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**The Role of Economic Freedom, Governance, and Business
Environment in Attracting Foreign Direct Investment
in the Arab Region**

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The Role of Economic Freedom, Governance, and Business Environment in Attracting Foreign Direct Investment in the Arab Region

Prepared By: Dr. Anwar Othman

Abstract

As a result of fierce competition in the global environment for foreign direct investment, Arab countries have had a challenging time attracting foreign direct investment into the region, despite the region's abundance of natural resources. Research conducted in this study, therefore, aims to assess the role of economic freedom indices and governance indicators in attracting foreign direct investment into the Arab region. A panel data set of 14 Arab countries over the period 1996 to 2019 is analyzed using a Generalized Methods of Moments (GMM) panel estimator. The study reveals that economic freedom indices like the monetary freedom and the financial freedom indices are significantly and positively related to foreign direct investment attractiveness in the Arab region. The remaining set of economic freedom indices is found to be statistically significant and negatively associated with foreign direct investment net inflows. Additionally, the study found that the regulatory quality index outperforms all other governance factors in attracting foreign direct investment inflows into the Arab region. The results of this study have substantial policy implications for policymakers in the Arab region. To foster foreign direct investment inflows into these countries, policymakers should ensure a high level of economic freedom, the effectiveness of their governance systems, the quality of their institutions, and the stability of their business environment by strengthening and reforming relevant laws and regulations, lowering the barriers to business entry, prevent corruption, limiting risks, and improving cooperation policies.

Introduction

Global economic growth has been stimulated by capital flows and international trade, which have made the foreign direct investment (FDI) a significant source of external financing for countries to boost their economic growth (Semenas, 2020). FDI is the acquisition of a controlling interest in a company, industry, or entity located outside the home country (Hooley et al.,1996). By participating in FDI, foreign companies get involved in all aspects of the day-to-day of their business in the host country, resulting in financial and technological transfers. FDI typically take place in open economies that are likely to grow and have skilled workers (Hooley et al.,1996). Foreign direct investment is made by investors who set up foreign business operations or acquire foreign assets, such as ownership and control of foreign companies. FDI is typically beneficial for companies, communities, and governments, for example, boosting economic development, facilitating international trade, creating employment opportunities, and boosting economic growth, when combined with tax incentives, resource development, technology transfer, and increasing a workforce's productivity (Denisia, 2010). In other words, FDI boosts a nation's productivity by maximizing the use of resources, absorbing idle capacity, and blending managerial skills from abroad with local labor (Méon & Sekkat, 2013).

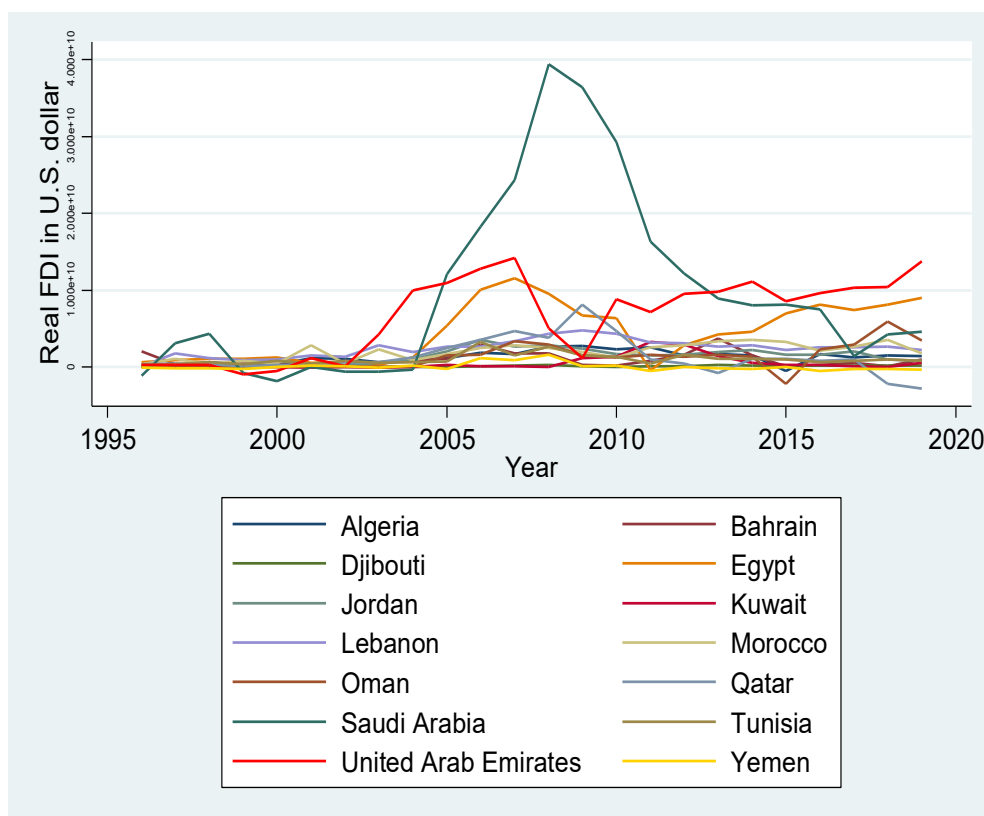
The Arab world is a land of natural resources and multiculturalism, as well as the diversity of its climates and environments. The combination of these factors creates many investment opportunities, especially in the mining, energy, agricultural, trading, financial, education, and cultural sectors. Additionally, most Arab countries have established FDI units, often attached to an economy's ministry, which are responsible for formulating investment policies, setting priorities, developing plans and programs, and ensuring their implementation. Furthermore, several Arab countries are compiling comprehensive investment maps, data, and information, including the details of potential foreign direct investment projects. They are updating them regularly in an effort to attract foreign direct investment. Further, even though the impacts of COVID-19 have profoundly affected the global economy including the Arab region, leading to a plunge in global investment, Investment Monitor has identified some Middle Eastern countries to watch in 2022 since they have huge investment potential, including the United Arab Emirates, Saudi Arabia, Qatar, and Oman (Christine Patton, 2022).

Despite these available economic resources, many Arab countries do not take full advantage of the rich resources to improve their standard of living. Addressing the investment challenge in the Arab world is, therefore, a key point and crucial element for raising living standards, creating employment for young people, and addressing the issue of a rapidly growing population. There have been several declines in FDI's trend in the Arab region over the period 2008 to 2019, as shown in figure 1, except for some countries such as the UAE that have shown FDI growth despite the global economic slowdown as well as Egypt which has shown signs of improvement over the past few years, particularly after 2015. It is most likely that this decline is due to the economic recession beyond the 2008 financial crisis and the political internal conditions that overtook most MENA countries after 2011 (Al-Rashid, 2015). These are unpredictable events that cannot be avoided.

Furthermore, in a very competitive international environment, Arab countries have struggled to attract foreign direct investment. In essence, some studies claim that the region's business

environment is not conducive for foreign investors (Laabas and Abdmoulah, 2009). Despite these problems, the pace of reforms is sluggish, particularly when it comes to privatization and barriers to business entry. Thus, Arab countries did not attract much investment and were not able to capitalize on the global influx of foreign direct investment (Laabas and Abdmoulah, 2009). To this end, it is imperative to note that some factors boost investor decisions and enhance FDI inflows to the region, such as the host country’s level of economic freedom, the institutional governance, and the quality of the business environment. Therefore, focusing on improving these factors will help and bring solutions, and increase the level of FDI inflows in the Arab world.

Figure 1: Foreign Direct Investment Trends for Selected Arab Countries Over the Period (1996-2019)



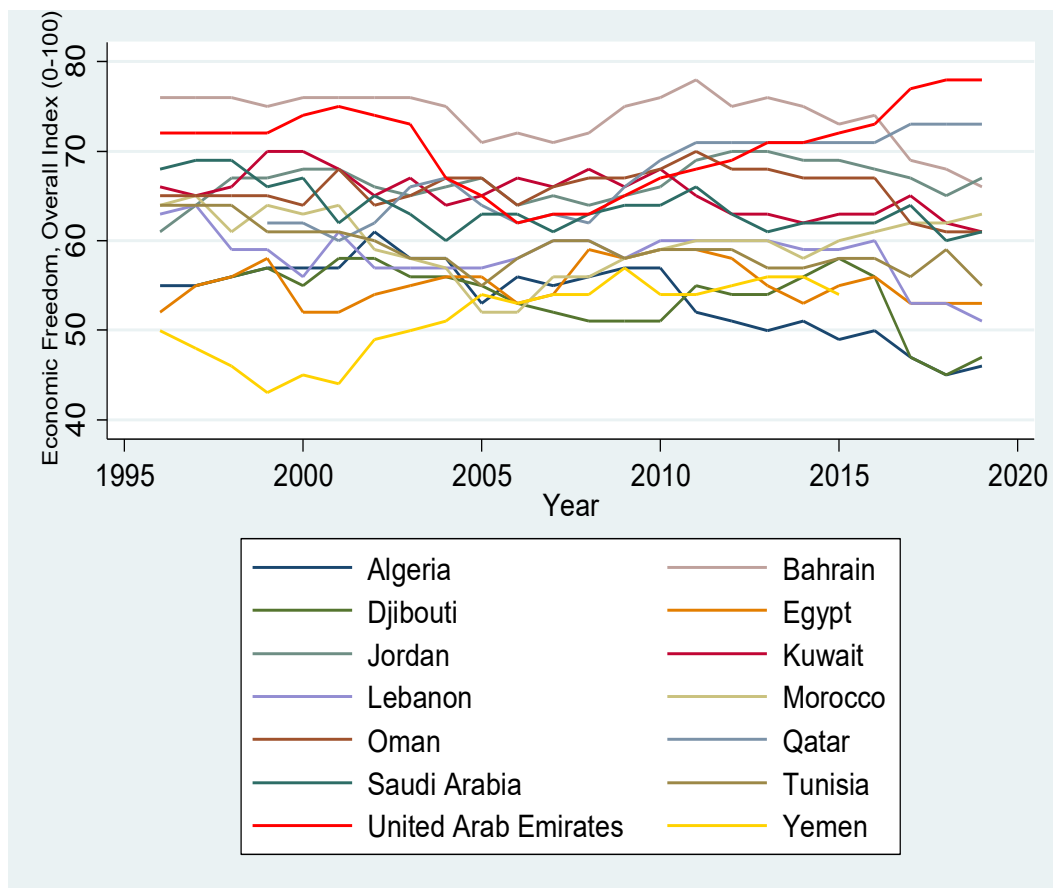
Source: Prepared by the author.

To attract investors and enhance FDI inflows, it is crucial for developing countries to have a high level of economic freedom, which includes property rights, freedom from corruption, fiscal freedom, business freedom, labor freedom, monetary freedom, trade freedom, investment freedom, and financial freedom. Economic freedom is defined as an environment in which individuals are free to work, produce, consume, and invest however they see fit (Razmi, Razmi, and Shahraki, 2009). Alternative definitions of economic freedom include a society where there are no restrictions on the production, distribution, and consumption of goods and services (Herrera et al., 2014). Many studies have examined the association between economic freedom and foreign direct investment, and they concluded that free markets have a positive and meaningful influence on foreign direct investment (Badri & Sheshgelanib, 2017). An example

is Ghazalian & Amponsem (2019) who found positive effects of economic freedom on foreign direct investment. According to their findings, institutional factors that promote FDI inflows are largely dependent on the rule of law, market openness, and a less restrictive regulatory environment. Therefore, in order to increase FDI inflows, governments should adopt policies aimed at improving economic freedom. To put it another way, in any economy, the government should interfere with economic freedom as little as possible to maintain its economic standing, and if it overreaches or overregulates, economic freedom will be compromised and negatively affected.

Figure 2 below is an illustration of the overall degree of economic freedom in the Arab world, which indicates that the average degree of economic freedom ranges between 50 and 80 percent. A report from the Heritage Foundation, released in 2021, rated economic freedom in the United Arab Emirates at 76.9 percent ranked the country number 14 in the world. Next came Qatar, Bahrain, Saudi Arabia, Jordan, Oman, Kuwait, and Morocco, with scores of 72.0, 69.9, 66.0, 64.60, 64.60, 64.1, 63.3 percent, respectively. In comparison, the rest of the Arab world scored below 60 percent. More efforts need to be done by the relevant authorities to improve the level of economic freedom.

Figure 2: Trends of Overall Economic Freedom Indices for Selected Arab over the period (1995-2020)



Source: Prepared by the author.

On the other hand, institutional governance and an enabling business environment are other major factors that may encourage FDI inflows in the Arab region. A set of indicators has been published by the World Bank that measures effective governance and business-friendly environment levels and then ranks each country based on where they fall. These include the rule of law index, government effectiveness index, control of corruption index, regulatory quality index, voice and accountability index, political stability index, corruption perceptions index, political rights index, civil liberties index, and cost of starting a business index. Using these types of indicators is crucial for assessing investment risks in any country and may influence the behavior of economic actors and stakeholders. The assumption is therefore that high-reputation governance countries will attract more foreign direct investment, while weak governance policies will leave investments vulnerable. Further, a good institutional setting or governance is a significant factor in FDI inflows, but a poor institutional setting discourages FDI because it increases transaction costs and raises the levels of instability, which in turn triggers economic risk, thus increasing the cost of FDI (Buchanan et al., 2012).

In order to attract foreign direct investment, Arab countries need to assess the specific factors that have the greatest impacts on FDI, particularly understanding what role economic freedom, governance, and institutional quality factors play in promoting FDI inflows in the region. Thus, this study will help researchers better understand how economic freedom indices, governance indices, and business environments impact FDI in the Arab region, as limited studies have been conducted on this topic in the region. Furthermore, this study may assist Arab countries in formulating relevant policies to attract foreign direct investment into the region and provide the basis for reworking and restructuring the level of economic freedom and governance framework needed to improve its impact on FDI net inflows.

As for the rest of the paper, it is structured as follows: Section 2 consists of an overview of the literature. section 3, deals with used data and data sources, variables measurement, model specification, and methods of analysis. The analysis and interpretation of data are addressed in Section 4, while the conclusion and recommendations are addressed in Section 5.

Literature Review

The relationship between net FDI inflows and their various determinants has been discussed in many previous studies. Several macroeconomic factors have been examined, such as economic growth, market size, trade openness, education level, tax, labor, economic stability, income level, and institution quality (Morisset and Pirnia, 2000, Neuhaus, 2006, Johnson, 2006, Ojong et al., 2015, Ashurov, et al., 2020). Despite this, much less attention is paid to how economic freedom and institutional governance impact FDI inflows, particularly in the Arab region. In the following subsections, we summarize relevant studies conducted by academic and industry researchers.

Economic freedom and FDI

By utilizing panel data methods, Badri and Sheshgellanib (2017) examined the impact of economic freedom on foreign direct investment in ten developing countries between 2001 and 2013. The results show FDI in the studied countries is positively impacted by economic freedom. Nakhaei et al. (2015) used the GMM method to assess the effects of economic freedom and FDI on economic growth in 84 selected countries over the period 2000 and 2012.

FDI alone is not sufficient to stimulate economic growth, as shown by the estimation. FDI, however, may have a positive or negative impact on economic growth depending on the level of freedom in the host country. The flow of FDI into countries that enjoy high and higher economic freedom has a positive and significant effect on economic growth. In Sub-Saharan Africa, Bello and Bright (2015) measured the relationship between economic freedom and economic performance. The results demonstrate that FDI increases in developing countries with increased economic freedom, and this has a significant impact on their economic performance. During the 2000-2010 period, Rahmani et al. (2014) explored the effects of economic freedom on economic fluctuations in 48 developing countries. Based on the results of the study, it was found that increasing the economic freedom index decreases economic fluctuations over time. In other words, increasing economic freedom leads to more stable economic growth for nations. An econometric data integration method was used in Ghaffari and Niknejhad's (2012) study to examine the effects of FDI on the economic growth in several MENA countries during the period 1992-2010. Based on the estimation of this model, it is evident that FDI has a positive and meaningful effect on the economic development of MENA countries during the period. Additionally, trade freedom as well as the capital stock rate contributed positively and meaningfully to the economic development of MENA countries during the period considered. More so, in a study utilizing the Granger causality method, Bekhet and Al-Smadi (2015) investigated the relationship between FDI, gross domestic product, and economic openness. FDI, gross domestic product, and economic openness have a significant connection, according to the findings of the study. In summary, numerous studies indicate that economic freedom has a significant influence on FDI inflows to countries and that a higher level of economic freedom is associated with more investment inflows.

Governance, Business Environment and FDI

An understanding of how governance factors influence FDI inflows is necessary in order to identify how quality institutions and effective governance can energize FDI. There have been several studies examining the impact of governance on investment inflows as more effective governance is seen as one of the major factors in attracting foreign direct investments. For example, in Fan et al. (2009)'s study on government efficiency, they concluded that government efficiency is a measure of corruption and that an efficient government encourages foreign direct investment. The relationship between institutions, political risk, and FDI inflows is analyzed by Busse and Hefeker (2007) in 83 developing countries from 1984 to 2003. In the findings, factors such as political risk, corruption, government stability, bureaucratic quality, democratic accountability, and law and order are the most significant factors that influence FDI inflows. In a study of 52 host countries, Benassy-Quéré et al. (2007) employed a Panel Gravity Model to determine the influence of institutional quality. The findings indicate that foreign direct investment inflows are influenced by a variety of factors, including property rights, transparency, tax system efficiency, lack of corruption, law enforcement, and ease of starting a business. An analysis of panel data using a fixed-effects model for panel data for 15 Asian countries between 1997 and 2007 was conducted by Mengistu and Adhikary (2011). According to the findings, the rule of law, effectiveness of government, political stability, lack of violence, and control of corruption are the most influential factors affecting foreign direct investment. However, no significant proof is found for voice, accountability, and regulatory quality on FDI inflows.

A study by Semenas (2020) explores the role of governance indicators in stimulating FDI into emerging markets. A dataset of 26 host countries with six governance indicators is examined

from 2002 to 2019 with both dynamic and static panel gravity models. The author demonstrates that political stability and lack of violence, voice and accountability, regulation quality, and control of corruption have a statistically significant positive effect on foreign direct investment inflows. While the effectiveness of government and the rule of law were found to be negative predictors of FDI inflows. A study by Fazio and Talamo (2008) examines the role of corporate and institutional governance in attracting FDI in comparison to other incentives, such as tax reductions and wage-cost reductions. The authors conclude that FDI is attracted by a combination of good corporate governance and institutional quality. As part of the evaluation of the impact of governance effectiveness on FDI inflows, Daniele and Marani in 2006 developed a supplementary variable called "institutional quality". On a sample of 129 countries, regression analyses show that institutional quality is the most influential determinant of FDI. These include government effectiveness, voice and accountability, control of corruption, and regulatory burden. The MENA countries do, however, have relative disadvantages in every indicator of governance and institutions. The authors of the study suggested institutional reform and legal reform as key steps for improving the attractiveness of MENA to foreign direct investment.

In summary, several studies have found that foreign direct investment is mainly directed toward developed economies because they have favorable economic freedom, effective governance, advanced infrastructure, and stable economic environments. In contrast, a number of developing countries lack these characteristics, which makes them less appealing to international investors. The objective of this study, therefore, is to evaluate the effect of economic freedom indexes and governance indicators developed by the world bank on foreign direct investment in the Arab region.

Methodology

Data source and variables measurement

Over the period 1996 to 2019, the study utilized yearly unbalanced panel data from 14 countries namely: Algeria, Djibouti, Jordan, Lebanon, Oman, Saudi Arabia, the United Arab Emirates, Bahrain, Egypt, Kuwait, Morocco, Qatar, Tunisia, and Yemen. Compared to the data available for each country in the region, the Arab region has significant data gaps. Therefore, we have chosen only 14 countries for the study sample size. These selected countries have also had missing values for chosen variables across many years, thereby reducing the time frame covered for this study. We obtained the data for selected variables from "the Global Economy.com" website. FDI, by definition, is the net inflow of investment to acquire a management interest in an enterprise operating in a different economy from one of the investors. FDI is calculated by summing equity capital, reinvestment of earnings, other long-term capital, and short-term capital as indicated in the countries' balance of payments, and it is expressed as a percentage of GDP. Indices of economic freedom, as well as Governance and business environment indicators, are considered as independent variables. While gross domestic products (GDP) growth serves as the control variable in the models under the present study. In particular, economic freedom indices include property rights index (PRI), freedom from corruption index (FCI), business freedom index (BFI), monetary freedom index (MFI), trade freedom index (TFI), investment freedom index (IFI), and financial freedom index (FFI). The governance and business environment are represented by rule of law index (RLI), the

Government effectiveness index (GEI), Regulatory quality index (RQI), Voice and accountability index (VAI), Political stability index (PSI), and Civil liberties index (CLI).

A country's property rights index, as defined by the world bank, measures the extent to which its laws protect private property rights and the extent to which those laws are enforced. Additionally, it analyzes the probability that private property will be expropriated, the extent of judicial corruption, and how individuals and businesses can enforce contracts. Higher index values denote more certain legal protection of property. While the Freedom of Corruption Index score is based primarily on Transparency International's Corruption Perceptions Index. The freedom from corruption score is calculated by utilizing reliable international sources in countries that aren't covered by the CPI. Higher index values denote a lower level of corruption. As defined by the World Bank, the business freedom index is based on 10 indicators drawn from the Doing Business study: Starting a business-processes and steps, time, and cost (per capita income), minimum capital (per capita income); Obtaining a license-processes and steps, cost (per capita income); Closing a business-time (years), estate and costs (percent of income); and recovery rate (percent of income). The Monetary Freedom Index is calculated by weighting the inflation rate for the last three years with price controls according to the world bank. Higher index values denote price stability without microeconomic intervention. In accordance with the World Bank, the Trade freedom index is based on two indicators: the trade-weighted average tariff rate and non-tariff barriers (which include quantity, price, regulatory, customs, and investment restrictions, and direct government intervention). In its definition, the World Bank defines Investment Freedom as an assessment of restrictions on investment in a country (burdensome bureaucracy, lack of standard infrastructure, expropriation without compensation, foreign exchange controls, capital control). Points are deducted from the ideal score of 100 for each of the restrictions found in a country's investment regime. A Financial Freedom Index from the World Bank analyzes the level of government regulation of financial services, the degree of state participation in banks and other financial firms through direct and indirect ownership, the development of the financial and capital markets, as well as government influence over the allocation of credit. Higher index values denote banking efficiency and independence from government control and interference in the financial sector.

World Bank's Rule of Law Index measures how people perceive the extent to which rules of society are respected and whether they adhere to them, including the quality of contract enforcement, property rights, the police, the courts, as well as the likelihood of crime and violence. The world bank describes government effectiveness as a measurement of perceptions of the quality of public services, the performance of the civil service and its independence from political pressure, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. Furthermore, according to the World Bank, the Regulatory Quality Index measures how well governments can formulate and implement sound policies and regulations that encourage growth in the private sector. Additionally, the Voice and Accountability index measures citizen perceptions of their ability to participate in selecting their government, as well as their ability to express themselves and associate freely. The World Bank's Political Stability Index measures perceptions about the likelihood of constitutional or violent means coming into play to destabilize or topple the government. This includes violence or terrorism motivated by political considerations. The index is an average of several other indexes from the Economist Intelligence Unit, the World Economic Forum, and the Political Risk Services, among others. Finally, the World Bank's Voice and Accountability index

measures to what extent citizens can influence their government, as well as freedom of expression, freedom of association, and a free press.

Models' specification

Our models' specifications are broadly similar to those used in other studies such as Ali et al., (2010), and Quazi (2007). The impact of economic freedom indices and governance with business environments variables on FDI inflows are expressed in the following equations:

Economic Freedom Model

$$FDI_{it} = \alpha + \beta_0 FDI_{it-1} + \beta_1 GDP_{it} + \beta_2 PRI_{it} + \beta_3 FCI_{it} + \beta_4 BFI_{it} + \beta_5 MFI_{it} + \beta_6 TFI_{it} + \beta_7 IFI_{it} + \beta_8 FFI_{it} + \eta_i + \mu_{it} \quad (1)$$

Governance and Business Environment Model

$$FDI_{it} = \alpha + \beta_0 FDI_{it-1} + \beta_1 GDP_{it} + \beta_2 RLI_{it} + \beta_3 GEI_{it} + \beta_4 RQI_{it} + \beta_5 VAI_{it} + \beta_6 PSI_{it} + \beta_7 CLI_{it} + \eta_i + \mu_{it} \quad (2)$$

Where: FDI is the foreign direct investment net inflow for country i at time t , while GDP, PRI, FCI, BFI, MFI, TFI, IFI, FFI, RLI, GEI, RQI, VAI, PSI, CLI are the regressors variables as defended above, where ($i = 1 \dots N$, where N is the number of the cross-sectional units, $t = 1 \dots T$, where T is the time period). α_{it} represented the constant and β refers to the slopes of coefficients, η_i refers to unobserved country-specific effect term, and μ_{it} denotes the error term.

Method of analysis

In this study, a Generalized Methods of Moments (GMM) panel estimator was implemented based on the work that was originally introduced by Holtz-Eakin et al. (1988). Thereafter, the estimator was further established by Arellano and Bond (1991), Arellano and Bover (1995), and Blundell and Bond (1998). This estimator was chosen over other options for a variety of reasons. First, this estimator accounts for country-specific effects that cannot be observed. Additionally, it can also correct for an endogeneity bias resulting from the explanatory variables. GMM estimators generally fall into two categories: difference-GMM (D-GMM) and system GMM (S-GMM). A system-GMM estimator is used in this study based on the first-difference transformation in equations (1) and (2), which is applied to eliminate country-specific effects. The system-GMM estimators are represented by the following equations:

$$FDI_{it} - FDI_{it-1} = \beta_0 (FDI_{it-1} - FDI_{it-2}) + \beta_1 (GDP_{it} - GDP_{it-1}) + \beta_2 (PRI_{it} - PRI_{it-1}) + \beta_3 (FCI_{it} - FCI_{it-1}) + \beta_4 (BFI_{it} - BFI_{it-1}) + \beta_5 (MFI_{it} - MFI_{it-1}) + \beta_6 (TFI_{it} - TFI_{it-1}) + \beta_7 (IFI_{it} - IFI_{it-1}) + \beta_8 (FFI_{it} - FFI_{it-1}) + (\mu_{it} - \mu_{it-1}) \quad (3)$$

$$FDI_{it} - FDI_{it-1} = \beta_0(FDI_{it-1} - FDI_{it-2}) + \beta_1(GDP_{it} - GDP_{it-1}) + \beta_2(RLI_{it} - RLI_{it-1}) + \beta_3(GEI_{it} - GEI_{it-1}) + \beta_4(RQI_{it} - RQI_{it-1}) + \beta_5(VAI_{it} - VAI_{it-1}) + \beta_6(PSI_{it} - PSI_{it-1}) + \beta_7(CLI_{it} - CLI_{it-1}) + (\mu_{it} - \mu_{it-1}) \quad (4)$$

Additionally, according to Arellano and Bond (1991), using higher-order lags as instruments can eliminate bias caused by the endogeneity of the regressor as well as the correlation between $(\mu_{it} - \mu_{it-1})$. A GMM estimator's overall consistency depends on the validity of both the error terms and instruments. To address consistency issues relating to the GMM estimator, Arellano and Bond suggest two specification tests. First, the Hansen test of excessive identification of restrictions is conducted with the null hypothesis that the instruments are valid. A rule of thumb, according to Roodman (2009), is that there should not be more instruments than the number of groups of countries. In the second test, Arellano & Bond (1991) examine the hypothesis that there is no second-order serial correlation in the differenced error term. When both tests fail to reject the null hypothesis at a 5 percent significant level, it means that the models are sufficiently specified, along with the instruments.

Findings and Discussions

Descriptive Statistics Results

Table (1) gives a descriptive statistic for the variables under study. The overall average FDI (as a percentage of GDP) achieved in the Arab region over the period of the study was 3.53 percent, however, the FDI levels varied across the countries, with the minimum and maximum ranges between -3.47 and 33.57 percent. Over the same period, the mean GDP growth rate was 4.02 percent, with minimum and maximum values of -27.99 and 26.17 percent, which shows the variety of economic development across the country in the region. In addition, A very good level of economic freedom was observed in the Arab region for the MFI, TFI, and BFI indices with scores of 77.02, 68.93, and 66.8 percent respectively, while IFI and FFI indices achieved a satisfactory level of 50.80 and 50.56 percent; however, FCI and PRI have achieved below the satisfactory level with score values of 47.25 and 44.65 percent respectively. Arab countries, however, score very differently when considering their minimum and maximum values of economic freedom. For instance, such countries score between 80 and 100 percent, especially for BFI, MFI, PRI, FCI, and FFI index with scores of 100, 92.3, 90, 90, and 90 percent, respectively. As indicated by the minimum values, these countries are between 10 and 38.1 percent, which may hamper their foreign direct investment inflows.

Table (1) also displays the descriptive statistics of the governance and business environment indicators, such as RLI, GEI, RQI, VAI, PSI, and CLI. All the governance indicators have negative mean ranges from (-0.91 to -0.04) percent over the period of the study, with the exception of the CLI index which has a positive score of 5.07 percent. However, the score across countries differs according to the minimum and maximum scores. For countries with negative scores, reforming and improving governance structures and rules are imperative to facilitating a better business environment and attracting more FDI. Table (1) also provides skewness and Kurtosis tests for assessing the normality of the observed data. The results show that all the variables are normally distributed except for FDI and GDP growth rate, which are not normally distributed since their kurtosis value exceeds the rule of thumb of 3 as

recommended by Stock and Watson (2006). In panel data, however, the assumption of normality is not met because the data levels between countries differ across study sample sizes.

Table 1: Descriptive statistics for the variables under study

stats	mean	s.d	max	min	skewness	kurtosis	N
FDI	3.53	4.392	33.57	-3.47	2.64	13.76	286
GDP	4.02	4.343	26.17	-27.99	-0.55	16.68	286
PRI	47.25	15.299	90	12	0.45	3.20	286
FCI	44.65	17.258	90	10	0.28	2.69	286
BFI	66.87	11.360	100	30	-0.47	3.47	286
MFI	77.02	7.565	92.3	38.1	-0.91	5.42	286
TFI	68.93	14.418	87	25	-1.16	3.65	286
IFI	50.80	14.101	80	20	-0.06	2.13	286
stats	mean	s.d	max	min	skewness	kurtosis	N
FFI	50.56	15.092	90	20	0.18	2.47	286
RLI	-0.05	0.595	0.96	-1.53	-0.49	2.16	285
GEI	-0.04	0.587	1.51	-1.63	0.10	2.77	285
RQI	-0.04	0.547	1.12	-1.3	-0.13	2.34	285
VAI	-0.91	0.410	0.3	-1.91	0.04	3.26	285
PSI	-0.32	0.881	1.22	-2.68	-0.26	2.49	285
CLI	5.07	0.807	7	3	0.11	3.86	286

Pairwise Correlation Matrix Results

The pairwise correlation coefficients and the Variance Inflation Factor (VIF) results are shown in Table (2). In both the economic freedom matrix and the governance matrix, the results show a satisfactory degree of correlation between the independent variables. Among economic freedom indices, the estimated correlation coefficient values range between (-0.03 to 0.76), whereas the estimated correlation coefficients among governance indicators range between (-0.74 to 0.87). As best as can be determined from Table (2), there is no evidence of multicollinearity among the independent variables in both matrices. Since all the estimated correlation coefficients are lower than the standard rule of thumb of 0.90 percent as recommended by Asteriou and Hall (2007). Furthermore, the VIF results are less than 10 for all variables, indicating no multicollinearity issues as recommended by Belsley and David (1982). Accordingly, all the variables in the two models are retained for further analysis to evaluate their impact on FDI in the Arab region.

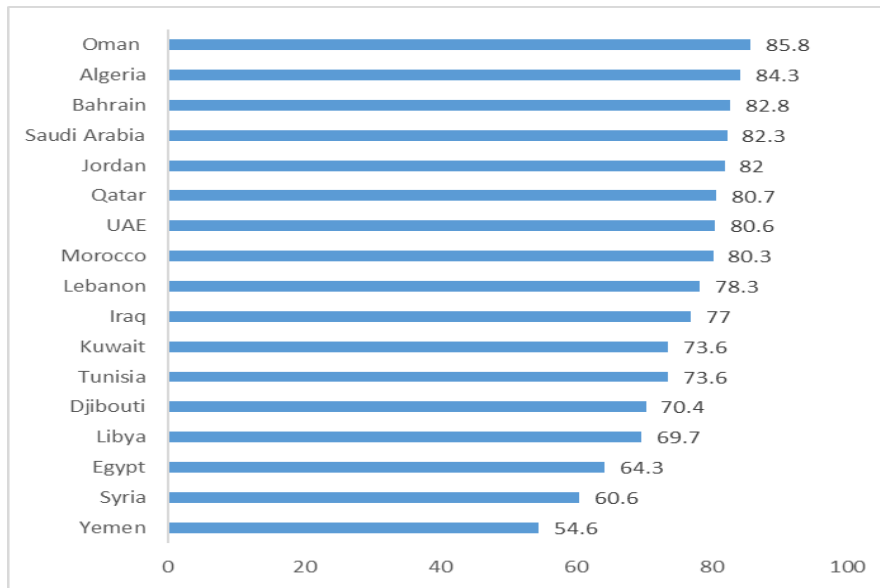
Table 2: correlation matrix and VIF test result for all the independent variables under study

		GDP	PRI	FCI	BFI	MFI	TFI	IFI	FFI	VIF	1/VIF
Economic freedom Model	GDP	1								1.09	0.921
	PRI	0.10	1							2.79	0.359
	FCI	0.21	0.76	1						2.77	0.361
	BFI	0.05	0.51	0.47	1					1.4	0.715
	MFI	0.03	0.28	0.34	0.13	1				1.29	0.776
	TFI	-0.03	0.32	0.32	0.23	-0.12	1			1.29	0.772
	IFI	-0.09	-0.08	-0.16	-0.10	0.05	-0.09	1		1.38	0.725
	FFI	0.07	0.33	0.22	0.08	0.25	0.19	0.43	1	1.6	0.625
		GDP	RLI	GEI	RQI	VAI	PSI	CLI	VIF	1/VIF	
Governance & Business Environment Model	GDP	1							1.08	0.923	
	RLI	0.22	1						6.14	0.163	
	GEI	0.23	0.87	1					5.81	0.172	
	RQI	0.23	0.86	0.87	1				5.21	0.192	
	VAI	0.06	0.10	0.09	0.05	1			2.44	0.409	
	PSI	0.26	0.78	0.74	0.69	0.04	1		2.73	0.366	
	CLI	-0.03	0.12	0.13	0.14	-0.74	0.12	1	2.44	0.409	

A System-GMM Estimation Results for Economic Freedom Model

Table (3) shows the empirical results of different-GMM models for both economic freedom and governance. Both the monetary freedom index (MFI) and the financial freedom index (FFI) have a significant positive influence on foreign direct investment in the Arab region, with significant levels of 5 and 1 percent, respectively. This is an indication that financial markets in the Arab world are characterized by a high level of monetary policy freedom and a lack of microeconomic intervention. According to the global economic.com database, figure (3) shows that the majority of Arab countries have attained high levels of monetary freedom (77-85.8 percent), which will likely attract more foreign direct investment to the region. Inflation rate and price controls are the two factors that are used to calculate the Monetary freedom index. Price level changes have historically been considered a potential tool for stimulating investment and economic growth by many economists (Kaldor, 1954 and Sampaio, 1960). The absence of price controls is also a requirement for monetary freedom (Cebula, 2013). Liberalizing prices for example have two effects on economic growth. Prices must be free in order to be stable. Having the prices controlled in the economy suppresses inflation, a practice that was particularly prevalent in former socialist economies (Ivanovi & Stanišić, 2017). In the same way, if some prices are directly governed by the state, economic subjects will have insufficient market information, because the system of relative prices in this case cannot function. Therefore, investment allocation efficiency will suffer. (Ivanovi & Stanišić, 2017).

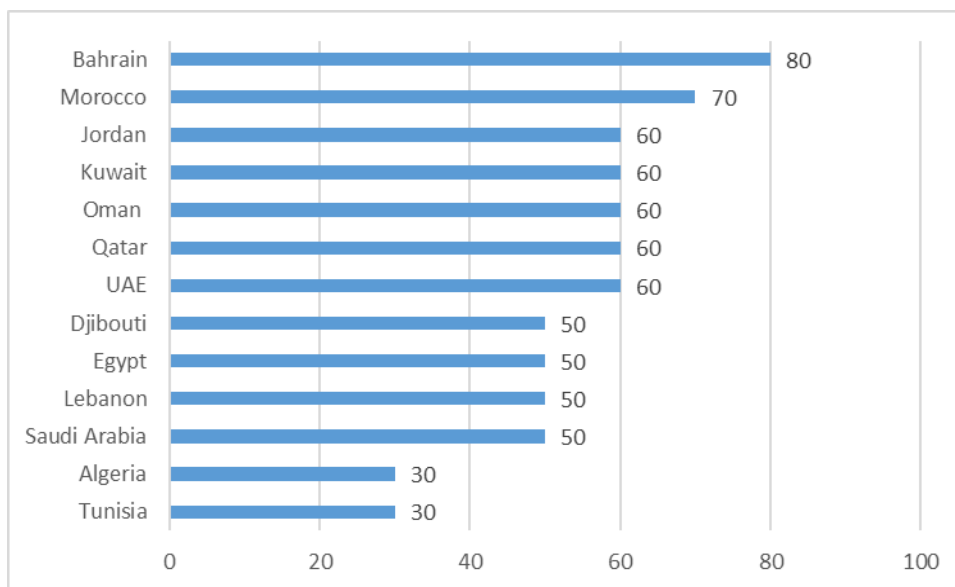
Figure (3) Monetary freedom index for selected Arab countries (2021)



Sources: *the global economic.com*

Further, Table (3) shows that the financial freedom index (FFI) has a significant influence on foreign direct investment in the Arab world. By looking at FFI, we assess the level of government regulation of the financial sector. We also assess the extent to which banks and other financial institutions are owned by the state, the development of financial markets, and government influence over credit allocation. A higher index value indicates that the banking industry is more efficient and freer from government intervention. The majority of countries in the Arab region scored between 50 and 80 percent in terms of financial freedom, as shown in figure (4). This indicates that the region has a strong and resilient financial system that can attract foreign investors' attention and FDI inflows to boost economic growth. These results suggest that the financial freedom channel may play an influential role in promoting FDI in the Arab world.

Figure (4) Financial freedom index for Selected Arab countries (2021)



Sources: *the global economic.com*

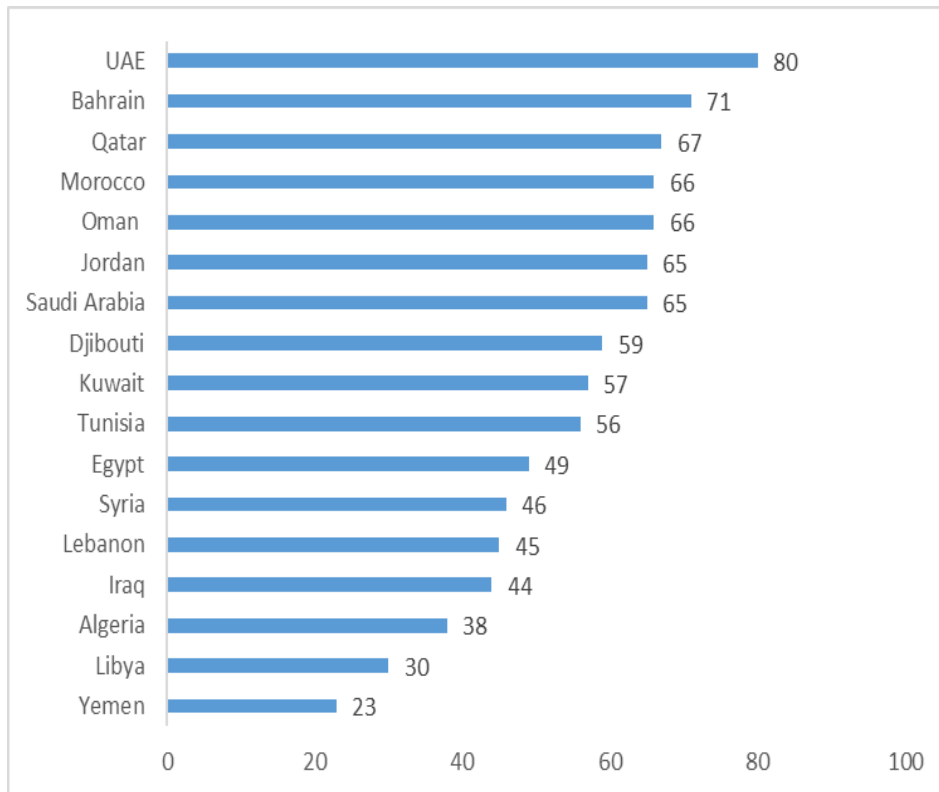
Table 3: A system -GMM estimator results for both models (Economic Freedom & Governance)

Economic Freedom Model		Governance and Business Environment Model	
Two-Step System GMM		Two-Step System GMM	
Variable	Estimated Coefficient	Variable	Estimated Coefficient
FDI L1.	-0.2500077***	FDI L1.	0.2974164***
GDP	0.0336604	GDP	0.0560761
PRI	-0.0539743*	RLI	-1.872722
FCI	-0.0320633*	GEI	-0.5350692
BFI	-0.0870469***	RQI	2.164632**
MFI	0.0675807**	VAI	-1.270737
TFI	-0.0570728***	PSI	0.3575497
IFI	-0.0853979***	CLI	-0.7962728
FFI	0.1761902***	_cons	4.842169**
_cons	8.382944***		
Hansen test	chi2(2) = 4.74 [0.094]	Hansen test	chi2(4) = 8.42 [0.077]
AR (1)	z = 2.09 [0.037]	AR (1)	z = -2.53 [0.012]
AR (2)	z = -1.00 [0.316]	AR (2)	z = 0.43 [0.669]
Number of groups	14	Number of groups	14
Number of instruments	12	Number of instruments	13
N	235	N	235
T	24	T	24

Notes: '***', '**', and '*' are significant at the 1%, 5%, and 10% levels, respectively. Generated by Stata software.

On the other hand, the results in Table (3) indicate that the property rights index (PRI), freedom from corruption index (FCI), business freedom index (BFI), trade freedom index (TFI), and investment freedom index (IFI) negatively impacts FDI inflows in the Arab region at significant levels of 10, 10, 1,1, and 1 percent respectively. Property rights indexes measure a country's laws protecting private property rights and how well its government enforces those laws. Figure (5) shows that of the cluster of countries with a low PRI, the majority are in the Arab world and score less than 60 percent, while few Arab countries have achieved a high PRI level, such as the United Arab Emirates, Bahrain, Qatar, Oman, Jordan, and Saudi Arabia. The study suggests that countries that scored less than 60 percent may reform their regulations to facilitate more freedom in order to enhance the property rights acquisitions and attract more investment to their countries and, subsequently, boost their economic growth.

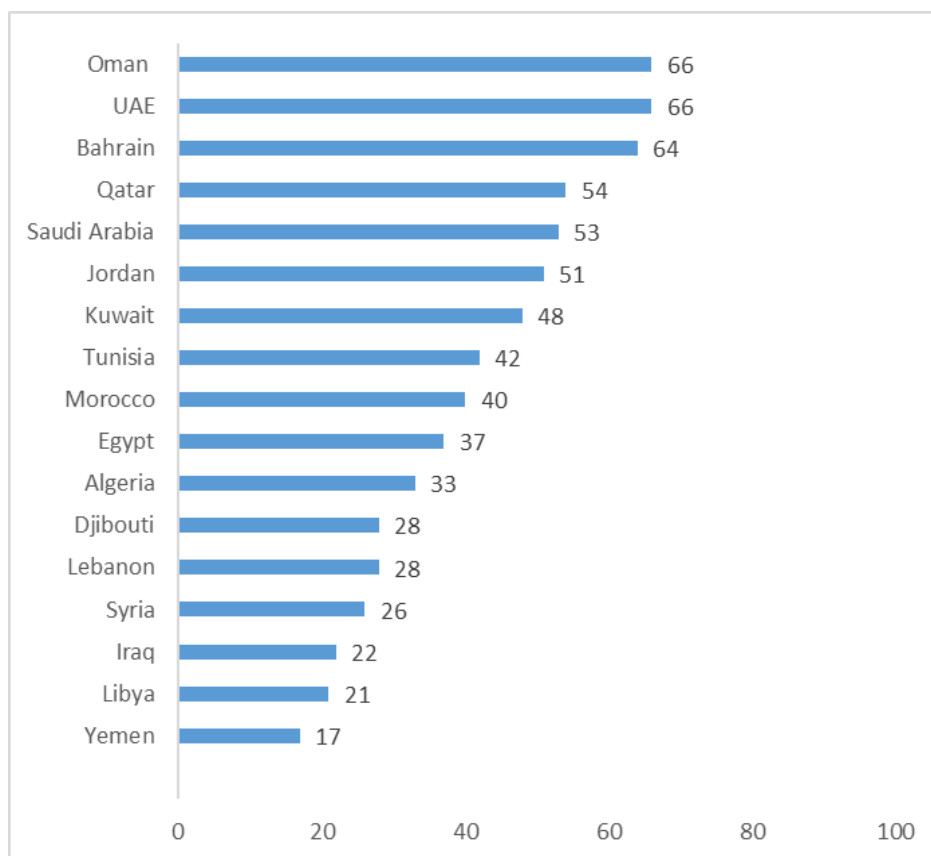
Figure (5): Property rights index for selected Arab countries (2021)



Sources: *the global economic.com*

Additionally, Table (3) demonstrates that the freedom from corruption index (FCI) negatively affected FDI inflows in the Arab region. According to the findings and as shown in figure 6, most Arab countries are low on the scale of freedom from corruption, except for the country shown in figure 6 that score above 60 percent. TI's Corruption Perceptions Index is primarily used to create the Freedom from Corruption Index score. Higher index values indicate lower levels of corruption. In light of these results, the study suggests that policies directed at preventing or minimizing levels of corruption can help boost FDI inflows into the Arab region. A policy that eliminates information asymmetry, for example, will, in turn, diminish corruption levels since illegal actions will be transparent, therefore encouraging all stakeholders to comply with the law (Al-Rashid, 2015). It seems that this finding is in line with several previous studies exploring the relationship between freedom from corruption index and FDI inflow in the Arab region, including Al-Rashid (2015). A study by Hakimi & Hamdi (2017) in 15 Middle East and North African (MENA) countries examines the effects of corruption on investments and economic growth over the period 1985-2013. In their study, the authors concluded that corruption is a serious obstacle to economic growth in MENA countries. This is because it interferes with investment activities and the inflow of foreign direct investments. The authors confirmed the importance of establishing effective anti-corruption strategies.

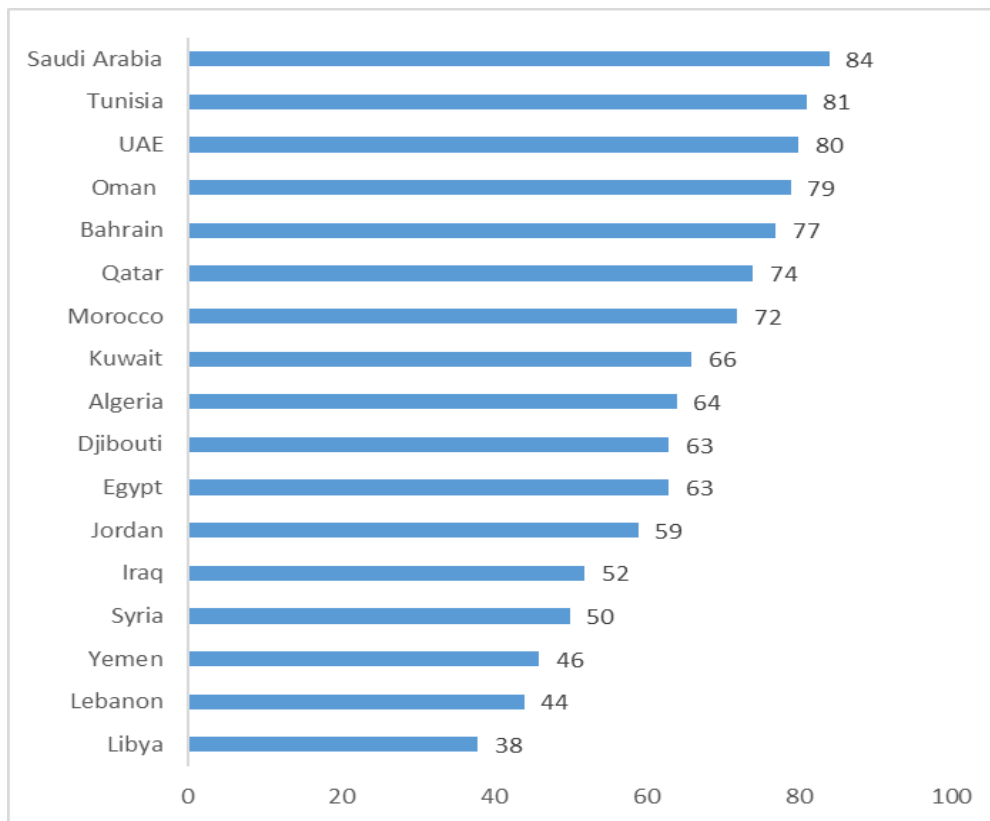
Figure (6): Freedom from corruption index for selected Arab countries (2021)



Sources: *the global economic.com*

Additionally, Table (3) reported that the business freedom index (BFI) negatively impacts foreign direct investment inflows at a significant level of 1 percent. BFI implies to the capability to quickly and easily start up, operate, and close an enterprise. The World Bank's databases show that BFI's contain a variety of indicators such as starting a business - the procedures and the time and cost involved; obtaining a license - the procedures and the price; and closing a business - the time it takes, the cost, and the recovery rate for the business. Despite the negative impact of the FBI on the Arab region as a whole, numerous Arab countries have implemented reforms and enhanced their business laws and regulations, which have helped make the business environment more conducive for foreign investments and consequently have attracted observable levels of investment. The business freedom index for the Arab countries in 2021 is shown in Figure (7), which shows improvement in such countries as Saudi Arabia, Tunisia, the United Arab Emirates, Oman, Bahrain, Qatar, Morocco, and Kuwait. Arab countries with low levels of business freedom, on the other hand, need to improve their business freedom environment in order to attract more businesses and implement policies that enable entrepreneurship, innovation, improved competitiveness among firms, and financial climates that stimulate business activity, and foster cooperation among them.

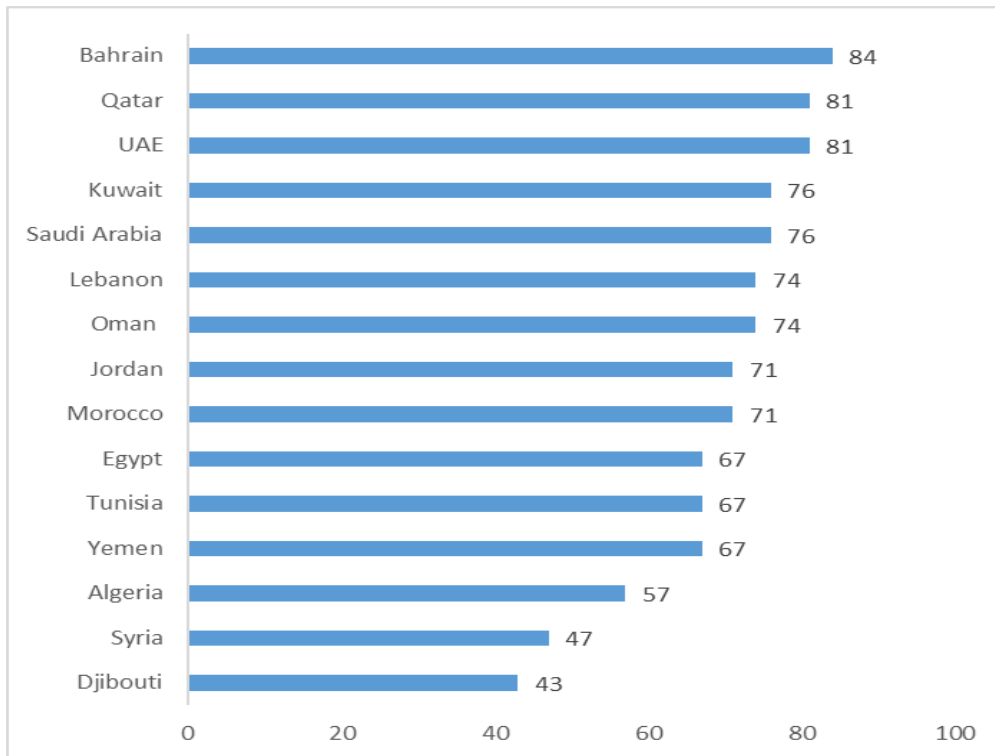
Figure (7): Business freedom index for selected Arab countries (2021)



Sources: *the global economic.com*

According to Table (3), trade freedom index (TFI) levels have a negative impact on FDI in the Arab region at a significant level of 1 percent. World Bank defines trade freedom as an absence of tariffs and non-tariff barriers (including price, quantity, and regulatory restrictions, as well as customs, investment, and direct government intervention) that prevent the free movement of products and services. In most Arab countries, tariffs and non-tariff barriers, export and import restrictions, and licensing restrictions hinder trade and reduce FDI inflows due to the extent of the host country's barriers (Drabek and Payne, 2001). Trade barriers usually lead to lower competition and increase transaction costs, resulting in a reduction in productivity (Harms and Ursprung, 2002). Thus, enhancing trade freedom is of paramount importance in the Arab region if it is to attract more foreign investments. World Bank (World Bank, 2003) has claimed that Arab nations could attract five to six times more foreign investment if they exported goods other than oil and if their investment climate improved (Kobeissi, 2005). World Bank, (2003) notes that MENA merchandise exports are hampered by inefficient and expensive public sector services. Further, a majority of MENA countries' assets are held by state-owned banks (up to 95 percent in some countries), resulting in poor service, high costs, and a lack of funding for new investments and trade (World Bank, 2003). Among all the countries in the Middle East, the Middle East has the highest share of wealth outside its borders, largely due to a lack of confidence in its domestic economic infrastructure (Kobeissi, 2005).

Figure (8): Trade freedom index for selected Arab countries (2021)



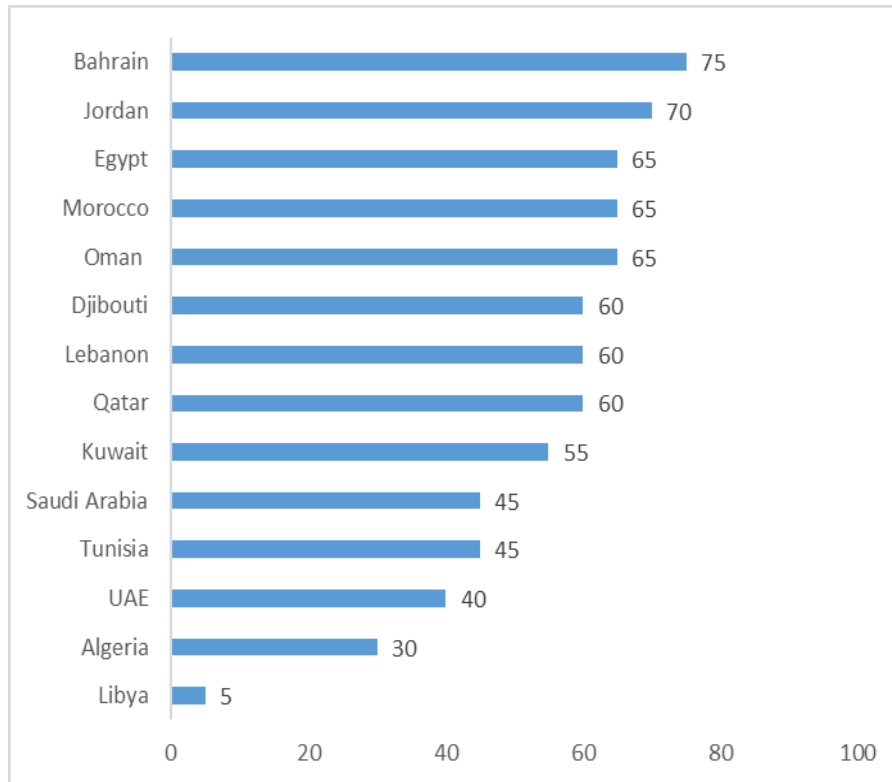
Sources: *the global economic.com*

The findings of this study indicate that Arab nations need to have clear and predictable policy frameworks that are related to liberalizing regimes of investment and trade that can play a significant role in attracting FDI. Many Arab countries made good efforts to join the World Trade Organization, while others are in the accession phase. An Arab ministerial statement last November (2021) underscored the need to speed up Arab accession to the World Trade Organization in the context of negotiations for membership in the World Trade Organization. Moreover, according to the score in figure (8) above, some Arab countries have already made efforts to reform their trade laws and regulations to achieve a high level of trade freedom and attract foreign direct investment (FDI), such as Bahrain, Qatar, the UAE, Kuwait, Saudi Arabia, Lebanon, Oman, Jordan, and Morocco, while the remainder requires significant reform to increase FDI inflows and stimulate economic growth.

This study also considered the Investment Freedom Index (IFI) as a measure of economic freedom. According to Table (3), IFI has a negative impact on foreign direct investment in the Arab region at a significant level of 1 percent. The Investment freedom index measures various investment restrictions according to the World Bank's global economy database (excessive regulation, limited land ownership, confiscation of investments without recompense, foreign exchange controls, capital controls, security concerns, and other obstacles to investment). Figure (9) shows that, although the Arab region still lags behind Europe and other developed countries in the degree of investment freedom, there have been some improvements as shown by Bahrain, Jordan, Egypt, Morocco, and Oman. Thus, Arab states should reduce bureaucracy, don't allow expropriations without compensation, decrease capital controls, and liberalize foreign exchange controls to attract more foreign direct investment. In addition, they

need to strengthen their security and stability, as well as upgrade their fiscal and financial infrastructure.

Figure (9): Investment freedom index for selected Arab countries (2021)



Sources: the global economic.com

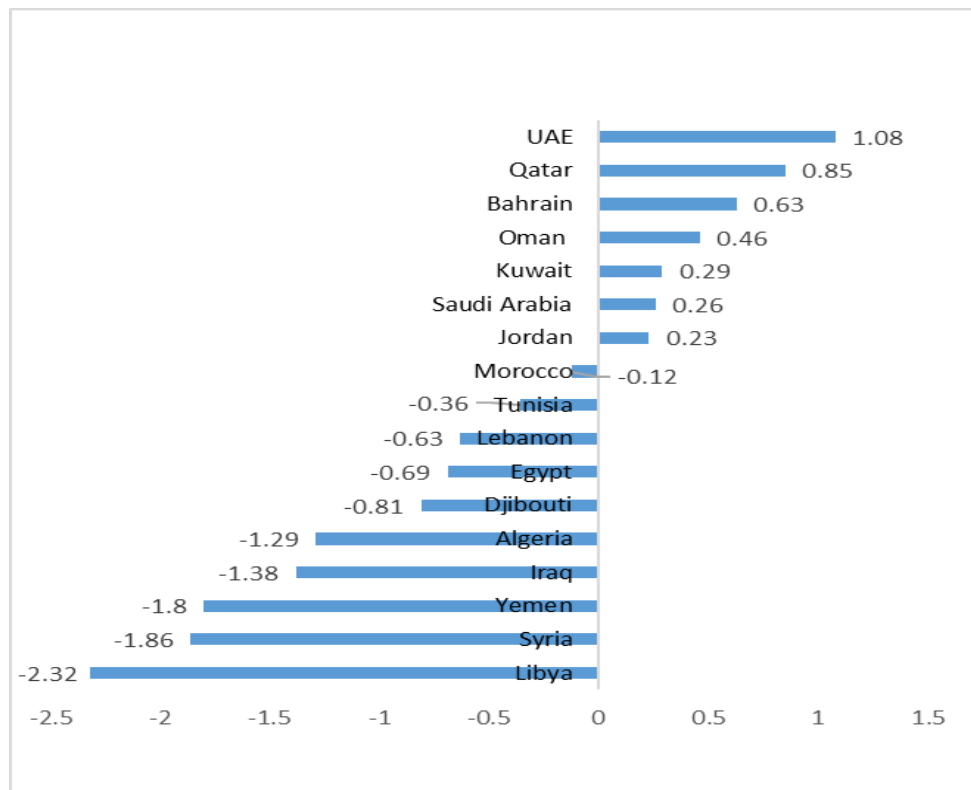
A System-GMM Estimation Results for Governance and Business Environment Model

Results of the impact of governance and business environment indicators measured by rule of law index (RLI), government effectiveness index (GEI), regulatory quality index (RQI), voice and accountability index (VAI), political stability index (PSI), and civil liberties index (CLI) on FDI inflow in the Arab region are presented in table (3). Among the findings, only the Regulatory quality index (RQI) was found to be positively influencing FDI at a level of 1 percent, while other indicators had a negative effect on FDI in the Arab region but are statistically insignificant. However, the status of these governance variables is different across all the countries in the region. Therefore, analyzing the governance variables for each country independently could lead to better results and subsequently differing policy recommendations. In the same vein, the Political stability index (PSI) found positive influences on FDI, but this was not statistically significant.

In the analysis of the variables of interest, the value of the regulatory quality index was regarded as a proxy factor for the governance effectiveness level. This indicator was obtained from the global economy database. The RQI measures perceived government capability to create and implement policies that will facilitate economic growth (Semenas, 2020). DFI in the Arab region shows a positive and statistically significant response to RQI. A 1 percent improvement in the government regulatory quality results in an increase in foreign direct investment of 2.164632 percent. The results demonstrate that improved government regulation quality has a significant

impact on enhancing business and investment environments in the Arab world. As a result, these results provide good grounds for understanding that sound legislation and regulation are necessary to attract FDI to the Arab region. As illustrated in Figure (10) below, some Arab countries have made great progress in this field and have enacted legal structures that encourage investment in the Arab region, such as the United Arab Emirates, Qatar, Bahrain, Oman, Kuwait, Saudi Arabia, and Jordan.

Figure (10): Regulatory quality index for selected Arab countries (2021)



Sources: *the global economic.com*

In both models, Table (3) indicates that the control variable of GDP growth was positive and statistically insignificant for attracting foreign direct investment inflows into the Arab region. This result is consistent with numerous previous studies such as Schneider and Fry (1985), Tsai (1994), Loree and Guisinger (1996), Wei (2000), and Hausmann and Fernandez-Aria (2000).

Conclusion and Recommendations

A major goal of this study is to examine the role of economic freedom indices and governance indicators in attracting FDI into the Arab region. Specifically, seven economic freedom indices were analyzed to determine their role in attracting net foreign direct investment into the region. Based on A system Generalized Methods of Moments (GMM) panel estimator, an unbalanced panel dataset of 14 countries was analyzed over the period (1996-2019). Those countries include Algeria, Djibouti, Jordan, Lebanon, Oman, Saudi Arabia, the United Arab Emirates,

Bahrain, Egypt, Kuwait, Morocco, Qatar, Tunisia, and Yemen. The results demonstrate that economic freedom factors like the monetary freedom index (MFI) and the financial freedom index (FFI) have a significant positive impact on foreign direct investment in the Arab region. Other measures of economic freedom, such as the property rights index (PRI), freedom from corruption index (FCI), business freedom index (BFI), trade freedom index (TFI), and investment freedom index (IFI) showed significant negative impacts on FDI inflows in the Arab region. As a result, Arab countries need to enforce reforms that protect investors' rights and facilitate more economic freedoms, thereby attracting more foreign direct investments into the region.

Additionally, this study utilized six governance indicators in order to determine factors affecting FDI in the Arab region. The results showed that only the regulatory quality index (RQI) significantly contributed positively to foreign direct investment inflows to the Arab region. While other governance indicators such as the rule of law index (RLI), government effectiveness index (GEI), voice and accountability index (VAI), political stability index (PSI), and civil liberties index (CLI) did not play a significant role in attracting FDI into the region.

Furthermore, the findings indicate that control variables like GDP growth did not significantly impact FDI attractiveness in the Arab region for either economic freedom or governance models. Based on the findings that the monetary freedom index (MFI), financial freedom index (FFI), and regulatory quality index (RQI) play significant roles in attracting FDI net inflow to the Arab region, this suggests that Arab countries have, relatively, benefited from efforts to open their economies in particular by enhancing the monetary and financial freedom levels, as well as reforming their institutions, as indicated by the regulatory quality index, which has led to potential FDI attraction in the region.

Recommendations

- i. Governments in the Arab region need to exert more efforts to improve economic freedom, particularly in the areas of reforming the property rights policy, ensuring more transparency, improving the business climate, expanding trade freedom cooperation, and improving the investment freedom environment to encourage foreign direct investment inflow to the region.
- ii. Policymakers in the Arab region need to establish a comprehensive policy framework and reform the relevant laws and regulations to improve the quality of their institutions. This includes enhancing the rule of law, government effectiveness, and accountability, political stability level, and civil liberties.
- iii. Investment regulatory systems should be simplified in the Arab countries so that one set of simple rules, applied fairly, will be able to attract both regional and international investors.
- iv. To attract international investors, transparency and data sharing are essential to be available regularly because it helps economic agents, local and international investors, understand what the country's policies are and how it is performing. Reliable, regular, and up-to-date information about a country's economic performance is crucial to the smooth operation of international capital markets and investment decisions.
- v. According to many international investment reports, the Arab region is experiencing a rapid outflow of investments. Arab efforts to promote bilateral FDI flows between Arab

countries through investment and fiscal agreements have not yielded the desired results, contrary to the expectations of host countries. Thus, Arab governments should encourage bilateral investments and provide regional investors with more incentives. Thus, investors from the region will be attracted, and their funds will be back and support the economic development of the region.

- vi. It would be beneficial for all Arab countries in the region to be members of the World Trade Organization, as this would facilitate many advantages and would increase trade exchange between Arab countries and the international market, which would stimulate global capital to flow into the region and boost foreign direct investment.

Limitation

Among the limitations of this research is that the data in global economy databases indicate that different Arab countries have varying levels of economic freedom, governance structures, and regulatory standards. Therefore, the results obtained in this study cannot be generalized to all countries in the region equally. Accordingly, expanding the study analysis to be based on the individual country level will provide a more accurate assessment of the effect of economic freedom and governance structure on attracting foreign direct investment.

Further areas of research: Future studies could provide more insights on factors affecting foreign direct investment net inflows in the Arab world if infrastructure variables such as communication networks, technology developments, transport systems, sewage, water, and electrical systems were incorporated into the FDI determinants models.

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Appendix (I): Freedom Indices Model Results

Dynamic panel-data estimation, two-step system GMM

Group variable: Cod	Number of obs	=	235
Time variable : Year	Number of groups	=	14
Number of instruments = 12	Obs per group: min	=	13
Wald chi2(9) = 6699.25	avg	=	16.79
Prob > chi2 = 0.000	max	=	18

FDIG	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
FDIG						
L1.	-.2500077	.0777644	-3.21	0.001	-.4024231	-.0975922
GDP	.0336604	.0404614	0.83	0.405	-.0456426	.1129634
PRID	-.0539743	.0296118	-1.82	0.068	-.1120123	.0040637
FCI	-.0320633	.0171054	-1.87	0.061	-.0655893	.0014627
BFI	-.0870469	.0323384	-2.69	0.007	-.150429	-.0236648
MFI	.0675807	.0304298	2.22	0.026	.0079395	.127222
TFI	-.0570728	.0195469	-2.92	0.004	-.0953841	-.0187615
IFI	-.0853979	.0284186	-3.00	0.003	-.1410974	-.0296984
FFI	.1761902	.0304049	5.79	0.000	.1165977	.2357828
_cons	8.382944	3.068695	2.73	0.006	2.368413	14.39747

Arellano-Bond test for AR(1) in first differences: z = 2.09 Pr > z = 0.037

Arellano-Bond test for AR(2) in first differences: z = -1.00 Pr > z = 0.316

Hansen test of overid. restrictions: chi2(2) = 4.74 Prob > chi2 = 0.094
(Robust, but weakened by many instruments.)

Appendix (II): Governance and Business Environment Indicators Model Results

Dynamic panel-data estimation, two-step system GMM

Group variable: Cod	Number of obs	=	235
Time variable : Year	Number of groups	=	14
Number of instruments = 13	Obs per group: min	=	13
Wald chi2(8) = 643.44	avg	=	16.79
Prob > chi2 = 0.000	max	=	18

FDIG	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
FDIG						
L1.	.2974164	.0465189	6.39	0.000	.206241	.3885918
GDP	.0560761	.0371942	1.51	0.132	-.0168231	.1289753
RLI	-1.872722	1.501039	-1.25	0.212	-4.814703	1.06926
GEI	-.5350692	.7422589	-0.72	0.471	-1.98987	.9197316
RQI	2.164632	.9018839	2.40	0.016	.3969726	3.932292
VAI	-1.270737	1.088864	-1.17	0.243	-3.404872	.8633984
PSI	.3575497	.1925315	1.86	0.063	-.0198051	.7349044
CLI	-.7962728	.5106076	-1.56	0.119	-1.797045	.2044996
_cons	4.842169	1.88799	2.56	0.010	1.141776	8.542561

Arellano-Bond test for AR(1) in first differences: z = -2.53 Pr > z = 0.012

Arellano-Bond test for AR(2) in first differences: z = 0.43 Pr > z = 0.669

Hansen test of overid. restrictions: chi2(4) = 8.42 Prob > chi2 = 0.077

(Robust, but weakened by many instruments.)