instability reshapes global investment patterns, understanding how conflict and socioeconomic conditions influence foreign direct investment (FDI) is increasingly important. Although extensive research has investigated the determinants of FDI, little is known about how positive and negative changes in socioeconomic conditions (SECON) and conflict (CONF) influence FDI inflows (FDIIN) and FDI outflows (FDIOUT) asymmetrically. Addressing this gap, this study investigates the asymmetric effects of SECON, CONF, political stability (PS), corruption (CORR), border dynamics (BOR), macroeconomic instability (MINSTB), and trade openness (TO) on FDI dynamics in Middle Eastern economies from 1996 to 2024. This study uses the NPARDL method, following CSD, second-generation panel unit root tests, and asymmetric cointegration tests. The results reveal significant short- and long-run asymmetries. Improvements in SECON and PS stimulate FDIIN while reducing capital outflows, whereas CONF, CORR, and MINSTB discourage inward investment and accelerate capital relocation. The findings further reveal that investors respond more strongly to adverse shocks than to similar gains, underscoring the limitations of conventional linear models in capturing the complexity of investment behavior under political and economic uncertainty. By jointly investigating FDI inflows and outflows within a unified nonlinear framework, this study provides new evidence on investment dynamics in conflict-prone economies. It offers important policy insights to strengthen governance, enhance SECON, reduce CONF, and improve MINSTB, thereby attracting sustainable foreign investment.

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1. Introduction

In the current era, foreign direct investment (FDI) has become a crucial issue for both developing and developed countries amid growing geopolitical uncertainties. FDI is one of the significant facilitators of sustainable economic development, as it raises capital accumulation, productivity, job creation, and the incorporation and transfer of technology into international value chains. FDI is a main source of external financing to aid industrial transformation and long-term economic growth in both developing and developed economies (Ahn et al., 2025). However, the investment scene is extremely murky. The international flow of investment has been influenced by geopolitical tensions, policy uncertainty, trade fragmentation, financial turbulence, and so on. Productive FDI performance worldwide has declined in 2025 for the second consecutive year, amid growing political and economic uncertainty for investors, according to the World Investment Report 2025, published by the UN Conference on Trade and Development (UNCTAD, 2025). The developments suggest that a more comprehensive view of the decision-making process for foreign investment, especially in politically unstable regions, should be developed.

In the context of the Middle East, its attractiveness as an investment area stems from its high economic growth potential, abundant natural resources, and vision for diversifying the economy. It is, however, beset by political and socioeconomic problems. Investor uncertainty and the potential for sustainable foreign investment (FDI) are still inhibited by armed conflict, geopolitical competition, weak institutions, CORR, unemployment, income inequality, and MINSTB (Le et al., 2024; Nazzal et al., 2026). Political uncertainty and institutional weaknesses pose significant challenges, despite structural changes aimed at enhancing the investment climate in many Middle Eastern countries (Nguyen et al., 2026). Various factors contribute to FDI inflows to developing countries, including MENA countries, such as political stability, government efficiency, institutional quality, and control of corruption (Akpilic, 2026; Hamid et al., 2024).

The academic world has been concentrating on these challenges. Previous studies have shown that the quality of governance, PS, institutional effectiveness, and macroeconomic performance play important roles in determining FDI (Musliu et al., 2026; Zarrad et al., 2026). In general, the evidence suggests that good institutions attract foreign investment (by reducing uncertainty and transaction costs), whereas CONF and PS discourage investment, raise operating risks, and lower investor confidence (Faifman et al., 2025; Patsiaouras et al., 2026). This literature has contributed appreciably to our understanding of the determinants of FDI, but many important questions remain.

Although the literature on FDI has been expanding, there are still some significant gaps. Most studies conducted so far have focused on SECON and CONF separately, although they are closely related in the investment decision-making process. Moreover, most studies have focused on FDI inflows, with very little evidence of FDI outflows; yet political instability may spur firms to move capital to safer havens. Furthermore, traditional linear models assume that investors react in the same way to positive and negative political and institutional developments, while neglecting investors' asymmetric behaviour when facing uncertainty. This study attempts to address these gaps by jointly examining the asymmetric effects of SECON and CONF on net FDI flows across the sample economies within the NPARDL framework. The paper extends the literature by combining these variables into a single analytical framework and accounting for short- and long-run asymmetric effects, offering more comprehensive insights to inform policy recommendations that enhance investment resilience and institutional quality and facilitate sustainable economic development.

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The rest of the paper is organized as follows. A review of the theoretical and empirical literature is presented in Section 2. The theoretical framework and methodology are presented in Section 3. Section 4 presents empirical results. Section 5 concludes and offers policy suggestions.

2. Literature Review and Theoretical Framework

2.1. Theoretical Background

This interconnection among SECON, CONF, and FDI can be understood through complementary theories of investment decision-making under uncertainty. The foundation's central concept is the Eclectic Paradigm (OLI), which posits that companies invest in other countries where ownership, internalization, and location advantages exist. The location advantages (PS, institutional quality, and macroeconomic stability) lower the risk of investing or the transaction costs (Dunning, 2001; Dunning & Lundan, 2008). The institutional theory suggests that FDI is positively associated with these conditions because good governance, CORR, and secure property rights create a predictable business environment which encourages foreign investment, whereas weak institutions, high CORR, and policy uncertainty discourage foreign investment and increase the risk in investment (Bhujabal et al., 2024; Hamid et al., 2024; Khan et al., 2024). Political Risk Theory (PRT) and Real Options Theory (ROT) suggest that in times of armed conflict, political instability, and economic uncertainty, expected returns are reduced, and investment deferral and termination are more likely as conditions improve. Prospect Theory further postulates that people will be more upset if they lose the same amount as if they gain the same amount, so the impact of escalation of conflict or deterioration of institutions is likely to be more important than an equivalent gain in PS or governance. Collectively, the theories shed light on the mechanisms by which SECON and CONF influence FDI trends and on the rationale for using the NPARDL model to explore the asymmetric investment response of the sample economies.

2.2. Literature Review

2.2.1. Conflict and Foreign Direct Investment

Conflict is a well-recognized impediment to FDI, particularly in politically sensitive and less-developed economies. PRT says multinationals take both expected returns and political risk into account in making investment decisions. Uncertainties regarding property rights and business operations increase as these factors are affected by armed conflict, terrorism, civil unrest, and geopolitical tensions, thereby reducing the appeal of the selected economies to foreign investors (Bak & Lee, 2021; Schlesinger & Tomashevskiy, 2024). Moreover, CONF destroys infrastructure, weakens institutions, and causes macroeconomic instability, leading to higher operating costs and reduced expected returns (Adebayo et al., 2020; Blanchard et al., 2021; Petro et al., 2025). Political instability can also promote FDIOUT and capital flight as businesses transfer their investments to safer environments (Nguyen, 2024). While the negative association between CONF and FDI is well documented, most of the literature examines only FDIIN and uses linear models that fail to account for asymmetric investor responses. In fact, investors tend to respond more adversely to the escalation of conflict than to similar developments in political stabilization. To overcome these limitations, the present study analyzes both FDIIN and FDIOUT in a nonlinear fashion that accounts for the asymmetric responses to changes in conflict intensity.

H1: *Conflict asymmetrically reduces FDI inflows and increases FDI outflows.*

2.2.2. Political Stability, SECON, and FDI Dynamics

Political stability and a good SECON are essential for foreign investment, as they reduce uncertainty and provide a predictable business

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climate. Good governance, robust institutions, high human capital, and better public services enhance productivity and boost investor confidence, while weak institutional frameworks, CORR, and socioeconomic imbalance discourage investment by increasing business risks (Acheampong & Opoku, 2025; Nthangu et al., 2025; Schlesinger & Tomashevskiy, 2024). Among the factors that are essential to FDI, PS, regulatory quality, and government effectiveness were consistently mentioned in recent studies, and institutional weaknesses also facilitate capital outflows (Nazzal et al., 2026; Sadriu & Balaj, 2024). However, most studies so far have focused on PS or SECON in isolation and take it for granted that the impact of institutional improvement and deterioration is identical. The current study accomplishments to fill those gaps by investigating these factors simultaneously within a nonlinear framework that captures asymmetric investment behavior.

H2: *Political stability and better SECON asymmetrically increase FDI inflows and reduce FDI outflows.*

2.2.3. Border Dynamics, Macroeconomic Instability, Governance and FDI

This relationship among SECON, CONF, and FDI can be explained using complementary theories of investment decisions under uncertainty. At the core of the foundation is the Eclectic Paradigm (OLI), which suggests that companies invest abroad in countries where they possess ownership, internalization, and location advantages. The location advantages (PS, institutional quality, and macroeconomic stability) reduce the risk of investing or the transaction costs (Dunning, 2001; Dunning & Lundan, 2008). Institutional Theory suggests that these factors are instrumental for FDI, as good governance, a robust legal system, and secure property rights provide a conducive environment for business activities and for attracting FDI, while weak institutions, CORR, and uncertainty of policy hamper FDI and add to the riskiness of investment (Bhujabal et al., 2024; Hamid et al., 2024; Khan et al., 2024). Political Risk Theory (PRT) and Real Options Theory (ROT) both suggest that armed conflict, political instability, and economic uncertainty lower expected returns and increase the risk that the firm will delay or abandon investments even when conditions are favorable. Prospect Theory also suggests that losses are more significant than gains of the same size, so that if the war between PS and governance becomes more intense or if institutions decline by the same amount, it would be more important for an investment decision than if PS or governance becomes more intense or if institutions improve by the same amount. All the above theories collectively help explain the mechanism by which SECON and CONF specify FDI trends and the use of the NPARDL model in studying the asymmetric investment response of the sample economies.

H_3: *Better governance and macroeconomic stability increase FDIIN and reduce FDIOUT.*

3. Methodology

3.1 Data source

This study uses a balanced panel dataset from 1996 to 2024 to examine the asymmetric effects of SECON and CONF on FDI dynamics in Middle Eastern economies. Data are collected from internationally recognized sources, including UNCTAD, the WDI, the Uppsala Conflict Data Program (UCDP), the International Country Risk Guide (ICRG), and the Worldwide Governance Indicators (WGI). Table 1 summarizes the measurements and source information for all variables used in the analysis.

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Table 1: Variable description

Variable	*Symbol*	*Measurement*	*Source*
FDI inflows	FDIIN	% of GDP	UNCTAD
FDI outflows	FDIOUT	% of GDP	UNCTAD
Trade openness	TO	(Exports + Imports)/GDP	WDI
Socioeconomic conditions	SECON	Composite Index	ICRG
Conflict	CONF	Conflict Intensity Index	UCDP
Political stability	PS	Governance Indicator	WGI
Corruption	CORR	Corruption Index	ICRG
Macroeconomic instability	MINSTB	Misery Index (Inflation + Unemployment)	WDI
Border	BOR	Dummy Variable	UCDP

3.2 Empirical Strategy

This study used a stepwise econometric framework to examine the asymmetric effects of SECON and CONF on FDI dynamics in selected economies. Given the strong economic and political relations among countries in the region, the analysis begins by testing for CSD using the Pesaran (2004) CD test. After confirming the presence of CSD, the stationarity of the variables is examined using the 2nd-generation panel unit root tests proposed by Pesaran (2007). The existence of a long-run equilibrium relationship is then assessed using the Westerlund (2007) panel cointegration test, followed by the Hatemi-J and Irandoust (2012) asymmetric cointegration approach to specify the effects of positive and negative shocks. Finally, the short-run and long-run asymmetric relationships are estimated using the Nonlinear Panel Autoregressive Distributed Lag model developed by (Shin et al., 2014). The complete empirical procedure is illustrated in **Figure 1**.

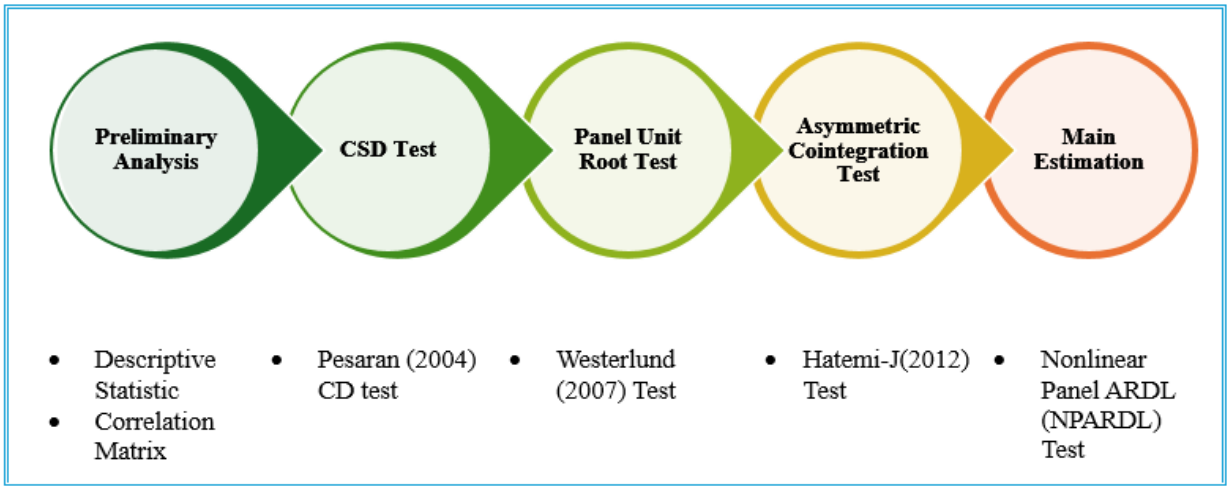


Figure 1: Empirical strategy adopted in this study.

3.3 Econometric Model Specification

To investigate the effects of SECON and CONF on FDI dynamics in sample economies, this study specifies two empirical models for FDI inflows and outflows. The models assess the outcomes of SECON, CONF, PS, CORR, BOR dynamics,

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MINSTB, and TO on foreign investment performance. The general functional relationship is represented in Eq. 1:

$$FDI = f(SECON, CONF, PS, CORR, BOR, MINSTB, TO) \quad (1)$$

The functional relationship is transformed into the following empirical panel regression models.

Model 1: FDI Inflows

$$FDIIN_{it} = \alpha + \beta_1 SECON_{it} + \beta_2 CONF_{it} + \beta_3 PS_{it}, + \beta_4 CORR_{it} + \beta_5 BOR_{it} + \beta_6 MINSTB_{it} + \beta_7 TO_{it} + \epsilon_{it} \quad (2)$$

Model 2: FDI Outflow

$$FDIOUT_{it} = \alpha + \beta_1 SECON_{it} + \beta_2 CONF_{it} + \beta_3 PS_{it}, + \beta_4 CORR_{it} + \beta_5 BOR_{it} + \beta_6 MINSTB_{it} + \beta_7 TO_{it} + \epsilon_{it} \quad (3)$$

Where i denotes country and t time, while α is the intercept, $\beta_1 - \beta_7$ are the slope coefficients, and ϵ_{it} is the random error term.

Equations (2) and (3) represent the benchmark linear specifications for examining the determinants of FDI inflows and outflows. These models assume that the effects of positive and negative variation in the explanatory variables on foreign investment are symmetric. But this assumption may not hold true when considering the differential response of investors to positive and negative political and socioeconomic shocks. To grasp this theoretical worry, the asymmetric decomposition approach suggested by Hatemi-J (2012) is implemented, in which each explanatory variable is decomposed into a positive and a negative partial aggregate that serve as cumulative measures. These decomposed variables are then incorporated into the NPARDL framework to assess the asymmetric short- and long-term impacts of SECON and CONF on FDI dynamics.

3.4 Cross-Sectional Dependence Test

A necessary first step in examining the empirical models is to investigate cross-sectional dependence in the panel units. Middle Eastern economies are economically and politically interconnected through trade, financial markets, and geopolitical developments. As a result, shocks in one country can affect one or more other countries, leading to CSD. If this is not addressed, it can result in biased and unreliable parameter estimates. Thus, this study employs the Pesaran (2004) CD test as a preliminary step before the NPARDL analysis, which is defined as:

$$CS = \sqrt{\frac{2T}{N(N-1)}} \sum_{i=1}^{N-1} \sum_{j=i+1}^{N} \hat{\rho}_{ij} \ldots (4)$$

Where, N signifies the number of cross-sectional units, T denotes the time dimension, and $\hat{\rho}ij$ is the estimated pairwise correlation coefficient of the regression residuals. The null hypothesis assumes cross-sectional independence, whereas rejecting the null indicates CSD.

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3.5 Panel Unit Root and Cointegration Tests

Given the presence of CSD, the stationarity properties of the variables are examined using the 2nd-generation (CADF & CIPS) panel unit root tests proposed by Pesaran (2007). These tests explicitly account for CSD by enhancing the conventional Dickey-Fuller regression with cross-sectional averages. The CADF regression is identified as:

$$\Delta y_{it} = a_i + \beta_i y_{it-1} + \gamma_i \bar{y}_{it-1} + \delta_i \Delta \bar{y}_t + \sum_{k-1}^{\rho} \emptyset_{ik} \Delta y_{i,k-k} + \epsilon_{it} \dots (5)$$

The corresponding CIPS statistic is computed as:

$$CIPS = \frac{1}{N} \sum_{i=1}^{N} CADF_i \dots (6)$$

After determining the order of integration, the existence of a long-run equilibrium relationship is examined using the Westerlund (2007) error-correction-based panel cointegration test, which is robust to CSD and parameter heterogeneity. The Westerlund error-correction model is expressed as

$$\Delta y_{it} = a_i + \delta_j' d_t + \vartheta_i (y_{i,t-1} - \beta_j' x_{i,t-1}) + \sum_{j=i}^{\rho} \gamma_{ij} \Delta y_{it-j} + \sum_{j=0}^{q} \emptyset_{ij} \Delta x_{i,t-j} + \epsilon_{it} \dots (7)$$

Where ϑ_i represents the speed of adjustment toward the long-run equilibrium. Rejection of the null hypothesis indicates the existence of panel cointegration among the variables.

3.6 Asymmetric Decomposition

Conventional linear models assume that positive and negative changes in the explanatory variables exert identical effects on FDI. However, investors often respond more strongly to adverse political and economic shocks than to favorable developments. To capture these nonlinear responses, this study uses the asymmetric decomposition approach proposed by Hatemi-J (2012).

For any explanatory variable (X_{it}) the decomposition is defined as:

$$X_{it} = X_{i0} + X_{it}^{+} + X_{it}^{-} \dots (8)$$

where the cumulative positive and negative partial sums are computed as:

$$X_{it}^{+} = \sum_{j=1}^{t} Max(\Delta X_{ij} 0) \dots (9)$$

And Negative parts:

$$X_{it}^{-} = \sum_{j=1}^{t} Max(\Delta X_{ij} 0) \dots (10)$$

The above decomposition procedure is applied to all explanatory variables incorporated in the empirical model. The resulting positive and negative partial sums are subsequently integrated into the NPARDL framework to estimate the

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asymmetric short- and long-run effects on both models.

3.7 NPARDL Model

Following the asymmetric decomposition, the nonlinear interplay is estimated using the NPARDL model. The NPARDL estimator simultaneously captures both short-run dynamics and long-run equilibrium interconnection while allowing positive and negative shocks to determine different effects on the dependent variable.

The NPARDL model is identified as follows:

$$
\begin{aligned}
&+\emptyset_i(FDI_{i,t-1} - \beta_1^+ SECON_{i,t-1}^+ - \beta_1^- SECON_{i,t-1}^- - \beta_2^+ CONF_{it}^+ - \beta_2^- CONF_{i,t-1}^- - \beta_3^+ PS_{i,t-1}^+ \\
&\quad - \beta_3^- PS_{i,t-1}^- - \beta_4^+ CORR_{i,t-1}^+ - \beta_4^- CORR_{i,t-1}^- - \beta_5^+ BOR_{i,t-1}^+ - \beta_5^- BOR_{i,t-1}^- \\
&\quad - \beta_6^+ MINSTB_{i,t-1}^+ - \beta_6^- MINSTB_{i,t-1}^- - \beta_7^+ TO_{i,t-1}^+ - \beta_7^- TO_{i,t-1}^-) + \sum_{j=1}^{p-1} \lambda_{ij} \Delta FDI_{i,t-j} \\
&\quad + \sum_{j=0}^{q-1} \big(\theta_{1ij}^+ \Delta SECON_{i,t-j}^+ + \theta_{1ij}^- \Delta SECON_{i,t-j}^- + \theta_{2ij}^+ \Delta CONF_{i,t-j}^+ + \theta_{2ij}^- \Delta CONF_{i,t-j}^- \\
&\quad + \theta_{3ij}^+ \Delta PS_{i,t-j}^+ + \theta_{3ij}^- \Delta PS_{i,t-j}^- + \theta_{4ij}^+ \Delta CORR_{i,t-j}^+ + \theta_{4ij}^- \Delta CORR_{i,t-j}^- + \theta_{5ij}^+ \Delta BOR_{i,t-j}^+ \\
&\quad + \theta_{5ij}^- \Delta BOR_{i,t-j}^- + \theta_{6ij}^+ \Delta MINSTB_{i,t-j}^+ + \theta_{6ij}^- \Delta MINSTB_{i,t-j}^- + \theta_{7ij}^+ \Delta TO_{i,t-j}^+ \\
&\quad + \theta_{7ij}^- \Delta TO_{i,t-j}^-\big) + \varepsilon_{it} \ldots . (11)
\end{aligned}
$$

where FDI_{it} signifies either FDIIN or FDIOUT for country i at time t. The coefficient $\emptyset_i$ is the error-correction parameter and measures the speed of adjustment toward the long-run equilibrium. The coefficients β^+ and β^- represent the long-run asymmetric effects of positive and negative shocks, while $\theta^+$and θ^-capture the corresponding short-run asymmetric effects. A negative and statistically significant $\emptyset_i$ ratifies convergence toward long-run equilibrium.

4. Results and Discussion

This section reports empirical findings and their interpretation. Table 2 presents descriptive statistics showing substantial cross-country variation in FDI and the explanatory variables, supporting an asymmetric framework. Figure 2 presents the observation count, mean, standard deviation, minimum, and maximum for each study variable. Table 3 displays the correlation matrix, showing statistically significant interconnections among the variables while assuring the absence of serious multicollinearity. Table 4 presents the CSD test, which rejects the null of cross-sectional independence for most variables, confirming the presence of common regional shocks. Together, these findings support second-generation panel econometric techniques, including the CADF and CIPS unit root tests.

Table 2: Descriptive Statistics

Variable	*Obs.*	*Mean*	*Std. Dev.*	*Min.*	*Max.*
FDIIN	288	1.636	5.059	-28.227	15.751
FDIOUT	288	1.121	1.980	-7.810	9.811
SECON	288	2.238	1.368	-6.321	5.451
CONF	288	2.031	1.720	1.000	4.000
TO	288	0.834	0.466	-3.504	2.494
PS	288	-0.814	1.116	-3.180	1.121

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CORR	288	8.389	1.927	2.520	13.760
MINSTB	288	0.175	0.250	-0.153	2.329
BOR	288	0.917	0.277	0.000	1.000

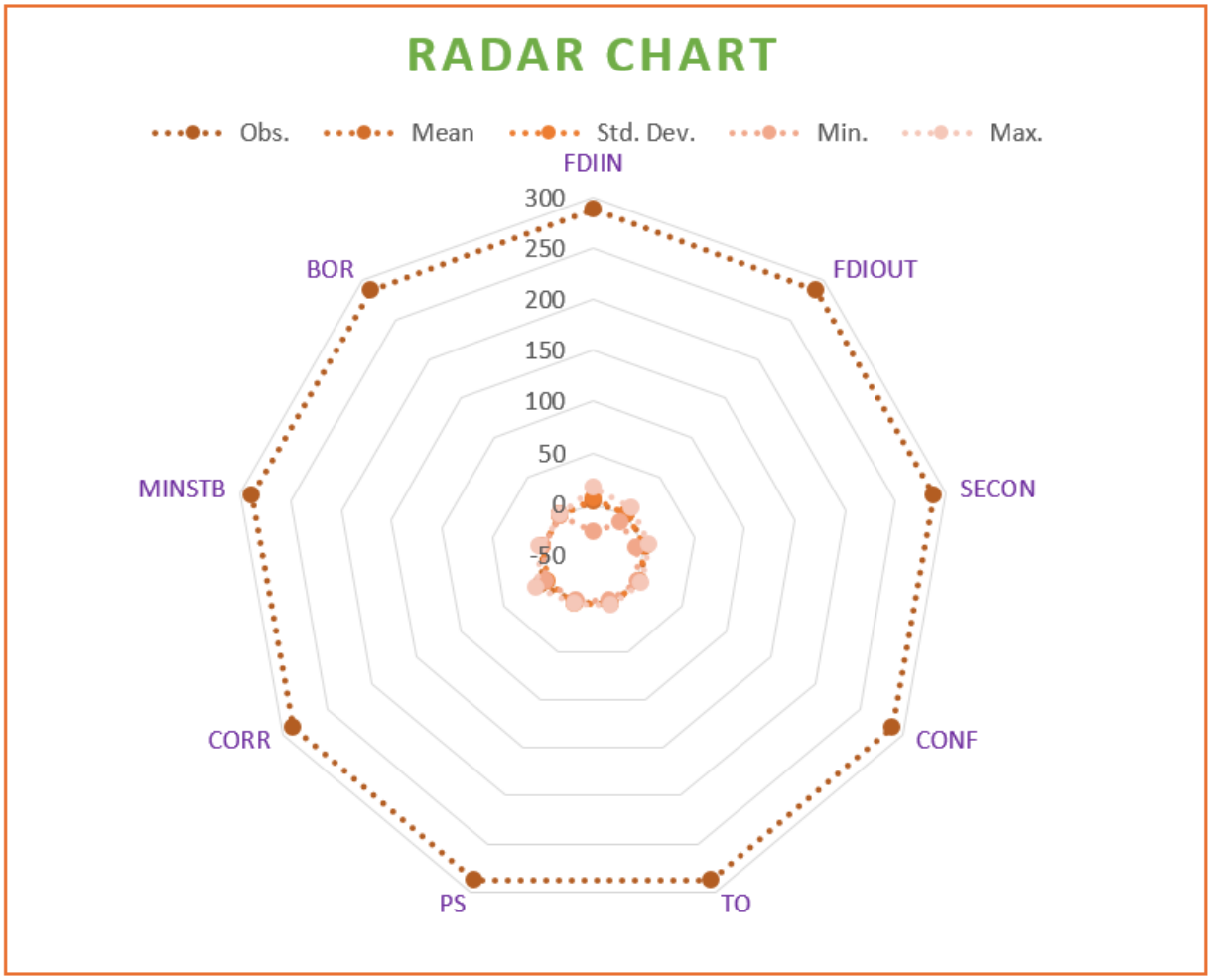


Figure 1: Radar Chart

Table 3: Correlation Matrix Results

Variables	SECON	CONF	TO	PS	CORR	MINSTB	BOR
SECON	1.000						
CONF	0.246***	1.000					
TO	-0.120**	-0.310***	1.000				
PS	-0.394***	-0.641***	0.373***	1.000			
CORR	-0.121**	-0.322***	0.147***	0.370***	1.000		
MINSTB	0.661***	0.203***	-0.065	-0.281***	-0.223***	1.000	
BOR	0.312***	0.186**	-0.118**	-0.100*	0.032	0.479***	1.000

Table 4: Cross-Sectional Dependency Test Results

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Variable	CD Statistic	p-value
FDIIN	4.35	0.000
FDIOUT	8.22	0.000
SECON	3.22	0.000
CONF	5.75	0.000
TO	4.35	0.000
PS	13.36	0.000
CORR	14.09	0.000
MINSTB	1.71	0.087
BOR	0.00	1.000

Table 5 displays the results from the 2nd-generation tests: CADF and CIPS panel unit root tests, which suggest that all variables have an order of integration of I(1). At the same time, CONF intensity and BOR dynamics are, by construction, stationary. As none of the variables are integrated beyond I (1), the NPARDL estimation is suitable. As shown in Table 6, the panel cointegration test does not reject the null hypothesis of no Cointegration. It indicates that there is no stable linear long-run interrelationship between FDI and its determinants. Conversely, after decomposing variables into positive and negative shocks, the Hatemi-J (2012) hidden cointegration test, as shown in Table 7, also confirms the presence of significant asymmetric long-run interplay. These results show that a conventional linear model cannot capture the interconnections among SECON, CONF, and FDI, thereby directly supporting the use of the NPARDL framework for short- and long-run asymmetric effects.

Table 5: Panel Unit Root Test Results

	CIPS		CADF	
Variable	CIPS (Level)	CIPS (1st Difference)	CADF (Level)	CADF (1st Difference)
FDIIN	-2.768	-3.586	-2.007	-4.720
FDIOUT	-2.729	-4.351	-2.062	-3.283
SECON	-2.403	-4.772	-2.204	-2.921
CONF	Dummy	Dummy	Dummy	Dummy
PS	-2.480	-3.962	-2.099	-3.816
CORR	-2.907	-4.672	-2.283	-2.425
MINSTB	-2.326	-4.680	-2.121	-3.210
TO	-2.634	-4.385	-2.242	-2.827
BOR	Dummy	Dummy	Dummy	Dummy

Note: *Conflict and Border Dynamics are dummy variables; therefore, conventional unit root testing is not applicable.*

Table 6. Westerlund Error-Correction Cointegration Test Results

Statistics	FDIIN	FDIOUT
Gt	-2.741 (0.070)	-2.903 (0.103)
Ga	-8.137 (0.153)	-7.244 (0.150)
Pt	-8.565 (0.140)	-9.415 (0.100)
Pa	-8.406 (0.097)	-7.563 (0.120)
Decision	No Linear Cointegration	No Linear Cointegration

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Table 7: Hatemi-J Hidden Cointegration Test Results

Dependent variables	FDIIN		FDIOUT	
Variables	Residuals		Residuals	
	CD Test	Unit Root Test	CD Test	Unit Root Test
$Y+,X+$	3.35(0.002)	-4.75(0.000)	3.42(0.006)	-4.86(0.000)
$Y+,X-$	3.80(0.005)	-5.32(0.000)	4.05(0.005)	-5.42(0.000)
$Y-,X+$	3.95(0.003)	-4.97(0.000)	4.25(0.005)	-5.10(0.000)
$Y-,X-$	4.12(0.004)	-5.54(0.000)	4.46(0.003)	-5.68(0.000)

The short-run asymmetric NPARDL estimates for both models are presented in Table 8. The statistically significant negative value of the error-correction term (ECT) supports a stable long-run equilibrium and a high rate of adjustment towards it after a short-run shock. The results show that all variables in the study have a significant asymmetric impact within the NPARDL framework. As mentioned above, improvements in SECON and PS lead to increased FDI and reduced outward investment. In contrast, improvements in CONF, CORR, and MINSTB lead to a decline in inward investment and capital outflows. The results corroborate Institutional Theory, PRT, and ROT, indicating that investors are more sensitive to political and economic shocks than to similar improvements (Chebli & Saidi, 2024; Faruq, 2023). In addition, long-run asymmetric NPARDL estimates are presented in Table 9. The results indicate that all variables play significant long-run roles in determining FDI dynamics in the sample economies under the NPARDL framework. Positive changes in SECON and PS strengthen FDIIN, while CONF, CORR, and MINSTB hinder investment performance and drive capital outflows. The significant asymmetric coefficients suggest that positive and negative shocks have divergent effects in the long term in the NPARDL model, which implies that linear models are not adequate to explain investor behavior during political and economic uncertainty. Overall, the results support the study's hypotheses and highlight the importance of the NPARDL framework for capturing asymmetric investment responses, consistent with recent empirical studies (Faifman et al., 2025; Mai, 2025).

Table 8. Short-Run Asymmetric NPARDL Estimates Test Results

Variables	**Model I: FDI Inflows**	**Model II: FDI Outflows**
ECT(-1)	-0.817** (0.328)	-0.793* (0.221)
$\Delta SECON^{+}$	0.497*** (0.132)	0.967*** (0.123)
$\Delta SECON^{-}$	0.773* (0.317)	0.913*** (0.259)
$\Delta CONF^{+}$	0.271* (0.141)	0.442*** (0.107)
$\Delta CONF^{-}$	0.922** (0.264)	0.429** (0.155)
ΔPS^{+}	0.391** (0.119)	0.860*** (0.136)
ΔPS^{-}	0.230* (0.050)	0.506*** (0.170)
$\Delta CORR^{+}$	-0.251** (0.094)	0.290* (0.117)
$\Delta CORR^{-}$	0.419* (0.193)	0.678** (0.197)
$\Delta MINSTB^{+}$	0.104* (0.040)	0.549* (0.250)
$\Delta MINSTB^{-}$	0.580* (0.291)	0.236 (2.967)
ΔBOR^{+}	-0.128 (3.350)	0.915*** (0.233)

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An International Peer-Reviewed Open Access Journal
ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
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ΔBOR^-	0.652* (0.240)	1.503** (0.524)
ΔTO^+	0.290* (0.131)	1.104*** (0.346)
ΔTO^-	0.672*** (0.169)	0.681*** (0.115)

Notes: *Standard errors are reported in parentheses. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.*

Table 9. Long-Run Asymmetric NPARDL Estimates Test Results

Variables	Model I: FDI Inflows	Model II: FDI Outflows
$SECON^+$	0.641** (0.268)	-0.964** (0.335)
$SECON^-$	0.553*** (0.150)	0.773*** (0.140)
$CONF^+$	-0.423** (0.126)	0.241*** (0.026)
$CONF^-$	0.713*** (0.207)	0.129 (0.071)
PS^+	0.636** (0.223)	-0.769** (0.273)
PS^-	0.618** (0.232)	-0.248* (0.114)
$CORR^+$	0.587*** (0.210)	-1.487*** (0.326)
$CORR^-$	0.539*** (0.119)	-0.461* (0.232)
$MINSTB^+$	0.253** (0.104)	-0.171* (0.084)
$MINSTB^-$	0.817*** (0.107)	-0.513** (0.180)
BOR^+	0.459** (0.184)	-0.286** (0.096)
BOR^-	0.335** (0.136)	-0.244* (0.090)
TO^+	0.579** (0.235)	-0.143* (0.058)
TO^-	0.563* (0.295)	-0.970*** (0.277)
Constant	9.394*** (2.306)	8.474* (3.789)
Log-likelihood	453.4562	398.7603
Bounds F-statistic*	13.45***	19.65***

Notes: *Standard errors are reported in parentheses. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.*

5. Conclusion and Policy Implications

This study examined the asymmetric impact of SECON and CONF on FDI dynamics in Middle Eastern economies from 1996 to 2024 using the NPARDL framework. Results from the NPARDL show both short- and long-run asymmetries, meaning investors react differently to good and bad political and socioeconomic conditions. Improvements in SECON and PS increase FDIIN and reduce capital outflows, while CONF, CORR, and MINSTB have the opposite effect. The results of hidden cointegration also suggest that the nonlinear NPARDL framework is superior to the traditional linear framework in explaining investment decisions in the presence of political and economic uncertainties. This study offers new evidence on the determinants of FDI in Middle East economies by jointly analyzing FDIIN and FDIOUT in this framework. Governments should advance political stability and governance quality, reduce corruption, build a favorable SECON, keep MINSTB, and reinforce regional cooperation to pave the way for sustainable foreign investment and create a more predictable investment environment.

5.1. Limitations and Future Research

This study is restricted to Middle Eastern economies and a handful of macro, institutional, and political factors affecting FDI. As the NPARDL model does not explicitly account for structural breaks and may fail to capture more complex nonlinear processes fully, these are not

ISSN (Online): 3006-2071 | ISSN (Print): 3006-2063
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included. The study could be extended to other regions by adding variables such as financial development (FD), technological innovation, and environmental policies, as well as nonlinear panel estimators, to analyses investment behavior under political and economic uncertainty.

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