Chapter 16
Environmental Policy and FDI Inflows:
Evidence From OECD Countries

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ABSTRACT

This chapter explores the impact of environmental policy stringency index (EPS) on FDI inflows in 26 OECD countries for the period 1995-2012. The study employed Durbin-Hausman panel cointegration and Emirmahmutoglu-Kose panel Granger causality tests to determine the long-run and the causal relationship between the relevant variables, respectively. According to findings, variables move together in the long run. On the one hand, in the long run, capital formation and economic globalization increase FDI inflows, while real effective exchange rate, EPS, and non-market EPS decrease these inflows. On the other hand, the coefficients of the parameters are estimated positively for capital formation and negatively for the real effective exchange rate. It was determined that environmental policies cause FDI inflows in 12 out of 26 countries. These empirical findings suggest several courses of action for policymakers.

INTRODUCTION

In the new global economy, Foreign Direct Investment (FDI) inflow has become a central issue for capital flows between developed and developing countries. FDI inflow is a form of cross-border investment, meaning direct investment equity flows to the recipient country. Besides, it combines equity capital, earnings reinvestment, and other capital (World Bank, 2020). FDI inflows can take three forms: a) greenfield investment (GI), b) joint ventures (JV), and c) mergers and acquisitions (M&A). An investment is named as GI when a foreign investor constructs a new facility in the host country. Furthermore, a JV is

a contractual agreement between two or more economic agents to enter into a commercial partnership to achieve a common goal. In addition, an M&A encompasses changes in the ownership of existing assets (Hofmann, 2013). Besides, plant enlargements, an increase in equity stake, and real estate acquisitions can be regarded as the fourth form of FDI (Alba, Park, & Wang, 2010).

It has been conclusively shown that there is a positive relationship between FDI inflows and economic growth (Lee, 2013). Therefore, an increase in FDI inflows causes a rise in income level in the recipient country. At this stage, a crucial question comes to mind: Why do firms prefer to invest abroad? The most comprehensive answer to this question was given by Dunning (1977, 1981). According to Dunning (1977, 1981), companies choose to make investments abroad for three main reasons: ownership advantages (O), location advantages (L), and internalization advantages (I). These three factors that determine the investment decisions of companies are called as OLI paradigm in the literature. First, ownership advantages stand for management capabilities, knowledge-based advantages, or brand power of companies. Second, location advantages denote cultural, institutional, political, and economic factors of host countries. Hence, the country's characteristics of recipient economies determine the investment decisions of multinational companies (Gast & Herrmann, 2008; Aziz & Mishra, 2016). Last, internalization is based on the decision between producing abroad or offshore outsourcing. Moreover, internalization is relevant to decrease transaction costs, including monitoring, searching, contracting costs, and avoiding a principle-agent problem (Gast & Herrmann, 2008; Hofmann, 2013).

More recently, there has been an increased emphasis on the factors affecting FDI flows (Baskurt *et al.*, 2022). In the literature, there are a bunch of variables that affect foreign direct investment flows such as corporate tax rate, government expenditure, gross capital formation (CAF), human capital, inflation, infrastructure, institutional quality, labor cost, market size, political stability, the exchange rate (EXR), and trade openness (TO). In addition, some studies have asserted that environmental policies affect FDI flows, e.g., Mihci, Cagatay, and Koska (2005), Ljungwall and Linde-Rahr (2005), Zhang and Fu (2008), Kukenova and Monteiro (2008), Kalamova and Johnstone (2011), Naughton (2014), and Kim and Rhee (2019).

However, a limited study in the empirical literature uses the environmental policy stringency index (EPS) as a measure of the tightness of environmental regulations. This index was introduced by Botta and Koźluk (2014) and provided by the OECD (The Organization for Economic Cooperation and Development) database. It covers many environmental measures such as taxes on emission levels, trading schemes, feed-in tariffs, deposit and refund schemes, emission standards, and R&D subsidies. So far, several studies have utilized the environmental policy stringency index; however, to the best of our knowledge, only a few investigated its impact on FDI inflows. The empirical findings of Lundh (2017) suggest that EPS with one-lag increases FDI flows between OECD countries and host countries. Besides, Rahul and Viswanathan (2018) found that EPS increases FDI inflows in 33 developed and developing countries. However, these studies have failed to show a long-run link between EPS and FDI inflows. Also, they have not been able to show any causal relationship between these variables. Among the remaining studies, Ahmed and Ahmed (2018) used EPS to predict further values of CO_2 emissions in China. In addition, Andersson (2018) utilized EPS as a determinant of CO_2 emissions in China. Feng *et al.* (2019) and Martínez-Zarzoso, Bengochea-Morancho, and Morales-Lage (2019) examined the impact of EPS on the productivity level in OECD countries. Moreover, Malzi *et al.* (2020) investigated the impact of EPS on natural gas consumption in OECD countries.

The primary aim of this investigation has been to examine the impacts of environmental policy stringency indices on FDI inflows. Moreover, the study uses gross capital formation, real effective

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