Exploring The Pull Factors of Foreign Direct Investment in Developing Economies: A Study using a Dynamic Panel Data Model

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Abstract

Foreign direct investment (FDI), as an international capital flow results from the interactions of economic, social, historical, political, and environmental events in the regional and global context. In addition, investment decisions across borders are influenced by profitability, ease of business integration, and the business environment prevailing in the host economy. The present study investigates the determinants of FDI in a sample of sixty-seven developing countries over the period 1980 to 2017. The investigation is performed with a dynamic panel data (DPD) model and techniques that have considerable advantages over earlier investigations into determinants of FDI for developing economies.

The selection of a particular set of FDI determinants is difficult, given the wide range of factors that can govern the level of FDI a country attracts. Different empirical analyses have identified different sets of covariates as FDI determinants in different econometric specifications, samples, and over different time periods. Factors that affect foreign capital flow in one economy may not be the same for other economies. The significance of each of the FDI determinants may vary along different stages of the development path in the host economy as well as on its level of economic growth. Therefore, a wide set of macroeconomic, human capital, infrastructure, financial development, and institutional quality variables are examined. The dataset has missing observations, and some variables such as mobile telephone, financial development, and institutional quality variables lack data before 1997. For that reason, the analysis covers two sub-samples of data: 1980 to 1996 and 1997 to 2017. The study analyzes FDI determinants in two periods to consider whether FDI determinants vary across the periods and if there is a common set of determinants to explain FDI flow in developing economies.

We employ a dynamic panel data (DPD) model to analyse FDI flow and its determinants. The initial estimation is completed using a two-step system generalized method of moments (sGMM) technique, and an iterated GMM is completed to confirm the robustness of the findings. From an econometric point of view, the sGMM is superior to difference GMM since the former addresses the issues of unobserved heterogeneity, omitted variable bias, measurement error, and endogeneity. This study employs data transformed by forward orthogonal deviation (FoD), which outperforms first-difference transformation regarding the standard errors, root mean squared errors, and smaller bias in the autoregressive process, particularly for finite samples with larger time periods.

To date, very few empirical studies on FDI determinants have used a DPD model. The study thus contributes to the empirical literature by revealing a potential set of FDI determinants in developing economies over two consecutive periods, addressing the econometric challenges mentioned above. Our empirical findings suggest little consensus about a common set of FDI determinants (except lag FDI) in developing countries over two sample periods. In the first sample period, lag of FDI, gross domestic product (GDP), trade openness, and infrastructure (land telephone) are found positive and significant determinants of FDI, while real effective exchange rate and labor force have a significant negative effect on FDI flow. This implies that in the early periods, FDI is market-seeking and horizontal in nature, and a depreciated currency is favorable, but that FDI flow does not depend on the availability of a skilled labor force. In the later period (1997–2017), GDP, domestic investment, and domestic inflation significantly attract more FDI inflow, while financial development damages such flow significantly. The host country's human capital, infrastructure, market size (population size), and institutional factors are not significant in attracting FDI in recent periods. This suggests that foreign capital flowing into developing economies is of poor quality and its motivation in the developing economies varies over time.

Key Words: Foreign direct investment, Generalized method of moments, Dynamic panel data model, Developing countries