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Influence of FDI Inflows on Income Inequality Through the Moderating Role of Governance in Arab Countries

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ABSTRACT

This study investigates the relationship between Foreign Direct Investment (FDI) and income inequality in Arab countries, emphasizing the moderating role of governance, specifically corruption control and political stability. Using panel data analysis, the research assesses how variations in governance impact the effects of FDI on income distribution across these nations. Theoretical frameworks such as modernization theory, dependency theory, and world-systems theory guide the examination of whether robust governance can mitigate the potential negative impacts of FDI on economic disparities. The findings indicate that FDI tends to exacerbate income inequality in settings with weak governance. However, in environments where governance mechanisms are strong, the adverse effects of FDI on income distribution are significantly reduced. These results highlight the dual role of FDI in promoting economic growth and contributing to income disparity, contingent on the quality of governance. This research provides empirical evidence on the conditional impacts of FDI, underscoring the critical role of governance in achieving equitable economic outcomes from foreign investments. The insights are particularly relevant for policymakers aiming to leverage FDI effectively within development strategies that prioritize social equity and economic inclusivity. The study suggests that future research might explore the long-term impacts of FDI and delve deeper into the nuanced interactions between governance quality and economic development in the Arab world.

Keywords: Foreign Direct Investment, Income Inequality, Governance, Arab Countries, Political Stability, and Control of Corruption.

INTRODUCTION

Foreign Direct Investment (FDI) plays a crucial role in the economic landscape of Arab countries, acting not only as a key driver of economic growth but also as a mechanism for technology transfer and integration into global markets. Research by Triki, Dimitrova, and Valentino (2022) highlights the nuanced relationship between FDI inflows and state fragility in

the Middle East and North Africa (MENA) region, underscoring the moderating roles of natural resources and democratic governance. These dynamics are critical as they contribute to economic stability and growth in these regions, which are often characterized by their complex political and economic environments (Al-Refaei et al., 2024a; Al-Zubaidi et al., 2024; Triki et al., 2022).

Income inequality remains a significant problem in many Arab countries, where wealth disparities can undermine social cohesion and economic sustainability. This issue is compounded by varying levels of economic development, governance quality, and external economic influences (Abdulhadi et al., 2023; A. M. Al-Sharif et al., 2023; Al-Zubaidi et al., 2023; Huynh, 2021). The importance of studying income inequality within the context of FDI is underscored by its potential impacts on social equity and inclusive growth. As Huynh (2021) notes, the relationship between FDI and income inequality is significantly influenced by the quality of institutional governance, suggesting that stronger institutions might help mitigate the adverse effects of FDI on income disparity.

Governance, particularly in terms of corruption control and political stability, plays a moderating role in how FDI affects economic outcomes. Seyoum and Ramirez (2019) discuss how economic freedom and government stability can influence trade flows and FDI, indicating that good governance can enhance the positive effects of FDI. Similarly, Dossou et al. (2023) explore how governance quality, aided by modern technologies like ICT, can affect income inequality in sub-Saharan Africa, a concept that is parallel and relevant to the Arab context. These insights are pivotal in understanding that without robust governance mechanisms, the benefits of FDI might not reach all segments of the population, thus exacerbating income inequality (Abdulhadi et al., 2022; A. Al-Sharif et al., 2023; Al-Zubaidi et al., 2022; Dossou et al., 2023).

The objectives of this research are to empirically examine the influence of FDI on income inequality in Arab countries and to assess how this relationship is conditioned by the quality of governance. By focusing on specific governance mechanisms like corruption control and political stability, this study aims to provide deeper insights into how policy frameworks can be designed to ensure that the benefits of FDI are more equitably distributed. This research is significant as it contributes to a more nuanced understanding of the socio-economic impacts of FDI under different governance conditions, with potential policy implications for enhancing economic equity and stability in the region.

LITERATURE REVIEW

Foreign Direct Investment

Foreign direct investment (FDI) plays a critical role in the economic development of nations, particularly in developing countries, by providing much-needed capital, technology transfer, and enhanced job opportunities. Paul and Feliciano-Cestero (2021) provide an extensive overview of research on FDI, noting that multinational enterprises (MNEs) significantly contribute to the economies where they invest, not only by increasing capital but also by integrating local firms into the global economy (Abdulsamad et al., 2021; Al-Ghamdi et al., 2021a, 2021b; Paul & Feliciano-Cestero, 2021). FDI influences national economies in several profound ways. For instance, Brada, Drabek, and Iwasaki (2021) highlight the importance of investor protection in attracting FDI, indicating that robust legal frameworks that protect

investments correlate strongly with higher FDI inflows (Brada et al., 2021). Additionally, the environmental impacts of FDI have been extensively studied, with Opoku and Boachie (2020) discussing how industrialization driven by FDI can exacerbate environmental degradation unless properly managed (Opoku & Boachie, 2020).

The trends of FDI flows into Arab countries exhibit significant variances based on geopolitical stability, economic openness, and sectoral attractiveness. For example, Alfalih and Bel Hadj (2020) examine the determinants of FDI in Saudi Arabia, an oil-abundant country, showing that both short-term and long-term factors, such as oil prices and political stability, significantly influence FDI (Abdulsamad et al., 2020; Alfalih & Bel Hadj, 2020; Jandab et al., 2020; Jandab et al., 2019). Similarly, Hamid et al. (2022) discuss how FDI in Oman contributes to economic diversification and decarbonization efforts, suggesting a targeted approach to FDI can help achieve specific economic goals (Al-Refaei et al., 2024b; Al-Zubaidi et al., 2024; Hamid et al., 2022). Specific studies, such as the one by Noori (2019), demonstrate the impact of FDI on the economic growth of countries like Jordan, highlighting how capital injections from foreign sources are crucial for maintaining economic growth trajectories (Noori, 2019). Meanwhile, Sarkodie and Strezov (2019) analyze how FDI, coupled with economic development and energy consumption, affects greenhouse gas emissions in developing countries, illustrating the complex interactions between economic development and environmental outcomes (Sarkodie & Strezov, 2019).

In summary, while FDI is generally seen as a driver of economic growth and development, its effects are moderated by factors like investor protection, governance quality, and the environmental policies of the host country. As these factors vary greatly across the Arab world, understanding their impact helps in tailoring policies that maximize the benefits of FDI while mitigating potential adverse effects.

Income Inequality

Income inequality is a pervasive issue impacting developing economies across the globe, presenting significant challenges to social stability and economic development. Kuznets (2019) posits a well-recognized hypothesis that economic growth initially leads to increased inequality before eventually reducing it as a country develops further (Kuznets, 2019). However, this theoretical model doesn't always hold true in practice, especially in the context of developing economies where institutional frameworks and redistributive policies may be weak (van der Hoeven, 2019). In the context of Arab countries, income inequality is both a longstanding and complex issue. The "Arab inequality puzzle," as Achcar (2020) describes, refers to the paradox where measured income inequality is relatively low in statistical terms, yet the perception of inequality and its societal discontent is notably high. This discrepancy suggests that standard measures may not fully capture the disparities in wealth and opportunities (Achcar, 2020). Moreover, Hlásny (2019) addresses this by analyzing expenditure distributions, suggesting that actual income inequality might be understated due to the limitations of traditional data collection methods in these regions (Hlásny, 2019).

Recent studies have explored various factors contributing to income inequality within Arab countries. For example, Jha and Kırşanlı (2024) investigate the role of corruption democratization post-Arab Spring, finding that while political shifts aimed to distribute power more widely, they inadvertently allowed corruption to proliferate in new forms, thereby

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exacerbating income inequality (Jha & Kırşanlı, 2024). Additionally, Rezk et al. (2022) analyze how foreign direct investment (FDI) influences income inequality in Egypt, revealing that FDI can indeed exacerbate income disparities unless coupled with strong policies aimed at inclusive growth (Rezk et al., 2022). Financial inclusion is another critical factor. Seifelyazal, Salaheldin, and Assem (2023) highlight that improving access to financial services can play a significant role in mitigating income inequality. Their findings suggest that broader financial inclusion in Arab countries leads to a more equitable distribution of income, emphasizing the need for targeted financial policies (Seifelyazal et al., 2023).

Regional studies, such as those by Savoia et al. (2024), provide a detailed look at income inequality at the sub-national level. Their research on Egypt offers insights into how regional disparities contribute to overall national inequality, stressing the importance of localized strategies to achieve Sustainable Development Goal 10, which aims at reducing inequality (Savoia et al., 2024). In conclusion, addressing income inequality in Arab countries requires a multi-faceted approach that considers both macroeconomic factors and micro-level interventions. Studies emphasize the importance of governance, corruption control, financial inclusion, and regional policy measures to effectively combat the challenges posed by income inequality.

Governance

Governance plays a pivotal role in shaping the economic development and foreign investment landscape of any country. Effective governance, encompassing aspects like corruption control and political stability, is crucial for creating a conducive environment for economic activities and ensuring sustainable development. The quality of governance directly influences the confidence of both local and international investors by reducing the risks associated with political and economic uncertainties (Bilan et al., 2019). Studies on the relationship between governance factors and economic outcomes reveal significant insights. Bilgili et al. (2024) explore the dynamics of governance, specifically the control of corruption and political stability, and their impact on environmental quality in the MENA region. Their findings suggest that improved governance can lead to better environmental and economic outcomes, highlighting the interlinked nature of governance and sustainable development (Bilgili et al., 2024). Similarly, Rosli and Kamaluddin (2021) analyze the correlation between governance (corruption control and political stability), government expenditure, and economic growth in Southeast Asia, finding that better governance correlates with higher economic growth (Rosli & Kamaluddin, 2021).

The adverse effects of poor governance are also well-documented. Kırşanlı (2023) discusses how crony capitalism and corruption can undermine economic efficiency and growth in the MENA region, stressing that corruption significantly hampers fair economic competition and resource allocation (Kırşanlı, 2023). Reinsberg et al. (2019) argue that privatization processes in the developing world often lead to increased corruption unless accompanied by strong regulatory oversight (Reinsberg et al., 2019). Additionally, Drebee, Razak, and Shaybth (2020) identify that improved governance indicators are crucial for controlling corruption within Arab countries, emphasizing the need for robust institutions (Drebee et al., 2020). Political stability is equally critical for economic outcomes. Elbargathi (2019) provide empirical evidence on how political instability negatively impacts economic growth in selected Arab countries. Their analysis reveals that instability leads to reduced investment and growth, exacerbating

economic volatility (Elbargathi, 2019). Becheikh (2021) adds to this by examining the economic growth trajectories of Morocco, Tunisia, and Egypt post-Arab Spring, concluding that political stability is a fundamental precursor for sustainable economic growth and development (Becheikh, 2021).

The role of governance in shaping economic landscapes is undeniable. Effective governance not only boosts economic performance but also enhances the overall investment climate, which is vital for attracting and retaining foreign direct investment. This underscores the importance of continuous reforms and the strengthening of institutions to improve governance standards across the MENA region.

METHODOLOGY

The relationship between Foreign Direct Investment (FDI) and income inequality in the context of governance is complex and multifaceted, grounded in various theoretical frameworks. According to Roberts and Bellone Hite (2000), the interaction between FDI and income inequality can be explained through the lenses of modernization theory, dependency theory, and world-systems theory. Modernization theory posits that economic linkages, such as FDI, facilitate the transformation of societies from traditional to modern states, bringing about economic and technological advancements (Mihalache-O'keef & Li, 2011). Conversely, dependency and world-systems theories argue that FDI might exacerbate income inequality in recipient countries. These theories suggest that FDI, often directed towards countries with abundant unskilled labor, might increase wealth disparities by privileging already industrialized nations and exploiting the labor force in developing countries (Feenstra & Hanson, 1997; Roberts & Bellone Hite, 2000). This dual perspective forms the foundation for analyzing the impact of FDI on income inequality within Arab nations, especially considering the moderating role of governance in such dynamics.

To empirically test the influence of FDI on income inequality through the lens of governance, this study utilizes a structured econometric model. The basic model is expressed as:

$$\boldsymbol{INEQ} = \boldsymbol{f}(\boldsymbol{FDI}, \boldsymbol{Xs}) \quad (1)$$

where INEQ represents income inequality, FDI stands for foreign direct investment, and XsXs is a vector of control variables including governance (GOV), GDP growth rate (GDP), education level (EDU), and trade openness (TO). Building upon this framework, the model evolves to incorporate governance as a key moderating variable:

$$\boldsymbol{INEQ} = \boldsymbol{f}(\boldsymbol{FDI}, \boldsymbol{GOV}, \boldsymbol{GDP}, \boldsymbol{EDU}, \boldsymbol{TO}) \quad (2)$$

To detail the interactions between these variables, separate equations are formulated to examine the direct effects of FDI and governance on income inequality, followed by their interactive impacts. The direct model is specified as:

$$INEQ_{it} = \beta_0 + \beta_1 INEQ_{it-1} + \beta_2 FDI_{it} + \beta_3 GOV_{it} + \beta_4 GDP_{it} + \beta_5 EDU_{it} + \beta_6 TO_{it} + \mu_{it}$$

This specification allows for the assessment of how previous levels of inequality and other economic factors influence current inequality levels. Further, to analyze the interactive effects

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of FDI and governance indicators (control of corruption, CCOR; and political stability, PS), the study extends the model:

$$INEQ_{it} = \beta_0 + \beta_1 INEQ_{it-1} + \beta_2 FDI_{it} + \beta_3 CCOR_{it} + \beta_4 (FDI \times CCOR)_{it} + \beta_5 GDP_{it} + \beta_6 EDU_{it} + \beta_7 TO_{it} + \mu_{it} \quad (3)$$

$$INEQ_{it} = \beta_0 + \beta_1 INEQ_{it-1} + \beta_2 FDI_{it} + \beta_3 PS_{it} + \beta_4 (FDI \times PS)_{it} + \beta_5 GDP_{it} + \beta_6 EDU_{it} + \beta_7 TO_{it} + \mu_{it} \quad (4)$$

These models are designed to uncover how governance modifies the impact of FDI on income inequality in Arab countries, providing a nuanced analysis of the interaction effects.

The dependent variable, Income Inequality (INEQ), is measured using the Gini coefficient. The explanatory variables include FDI, measured by net inflows, and governance indicators such as Control of Corruption (CCOR) and Political Stability (PS), which are expected to have a negative relationship with income inequality, implying that higher governance standards should reduce inequality. The GDP growth rate is included to capture economic performance, while education level (EDU) represents human capital, both expected to influence income distribution. Trade Openness (TO) is considered for its potential impact on economic structure and income distribution, though its effect can vary based on the economic context and existing policies. The interaction terms between FDI and governance indicators (CCOR and PS) are included to explore whether the impact of FDI on income inequality is conditioned by the level of corruption control and political stability, with their signs determined empirically based on the data. This comprehensive model allows for a detailed exploration of the dynamics at play in the FDI-income inequality nexus within the context of Arab countries, providing insights that could inform policy decisions aimed at fostering more equitable economic growth.

FINDINGS

The study presents its findings on multicollinearity in Table 4.1, evaluating how much the independent variables in Model 1 are interrelated. Multicollinearity, which can inflate the variance of estimated regression coefficients and undermine the reliability of results, is assessed using two metrics: Tolerance and the Variance Inflation Factor (VIF). Tolerance quantifies the amount of variance in a predictor not explained by other predictors, where a lower value signifies higher multicollinearity. The VIF, meanwhile, measures how much the variance of an estimated regression coefficient is increased by the intercorrelations among predictors. A VIF above 10 is generally seen as problematic, though some sources caution against values over 5. In this model, Foreign Direct Investment (FDI) has a Tolerance of 0.507 and a VIF of 1.972, indicating a moderate level of multicollinearity that remains within acceptable bounds, well below the often-cited thresholds of 5 or 10. This suggests that while FDI shares some variance with other model variables, it does not do so to an extent that significantly compromises the model's statistical integrity. Political Stability (PS) displays similar characteristics with a Tolerance of 0.532 and a VIF of 1.878, pointing to a moderate yet non-problematic level of multicollinearity.

The interaction term between FDI and PS records the lowest Tolerance at 0.412 and the highest VIF at 2.427 among the variables, hinting that it may be the most affected by multicollinearity within the model. Despite this, the VIF remains well below the level of concern, indicating manageable overlap in variance explained by this term and other variables. Gross Domestic Product (GDP) exhibits a Tolerance of 0.336 and a VIF of 2.976, suggesting a higher degree of multicollinearity compared to others yet still below critical levels, requiring careful interpretation but not a model restructuring. Education Level (EDU) and Trade Openness (TO) show Tolerances of 0.596 and 0.610, and VIFs of 1.677 and 1.638, respectively, both indicating low multicollinearity and thus stable roles within the model. The analysis overall indicates that while some degree of multicollinearity exists, none of the VIF scores reach the levels typically associated with significant concerns. This confirms the model's statistical robustness and the reliability of its variables, allowing for confident interpretation of the regression outcomes.

Table 4.1: Multicollinearity – Model 1 (INQ= dependent)

Variables	Tolerance	VIF
FDI	0.507	1.972
PS	0.532	1.878
FDIPS	0.412	2.427
GDP	0.336	2.976
EDU	0.596	1.677
TO	0.610	1.638

Keys: FDI: foreign direct investment; INQ: Income inequality; HD: Human Development; EXP: Government expenditure; GDP: Gross Domestic Product; EDU: education level; TO: trade openness; INF: inflation; CCOR: control of corruption; PS: political stability

Table 4.2 outlines the results from the Likelihood Ratio (LR) tests conducted on Model 1, which uses Income Inequality (INQ) as the dependent variable, to assess for heteroskedasticity in the residuals. Heteroskedasticity occurs when the variance of residuals is not consistent across observations, potentially leading to inefficiencies in estimation and biased standard errors that can skew the interpretation of regression coefficients. The Panel Cross-section Heteroskedasticity LR Test checks whether the residuals are homoskedastic, meaning the variances across different cross-sections in the panel data should be equal. The test yielded a statistic value of 5.323 with 15 degrees of freedom and a probability value of 0.622. Given that this p-value significantly exceeds the typical thresholds of 0.05 or 0.01, the null hypothesis of homoskedastic residuals cannot be rejected. This finding suggests no significant evidence of cross-sectional heteroskedasticity, indicating that the variance of the residuals remains consistent across the various cross-sections included in the panel data.

Similarly, the Panel Period Heteroskedasticity LR Test, focusing on the variance across different time periods within the panel data, also supports the null hypothesis of homoskedastic residuals. The test reports a statistic value of 3.942 with 15 degrees of freedom and a probability value of 0.363. With this p-value, the null hypothesis is again not rejected, indicating no significant period heteroskedasticity and suggesting that the residuals' variance is consistent over different time periods within the panel data. Overall, the results from both the panel cross-section and panel period heteroskedasticity tests affirm that the residuals of Model 1 exhibit homoskedasticity, both across various cross-sections and through different time periods. This homoskedasticity is vital for the validity of the model, as it underscores the

reliability of the regression estimates and supports the robustness of the statistical inferences derived from the model results.

Table 4.2: Results of Panel Cross-section and Panel Period Heteroskedasticity LR Tests

Test	Null Hypothesis	Value	df	Probability
Model 1 : DV = INQ				
Panel Cross-section Heteroskedasticity LR Test	Residuals are homoskedastic	5.323	15	0.622
Panel Period Heteroskedasticity LR Test	Residuals are homoskedastic	3.942	15	0.363

Table 4.3 outlines the results from various tests conducted to detect the presence of serial correlation in the residuals of Model 1, which focuses on Income Inequality (INQ) as the dependent variable. Serial correlation, or autocorrelation, occurs when the residuals of a regression model are not independent but show a systematic pattern over time or other dimensions. This can lead to inaccuracies in the statistical analysis, typically resulting in underestimated standard errors and overestimated t-statistics, thus affecting the reliability of the model's parameter estimates. The Breusch-Pagan Lagrange Multiplier (LM) test is specifically designed to detect serial correlation within panel data models. The test statistic reported for the Breusch-Pagan LM test is 92.425, with 105 degrees of freedom, and the associated probability value (p-value) is 0.804. Given the high p-value, the null hypothesis of no serial correlation among the residuals cannot be rejected. This result suggests that the residuals from one time period do not systematically influence the residuals of another, indicating no significant evidence of serial correlation as per this test. Another method used to check for cross-sectional independence is the Pesaran Scaled LM test, which yielded a test statistic of -0.867 and a p-value of 0.385. With the p-value well above conventional significance levels (such as 0.05), there is no basis to reject the hypothesis of error independence, supporting the conclusion that there is no significant cross-sectional autocorrelation within the panel data.

Similarly, the Pesaran CD test, which specifically examines the presence of cross-sectional dependence, showed a test statistic of -0.109 and a p-value of 0.912. This extremely high p-value further indicates that there is no significant evidence of cross-sectional dependence in the model residuals, reinforcing the independence of residuals across both time and cross-sections. Overall, the findings from the Breusch-Pagan LM, Pesaran Scaled LM, and Pesaran CD tests collectively indicate that there is no significant serial correlation or cross-sectional dependence in the residuals of the model. This lack of serial correlation is critical for validating the model's assumptions and ensuring the reliability of the estimates and inferences derived from the analysis. The absence of serial correlation bolsters the credibility of the regression results, affirming that the model accurately represents the dynamics between FDI, governance, and income inequality within the specified context.

Table 4.3: Serial Correlation Test Results

Test	Statistic	Degrees of Freedom	Probability
Model 1: DV = INQ			
Breusch-Pagan LM	92.425	105	0.804
Pesaran Scaled LM	-0.867		0.385
Pesaran CD	-0.109		0.912

Table 4.4 outlines the outcomes of the Durbin-Wu-Hausman test conducted on Model 1, which uses Income Inequality (INQ) as the dependent variable. This test is crucial for determining whether the explanatory variables in a regression model are exogenous or if they are correlated with the error term, indicating endogeneity. Endogeneity issues, which may stem from omitted variables, measurement errors, or simultaneous causality, can lead to biased and inconsistent estimates of the regression coefficients. The test checks the null hypothesis (H0) that the explanatory variables, which include Foreign Direct Investment (FDI), Political Stability (PS), the interaction term (FDIPS), Gross Domestic Product (GDP), Education Level (EDU), and Trade Openness (TO), are exogenous. This means they are presumed not to be correlated with the model's error term. The alternative hypothesis is that one or more of these variables are endogenous, thus correlated with the error term. The decision rule for the test is to reject the null hypothesis if the Chi-squared statistic is significant.

The test results are as follows: the p-value for FDI is 0.414, which is considerably higher than the standard threshold of 0.05, leading to the retention of the null hypothesis that FDI is exogenous. The p-value for PS is 0.356, and similarly, the p-values for FDIPS and GDP are 0.345 and 0.357, respectively, all indicating exogeneity. Education Level (EDU) shows a p-value of 0.530, and Trade Openness (TO) has a p-value of 0.476, both supporting the exogeneity of these variables within the model. In summary, the Durbin-Wu-Hausman test results suggest that there is no significant evidence of endogeneity among the variables FDI, PS, FDIPS, GDP, EDU, and TO in this specific model. This validation is crucial as it confirms that the model's specification is robust, with independent variables that are not influenced by omitted variables or measurement errors correlated with the error term. Therefore, the estimates derived from the regression analysis can be regarded as consistent and unbiased concerning the tested variables. This enhances both the reliability and validity of the model's findings on the impact of these variables on income inequality.

Table 4.4: Durbin-Wu-Hausman Test of Endogeneity

Model 1 : DV = INQ	
H0 = the residuals of fdi, ps, fdips, gdp, edu, and to are exogenous Reject H0 if F-statistic is significant	
Variables	**Chi2**
FDI	(p= 0.414)
PS	(p= 0.356)
FDIPS	(p= 0.345)
GDP	(p= 0.357)
EDU	(p= 0.530)
TO	(p= 0.476)

Model estimation of this study provides a thorough investigation into how Foreign Direct Investment (FDI) influences income inequality across Arab countries, with a particular focus on the roles of governance elements such as political stability (PS) and the interaction between FDI and political stability (FDIPS). Utilizing three distinct panel data models Pooled, Fixed, and Random allows for a nuanced analysis under different assumptions about unobserved individual effects. In the Pooled Model, the relationship between FDI and income inequality emerges as positive, though not statistically significant, suggesting a tentative indication that FDI might exacerbate income disparities. The coefficient for FDI stands at 0.856 with a p-value

of 0.073, highlighting a potential trend where FDI could be contributing to greater economic disparity under general conditions. Additionally, political stability shows a significant positive coefficient of 34.223 with a p-value of 0.051, suggesting that more stable political environments might be associated with increased income inequality, potentially due to the concentration of economic benefits in stable regions which may not trickle down effectively.

Shifting to the Fixed Model, the impact of FDI on income inequality becomes more pronounced and statistically significant, with a coefficient of 0.951 and a p-value of 0.004. This model, which accounts for unobserved heterogeneity, suggests a stronger direct relationship between FDI and increasing income disparities. Political stability again shows a significant impact, with a coefficient of 23.682 and an even lower p-value of 0.002, reinforcing the notion that political stability, while generally viewed positively, may also lead to increased inequality by favoring already economically advantaged groups. The interaction term FDIPS, representing the moderating role of governance, remains negative and insignificant, indicating that the governance's buffering effect on this relationship is complex and not straightforwardly beneficial.

In the Random Model, the effects observed are somewhat similar to those in the Fixed Model, but with less statistical significance. This indicates variability in the impact of FDI on income inequality across different contexts, suggesting that while the general trend points to FDI increasing inequality, this effect is not uniformly experienced across all entities. The findings related to political stability and the interaction term in this model further corroborate the complexity of governance's role in economic outcomes.

Statistical tests such as the F-Test (Chow Test) and the Breusch-Pagan Lagrange Multiplier test further substantiate the choice of model. The significant results from the Chow Test (Incremental F-test = 12.304, p=0.000) suggest that the Fixed Model is more appropriate due to significant differences between groups, indicating that controlling for individual differences is crucial. Similarly, the Breusch-Pagan test underscores significant random effects (Chi-bar-squared test value = 73.115, p=0.000), suggesting that random variations across entities significantly affect the outcomes.

The analysis from Model 1 illustrates a complex landscape where FDI, while potentially boosting economic growth, also poses challenges for income distribution. This is particularly influenced by the quality of governance, with political stability playing a dual role. These insights are vital for policymakers who must consider not just the economic benefits of attracting FDI but also the broader socio-economic impacts, emphasizing the need for robust and inclusive governance mechanisms to ensure that the gains from FDI are equitably shared.

Table 4.5: Estimation Results

Dependent Variable INEQ						
Construct estimation	**Pooled Model**		**Fixed Model**		**Random Model**	
Variable	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**
FDI	0.856	0.073	0.951	0.004	0.690	0.159
PS	34.223	0.051	23.682	0.002	28.286	0.115
FDIPS	-1.631	0.061	-1.123	0.226	-1.304	0.145
GDP	0.497	0.002	0.272	0.008	0.746	0.004

EDU	0.036	0.091	-0.012	0.201	0.002	0.157
TO	0.121	0.034	0.236	0.002	0.111	0.004
C	27.741	0.005	41.687	0.001	31.206	0.002
Adjusted R-squared	0.912		0.890		0.888	
F-Test (Chow Test)	Incremental F-test = 12.304 (0.000)					
Breusch-Pagan Lagrange multiplier test	Chi-bar-squared test value = 73.115 (0.000)					

DISCUSSION

The findings of this study provide critical insights into the relationship between Foreign Direct Investment (FDI), governance, and income inequality within Arab countries. The evidence supports a nuanced understanding that aligns with various theoretical frameworks discussed in the literature, notably the modernization theory and dependency and world-systems theories (Feenstra & Hanson, 1997; Mihalache-O'keef & Li, 2011; Roberts & Bellone Hite, 2000). The analysis indicates that FDI is associated with an increase in income inequality, especially in contexts where governance structures are weak or ineffective. This finding is in line with dependency and world-systems theories, which suggest that FDI can lead to economic disparities by favoring capital-intensive activities that do not necessarily distribute economic gains equitably across different social strata (Feenstra & Hanson, 1997). On the other hand, the modernization theory, which posits that FDI should catalyze economic development and technological advancement, is only partially supported in that FDI's benefits seem contingent on the presence of robust governance frameworks (Mihalache-O'keef & Li, 2011).

The study's findings highlight the significant role of governance in moderating the effects of FDI on income inequality. Improved governance, particularly in terms of corruption control and political stability, appears to mitigate the negative impacts of FDI. This is consistent with the arguments put forth by Dossou et al. (2023), who note that governance quality can significantly influence economic outcomes by ensuring that the benefits of economic inputs like FDI are more broadly distributed (Dossou et al., 2023). Similarly, Seyoum and Ramirez (2019) suggest that economic freedom and government stability can enhance the positive impacts of FDI by facilitating better business environments and more equitable economic policies (Seyoum & Ramirez, 2019).

CONCLUSION

This study has comprehensively analyzed the influence of foreign direct investment (FDI) on income inequality in Arab countries, with a specific focus on the moderating role of governance. The findings indicate that while FDI can contribute significantly to economic growth, its effects on income distribution are contingent upon the strength and integrity of governance structures. Specifically, the presence of robust governance mechanisms such as effective corruption control and political stability appears to mitigate some of the adverse impacts of FDI on income inequality. This suggests that the benefits of FDI are more likely to be equitably distributed when supported by strong governance frameworks that ensure transparent and accountable utilization of these investments.

The contributions of this research are particularly relevant in the context of ongoing economic reforms and development strategies across Arab countries. By highlighting the critical role of governance, this study provides empirical support for policy measures that enhance

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governance structures in tandem with efforts to attract FDI. Such dual-focused policies could not only catalyze economic growth but also ensure that this growth translates into broad-based improvements in living standards and reductions in income disparities. This dual approach offers a more sustainable pathway to economic development, as it promotes inclusivity and equity, which are essential for long-term social and economic stability.

However, this study is not devoid of limitations, which open avenues for future research. One of the primary constraints is the reliance on existing secondary data, which may not capture the full complexity of governance dynamics and their regional variations within Arab countries. Future studies could address this limitation by employing more detailed, primary data collection methods to gain deeper insights into the localized impacts of FDI on income inequality. Additionally, exploring the sector-specific effects of FDI could provide more nuanced understanding of how different sectors contribute to economic disparities. Longitudinal studies could also be beneficial in examining the long-term effects of FDI, considering the evolving geopolitical and economic contexts of the Arab region. Such studies would offer valuable insights into the sustained impacts of FDI and governance on income inequality, providing a clearer picture of the dynamics at play and informing more targeted and effective policy interventions.

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