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INSTITUTIONS, FOREIGN DIRECT INVESTMENT, AND ECONOMIC GROWTH IN NORTH AFRICAN COUNTRIES

Abstract:

This contribution investigates the causal interactions between foreign direct investment (FDI), economic freedom and economic growth in a panel of 4 countries of North Africa (Tunisia, Morocco, Algeria and Egypt) over the period 1980 - 2012. Using System Generalized Method of Moment (GMM) panel data analysis, we find strong evidence of a positive link between FDI and economic growth. We also find evidence that economic freedom appear to be working as a complement to FDI and, moreover, that the effect of FDI is more pronounced in the presence of the economic freedom variable. This means the countries promote greater freedom of economic activities gain significantly from the presence of multinational corporations (MNCs).

Keywords:

Foreign direct investment, Economic freedom, Economic growth

JEL Classification: F21, O43, C23

1. Introduction

The impact of FDI on economic growth has been discussed quite extensively in the literature. The growing interest in this area of research is consistent with the shift in emphasis among policymakers in developing countries toward attracting more FDI. Since the early 1980s, many countries (including the developing ones) have lifted a lot of restrictions imposed on FDI flows. United Nations Conference on Trade and Development (UNCTAD) monitoring shows that, in 2013, 59 countries adopted 87 policy measures affecting foreign investment. National investment policymaking remained geared towards investment promotion and liberalization. At the same time, the overall share of regulatory or restrictive investment policies further increased from 25 to 27 per cent for 2012-2013 (UNCTAD, 2014). According to UNCTAD (2001, 2014), global FDI inflows rose from $57 billion in 1982 to $1271 billion in 2000 and reached a record high of $1452 billion in 2013. In fact, over the past few decades the growth rate of world FDIs has exceeded the growth rates of both world trade and GDP. However, FDI inflows are not uniform across countries with few countries are able to attract more FDI than the others. The motivation for increased efforts to attract more FDI stems from the expectation of an overall positive impact of FDI resulting from productivity gains, technology transfer and spillover, exposure of domestic firms to new processes, managerial skills and know-how, enhancements to employee training, development of international production networks, and broader access to markets. FDI is also not as volatile as the other short-term flows, and hence, is less destructive (World Bank, 1999).

Although the theoretical literature expects that FDI inflows can transmit great advantages to host country, empirical studies on the FDI-growth link have provided conflicting results (see Herzer et al., 2008). Some studies in this literature have found that FDI exerts a positive impact on economic growth in the host countries (Chong et al., 2010; Gui-Diby, 2014), while others have found no such evidence or even a negative impact on economic growth (Ericsson and Irandoust, 2001). Drawing on the ambiguous and inconclusive results of the FDI-growth relationship, the literature has identified absorptive capacity of the host country as the key explanatory variable for the varied conclusions.[1] Specifically, the effect of FDI on economic growth may not be strong in countries with poor absorptive capacity. In other words, host countries must have initial conditions to absorb the benefits from FDI. Apart from this important finding, several intervening country-specific factors that are important for FDI spillovers have also been considered in the literature, such as the higher levels of human capital, the deeper domestic financial markets, and the trade policy.

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[1] Absorptive capacity is defined as the ability of a firm to recognize the value of new external information, assimilate it, and apply it to commercial ends (Cohen and Levinthal, 1990). This concept is different from learning-by-doing where firms become more practiced and efficient at what they are already doing. With absorptive capacity a firm may acquire outside knowledge that will permit it to do something different and thus requires double loop, generative learning.

In order to better understand the nature of the relationship between FDI and economic growth, this paper draws on the recent literature that showed the importance of institutions in processes of growth. In particular, our study underlines the importance of economic freedom (EF, hereafter) in mediating FDI spillovers to help answer these questions. Our argument proceeds from the fact that the lack of EF can limit the firm ability absorption and internalization of the new technology from MNC's and slows economic growth in the host countries. However, countries moving toward greater EF tend to achieve higher rates of growth in per capita GDP over time.

In this paper we use the EF index developed by the Fraser Institute to establish the relationship between EF and economic growth. The index is a measure of institutional quality and, to the extent that higher EF ratings lead to more rapid economic growth and higher income levels, it provides insight into the characteristics of an environment conducive to prosperity. A look at the index components reveals various reasons to expect that countries with higher level of EF will have greater absorptive capacity and at the same time will encourage them to benefit more spillover from investment.

This study is particularly significant for the North Africa region following recent political unrest and social tensions in many of these countries. Indeed, FDI contributes to economic growth in North Africa, which in turn generates additional revenues for governments and populations in the region through fiscal policies and job creation. Additionally, institutional quality and better governance tend to amplify the positive impacts of FDI on economic growth in the region. It is therefore important for the region's governments to continue investing in social infrastructures while improving the quality of their institutions and their governance; doing so will help avoid the type of unrest we have witnessed recently.

This paper's contribution to the literature is threefold. First, we believe that this study is the first to analyze the relationship between EF, FDI and economic growth in the North Africa region. Second, in terms of policy implications, the results of this research will guide policy makers in designing policies aimed at better directing external capital, such as FDI, toward sectors with the highest effect on economic growth. Third, compared to previous studies, in this paper we employ a more advanced dynamic panel econometric technique that formally addresses country-specific effects and simultaneity bias. The method relies on the System GMM estimator, which has a number of advantages over the cross-section estimator.

The main purpose of this paper is to examine the role of EF in mediating the impact of FDI on economic growth in a panel of 4 countries of North Africa, namely Tunisia, Morocco, Algeria, and Egypt over the period 1980-2012. Our dynamic panel regression analyses show that FDI positively and significantly effects economic growth in North Africa. This study also highlights the positive complementarities between index of EF and FDI. This means the countries exhibit greater degrees of economic freedom gain significantly from the presence of MNCs.

The remainder of the paper is structured as follows. Section 2 provides a detailed literature review while Section 3 describes the used data and the empirical methodology. Section 4 presents the empirical results, and Section 5 concludes the paper.

2. Review of literature

2.1. Review of theoretical literature

FDI by MNCs is considered as one of the key elements in the growth process for many countries. According to Dunning (1993), MNCs have been linked to superior technologies, patents, trade secrets, brand names, management techniques and marketing strategies. Also, they are known to be among the biggest spenders in research and development activities (Borensztein et al., 1998). Moreover, they hire a large share of professional and technical workers and undertake substantial efforts in the education of workers (Fosfuri et al., 2001). Once they have invested and set up a subsidiary in host country, some of the benefits linked to MNCs may not be completely internalized and thus spill over to domestic firms, contributing to the growth of the domestic economy. Additionally, FDI is a useful source of capital for host countries to finance current account deficits. FDI is considered less volatile than other financial flows such as portfolio investment because MNCs investment strategy is long term in nature. According to Aitken et al., (1997), FDI promotes exports of host countries by augmenting domestic capital for exports, helping transfer of technology and new products for exports, and facilitating access to new and large foreign markets. Local firms may learn with the practice of MNCs, or MNCs may transfer technology and know-how to local suppliers in order to improve the quality of inputs (Rodriguez-Clare, 1996). Entrance of MNC is generally complemented with foreign technology where this ascends the competition pressure in the host country (Blomström et al., 1994). In order to thwart competition, this gives an incentive for local firms to grow and be more efficient in production process (Crespo and Fontoura, 2007).

Some studies, however, cast doubt on the optimistic view that FDI generates positive spillovers for local firms. They have showed the adverse socioeconomic effects of EF (i.e., investment freedom) that include linkages, asset bubbles, foreign dominance, economic instability, and massive inflows of foreign workers, among others. For instance, Krugman (2000) indicated that foreign investors can take advantage of liquidity constrained domestic investors' fire sales of assets during financial crises. In this situation, foreigners are less efficient than domestic investors, only because of the foreigners' superior cash position. In the same manner, Hausmann and Fernández-Arias (2001) argued that a recent rise of FDI is an indication that markets are working poorly, that institutions are inadequate and that risks are high. Residents are selling their companies because they do not have the markets and institutions that allow them to grow. The presence of asymmetric information could also distort the level of investment. In this context, Razin et al., (1999) noted that because foreign direct investors gain crucial inside information about the firm, they will overcharge uninformed domestic savers for stock in the firm. In anticipation of this excess profit,

multinationals will overinvest in the local economy. With regard to this issue, Stiglitz (2000) showed that without first putting into place an effective regulatory framework, full capital account liberalization will bring instability to a developing country due to free flows of short-term speculative capitals.

Previous studies have pointed that FDI spillovers do not occur automatically, but depend on the host countries' absorptive capacity that is largely determined by multiple factors, such as the level of per capita income, human capital, trade openness, and financial market development. The absorptive capacity hypothesis has been tested in a number of different studies with mixed results. For instance, Blomström et al., (1994) found that whether FDI can help contribute to the economic growth depends on the host country's developing level. Balasubramanyam et al., (1996) argued that more open economies are likely to both attract a higher volume of FDI and promote more efficient utilization thereof than closed economies. Moreover, their estimates indicated that FDI contributes more to domestic growth than domestic investment, suggesting that is indeed a vehicle of international technology transfer. Quazi (2007) concluded that a host country should formulate its FDI strategies by focusing on EF components in order to attract more FDI inflows into the country. Such efforts will likely foster a healthy environment to court FDI, and also prepared to nurture the ingredients necessary for economic growth. Recently, Alfaro et al., (2010) found that an increase in FDI leads to higher growth rates in financially developed countries compared to those observed in financially poorly-developed ones. Their results also suggest the importance of absorptive capacities for the effect of FDI on economic growth.

It has also been argued that the adoption of new technologies requires labor that is able to actually work with these new technologies. On this matter, Borensztein et al., (1998) found that the effect of FDI on economic growth depends on the level of human capital in the host country, where FDI has positive growth effects only if the level of education is higher than a given threshold. This conjecture is further confirmed by Xu (2000) who argued that technology transfer from FDI contributes to productivity growth in more developed countries but not in less developed countries because the latter lack adequate human capital.

While there is yet no consensus on the relationship between FDI and economic growth, evidence on the role of institutions in economic growth is more compelling. North (1991) defined institutions as "the humanly devised constraints that structure political, economic, and social interaction. They consist of both informal constraints (sanctions, taboos, customs, tradition, and code of conduct), and formal rules (constitutions, laws, property rights)". The author further observed that institutions provide the incentive structure of an economy, as the structure evolves; it shapes the direction of economic change towards growth, stagnation, or decline. In short, institutions affect security of property rights, prevalence of corruption, distorted or extractive policies, and thereby influence investments in human and physical capital, and promote economic growth.

2.2. Review of empirical literature

In fact, many studies show that EF exert a major effect on cross-country differences in both per capita income and economic growth (see, for example, De Haan et al., 2006; Azman-Saini et al., 2010; Compton et al., 2011; among others). On this point, Barro (2000) showed that secure property rights improve growth performance not only by encouraging investments, but by enhancing the productivity of investments. Meanwhile, Demetriades and Law (2006) found that more finance without sound institutions may not succeed in delivering long-run economic growth in low-income countries. Rodrik et al., (2004) argued that governance is a factor that explains cross-country income differences, pointing that institutions matter more than openness and geography in determining income level. Acemoglu et al., (2001) used the protection from the expropriation risk index measured by the International Country Risk Guide as a proxy for institutional quality. They showed that differences in institutions and state policies are at the root of large differences in income per capita across countries. Hall and Jones (1999) investigated cross-country differences in economic performance based on variations in inputs (e.g., capital and human capital). They found that the large variation in output per worker across countries is only partially explained by differences in physical capital and educational attainment. They also showed that the differences in capital accumulation, productivity, and therefore, output per worker are entrained by differences in institutions and government policies.

A smaller group of researchers has investigated the relationship between EF and economic growth. Economists agree that EF, along with political freedom and civil liberties, is one of the pillars of a country's institutional structure. According to Heritage Foundation (2004), EF has been defined as "the absence of government coercion or constraint on the production, distribution, or consumption of goods and services beyond the extent necessary for citizens to protect and maintain liberty itself." Economists have long accorded greater importance to freedom to choose and supply resources, competition in business, free trade with others and secure property rights as representing important ingredients needed for achieving economic growth. Several empirical research, however, have shown the importance of EF in explaining cross-country differences in economic growth. Azman-Saini et al., (2010) found that FDI does not have an independent impact on economic growth and that the positive effect is only possible in countries with high levels of EF. In the same trend, Compton et al., (2011) used the measure of EF representing the following areas: size of government, takings and discriminatory taxes, and labor market freedom, and found the positive association between EF and economic growth for US states (but not all components of EF affect growth equally). Recently, Fabro and Aixalá (2012) found that property rights, civil liberties and political were all relevant institutional factors. They showed that the three dimensions of institutional quality are important for economic growth either through a better allocation of resources or, indirectly, through the stimulation of investment in physical and human capital.

3. Data and Empirical Methodology

3.1 Data

The paper considers a sample of 4 countries of North Africa, namely Tunisia, Morocco, Algeria and Egypt. The choice of countries selected for this study is primarily dictated by available of reliable data over the sample period. The panel covers the period from 1980 to 2012. The dependent variable is economic growth, measured as the growth rate of real GDP per capita at 2005 USD Prices. With the exception of the institutional variable (EF), the main variable of interest (FDI) and the other control variables are obtained from the World Bank's World Development Indicators (WDI) database (World Bank, 2014). The Index of EF is taken from (Gwartney et al., 2014).

According to the World Bank, FDI are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP. It is expected that the sign of the coefficients associated with FDI would be positive as spillover effects may have been observed in countries (Gui-Diby, 2014).

The EF index from the Fraser Institute is used to measure freedom of economic activities in a country. Higher indexes are associated with smaller governments (Area 1), stronger legal structure and security of property rights (Area 2), access to sound money (Area 3), greater freedom to exchange with foreigners (Area 4), and more flexible regulations of credit, labor, and business (Area 5). According to the survey of De Haan et al., (2006), which focused on the empirical studies that used this EF index, greater EF stimulates economic growth. Thus, a positive coefficient is expected.

Our baseline model includes the explanatory variables common to most growth regressions found in the literature (all except Initial GDP per capita are averaged over each 5-year period):

• Initial GDP per capita (log): log of real GDP per capita lagged by one 5-year period. A negative coefficient is expected, indicating the existence of conditional convergence among countries;

• Investment (% GDP), defined as the ratio of gross fixed capital formation to GDP. A positive coefficient is expected, as greater investment shares have been shown to be positively related with economic growth (Mankiw et al., 1992);

• Primary school enrollment. Greater enrollment ratios lead to greater human capital, which should be positively related to economic growth (Gemmel, 1996);

• Population growth. All else remaining the same, greater population growth leads to lower GDP per capita growth. Thus, a negative coefficient is expected (Aisen and veiga, 2013);

3.2 Empirical Methodology

The purpose of our empirical analysis is to examine if EF plays an important role in influencing the effects of FDI on economic growth in North Africa. To this end, we employ a specification that is broadly similar to others (e.g., Azman-Saini et al., 2010; Aisen and Veiga, 2013). Consider the following model:

$$y_{i,t} = \alpha y_{i,t-1} + \beta_1 FDI_{i,t} + \beta_2 EF_{i,t} + \beta_3 X_{i,t} + \mu_t + \eta_i + \varepsilon_{i,t}$$

(1)

Eq. (1) can also be alternatively written with the growth rate as dependent variable as:

$$Growth_{i,t} = y_{i,t} - y_{i,t-1} = (\alpha - 1) y_{i,t-1} + \beta_1 FDI_{i,t} + \beta_2 EF_{i,t} + \beta_3 X_{i,t} + \mu_t + \eta_i + \varepsilon_{i,t}$$

(2)

The subscript "t" represents one of these 5- year periods, whereas i represents country, y is the logarithm of real GDP per capita, FDI is foreign direct investment, EF is the economic freedom index and X is the matrix of control variables described in the previous section, μ_t is a time specific effect, η_i is an unobserved country-specific fixed effect and $\varepsilon_{i,t}$ is the error term. Eq. (2) forms the basis for our estimation. $(\alpha - 1)$ is the convergence coefficient.

While FDI have the potential to affect economic activity through a host of channels, in a second set of regressions we examine one specific link between FDI and economic growth, specifically the one working through EF. The hypothesis we would like to test is whether the level of EF in the host country affects the impact of FDI on economic growth. To this end, we add an interaction term constructed as the product of FDI and the EF (i.e., FDI*EF) to Eq. (2) as an additional explanatory variable, apart from the standard variables used in the economic growth equation. To ensure that the interaction term did not proxy for FDI or the level of EF, both of the latter variables were included in the regression independently. If the coefficient on the interaction term is positive and significant, it implies that the marginal effect of FDI on economic growth depended on the level of EF.

The regression to be estimated is the following:

$$Growth_{i,t} = (\alpha - 1) y_{i,t-1} + \beta_1 FDI_{i,t} + \beta_2 EF_{i,t} + \beta_3 (FDI_{i,t}.EF_{i,t}) + \beta_4 X_{i,t} + \mu_t + \eta_i + \varepsilon_{i,t} \qquad (3)$$

 This paper applies the GMM panel estimator developped by Arellano and Bond (1991), Arellano and Bover (1995), and Blundell and Bond (1998). There are two main reasons for choosing this estimator. The first is to control for country specific effects, which cannot be done using country-specific dummies due to the dynamic structure of the regression equation. Second, the estimator controls for a simultaneity bias caused by the possibility that some of the explanatory variables may be endogenous. Some authors, for example, have found that FDI is likely to be endogenous as higher GDP may attract more FDI of foreign investors.

The consistency of the System GMM estimator depends on the validity of the assumption that the error term does not exhibit serial correlation and on the validity of the instruments. By construction, the test for the null hypothesis of no first-order serial correlation should be rejected under the identifying assumption that the error is not serially correlated; but the test for the null hypothesis of no second-order serial correlation, should not be rejected. We use two diagnostics tests proposed by Arellano and Bover (1995) and Blundell and Bond (1998), the Sargan test of over-identifying restrictions, and whether the differenced residuals are second-order serially correlated. If the null of both tests cannot be rejected, this would indicate that the model is adequately specified and the instruments are valid. The results from this estimation procedure are reported in table 1.

4. Empirical Results

The empirical results are presented in Table 1. Column (1) reports a preliminary analysis on the effects of FDI and EF on economic growth. Column (2) presents coefficient estimates obtained from the baseline specification, which used an interaction term constructed as a product of FDI and EF.

Table 1: The growth effect of FDI and economic freedom

Variable	(1)	(2)
Initial GDP per capita	-0.0154***	-0.016***
	(-3.522)	(-4.213)
Foreign Direct Investment	0.0168**	0.022**
	(2.254)	(2.421)
Economic Freedom	0.0108**	0.0081**
	(2.28)	(2.313)
Population growth	-0.265***	-0.221***
	(-5.037)	(-4.113)
Primary school enrollment	0.0003*	0.0004**
	(1.841)	(2.435)
Investment (% GDP)	0.0012**	0.0015**
	(2.137)	(2.711)
*Foreign Direct Investment*Economic Freedom*	-	0.0081*
		(1.755)
Constant	0.037*	0.023*
	(1.75)	(1.642)
R-Squared	0.75	0.81
AR(2) test (p-value)	0.664	0.744
Sargan test (p-value)	0.376	0.129

Notes: The dependent variable is the growth rate of real GDP per capita. System-GMM estimations for dynamic panel-data models. Sample period 1980-2012. AR(2) is

a test of second order residual serial correlation. J-test is the Hansen over identification test. t-statistics are in parentheses. *, **, and *** indicate statistical significance at 10 percent, 5 percent and 1 percent levels, respectively.

The results in Column (1) clearly indicate that the estimated coefficient on FDI is statistically significant at the 5% level, which suggests that FDI is growth enhancing in the North African countries. This result is consistent with some studies in the FDI-growth literature (e.g. Chong et al., 2010; Gui-Diby, 2014). Meanwhile, the EF coefficient carries a positive sign and is statistically significant at conventional levels, implying that economic growth is stronger when EF is high because it makes investment more productive. This finding is consistent with the survey conducted by De Haan et al., (2006) and Azman-Saini et al., (2010) who concluded that EF is crucial for economic growth. Importantly, our results also confirm that the greater the EF the more it enhances the advantage of foreign capital inflows. Notice that the coefficients of the core variables considered in the equation enter the regression equation with the correct sign and are significant at the 10% significance level or better. Additionally, the estimated regression passed both specification tests. The null of no second-order serial correlation cannot be rejected at the 5% level. The regression is not plagued by simultaneity bias as the orthogonality conditions cannot be rejected at the 5% level, as indicated by the Hansen test. This suggests that the equation is adequately-specified and the instruments employed in the analysis are valid.

Next, Column (2) shows the regression results based on interaction specification using an interaction term between FDI and the EF index (FDI*EF). In this specification, we relied on the interaction term to establish the contingency. If the term is positive and significant, this would imply that the impact of FDI on economic growth increases with EF. The first thing to note is that the interaction term turns out to be positively signed and statistically significant at the 10% level. This result implies that a better contribution of FDI to economic growth requires taking into account the interrelationship and the complementarily between EF and FDI. The p-values of second-order serial correlation and the Hansen over identification tests indicate that the model is adequately specified. This finding is consistent with recent studies which also found that the impact of FDI on economic growth depended on the absorptive capability of the host countries. Therefore, the finding supports the view that an improvement in the freedom of economic activities is needed to facilitate FDI spillovers.

We introduce the level of initial GDP per capita (the natural logarithm) as independent variable according to the conditional convergence hypothesis. The coefficient of initial GDP per capita shows the expected negative sign and is highly significant, indicating a convergence of per capita income across countries as proposed in growth theories. The result corroborates the work of Barro and Sala-i-Martin (1997). With regards to the effect of the other variables in the regression, they are all consistent with standard

growth regression results. Investment and school enrollment ratios[2] have positive and statistically significant coefficients, indicating that greater investment and education promote economic growth. Finally, population growth has the expected negative coefficient.

5. Conclusions

FDI is viewed as one of the main channels of technology transfer across borders. As a result, many countries compete against each other to attract more FDI. This paper draws from recent literature that underlines the importance of EF in the growth process. Specifically, it explores the role of EF in attracting FDI inflows. It argues that FDI is seeking quality domestic institutions because good institution is able to create a more attractive work environment for investors in terms of lower operating costs and higher productivity.

In order to test the hypothesis, this study uses System GMM panel estimator and data from 4 countries of North Africa over the period 1980-2012. From the empirical analysis, we draw three important conclusions. First, the coefficient measuring the impact of the FDI on economic growth was positive and significant, indicating that FDI affects economic growth in a positive way. Second, EF is found to be an important factor for economic growth for the countries considered. Finally, the effect of FDI on economic growth is contingent on the level of EF in the host countries. This means that the countries under review that exhibit greater degrees of economic freedom gain significantly from the presence of MNCs'.

References

Acemoglu, D., Johnson, S., and Robinson, J., (2001). "The colonial origins of comparative development: an empirical investigation", *American Economic Review*, 91, 1369-1401.

Aisen, A., and Veiga, F.J., (2013). "How does political instability affect economic growth?", *European Journal of Political Economy*, 29, 151-167.

Aitken, B., Hanson, G., and Harrison, A., (1997). "Spillovers, foreign investment, and export behavior", *Journal of International Economics*, 43, 103-132.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., and Sayek, S., (2010). "Does foreign direct investment promote growth? Exploring the role of financial markets on linkages", *Journal of Development Economics*, 61, 242-256.

Arellano, M., and Bover, O., (1995). "Another look at the instrumental-variable estimation of error-components models", *Journal of Econometrics*, 68, 29-52.

Arellano,M., and Bond, S., (1991). "Some tests of specification for panel data: Monte Carlo evidence with an application for employment equations", *Review of Economic Studies*, 58, 277-297.

Azman-Saini, W. N. W., Baharumshah, A. Z., and Law, S. H., (2010). "Foreign direct investment, economic freedom and economic growth: international evidence", *Economic Modelling*, 27(5), 1079-1089.

Balasubramanyam, V., Salisu, M., and Sapsford, D., (1996). "Foreign direct investment and growth in EP and IS countries", *Economic Journal*, 106, 92-105.

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[2] The results are virtually the same when secondary enrollment is used instead of primary enrollment. Since we have more observations for the latter, we opted to include it in the estimations reported in this paper.

Barro, R.J., and Sala-i-Martin, X., (1997). "Technological diffusion, convergence, and growth", *Journal of Economic Growth*, 2(1), 1-27.

Barro, R.J., (2000). Rules of law, democracy, and economic performance. In: O'Driscoll, G.P., Holmes, K.R., Kirkpatrick, M. (Eds.), 2000 Index of Economic Freedom. Heritage Foundation and the Wall Street Journal, Washington. D.C. and New York.

Blomstrom, M., Lipsey, R., and Zejan, M., (1994). What explain developing country growth? In: Baumol, W., Nelson, N., Wolff, E. (Eds.), Convergence and Productivity: Cross- National Studies and Historical Evidence. Oxford University Press, Oxford.

Blundell, R., and Bond, S., (1998). "Initial conditions and moment restrictions in dynamic panel data models", *Journal of Econometrics*, 87, 115-143.

Borensztein, E., De Gregorio, J., and Lee, J.W., (1998). "How does foreign investment affect economic growth?", *Journal of International Economics*, 45, 115-135.

Chang, C., and Mendy, M., (2012). "Economic growth and openness in Africa: what is the empirical relationship?", *Applied Economics Letters* ,19(18), 1903-1907.

Chong, C.-K., Baharumshah, A.Z., Yusop, Z., and Habibullah, M.S., (2010). "Private capital flows, stock market and economic growth in developed and developing countries: a comparative analysis", *Japan and the World Economy*, 22, 107-117.

Cohen, D., and Levinthal, W., (1990). "Absorptive capacity: a new perspective on learning and innovation", *Administrative Science Quarterly*, 35(1), 128-152.

Compton, R.A., Giedeman, D.C., and Hoover, G.A., (2011). "Panel evidence on economic freedom and growth in the United States", *European Journal of Political Economy*, 27, 423-435.

Crespo, N., and Fontoura, M., (2007). "Determinant factors of FDI spillovers-what do we really know?", *World Development*, 35, 410-425.

De Haan, J., Lundstrom, S., and Sturm, J., (2006). "Market-oriented institutions and policies and economic growth: a critical survey", *Journal of Economic Surveys*, 20, 157-191.

Demetriades, P., and Law, S., (2006). "Finance, institutions and economic development", *International Journal of Finance and Economics*, 11, 245-260.

Dunning, J., (1993). Multinational Enterprises and the Global Economy. Addison-Wesley, Wokingham.

Ericsson, J., and Irandoust, M., (2001). "On the causality between foreign direct investment and output: a comparative study", *International Trade Journal*, 15, 1-26.

Fabro, G., and Aixalá, J., (2012). "Direct and indirect effects of economic and political

freedom on economic growth", *Journal of Economic Issues*, 46, 1059-1080.

Fosfuri, A., Motta, M., and Ronde, T., (2001). « Foreign direct investment and spillovers through workers' mobility", *Journal of International Economics*, 53, 205-222.

Gemmell, N., (1996). "Evaluating the impacts of human capital stocks and accumulation on economic growth: some new evidence'" *Oxford Bulletin of Economics and Statistics*, 58, 9-28.

Gui-Diby, S.L., (2014). "Impact of foreign direct investments on economic growth in Africa: evidence from three decades of panel data analyses", *Research in Economics*, 68: 248-256.

Gwartney, J., Lawson, R., and Hall, J., (2014). "Economic Freedom of the World – 2014", *Annual Report*, Fraser Institute.

Hall, R., and Jones, C., (1999). "Why do some countries produce so much more output per worker than others?", *Quarterly Journal of Economics*, 114, 83-116.

Hausmann, R., and Fernández-Arias, F., (2001). Foreign direct investment: good cholesterol? In: Braga, Jorge, de Macedo, J., Iglesias, E. (Eds.), Foreign Direct Investments versus Other Flows to Latin America. OECD, Paris.

Heritage Foundation, (2004). Index of Economic Freedom. The Heritage Foundation Washington DC and Dow Jones and Company, Inc., New York.

Herzer, D., Klasen, S., and Nowak-Lahman, D., (2008). "In search of FDI-led growth in developing countries", *Economic Modelling*, 25, 793-810.

Krugman, P., (2000). Fire-sale FDI. In: Edwards, S. (Ed.), Capital Flows and the Emerging Economies. The University of Chicago Press, Chicago.

Mankiw, N.G., Romer, D., and Weil, D., (1992). "A contribution to the empirics of economic growth", *Quarterly Journal of Economics*, 107, 407-437.

North, D.C., (1991). "Institutions", *The Journal of Economic Perspectives*, 5(1), 97-112.

Quazi, R., (2007). "Economic freedom and foreign direct investment in East Asia", *Journal of the Asia Pacific Economy*, 12(3), 329-344.

Razin, A., Sadka, E., and Yuen, C., (1999). "An information-based model of FDI: the gains from trade revisited", *International Tax and Public Finance*, 6, 579-596.

Rodriguez-Clare, A., (1996). "Multinationals, Linkages, and Economic Development", *American Economic Review*, 86, 852-873.

Rodrik, D., Subramanian, A., and Trebbi, F., (2004). "Institutions rule: the primacy of institutions over geography and integration in economic development", *Journal of Economic Growth*, 9(2), 131-165.

Stiglitz, J.E., (2000). "Capital market liberalization, economic growth, and instability", *World Development*, 28(6), 1075-1086.

UNCTAD, (2001). World Investment Report: Promoting Linkages. United Nations.

UNCTAD, (2014). World Investment Report: Investing in the SDGs: An action Plan. United Nations.

World Bank, (1999). Global Economic Prospects and Developing Countries 1999/2000.

World Bank, (2014). World Development Indicators. World Bank, Washington DC.

Xu, B., (2000). "Multinational enterprises, technology diffusion, and host country productivity growth", *Journal of Development Economics*, 62, 477-493.