Economic Analysis and Policy 56 (2017) 176–187

Contents lists available at ScienceDirect

Economic Analysis and Policy

journal homepage: www.elsevier.com/locate/eap

Full length article

Foreign direct investment and economic growth in Latin America

Rafael Alvarado [a,*], María Iñiguez [b], Pablo Ponce [a]

[a] School of Economics, Universidad Nacional de Loja, Loja, Ecuador
[b] School of Economics, Universidad Técnica Particular de Loja, Ecuador

ARTICLE INFO

Article history:
Received 25 November 2016
Received in revised form 9 August 2017
Accepted 18 September 2017
Available online 25 September 2017

JEL classification:
F23
O41
O54

Keywords:
Foreign direct investment
Economic growth
Panel data
Llatin America

ABSTRACT

This work examines the effect of foreign direct investment (FDI) on economic growth in 19 Latin American countries. Using panel data econometrics, we found robust empirical evidence that suggests that the effect of FDI on economic growth is not statistically significant in aggregated form. This result varies when we incorporate the levels of development reached by the countries in the region. FDI has a positive and significant effect on product in high-income countries, while in upper-middle-income countries the effect is uneven and non-significant. Finally, the effect in lower-middle-income countries is negative and statistically significant. Our results show that FDI is not an adequate mechanism to accelerate economic growth in Latin America, with the exception of high-income countries.

1. Introduction

The region of Latin America is specialized in extracting natural resources aimed at the international market. FDI has increased substantially in recent years in several countries (UNCTADSTAT, 2016) as a result of increased prices of the commodities exported from the region. For example, in 2013 the rate of FDI was 12.3% higher than the year before. Despite this increase, in the academic and political debate it is argued that Latin America needs higher levels of FDI to accelerate economic growth. This occurs because internal savings do not meet the total demand for investment, particularly in countries where FDI has stagnated. Theoretically, FDI generates benefits for investors (reduced costs, expanded markets) and receivers (technology transfers, human capital transfers and generation of employment). Consequently, providing incentives to attract and increase FDI represents an excellent strategy to reach higher levels of production in developing and emerging countries (Yao, 2006).

There is ample theoretical and empirical literature that favors FDI as an instrument to increase economic growth. FDI can act as a mechanism to accumulate physical capital and transfer human capital to the receiving country, which can increase economic growth rate. Technology transfer increases the efficiency of production factors and this in turn reduces the technological gap between national and international enterprises (Anwar and Nguyen, 2010). Likewise, FDI acts as a technology transfer vehicle between developed and developing countries (Borensztein et al., 1998). Along the same line, Aghion and Howitt (1998) indicated that economic growth is driven by innovation. They argued that technology is incorporated into an economy mainly through FDI and international trade. However, when the receiving countries have

* Corresponding author.
E-mail addresses: jose.r.alvarado@unl.edu.ec (R. Alvarado), mpiniguez1@utpl.edu.ec (M. Iñiguez), pablo.ponce@unl.edu.ec (P. Ponce).

https://doi.org/10.1016/j.eap.2017.09.006
0313-5926/

low levels of human capital and consequently a low level of absorption of technology, FDI has weak role in determining levels of production (Forte and Moura, 2013). Likewise, increased productivity of factors as a result of FDI would be more significant if it strengthened the national productive fabric and were sectorally diversified. The concentration of FDI in a few sectors can provoke increased inequality when the FDI exceeds the critical threshold (Suanes and Roca-Sagalés, 2015). Wu and Hsu (2012) showed that FDI can be prejudicial for income distribution in receiving countries if they have low levels of absorption capacity, while FDI has little effect on income inequality in countries with better absorption capacity. In addition, there is recent empirical evidence suggesting that IDF increases income inequality in both the short and long run (Adams and Klobodu, 2017) and inequality limits economic growth (Babu et al., 2016). Effectively, some of the empirical evidence indicates that FDI is not beneficial for receiving countries. It can have a negative effect or no effect on growth (Saltz 1992; Mencinger, 2003; Ang, 2009; Temiz and Gökmen, 2014). It is well known that FDI in Latin America is oriented to raw material extraction (UNCTADSTAT, 2016), and if there is flexibilization in the labor market, FDI can encourage volatile growth and precarious employment conditions for poorly qualified workers characteristic of developing countries in the region.

In this context, this research examines the effect of FDI on economic growth in 19 Latin American countries during the period 1980–2014 using panel data econometrics. We estimated several regressions for Latin America (LA) in aggregated form, for high-income countries (HIC), upper-middle-income countries (UMIC) and lower-middle-income countries (LMIC). This grouping uses national per capita income levels and is based on the Atlas Method of the World Bank (2016). The econometric strategy was divided into two stages. First, we estimated an expanded production function. The dependent variable is the logarithm of real GDP and the independent variables are the logarithms of physical capital, the labor force and inflows of FDI into the country i ($i = 1, 2, \ldots, I$) in the period t ($t = 1980, 1981, \ldots, T$), respectively. Second, we analyzed the robustness of the results obtained in the first stage. We included control variables that capture the productive structure of Latin America and the effect of other factors suggested by the theoretical and empirical literature (Keesing, 1967; Krueger, 1985; Barro and Becker, 1989; Henderson, 2003; Kaldor, 1957). In practice, it cannot be expected that the effect of FDI on economic growth is the same in an economy with a high absorption capacity and in one in the initial stages of development. Effectively, the results show distinct effects among groups of countries in the region. FDI has a positive but non-significant effect on growth in Latin America as a whole. However, when we classify countries according to per capita national income, we found that the effect of FDI on economic growth is greater in high-income countries. In less developed countries, the volatile effect is barely significant for UMIC countries and negative and significant for LMIC. Our results suggest a relatively weak role of FDI in reaching higher levels of production in Latin America, except in Chile and Uruguay. Economic policy decisions should consider that FDI is not necessarily beneficial for growth in Latin America. The differences among countries in the absorption capacity associated with the level of human capital can explain the results found.

The rest of the present research is structured in four sections. The second section reviews existing literature. The third section describes the data and the econometric methodology. The fourth section discusses the results found, which are contrasted with theory and empirical evidence. Finally, the fifth section presents the conclusions and economic policy implications arising from this research.

2. Literature review

Interest in the nexus between economic growth and FDI has increased in recent years because of the deindustrialization of developed countries and the internationalization of production processes. In this process, the FDI integrates some countries into the global market (Popescu, 2014). In the theoretical literature, endogenous growth models offer weak explanations of the role of FDI in growth, which is associated with increased technological capital and infrastructure and the generation of employment. In general, investment plays an important role in the accumulation of physical capital and the formation of human capital. Anwar and Nguyen (2010) indicated that the impact of FDI on economic growth is greater when more resources are invested in education and training, developing the financial market and reducing the technological gap between local and foreign enterprises. Adeniyi et al. (2012) conclude that the degree of financial sophistication is important in increasing FDI's profits in the economic growth in development countries. Likewise, when FDI is complemented with local investment it promotes the development of enterprises (Tan and Tang, 2016). FDI can stimulate technology transfer, which tends to increase the productive efficiency of factors. It is logical to think that increases in technology translate into improved productivity of the labor force and this in turn results in increased capital yield. If economic growth is driven by innovation as argued by Aghion and Howitt (1998), the need for FDI to accelerate development is justified given the important roles that technology and knowledge play in increasing production levels (Barro, 2001; Lucas, 1988).

The empirical literature on the effect of economic growth shows contradictory results. Firstly, there are several studies that show a positive effect of FDI on the levels of production through externalities and spillover effect. For example, Barrell and Pain (1997) suggest that FDI is a mechanism for disseminating ideas and technologies among counties. This conclusion is similar to that obtained by Borensztein et al., (1998), who verified the effect of FDI on economic growth in developing countries and indicated that FDI acts as a mechanism of technology transfer through increased productivity and acts only when the receiving country meets a minimal threshold of stock of human capital. Bengoa and Sanchez-Robles (2003) came to a similar conclusion for Latin America. This implies that FDI contributes to increasing production when there is sufficient capacity to absorb technology in the receiving countries (Borensztein, et al., 1998; Gomes and Veiga, 2013) and when linkages are generated with local firms and the export capacity of the receiving country is improved (Anwar and Nguyen, 2011; Ahmad et al., 2003; Liu et al., 2002). This occurs because when the level of human capital in a FDI receiving country is low, the cost of