

Training and Capacity Building Institute Studies

## Determinants of Foreign Direct Investment Inflows to the Arab Region

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صندوق النقد العربي  
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## **Abstract**

The study aims to investigate the relationship between the foreign direct investment (FDI) inflows and related factors in the Arab region over the period from 2001 to 2019. The analysis is conducted by applying the Pooled Mean Group (PMG) approach to estimate the panel data model. The most obvious finding emerged from the study is that the economic growth is positively related to the FDI inflows, suggesting that the continuous improvement in economic performance is a prerequisite for more FDI inflows. The effect of financial development on the FDI inflows is clearly supported by the findings of the study. Moreover, there is evidence of a positive relationship between the economic freedom and the FDI inflows in the countries under study. Also, the results reveal a positive relationship between exports and FDI inflows, and that domestic investment is a substitute for FDI inflows in the long-run and a complement in the short-run. Overall, the study strengthens the idea that stable economic performance accompanied by a relatively developed financial sector and an improved investment environment are essential to attract more FDI in the Arab region.

## **Introduction**

The importance of FDI to countries emerges from the idea that multinational corporations boost the level of capital accumulation, create more employment opportunities, enhance the level of productivity, and hence lead to higher economic growth in the host country. To large extent, attracting more FDI becomes a popular economic policy in many emerging market economies to improve the overall economic performance. In that regard, there are several factors that help attract more FDI, such as market size, cultural and physical proximity, relative labor market endowments, corporate tax rates, and financial development, as argued by Desbordes and Wei (2018).

Many of the factors that affect the attractiveness to invest in a specific country are related to its business environment which reflects all forces, out of the control of an enterprise, that affect the establishment, performance, and sustainability of an investment activity. An improved business environment and a developed financial sector are vital for attracting FDI. For instance, factors like how long it takes to issue working licenses to start the business operations. Likewise, other issues, such as property rights, government integrity, enforcing contracts, paying taxes, trade openness, labor market, and efficiency of business regulation are all important aspects that influence FDI decisions by multinational corporations.

Additionally, the development of financial markets in the host country is an additional motivating component for multinational companies' investment decisions (see Khan and Khan, 2019). Indeed, countries with well-developed financial infrastructure and institutions are in a better position to attract more FDI by enabling access to external funds, reducing transaction cost through its intermediation position, improving enforcement of financial contracts, and increasing liquidity by enabling financial instruments and trade payments. To this end, it is vital to acknowledge that a well-developed financial sector enhances economic growth through improving the ease of doing business, which stimulates the impact of domestic and foreign investment in the country. Many studies have emphasized that with weaker financial systems the desired growth-enhancing impact of FDI are impossible to be obtained (see Alfaro et al., 2008; and Sirag et al., 2018). Therefore, the development of financial sector plays a crucial role not only in attracting FDI, but also on how FDI contributes to higher economic growth.

The study aims to examine the determinants of FDI inflows in the Arab region. More precisely, it puts emphasis on the role played by the financial sector and the business environment as key indicators to attract the FDI inflows. The study employs testing and estimation techniques in the panel data framework, namely the PMG approach that, compared to other procedures developed in the panel data econometrics literature, has the advantage to account for

heterogeneity across countries, small sample sizes, and mixed variables in terms of integration order.

The rest of the paper is organized as follows. Section 1 reviews the relevant previous studies in the field. Section 2 gives a highlight about FDI in the Arab region. Section 3 presents the model specification and the estimation issues. Section 4 discusses the results of the analysis. Concluding comments and policy recommendations are provided at the end of the study.

## **1. Literature review**

Many empirical studies have shown that FDI has an important contribution to economic growth and net gains for host countries (see Moran, 2001, 2006, 2011; Navaretti and Venables, 2005; Caves, 2007; and Dunning and Lundan, 2008). Other studies, such that Haddad and Harrison (1993), Carkovic and Levine (2002), and Hermes and Lensink (2003) find an insignificant relationship between FDI and economic growth. Thus, the effect of FDI on economic growth depends upon the transmission channels through which FDI can influence economic growth and net gains. Indeed, FDI is supposed to create a dynamic comparative advantage by providing new technologies, best practices, techniques, and ideas to the host country (see Grossman and Helpman, 1991; and Barro and Sala-i-Martin, 2004).



On the other hand, a large body of empirical studies has explored the factors that have a significant effect on attracting FDI. Indeed, Eicher et al. (2012) and Blonigen and Piger (2014) claim that market size, cultural and physical proximity, relative labor market endowments, and corporate tax rates are considered as important determinants of FDI inflows. Desbordes and Wei (2017) add financial development<sup>1</sup> as another factor that plays a crucial role in FDI inflows for a sample of 7604 FDI projects in 83 developed and developing countries over the period 2003–2006. They find that both source and destination countries' financial development have a high positive influence on greenfield, expansion, and merger and acquisition FDI directly by increasing external access to finance and indirectly by promoting the manufacturing activities.

Ayouni and Bardi (2018) examine the effect of financial development on attracting FDI for Tunisia by estimating a quadratic regression model over the period 1988–2005. They find a statistically significant concave relationship between financial development and FDI and conclude that the country's growth strategy should be based on a well-developed financial system and solid economic foundations to maximize the benefits of FDI. Khan and Khan (2019) study the nexus of financial development and FDI in China in the framework of ARDL models and find a long-run bidirectional

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<sup>1</sup> World Economic Forum in its 2012 report defines financial development as “*the factors, policies, and institutions that lead to effective financial intermediation and markets, as well as deep and broad access to capital and financial services*”.

causality between financial development and FDI inflows. Levine (2004) reviews the theoretical and empirical works on the relationship between financial development and economic growth. He finds that a large body of empirical studies demonstrate a strong positive link between financial development and economic growth. One of the significant channels through which financial sector development may influence economic growth is that better developed financial systems ease the external financing constraints facing firms.

Another channel that plays an important role in attracting FDI is the business environment that represents the ecosystem and all forces having a direct effect on the establishment performance, and the sustainability of an investment activity, which are not under the control of the enterprise. Among those forces which proved to be crucial in attracting FDI are laws and regulations, economic and social policies, institutional framework, access to finance, competitiveness, and the easiness of doing business. Theoretical research concludes that adequate and regulated business environment should facilitate and attract FDI. Institutional and regulatory framework are significant location factors in FDI decision making (see Peng et al., 2008).

A growing body of empirical studies explore the effect of business environment on attracting FDI. Indeed, Contractor et al. (2020) examine the impact of regulatory variables on attracting FDI for a panel of 189 economies. They find that countries with stronger



contract enforcement and more efficient international trade regulations attract more FDI. Herrera-Echeverri et al. (2014) investigate the relationship between FDI, institutional quality, economic freedom, and entrepreneurship in emerging markets for a group of 87 high-income, low-income, and emerging countries from 2004 to 2009. They find a strong positive relationship between institutional quality and business generation in all three categories of countries. Economic freedom is found to be important in attracting FDI in emerging countries. These outcomes are consistent with the “spillover theory of entrepreneurship”.

Sanchez-Martin et al. (2014) explore the main determinants of FDI in Latin America during the period 1990–2010. They find a positive influence on FDI inflows of trade openness, maintaining low short-term debt levels and presenting a balance of payment deficit, government stability and low expropriation risk. Vuckovic et al. (2020) explore the linkages between business environment and FDI for five Central and Eastern European countries. They find that business regulation framework has a significant impact on FDI inflows for the countries under study. Additionally, numerous administrative and bureaucratically problems, such as taxation regulations, corruption, and lack access to finance limit the ability of countries to attract FDI. Mahbuba and Jongwanich (2019) study the determinants of FDI in the power sector in Bangladesh based on a mixed method approach (semi-structured interviews and questionnaires). They find that the regulatory aspects, such as

government's commitment to contracts, land acquisition, and tax exemption are the most influential factors in attracting FDI to the power sector.

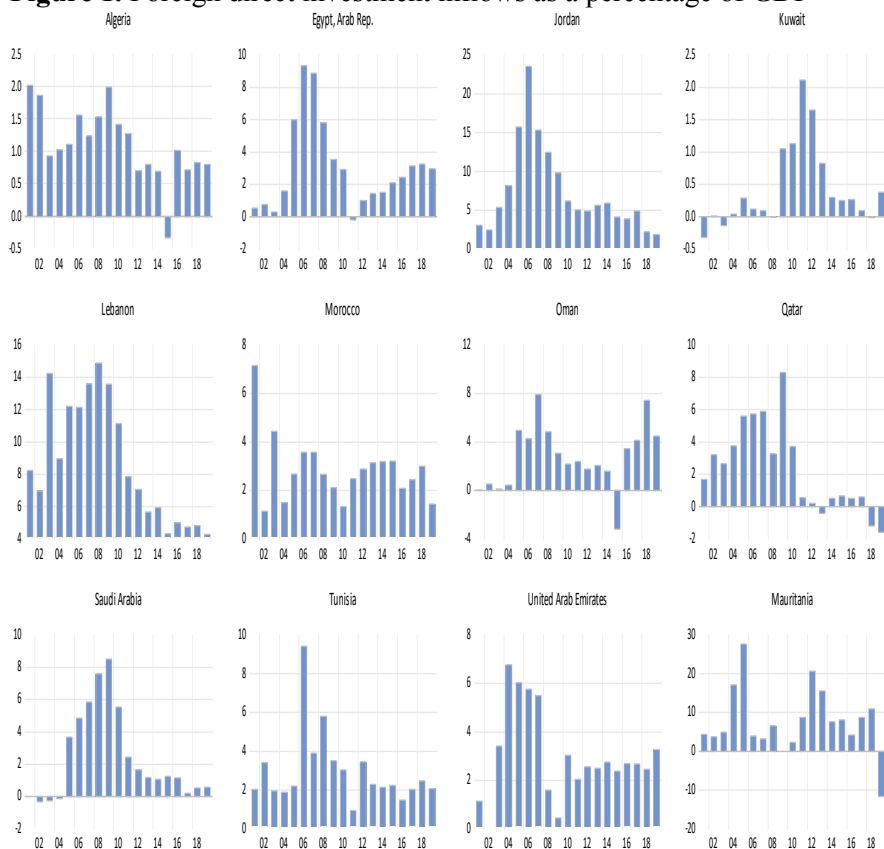
## **2. Foreign direct investment in the Arab region**

Although the level of investment in Arab countries was rising, with exception of the health crisis period caused by the COVID-19 pandemic, the level of FDI inflows in the region is still below that of other developing countries (see World Investment Report, 2020). It is well documented that higher investment is one of the main ingredients that help stimulating the host country's economic performance. Figure 1 illustrates the level of FDI inflows as a percentage of GDP in the selected Arab countries from 2001 to 2019. The FDI inflows are below 10%, except for some years in the case of Jordan, Lebanon, and Mauritania. Also, it can be noticed that there was a visible decline in FDI inflows in the sample of countries, especially after 2010, before they started to rise in some countries.

It is critical to design and implement the appropriate policies and regulations to attract more FDI. Several countries in the region have taken some measures as response to the drop of FDI inflows. Fiscal and financial measures are introduced to reduce the pressure on some sectors, for example the exemption of certain goods from import tax (i.e., medical and food), the cost reduction of electricity and gas tariff for some industries, and direct financial assistance measures. Nonetheless, the existing efforts by the governments could be further

augmented through focusing on reforming the policies of FDI for a long-run gain. Most importantly, it is the time to emphasis on the quality of foreign investments, thus leading to a sustainable and inclusive growth.

**Figure 1.** Foreign direct investment inflows as a percentage of GDP



Source: World Development Indicators (2021), authors' calculations.

### 3. Methodology

#### 3.1. Model

For a panel of 12 Arab countries (Algeria, Egypt, Jordan, Kuwait, Lebanon, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, and the United Arab Emirates (UAE))<sup>2</sup> over the period 2001 – 2019,<sup>3</sup> the empirical model to examine the responses of FDI to the changes in the related determinants is expressed as follows:

$$FDI_{it} = \alpha_0 + \alpha_1 FD_{it} + \alpha_2 EFI_{it} + \alpha_3 GR_{it} + \alpha_4 EXP_{it} + \alpha_5 INV_{it} + u_{it} \quad (1)$$

where  $i = 1, 2, \dots, N$  ( $N$  is the number of countries),  $t = 1, 2, \dots, T$  ( $T$  is the number of years),  $FDI_{it}$  is the foreign direct investment measured by the net inflows as a percentage of GDP,  $FD_{it}$  refers to financial development indicators, namely domestic credit to private sector as a percentage of GDP ( $DC_{it}$ ) and broad money as a percentage of GDP ( $BM_{it}$ ),  $EFI_{it}$  is the economic freedom index (indicator for business environment),  $GR_{it}$  is the real GDP growth rate as a measure of market size growth,  $EXP_{it}$  is the total exports of goods and services as a share of GDP,  $INV_{it}$  is the domestic

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<sup>2</sup> Data are annual and gathered from the World Development Indicators (published by the World Bank), the United Nations Conference on Trade and Development (UNCTAD), and the Heritage Foundation databases.

<sup>3</sup> The study period is long enough to assess the reactions of foreign direct investment to changes in related determinants in the panel data framework.

investment measured by the gross capital formation as a share of GDP, and  $u_{it}$  stands for the error term.

### 3.2. Estimation issues

We opt for the panel-ARDL model, developed by Pesaran et al. (1999), to investigate the effects of financial development, economic freedom, economic growth, exports, and investment on foreign direct investment. The panel-ARDL procedure deals with variables integrated of order zero,  $I(0)$ , or variables integrated of order one,  $I(1)$ , or a mix of  $I(0)$  and  $I(1)$  variables and provides consistent estimators even for small sample sizes<sup>4</sup> and endogenous regressors.

Analytically, the panel-ARDL( $p, q$ ) model is expressed as follows:<sup>5</sup>

$$y_{it} = \mu_i + \sum_{j=1}^p \beta_{ij} y_{i,t-j} + \sum_{j=0}^q \gamma'_{ij} X_{i,t-j} + \varepsilon_{it} \quad (2)$$

where  $y_{it}$  is the dependent variable ( $FDI_{it}$ ),  $X_{it} = (FD_{it}, EFL_{it}, GR_{it}, EXP_{it}, INV_{it})$  is the vector of regressors,  $\mu_i$  stands for country-specific effect,  $\varepsilon_{it}$  is the disturbance term, and  $p$  and  $q$  are the orders of the model that are determined by the Akaike information criterion.

<sup>4</sup> This implies that the panel-ARDL approach is preferable to other cointegration techniques whose estimators' consistency depends on the sample size.

<sup>5</sup> The panel-ARDL approach considers a single equation unlike other methods that are based on a system of equations.

The error correction model, considering the long-run and short-run dynamics, is written as follows:

$$\Delta y_{it} = \mu_i + \theta_i(y_{i,t-1} - \varphi_i' X_{it}) + \sum_{j=1}^{p-1} \beta_{ij}^* y_{i,t-j} + \sum_{j=0}^{q-1} \gamma_{ij}^* X_{i,t-j} + \varepsilon_{it} \quad (3)$$

where  $\Delta$  represents the first difference operator and

$$\begin{cases} \theta_i = \sum_{j=1}^p \beta_{ij} - 1, & \varphi_i = \frac{\sum_{j=0}^q \gamma_{ij}}{1 - \sum_{j=1}^p \beta_{ij}} \\ \beta_{ij}^* = - \sum_{l=j+1}^p \beta_{il}, & \gamma_{ij}^* = - \sum_{l=j+1}^q \gamma_{il} \end{cases}$$

Note that  $y_{i,t-1} - \varphi_i' X_{it}$  is the long-run relationship among the foreign direct investment and the determinants under study, the error correction term coefficient  $\theta_i$  is expected to be negative and statistically significant and stands for the speed of adjustment of foreign direct investment towards its long-run equilibrium state in case of any disturbance in the regressors, the coefficients  $\varphi_i$  assess the long-run impacts of the independent variables on the foreign direct investment, and the coefficients  $\beta_{ij}^*$  and  $\gamma_{ij}^*$  measure the short-run responses of the foreign direct investment to the changes in its past own values and the related determinants.

The above error correction model can be estimated by either the Pooled Mean Group (PMG), developed by Pesaran et al. (1999), or the Mean Group (MG), developed by Pesaran and Smith (1995),



estimation procedures. The MG method assumes that all coefficients of the panel-ARDL model are heterogeneous across countries over both the long-run and the short-run. In contrast, the PMG procedure assumes homogeneous long-run coefficients and heterogeneous short-run coefficients and error correction terms across countries. The Hausman test for homogeneous long-run coefficients, discussed by Pesaran et al. (1996), is employed to decide between the PMG and the MG procedures. Indeed, if the Hausman test rejects the null hypothesis of long-run coefficients homogeneity, the MG procedure is adopted to estimate the model; otherwise, we apply the PMG method.

## **4. Empirical illustration**

### **4.1. Descriptive analysis**

Table 1 presents descriptive statistics of the variables. The findings of the correlation analysis show that foreign direct investment is positively associated with domestic credit, broad money, and economic growth; however, it is negatively correlated to economic freedom, exports, and investment. These results do not lead to conclusive causality among the variables, prompting us to conduct a deep analysis of the relationship among the foreign direct investment and the considered determinants based on the above methodology.

**Table 1.** Descriptive statistics

Variable	Mean	Max.	Min.	Std. Dev.	Corr.
FDI	3.404	23.537	-3.175	3.750	-
DC	56.423	112.283	8.014	25.053	0.290
BM	92.514	274.728	30.512	55.078	0.520
EFI	61.098	73.100	44.700	5.651	-0.018
GR	2.444	6.529	-3.106	1.648	0.256
EXP	43.260	76.472	10.346	15.177	-0.091
INV	26.719	50.781	12.232	8.404	-0.017

**Note:** Corr. denotes correlation among the foreign direct investment and the related determinants.

## 4.2. Unit root analysis

We apply the panel unit root test (CIPS)<sup>6</sup> of Pesaran (2007) to check whether the variables are not integrated of order two,  $I(2)$ , as the panel-ARDL methodology is not suitable for  $I(2)$  variables. The results of the test for cross-country dependence (CD),<sup>7</sup> developed by Pesaran (2004), are presented in Table 2. They reveal evidence of dependence across countries, as the CD test rejects the null hypothesis of no cross-country dependence for all the variables, implying that the CIPS unit root test can be conducted to assess the integration order of the foreign direct investment and the related determinants.

<sup>6</sup> The test allows for heterogeneity and cross-country dependence.

<sup>7</sup> The CD test performs well in terms of size and power even for small  $N$  and  $T$ .

**Table 2.** Test results for cross-country dependence

Variable	CD statistic	Prob.
FDI	14.000***	0.000
DC	12.870***	0.000
BM	14.170***	0.000
EFI	3.320***	0.001
GR	7.960***	0.000
EXP	14.160***	0.000
INV	6.560***	0.000

**Notes:** CD: test for no cross-country dependence under the null hypothesis. \*\*\* stands for dependence among countries at the 1% level.

The results of the CIPS test, conducted based on two test specifications, namely an equation with intercept only and an equation with intercept and time trend, are displayed in Table 3. They indicate that domestic credit, broad money, exports, and investment are stationary at first difference whatever the test equation, implying that they are  $I(1)$ . It is also found that the foreign direct investment and the economic growth are  $I(0)$ , as they are stationary at level for both test specifications. However, the economic freedom is mixed in terms of integration order ( $I(0)$  and  $I(1)$ ) according to the test specification. Therefore, all the variables are not  $I(2)$ , thus suggesting that the panel-ARDL model is employed to assess the effects of the related determinants on the foreign direct investment over both the long-run and the short-run.

**Table 3.** CIPS unit root test results

Variable	Level		First difference	
	Intercept	Trend	Intercept	Trend
FDI	-3.131***	-3.759***	-5.364***	-5.543***
DC	-1.477	-2.277	-3.577***	-3.778***
BM	-1.921	-2.117	-3.618***	-3.822***
EFI	-1.972	-3.978***	-4.432***	-4.307***
GR	-3.394***	-3.164***	-5.016***	-4.904***
EXP	-1.496	-2.481	-3.907***	-3.843***
INV	-1.652	-2.438	-3.760***	-3.905***

**Notes:** CIPS: test for unit root under the null hypothesis. Maximum lags are set to be 2. For the variables in level, the critical values of the CIPS test are -2.47 (1%), -2.26 (5%) and -2.14 (10%) for the model with intercept, and -3.01 (1%), -2.78 (5%) and -2.67 (10%) for the model with trend. For the variables in first difference, the critical values of the CIPS test are -2.47 (1%), -2.26 (5%) and -2.14 (10%) for the model with intercept, and -3.01 (1%), -2.78 (5%) and -2.67 (10%) for the model with trend. \*\*\* stands for stationarity at the 1% level.

#### 4.3. Estimation results

The estimate results of the PMG approach<sup>8</sup> are presented in Table 4. For the first model, they indicate that the domestic credit, the economic freedom, the economic growth, and the exports have the power to exert a significant and positive effect on the foreign direct investment over the long-run, as the associated coefficients are positive and statistically significant at the 1% level. Indeed, a 1% increase in the domestic credit, the economic freedom, the economic growth, and the exports leads to increase in the foreign direct investment by 0.066%, 0.945%, 0.634%, and 0.029%, respectively.

<sup>8</sup> The Hausman test fails to reject the null hypothesis of homogeneous long-run coefficients across economies. We estimate two models where we include a financial development indicator into each model.

This result implies that the economic freedom is more influential in affecting positively the foreign direct investment than the domestic credit, the economic growth, and the exports over the long-run. It is also found that the domestic investment is found to have a negative and statistically significant effect on the foreign direct investment. Indeed, a 1% increase in the domestic investment reduces the foreign direct investment by 0.495%. This finding suggests that the expansion of local business activities reduces the opportunity for foreign investors and probably crowds out foreign investment.

For the second model, the estimate results are comparable to those of the first model in terms of statistical significance and sign of the determinants of the foreign direct investment. However, in terms of magnitude, all the determinants, except of exports, exert a smaller impact on the foreign direct investment than they do in the first model. Furthermore, it is found that the economic growth is more prominent in influencing positively the foreign direct investment than the broad money, the economic freedom, and the exports over the long-run. The estimate results imply that a 1% increase in the broad money, the economic freedom, the economic growth, and the exports leads to increase in the foreign direct investment by 0.027%, 0.209%, 0.321%, and 0.044%, respectively. Regarding the domestic investment, however, an increase by 1% lowers the foreign direct investment by 0.119%. This low level of local investment implies that the foreign direct investment works as a substitute in the long-run. Overall, the estimate results of both models reveal that the

economic freedom and the economic growth are more influential in affecting the foreign direct investment than the other determinants over the long-run.

Over the short-run, the PMG estimate results of both models reveal that most of the determinants are not relevant drivers of the foreign direct investment, as their coefficients are not statistically significant. As expected, the error correction term coefficient is negative and statistically significant for both models, implying a return to the long-run equilibrium state in case of any disturbance in the related determinants. Indeed, the current deviations from the equilibrium state are corrected by 36.6% for the first model and 84.1% for the second model in the next year, suggesting that the convergence to the steady state will be restored in about three years when including the domestic credit into the model and a little over a year when incorporating the broad money into the analysis.

Previous studies evaluating the determinants of foreign direct investment inflows reveal consistent results regarding the effect of real GDP or its growth rate. The current study shows that the market size, measured by the real GDP growth rate, affects the foreign direct investment inflows to the host countries, which is aligned with the findings of Aziz and Mishra (2016) and Khan and Khan (2019). Interestingly, the results also suggest that the real GDP growth rate in the Arab countries is among the most important factors that stimulate the foreign direct investment inflows, as found by Khachoo and Khan (2012).

**Table 4.** Estimate results of the panel-ARDL model

Variable	Model 1	Model 2
<b>Long-run</b>		
DC	0.066*** (0.0003)	-
BM	-	0.027*** (0.001)
EFI	0.945*** (0.016)	0.209*** (0.032)
GR	0.634*** (0.006)	0.321*** (0.018)
EXP	0.029*** (0.003)	0.044*** (0.0003)
INV	-0.495*** (0.009)	-0.119*** (0.030)
<b>Short-run</b>		
ECT	-0.366** (0.149)	-0.841** (0.348)
D(FDI(-1))	-0.133 (0.198)	-0.098 (0.153)
D(DC)	-0.135* (0.069)	-
D(DC(-1))	-0.004 (0.069)	-
D(BM)	-	-0.014 (0.111)
D(BM(-1))	-	-0.057 (0.095)
D(EFI)	-0.218** (0.086)	-0.176* (0.099)
D(EFI(-1))	-0.146 (0.112)	0.006 (0.151)
D(GR)	0.003 (0.257)	0.135 (0.263)
D(GR(-1))	-0.194 (0.205)	-0.083 (0.213)
D(EXP)	-0.139** (0.069)	-0.171 (0.138)
D(EXP(-1))	0.093 (0.059)	0.026 (0.079)
D(INV)	0.228* (0.126)	0.201 (0.207)
D(INV(-1))	0.055 (0.205)	0.043 (0.167)
Constant	-2.922** (1.341)	23.408** (9.623)

**Notes:** The standard errors are reported in parentheses; “D” stands for first difference; the short-run estimates are calculated by averaging the coefficients across economies; and the optimal lags according to the Akaike information criterion are (2, 2, 2, 2, 2, 2) for Model 1 and (2, 2, 2, 2, 2, 2) for Model 2. \*\*\*, \*\* and \* stand for statistical significance at the 1%, 5% and 10% levels, respectively.

As argued by several studies, the financial sector development in the host country is one of the prerequisites to benefit from the foreign direct investment inflows and enhance the economic performance (see Choong, 2012; and Sirag et al., 2018). Therefore, it is not absurd

to assume that a well-developed financial sector in the host country would help attract foreign investment inflows. It is interesting to note that in both models of the current study, the financial sector development indicators exhibit a positive and significant impact on the foreign direct investment, thus supporting the evidence of other studies in this field linking financial sector development with foreign direct investment (see Aziz and Mishra, 2016; Ayouni and Bardi, 2018; and Khan and Khan, 2019). It is argued that reforming the financial sector in way that helps facilitate access to financial assets is vital to attract higher investments (see Khan and Khan, 2019).

Our findings show a positive association between the economic freedom index and the inflows of foreign investment in the Arab countries. This implies the importance of factors, such as the property rights, the judicial effectiveness, the government integrity, the tax burden, the government spending, the sound fiscal policy, the business freedom, the labor freedom, the monetary freedom, the trade freedom, the investment freedom, and the financial freedom in attracting more foreign direct investments. In accordance with our results, previous studies have shown that an improved business environment, measured by business freedom index, helps reduce the potential risks and constraints related to foreign investment in the Middle East and North Africa (MENA) countries (see Helmy, 2013). Furthermore, there are similarities between the attitudes exhibited by business environment in the current study and those of Popovici and Călin (2015) and Vogiatzoglou (2016). The positive link between



the global competitiveness index and the foreign direct investment inflows suggests the significance of factors, such as the infrastructure, the market efficiency, the technological readiness, the institutions, the innovation, and the business sophistication (see Popovici and Călin, 2015). In addition, Vogiatzoglou (2016) argues that efficient business regulations play a crucial role in boosting the foreign direct investment.

Another important finding reveals the existence of a positive and significant relationship between exports in the host country and FDI inflows, which is aligned with the internationalization theory that domestic producers are likely to focus more on exporting due to the low relative costs and perhaps undervalued currencies (see Kimino et al., 2007; Khan and Nawaz, 2010; and Ho and Rashid, 2011). However, the results indicate an inverse link between domestic investment and FDI inflows in the long-run, but a positive relationship in the short-run. This finding suggests that the level of domestic investment substitutes FDI in the long-run (see Vijayakumar et al., 2010; and Canh et al., 2020), which could be due to the lower production costs in the host country, in addition to the insufficient experience and the required knowledge for domestic manufacturing firms (see Kimino et al., 2007; and Ho and Rashid, 2011). Moreover, domestic investment tends to crowd out FDI in some circumstances, especially if public investment is high (see Ramires, 2010).

## Conclusion and policy recommendations

This study assessed the relationship between the foreign direct investment and a set of independent variables for a panel of 12 Arab economies over the period 2001-2019 by applying the PMG approach to estimate the panel-ARDL model. The estimated results reveal that all the independent variables have the power and potential to affect the foreign direct investment over the long-run. Indeed, it is found that the financial sector development, the economic freedom, the economic growth, and the domestic exports exerts a positive impact on the foreign direct investment; however, the domestic investment affects adversely the foreign direct investment. The economic freedom and the economic growth are found to be more influential in affecting the foreign direct investment than the other variables having a positive impact.

The study provides relevant policy recommendations to authorities in the Arab region to achieve the desired and appropriate levels of the foreign direct investment, depending on the intrinsic features of each economy. The evidence from this study shows that the economic growth rate in the Arab region is arguably among the most significant foreign direct investment contributing factor, suggesting that the economic (fiscal and monetary) policies, aiming to stabilize the economy, should be maintained and closely monitored. Additionally, continued efforts are needed to make the financial sector more developed and accessible to all economic agents, especially potential

investors, to guarantee higher level of financial inclusion and stability. Moreover, ensuring the attractiveness of the business environment through improving the institutional governance and suitable organizational development for investment and business is necessary to pave the road towards more foreign direct investments. Another important practical implication is that more exports (as a share of GDP) tend to attract foreign direct investment, suggesting that adopting more exports-oriented policies help encourage the inflows of foreign investments.

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