

The Effects of ODA on FDI Inflows to Developing Countries*

Yong-Jae Choi(First author)

yjchoi@hufs.ac.kr

Department of Economics, Hankuk University of Foreign Studies, Korea.

Seung-Nyeon Kim(Corresponding author)

snkim@hufs.ac.kr

Department of Economics, Hankuk University of Foreign Studies, Korea.

<Contents>

- I. Introduction
- II. Data and an Estimation Model
- III. Estimation Results
- IV. Conclusion

Abstract

The purpose of this paper is to estimate the effect of Official development assistance (ODA) on foreign direct investment (FDI) inflows in developing countries. This issue has been studied by many economists but there is no consensus yet on the relationship between ODA and FDI. We analyzed the data of 91 developing countries for the period of 2000 to 2019. For the whole data, the relationship is not significant in our estimation results. When we divide the data into low-income and middle-income countries, however, we found a positive effect of ODA on FDI inflows in low-income countries, but no significant result in middle-income countries. This result supports the policy direction of international organizations to provide more ODA funding to low-income countries for economic development.

Key words: ODA, FDI, low-income countries, middle-income countries

* This work was supported by 'Hankuk University of Foreign Studies Research Fund of 2023'.

I. Introduction

It is often argued that inflows of foreign direct investment (FDI) play an important role in stimulating economic development of host countries (Balasubramanyam *et al.*, 1996; Blomström & Kokko, 1996; Li & Liu 2005)¹). Developing countries often fall short of domestic savings necessary for economic development and, thus, additional input of capital can be a key driver of economic development. Besides direct capital transfers, FDI could provide other development-stimulating channels such as introduction of new technologies, transfer of knowledge and managerial skills, employee training, and so on (De Mello, 1997; Hansen & Rand, 2006; Kose *et al.*, 2009). Indeed, many developing countries have implemented various policies to attract FDI inflows.

Considering the importance of FDI inflows, a number of studies have been conducted on its determinants (e.g., Schneider & Frey, 1985; Wheeler & Mody, 1992; Asiedu, 2002; Saini & Singhania, 2018). Among the variables that have been shown to influence FDI inflows are market size, market growth rate, taxes and tariffs, infrastructural provisions, and efficiency and stability of legal/regulatory systems.

This paper focuses on official development assistance (ODA) as another factor influencing FDI inflows to developing countries. In 2021, ODA totaled US\$ 185.9 billion²), which is more than one-fifth of FDI flows in developing economies (nearly US\$870 billion³). The resources transferred through ODA can help finance investments in improving infrastructure (e.g., transport and telecommunications), education and public health in recipient countries that make FDI inflows to these countries more attractive (Harms and Lutz, 2006; Selaya & Sunesen, 2012). From a different perspective, Kimura and Todo (2010) and Kang and Won (2017) report ‘vanguard effects’ implying that ODA from a country promotes FDI by the firms of the donor country into the recipient country

1) Some studies claim that FDI inflows lead to the economic development only when the host countries have the substantial level of absorptive capacity (Balasubramanyam *et al.*, 1996; Borenzstein *et al.*, 1998; Alfaro *et al.*, 2004).

2) ODA Final Data 2021. Retrieved from <https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/official-development-assistance.htm>.

3) UNCTAD News. Retrieved from <https://unctad.org/news/global-foreign-direct-investment-rebounded-strongly-2021-recovery-highly-uneven>.

since ODA provides business-related information and/or implants the donor's business practices, rules and systems into recipient country thus mitigating the risks associated with FDI.

However, some argue that ODA could have adverse effects on FDI inflows. Caselli & Feyrer (2007) argue that ODA could crowd out private investment since ODA lowers marginal productivity of capital in a recipient country and results in capital outflows offsetting the initial increase in the capital due to ODA. Furthermore, it is asserted that ODA can undermine the quality of governance by weakening accountability or by encouraging rent-seeking activities and corruption (Burnside & Dollar, 2000; Knack, 2001; Alesina & Weder, 2002; Harms and Lutz, 2006; Rajan & Subramanian, 2007) and make FDI into a recipient country less attractive.

Empirical evidence from previous studies on whether ODA can make recipient countries more/less attractive for FDI is mixed. Ratha (2001) shows that multilateral lending has a positive effect on future private capital flows. On the other hand, Asiedu *et al.* (2009) show that ODA has a negative effect on FDI, but Karakaplan *et al.* (2005) claim that the effect could be mitigated by better governance or financial market development in developing countries. Harms & Lutz (2006) do not find a significant effect of official lending on private capital flows.

The direction of ODA's impact on FDI has significant implications for government policies. When the impact is positive, ODA is more effective for the economic growth of developing countries and it is recommended that donors offer more ODA to developing countries. Conversely, if the impact is negative, developing countries will need to put more policy efforts into facilitating FDI inflows and mitigating the mechanisms (e.g., increased corruption) that cause the negative impact. The following case hints that the positive effect of ODA on FDI urges a greater role of ODA to promote economic growth of developing countries:

In 1997-98, foreign investors expressed interest to invest in Ethiopia for coffee production. However, the unsustainability of land management discouraged them from investment. The Norwegian and Swiss Development

Agencies in Ethiopia provided legal and technical assistance to help improve the sustainable management of agriculture in the region. As a direct consequence of the assistance, the company has invested heavily in the region and coffee production for export began in 2000.⁴⁾

Official development assistance is an alternative source of capital to FDI and it is specifically targeted to the economic development and welfare of developing countries, while FDI is driven by profit motives of multinational corporations. Thus, dividing developing countries into two groups (low- and middle-income countries), ODA seems to be particularly important for low-income countries that lack infrastructure and other conditions to attract FDI. To the best of our knowledge, this point is not addressed in existing studies and this paper attempts to fill this gap by examining the effect of ODA on FDI separately in two different groups of developing countries.

The remainder of this paper is organized as follows. Section II describes data and estimation methods and Section III summarizes estimation results. Finally, concluding remarks follow in Section IV.

II. Data and an Estimation Model

Our data set consists of a panel of 91 developing countries for the period 2000-2019. There are 53 low-income countries and 38 middle-income countries classified by the World Bank for the year 2000.⁵⁾ The country list is shown in Appendix 1. We include the countries where the data of FDI and ODA for the whole period are available. We drop the countries with a population of less than 1 million to reduce the biased factor in FDI and ODA of small-size countries. We also exclude the countries that moved to high-income countries in 2019 because of the negligible amount of ODA in recent periods. All variables are averaged over five-year periods as typically used for this kind of studies, so we have four data series of each variable for each country. The variable

4) This case is taken from Vitalis (2001).

5) The World Bank classifies the countries by income into four groups: low income, lower middle income, higher middle income, and high income economies. We combine the lower middle income and higher middle income to middle income countries.

description and summary statistics are shown in Table 1.

<Table 1> Data description and summary statistics

Variable	Description	Data source	No of observation	Mean	Std. Dev.
ln(FDI)	Log of real net FDI inflows per capita (constant 2019 US\$)	World Bank	355	3.394	1.503
ln(ODA)	Log of real ODA from official donors per capita (constant 2019 US\$)	OECD	360	3.617	1.170
Lit	Literacy rate (adult total, %)	World Bank	285	74.821	21.048
Gov	Average of the six indicators from the Worldwide Governance Indicators	World Bank	364	-0.604	0.498
GDPgrow	Growth rate of GDP per capita (%)	World Bank	364	2.624	2.912
ln(GDP)	Log of real GDP (constant 2019 million US\$)	World Bank	364	10.221	1.657

Note: 1) Constant values of 2019 US\$ are calculated by the authors using the CPI of the United States.

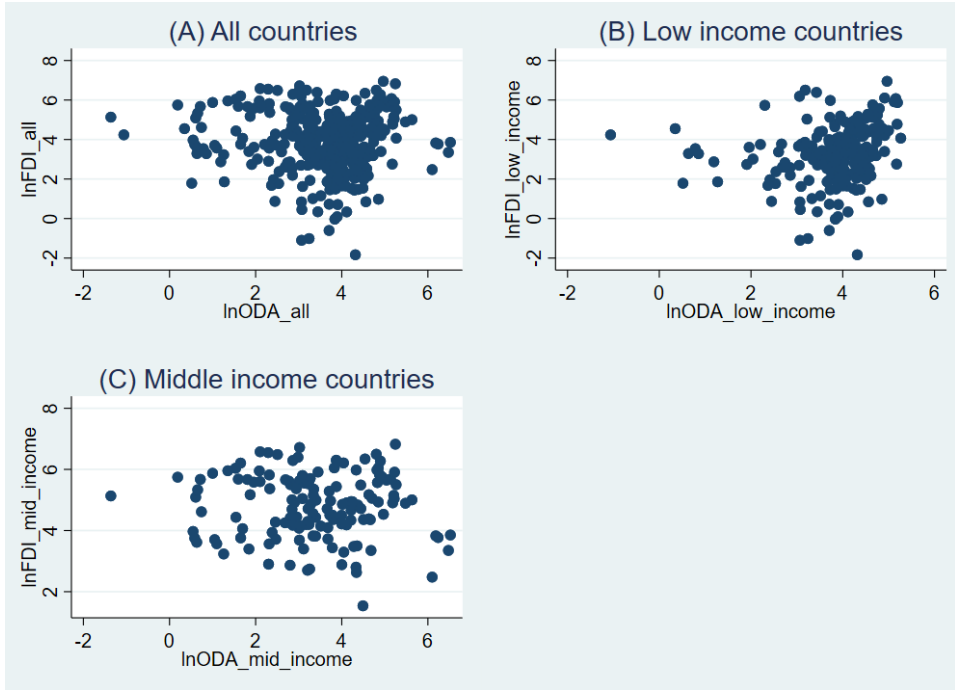
2) The six governance indicators from the Worldwide Governance Indicators are control of corruption, government effectiveness, political stability and absence of violence/terrorism, regulatory quality, rule of law, and voice and accountability.

The variable ln(FDI) is the log of net FDI inflows per capita in the real value of the US dollar in 2019. ln(ODA) is the log of real ODA from official donors per capita in 2019 US dollars where the official donors are the DAC (Development Assistance Committee) countries and multilateral agencies. Literacy rate indicates the level of human capital. Governance shows the quality of governance which is the average of the six indicators from the Worldwide Governance Indicators. The variables of literacy rate and governance indicate the absorptive capacity and institutional environment of the host country for inducing FDI, respectively. The growth rate of GDP is the real growth rate of GDP per capita in domestic currency over two consecutive years, indicating the potential of the economy. ln(GDP) indicates the size of the economy or market of the country, measured in US dollars for comparison of market size among countries.

The relationship between ln(FDI) and ln(ODA) is shown in Figure 1. The relationship is unclear in (A) when all countries are included. When we see

(B) and (C), we do not find a clear relationship in middle-income countries, but it seems that there might be some positive relationship between the two variables in low-income countries. These visual observations will be rigorously analyzed below in regression analysis. Our first observation from the figure suggests a more close relationship between FDI and ODA in low-income countries compared to middle-income countries.

<Figure 1> Relationship between FDI and ODA



The econometric model for the estimation is shown in equation (1):

$$\ln FDI_{it} = c + \alpha_t + \beta_1 \ln ODA_{it} + \sum_{k=2}^K \beta_k X_{kit} + \varepsilon_{it} \quad (1)$$

where $i = 1, \dots, N$ refers to countries, $t = 1, \dots, T$ to time periods, $k = 1, \dots, K$ to independent variables, c is a constant, α_t is the time dummy, X is other independent variables, and ε_{it} is the disturbance term. As for other independent

variables, we consider the current period literacy rate, governance index, lagged GDP growth rate, and lagged level of GDP. The GDP growth rate and level of GDP are lagged by one period to reduce the endogeneity problem between FDI and GDP variables.

We estimate equation (1) by pooled ordinary least squares (OLS), fixed effect model, and random effect model. We allow intra-country correlation of residuals using clustered standard errors that are robust to the correlation between error terms of the same country and heteroskedasticity over time.⁶⁾ We also consider the appropriateness of fixed effect model or random effect model in case of clustered standard errors.⁷⁾

III. Estimation Results

The estimation results from the pooled OLS for all countries are shown in Table 2. Column (A) which includes all variables indicates that literacy rate, governance, and lagged GDP growth rate are significant while ODA and lagged GDP are insignificant. When we exclude lagged GDP from the independent variables, we obtain the same results to column (A) as shown in column (B). Here, ODA does not appear to play an important role in attracting FDI in developing countries.

6) The adjustment for clustered standard errors is common in panel analysis. It allows for intra-group correlation such as intra-country correlation, relaxing the usual requirement that all of the observations are independent. One of the previous studies using the assumption of cluster-adjusted standard errors is found in Harms and Lutz (2006).

7) The typical Hausman test in selecting fixed effect model versus random effect model is not applicable in the case of clustered standard errors. Instead, we apply 'xtoverid' in Stata - a Stata user-written command used to choose between fixed and random effect models in the presence of robust standard errors as shown in Schaffer and Stillman (2006).

<Table 2> Estimation results from pooled OLS for all countries

	(A)	(B)
ODA	0.1801 (0.1231)	0.0447 (0.0764)
Lit	0.0295 (0.0052) ***	0.0314 (0.0052) ***
Gov	0.7592 (0.2331) ***	0.8347 (0.2478) ***
GDPgrow (lagged)	0.0662 (0.0319) **	0.0641 (0.0318) **
GDP (lagged)	0.1426 (0.1062)	
R ²	0.4461	0.4354
No. of observations	203	203

Note: 1) A constant and time dummies are included in the estimation.
 2) The numbers in parentheses are cluster-adjusted standard errors.
 3) ***, ** and * indicate significance at 1%, 5% and 10% levels, respectively.

The pooled OLS estimation results are substantially different between low-income and middle-income countries as shown in Table 3. Literacy rate and GDP growth rate are significant in affecting FDI in low-income countries, while governance is significant and literacy rate is marginally significant in middle-income countries. ODA becomes significant in column (B) of low-income countries when the insignificant lagged GDP is excluded from the exogenous variable. The contribution of ODA to FDI inflows is strong in low-income countries while it is insignificant in middle-income countries. It appears that the insignificant coefficient of ODA in Table 2 is mainly due to the insignificance of ODA in middle-income countries.

<Table 3> Estimation results from pooled OLS for low and middle-income countries

	Low income		Middle income	
	(A)	(B)	(A)	(B)
ODA	0.3678 (0.2243)	0.2246 (0.0937) **	0.0895 (0.1402)	-0.0227 (0.0972)
Lit	0.0229 (0.0056) ***	0.0234 (0.0055) ***	0.0330 (0.0163) *	0.0325 (0.0170) *
Gov	0.4302 (0.3093)	0.4634 (0.3393)	0.8419 (0.3710) **	0.9007 (0.3547) **
GDPgrow (lagged)	0.1045 (0.0275) ***	0.1102 (0.0277) ***	0.0766 (0.0715)	0.0673 (0.0726)
GDP (lagged)	0.1264 (0.1849)		0.1404 (0.1122)	
R ²	0.3633	0.3563	0.2699	0.2506
No of obs	116	116	87	87

Note: 1) A constant and time dummies are included in the estimation.
 2) The numbers in parentheses are cluster-adjusted standard errors.
 3) ***, ** and * indicate significance at 1%, 5% and 10% levels, respectively.

Panel data are typically estimated with fixed effect and random effect models. Table 4 shows the estimation results of fixed and random effect models for all countries. The results are similar in both models in that governance and lagged GDP growth rate are significant in affecting FDI while ODA and lagged GDP are not significant. Literacy rate is significant in random effect model while it is marginally significant in fixed effect model. Here, we could not find an important role of ODA in attracting FDI with the sample of all countries.

<Table 4> Estimation results from fixed and random effect models for all countries

	Fixed effect		Random effect	
	(A)	(B)	(A)	(B)
ODA	0.0255 (0.0989)	0.0193 (0.0930)	0.0787 (0.0744)	0.0097 (0.0516)
Lit	0.0186 (0.0101) *	0.0185 (0.0101) *	0.0267 (0.0053) ***	0.0279 (0.0053) ***
Gov	0.8082 (0.3582) **	0.8314 (0.3578) **	0.7622 (0.1862) ***	0.0809 (0.1903) ***
GDPgrow (lagged)	0.0527 (0.0236) **	0.0523 (0.0225) **	0.0539 (0.0181) ***	0.0537 (0.0179) ***
GDP (lagged)	0.2572 (0.2572)		0.1066 (0.0823)	
R ²	0.4273	0.4188	0.4411	0.4326
No of obs	203	203	203	203

Note: 1) A constant and time dummies are included in the estimation.
 2) The numbers in parentheses are cluster-adjusted standard errors.
 3) ***, ** and * indicate significance at 1%, 5% and 10% levels, respectively.

Table 5 shows the estimation results from fixed and random effect models for low and middle-income countries. The results vary with the group of countries and estimation models. For low-income countries, only the literacy rate is significant in fixed effect model, while ODA, literacy rate, governance, and GDP growth rate are significant in random effect model. For the middle-income countries, governance and GDP growth rate are significant in both fixed and random effect models. We found that the random effect model is a more appropriate estimation model than the fixed effect model for low-income countries based on the Sargan-Hansen statistic.⁸⁾

8) The result of Sargan-Hansen statistic is derived when the command of 'xtoverid' in Stata is used. When we apply the Hausman test with the standard assumption about the error terms for the case of low-income countries, the Chi square statistic has a p-value of 0.6057, which indicates the random effect model is appropriate for the estimation.

<Table 5> Estimation results from fixed and random effect models for low and middle-income countries

	Low-income		Middle-income	
	Fixed	Random	Fixed	Random
ODA	0.1316 (0.1350)	0.1626 (0.0821) **	0.0736 (0.1037)	-0.0339 (0.0277)
Lit	0.0247(0.0119) **	0.0237 (0.0055) ***	-0.0348 (0.0204) *	0.0148 (0.0191)
Gov	0.6671 (0.4829)	0.5976 (0.2759) **	1.3440 (0.3255) ***	1.0431 (0.2815) ***
GDPgrow (lagged)	0.0234 (0.0276)	0.0454 (0.0223) **	0.0787 (0.0207) ***	0.0885 (0.0235) ***
R ²	0.3197	0.3365	0.0409	0.2263
No of obs	116	116	87	87
Sargan-Hansen statistic	8.584 [0.1984]		12.576 [0.0503]	

- Note: 1) A constant and time dummies are included in the estimation.
 2) The numbers in parentheses are cluster-adjusted standard errors.
 3) The numbers in square brackets are p-values for the Sargan-Hansen statistic from xtoverid test in Stata.
 4) ***, ** and * indicate significance at 1%, 5% and 10% levels, respectively.

In our estimation results from the three types of models, we do not find any case that ODA is significant for all countries. That is the same for middle-income countries. However, for low-income countries, the two types of estimation models, the results from pooled OLS and random effect model, reveal a significant positive role of ODA in attracting FDI inflows. Moreover, the random effect model seems to be a more appropriate estimation model for low-income countries based on the Sargan-Hansen statistic. Therefore, in low-income countries, we found that ODA, literacy, governance, and lagged GDP growth are significant factors influencing FDI inflows.

The lack of significance of ODA for the sample of all countries may be caused by the insignificance of ODA in middle-income countries. For FDI inflows, ODA is not an important factor in middle-income countries. However, it is different for low-income countries. The results show us the different roles of ODA between low-income countries and middle-income countries. ODA could play a significant role in inducing FDI in low-income countries. Literacy and governance are significant in most of the regressions indicating that absorptive capacity and institutional environment of a host country help attract FDI in

low- and middle-income countries. Furthermore, the significance of GDP growth rate in most of the estimation results indicates the importance of the economic growth potential of developing countries for FDI inflows. Our results imply that ODA is effective in attracting FDI only in low-income countries in that ODA could play a more important role in inducing FDI in low-income countries where other factors such as human capital and institutions are very weak.

Mobilizing development resources has long been a crucial issue in development cooperation, especially in the process of achieving the Sustainable Development Goals to end poverty and improve the lives of all the people in the world. For developing countries, both FDI and ODA are major sources of foreign resources, but it would be more urgent for low-income countries. In our sample, FDI is significantly greater in middle-income countries than low-income countries while ODA is bigger in low-income countries as shown in Table 6. From the perspective of low-income countries, the source of FDI is limited while the growth of ODA is slow. When we add FDI to ODA, the sum of foreign resources for low-income countries is significantly smaller than middle-income countries. Since our estimation results imply the effectiveness of ODA in attracting FDI in low-income countries, more emphasis on increasing ODA in low-income countries would lead to a greater development impact in raising economic resources for developing countries.

<Table 6> t-test for FDI and ODA between low-income and middle-income countries

	group	mean	standard deviation	difference (low-income – middle-income)
ln(FDI)	Low-income	3.241	1.449	-1.556 (0.139) ***
	Middle-income	4.797	1.040	
ln(ODA)	Low-income	3.791	0.950	0.423 (0.124) ***
	Middle-income	3.368	1.394	
ln(FDI)+ ln(ODA)	Low-income	7.050	1.870	-1.087 (0.196) ***
	Middle-income	8.138	1.708	

Note: 1) The null hypothesis of the t-test is that the means of low and middle-income countries are the same.

2) The numbers in parentheses are standard errors.

3) *** indicates significance at 1%.

IV. Conclusion

This paper estimates how FDI is influenced by a number of variables using pooled OLS, fixed effect, and random effect models. Overall, this paper provides evidence that developing countries with larger human capital, better governance or a higher economic growth rate tend to bring in more FDI. The positive effect of ODA on FDI inflows is confirmed in low-income countries but it turns out to be insignificant in middle-income countries.

This result recommends that developing countries strive to improve human capital and governance to promote FDI inflow. The indirect effect of ODA facilitating FDI demands a greater role of ODA in promoting the economic growth of developing countries. Furthermore, the empirical evidence suggests that donors of ODA focus their ODA resources on low-income countries to more effectively help developing countries to grow. It also supports the policy direction of international organizations to urge more ODA funding to low-income countries that need it most⁹⁾.

Considering that FDI and ODA are alternative sources of foreign capital to supplement the paucity of domestic savings in developing countries, further research is warranted to evaluate the comparative effects of FDI and ODA on economic growth in developing countries. In particular, we need to focus on the role of absorptive capacity and governance of host countries that influence the impact of FDI and ODA, respectively, on economic growth. We leave this as a future research agenda.

9) OECD Development Assistance Committee (DAC) agreed to allocate more ODA to countries in need, such as least developed countries (LDCs), low-income countries, small island developing countries, land-locked developing countries and fragile and conflict-affected states (OECD, 2014).

■ Appendix: Country List

(1) Low-income countries: Angola, Armenia, Azerbaijan, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Cameroon, Central African Republic, Chad, Congo Dem. Rep., Congo Rep., Cote d'Ivoire, Ethiopia, Gambia, Georgia, Ghana, Guinea, Guinea-Bissau, Haiti, India, Indonesia, Kenya, Kyrgyz Rep., Lao PDR, Lesotho, Madagascar, Malawi, Mali, Mauritania, Moldova, Mongolia, Mozambique, Myanmar, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Rwanda, Senegal, Sierra Leone, Sudan, Tajikistan, Tanzania, Togo, Uganda, Uzbekistan, Vietnam, Yemen, Zambia, Zimbabwe.

(2) Middle-income countries: Albania, Algeria, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Colombia, Costa Rica, Dominican Rep., Ecuador, Egypt, El Salvador, Eswatini, Gabon, Guatemala, Honduras, Iran, Iraq, Jamaica, Jordan, Kazakhstan, Lebanon, Malaysia, Mexico, Morocco, Namibia, North Macedonia, Papua New Guinea, Paraguay, Peru, Philippines, South Africa, Sri Lanka, Thailand, Tunisia, Türkiye, Turkmenistan, West Bank and Gaza.

References

- Alesina, A. and B. Weder (2002), “Do corrupt governments receive less foreign aid?”, *American Economic Review*, 92(4), pp. 1126-1137.
- Alfaro, L., A. Chanda, S. Kalemli-Ozcan and S. Sayek (2004), “FDI and economic growth: the role of local financial markets,” *Journal of International Economics*, 64(1), pp. 89-112.
- Asiedu, E. (2002), “On the determinants of foreign direct investment to developing countries: is Africa different?”, *World Development*, 30(1), pp. 107-119.
- Asiedu, E., Y. Jin and B. Nandwa (2009), “Does foreign aid mitigate the adverse effect of expropriation risk on foreign direct investment?”, *Journal of International Economics*, 78(2), pp. 268-275.
- Balasubramanyam, V. N., M. Salisu and D. Sapsford (1996), “Foreign direct investment and growth in EP and IS countries,” *The Economic Journal*, 106(434), pp. 92-105.
- Blomström, M. and A. Kokko (1996), “The impact of foreign investment on host countries: a review of the empirical evidence,” *Policy Research Working Paper*, 1745.
- Borensztein, E., J. De Gregorio and J. W. Lee (1998), “How does foreign direct investment affect economic growth?”, *Journal of International Economics*, 45(1), pp. 115-135.
- Burnside, C. and D. Dollar (2000), “Aid, policies, and growth,” *American Economic Review*, 90(4), pp. 847-868.
- Caselli, F. and J. Feyrer (2007), “The marginal product of capital,” *The Quarterly Journal of Economics*, 122(2), pp. 535-568.
- De Mello Jr, L. R. (1997), “Foreign direct investment in developing countries and growth: A selective survey,” *The Journal of Development Studies*, 34(1), pp. 1-34.
- Hansen, H. and J. Rand (2006), “On the causal links between FDI and growth in developing countries,” *World Economy*, 29(1), pp. 21-41.
- Harms, P. and M. Lutz (2006), “Aid, governance and private foreign investment: Some puzzling findings for the 1990s,” *The Economic Journal*, 116(513), pp. 773-790.
- Kang, G. S. and Y. Won (2017), “Does Korea’s official development assistance (ODA) promote its FDI?”, *Journal of Economic Research*, 22(1), pp. 23-46.
- Karakaplan, U., B. Neyapti and S. Sayek (2005), “Aid and foreign direct investment: International evidence,” Discussion Paper, No. 2005/12, Turkish Economic Association, Ankara.

- Kimura, H. and Y. Todo (2010), "Is foreign aid a vanguard of foreign direct investment? A gravity-equation approach," *World Development*, 38(4), pp. 482-497.
- Knack, S. (2001), "Aid dependence and the quality of governance: Cross-country empirical tests," *Southern Economic Journal*, 68(2), pp. 310-329.
- Kose, M. A., E. S. Prasad and M. E. Terrones (2009), "Does openness to international financial flows raise productivity growth?," *Journal of International Money and Finance*, 28(4), pp. 554-580.
- Li, X. and X. Liu (2005), "Foreign direct investment and economic growth: an increasingly endogenous relationship," *World Development*, 33(3), pp. 393-407.
- OECD, D. (2014, December), "DAC High Level Meeting: Final communiqué," in *DAC High Level Meeting, OECD Conference Centre, Paris*, pp. 15-16. Retrieved from <https://www.oecd.org/dac/OECD%20DAC%20HLM%20Communique.pdf>
- Rajan, R. and A. Subramanian (2007), "Does aid affect governance?," *American Economic Review*, 97(2), pp. 322-327.
- Ratha, D. (2001), "Complementarity between multilateral lending and private flows to developing countries: some empirical results," *Available at SSRN 634459*.
- Saini, N. and M. Singhania (2018), "Determinants of FDI in developed and developing countries: A quantitative analysis using GMM," *Journal of Economic Studies*, 45(2), pp. 348-382.
- Schaffer, M. and S. Stillman (2006), "xtoverid: Stata module to calculate tests of overidentifying restrictions after xtreg, xtivreg, xtivreg2 and xhtaylor," Statistical Software Components S456779, Boston College Department of Economics.
- Schneider, F. and B. S. Frey (1985), "Economic and political determinants of foreign direct investment," *World Development*, 13(2), pp. 161-175.
- Selaya, P. and E. R. Sunesen (2012), "Does foreign aid increase foreign direct investment?," *World Development*, 40(11), pp. 2155-2176.
- Vitalis, V. (2001), Round Table on Sustainable Development - Official development assistance and foreign direct investment: Improving the synergies. Organisation for Economic Co-operation and Development.
- Wheeler, D. and A. Mody (1992), "International investment location decisions: The case of US firms," *Journal of International Economics*, 33(1-2), pp. 57-76.

<한글초록>

개발도상국 FDI 유입에 대한 ODA의 영향

최용제
(한국외국어대학교 경제학부 교수)

김승년
(한국외국어대학교 경제학부 교수)

이 논문은 ‘개발도상국에 있어 ODA가 FDI 유입에 미치는 영향’을 추정하는데 그 목적이 있다. ODA와 FDI의 관계에 대한 이 주제는 많은 경제학자들에 의해 연구되어 왔지만, 아직 합의를 이루지 못한 분야이다. 이 논문은 2000년부터 2019년까지 91개의 개발도상국 데이터를 이용하여 분석하였다. 전체 데이터를 이용한 추정에서는 ODA와 FDI간 유의미한 관련성을 찾을 수 없었다. 그렇지만 개도국들을 저소득국과 중소득국으로 나누어 분석했을 때는 저소득국에서 ODA가 FDI에 양의 영향을 줄 수 있었다. 중소득국의 경우에는 그러한 영향이 없었다. 이 분석결과는 ‘저소득국 경제개발을 위해 더 많은 ODA가 지원되어야 한다’는 국제사회의 정책방향에 부합한다.

주제어(key words): ODA, FDI, 저소득국, 중소득국.

【2023. 10. 27. 접수】 【2024. 2. 23. 수정】 【2024. 2. 26. 게재확정】