

## Article

# Sustainability and Society: Do Environmental, Social, and Governance Factors Matter for Foreign Direct Investment?

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**Abstract:** Sustainable investing allocates investments based on environmental, social and governance factors (ESG). The societal value of sustainable investment is becoming progressively relevant as investors are increasingly recognizing the importance of investing in companies that seek to combat climate change, environmental destruction, while promoting corporate responsibility. Environmental policy and sustainable growth initiatives at a country-level are also being influenced by the UN's Sustainable Development Goals (SDGs). Situated within the current trend of declining foreign direct investment flows (FDI), our study examines the role of ESG factors in attracting FDI and enabling progress toward SDGs. We econometrically examine the linkages between ESG and FDI inflows for a sample of 161 counties. We also focus on low- and middle-income emerging economies and low- and middle-income commodity exporters as these countries face unique challenges of mobilizing financing to achieve SDGs and generating sustainable economic growth. Results suggest that FDI inflows to the full sample of countries are positively attracted by good governance in a destination country. We observe that good scores on HDI deters FDI, that higher FDI flows are associated with higher levels of carbon emissions in the case of emerging markets. Sustainability reporting attracts FDI to commodity exporting countries. The study provides possibilities for future research in a post-pandemic future.

**Keywords:** sustainable investing; environmental-social-governance (ESG) factors; foreign direct investment (FDI); Sustainable Development Goals (SDGs); pollution haven hypothesis (PHH)



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## 1. Introduction

Sustainable investing has been growing in significance, as more investors are recognizing the importance of environmental, social, and governance factors (ESG) as part of the investment decision-making process. According to J.P. Morgan [1], the pandemic of 2020 is the latest “wake-up call” for economic policymakers and investment decision makers to prioritize a more sustainable approach to investment. The US SIF Foundation [2] reports that portfolio investors are considering ESG factors at a 42% higher rate compared to 2018, and ESG investing now covers a third of all assets under investment in the U.S. However, the bulk of the research in this area has been focused on the role of ESG factors in driving portfolio investments at a firm-level. The literature is largely silent on the significance of ESG factors for foreign direct investment inflows (FDI) from a macro-country perspective. This shortcoming in the extant literature motivates our paper which examines the association between ESG factors and FDI inflows for a sample of 161 countries. Our analysis will especially focus on the ESG—FDI linkages for low and middle-income emerging market economies and commodity exporters.

The theory related to ESG and firm investments including FDI is evolving [3]. Corporate social responsibility theory proposes that firms have obligations to pursue strategies and actions that are socially responsible [4]. Carroll [5] theorizes that it is in the long-term

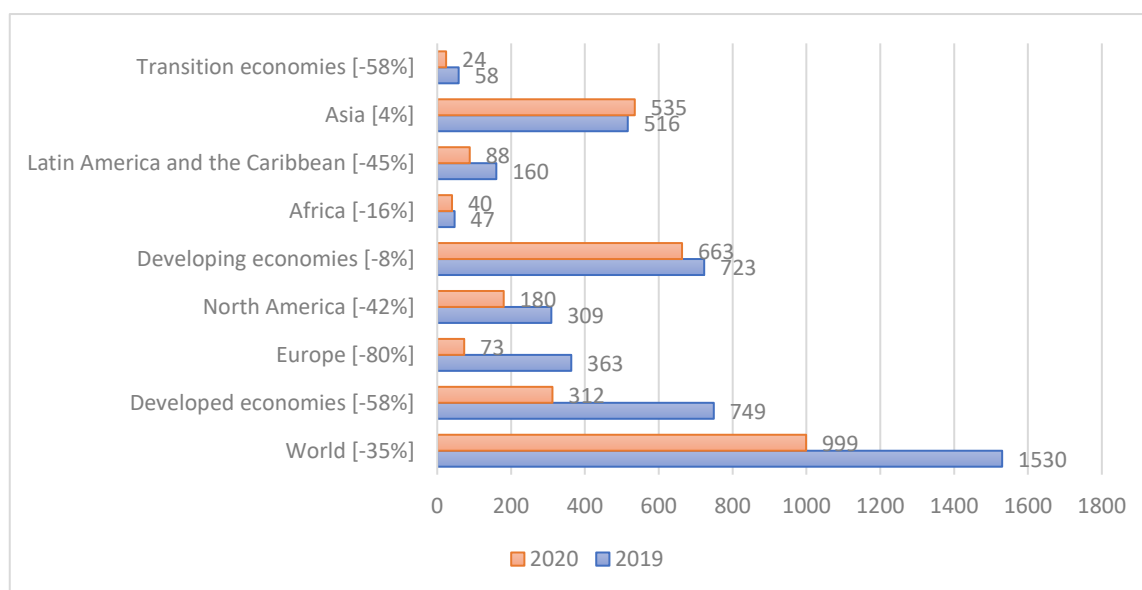
interest of firms to promote socially responsible behavior as a deterioration in social structures will have a deleterious impact on the economic performance of firms. Stakeholder theory argues that companies need to consider the interests of all stakeholders (primary, secondary, and non-social namely the environment) in its decision making [6]. Firms need to respond to stakeholder demands and there is evidence that all stakeholders are interested in ESG metrics when it comes to firm investments [7]. Legitimacy theory suggests that ESG investments provide legitimacy to firms as citizens in society and the disclosure of CSR information and ESG-based investment decisions are part of the social contract of business with society [8].

Environmental policy and sustainable growth initiatives at a country-level are increasingly being influenced by the UN's Sustainable Development Goals (SDGs) [9]. ESG factors are fast becoming the defining challenge of our times as countries are increasingly responding to the increased level of environmental consciousness of their citizenry and their stakeholders. Through policy-setting, regulation and public awareness programs, responsible governments are expected to protect the natural environment, improve citizen wellbeing, and promote social cohesion. Progress on investing in the SDGs is about incorporating ESG considerations within business operations and FDI inflows as part of global capital markets are instrumental in this process. There is a parallel between ESG factors and SDGs at a country level—good performance on ESG factors at a country level will have an impact on a country's progress toward SDGs. To the extent FDI is positively associated to ESG factors, there exists a market-based incentive for countries to improve ESG metrics, attract FDI and maintain sustainable economic growth without compromising on SDGs.

The economic importance of FDI cannot be overstated. FDI inflows can enhance growth and innovation, create jobs, and develop human capital [10]. According to Dunning [11], FDI may be market-seeking, natural resource seeking or strategic asset seeking in its nature. Market-seeking FDI is carried out to increase scale and scope expansion of the market for a company's product [11,12]. Natural-resource seeking FDI seeks to access natural resources while strategic-asset seeking FDI may be undertaken to exploit locational advantages, skilled labor advantages, to acquire R&D assets, etc. Irrespective of the motivation, it is not a matter of dispute that while the benefits of FDI are real, they do not automatically fall into place. As an example, the pollution haven hypothesis (PHH) posits that faced with stricter environmental regulations or higher costs associated with pollution control, companies simply relocate manufacturing to locations with less stringent regulations or lower costs associated with pollution control.

Over the period 2006 to 2018, FDI flows reduced from 4.36% to 1.32% of world GDP (Data obtained from World Development Indicators). This decline in FDI, can be ascribed to the financial crisis period from 2007 to 2009, to a more recent increase in the protectionist and nationalistic policies being adopted across the globe, and to the Tax Cuts and Jobs Recovery Act that encouraged repatriation of foreign capital back to the USA. The COVID-19 pandemic has further negatively impacted global flow of FDI as foreign investors are either considering moving their investments to countries closer to their destination markets or excluding some developing countries from their investment plans as they look to build resilience and shorten their global footprint [13]. Overall, global FDI flows have declined by 35% during the COVID-19 pandemic and are expected to bottom out in 2021 [14]. As indicated in Figure 1, developed countries experienced the most severe impact, with a decline of 80% of FDI flows to Europe, followed by North America which fell by 42%. Transition economies also faced a hard hit with a decline of 58%. FDI inflows to Latin America and the Caribbean plummeted by 45%. Regions with less severe impact by the pandemic were Africa, fell by 16%, and developing economies with a decline of 8%. Asian economies were resilient and less disrupted by the pandemic. FDI inflows to this region increased by 4%. The pandemic's impact on investment in SDGs is also in clear evidence over 2019–2020. SDG-relevant greenfield investment in developing regions was 33% lower than the pre-COVID level [14]. For emerging economies in particular, a shrinkage of FDI

can be deleterious to their SDGs (global goals) as FDI inflows play a significant part in funding their efforts.



**Figure 1.** FDI inflows by region, 2019 and 2020 (billions of dollars and percentages). Source: [14].

Our study is motivated by many compelling factors. The current deceleration in FDI flows as highlighted above can create severe challenges for the sustainable development goals of many countries, especially developing economies that vitally depend on such inflows. At the same time, the growing popularity of ESG factors as they relate to investing suggests that FDI should comply with high environment, social, and governance standards to achieve sustainability in the three fundamental pillars of development: economic, social, and environmental [9]. Although there is ample research on the FDI-economic growth linkages [15] to the best of our knowledge, there has been no multi-country study that examines the significance of ESG factors in attracting FDI to countries. It is against this backdrop that we examine the specific role of ESG considerations in determining the flow of FDI to countries and specifically to middle- and low-income emerging markets and commodity exporting countries. This attention to low- and middle-income emerging economies and commodity exporters is topical as these countries face unique challenges of mobilizing financing to achieve SDGs and generating sustainable economic growth.

The paper is organized as follows: Section 2 provides an overview of the relevant literature and motivates our paper. Section 3 details the materials and methods employed for the study and outlines the main trends pertaining to ESG and FDI. We discuss our econometric results in Section 4. Section 5 concludes the paper and provides implications for policy and directions for future research.

## 2. Literature Review

This study focuses on the links between ESG factors and FDI specifically from a country perspective. The association between ESG factors and international global transfers has largely been studied in the context of portfolio investments and mainly at the firm level. A recent McKinsey report by Bernow, Klemper, and Magnin [16] suggests that ESG factors are driving investment value for portfolio investors who highlight three primary motivations—one to enhance returns, two, to strengthen risk-management for ESG issues, and finally to strategically align the priorities of different stakeholders. We believe that similar motivations should also extend to FDI by MNCs to various country destinations. There is evidence that sustainable investment is associated with positive returns. Bassen, Busch, and Gunnar Friede [17] find that sustainable investment is not associated with

lower returns. Khan, Serafeim, and Yoon [18] note that firms with good performance on material sustainability issues significantly outperform firms with poor performance on these issues. From a risk-management perspective, Khan et al. [18] observe that firms that perform well on sustainability issues do not underperform firms with poor performance on these same issues, suggesting investments in sustainability issues are, at a minimum, not value-destroying. Consistent with the risk-management motivation, there is evidence to indicate that investment in sustainability is associated with lower cost of capital. Ng and Rezaee [19] find that better ESG performance is associated with lower cost of equity capital. They posit that this reduction in cost of equity capital is due to an associated reduction in environmental liabilities or an associated increase in the levels of corporate governance as part of ESG monitoring mechanism. Multi-country studies on the linkages between portfolio flows and ESG factors are negligible. However, Chipalkatti, Le, and Rishi [20] demonstrate a positive association between public governance, corporate transparency, and portfolio flows after controlling for other macroeconomic factors for a sample of 17 emerging economies over the 1998–2002 period.

As mentioned, the literature on the link between ESG factors and FDI inflows is scant. Pisani, Kolk, Ocelik, and Wu [21] find that green Chinese cities and especially better air quality and wastewater treatment facilities in China help attract FDI inflows. Wang, Yu, and Zhong [22] document a significantly positive and robust impact of country-level ESG improvements on economic growth and subsequent FDI inflows, using a comprehensive sample across 109 countries. Hubel [23] observes that countries with higher level of progress in sustainability are associated with lower levels of sovereign debt risk and flatter credit curves. Crifo, Diaye, and Oughlessi [24] also find that good ESG ratings reduce sovereign borrowing costs. Reduced debt costs may help finance investments for growth and attract FDI.

The association between FDI and the different individual components of ESG, viz. environmental factors (E), social factors (S) and governance (G) has been variously examined by several authors. Where the role of FDI and the environment (E) is concerned, studies differ in their findings. There is only limited understanding of the role of FDI in promoting green growth objectives, largely due to the lack of an internationally agreed definition of and relevant data on green FDI. Golub, Kaufmann, and Yeres [25] define it as FDI directed to environmental goods and services and investments that involve the transfer of environmentally friendly “green” technology. The authors suggest that stringent environmental regulation in home countries induces greener FDI inflows. The impact of FDI on the environment has been extensively examined via the pollution haven hypothesis (PHH), which posits that companies simply relocate manufacturing to countries with less stringent regulations when confronted by stricter environmental regulations or higher costs associated with pollution control in the host country. A survey of this literature indicates a slate of mixed results. Spatareanu [26] observes that FDI in a host country is associated with the stringency of environmental regulations in the investor’s home country relative to the host country. Dam and Scholtens [27] observe that multi-national enterprises relocate their pollution-intensive operations to countries with weak environmental regulation. MacDermott [28] suggests that NAFTA increased FDI outflows from the US toward pollution havens. MacDermott [29] reinforces these findings with additional empirical evidence in favor of the PHH. Rezza’s [30] analysis indicates that the decision to build a new plant in another location is most affected by the stringency of environmental regulation in the home country. Cave and Blomquist [31] observe, in the post-Maastricht Treaty period with more stringent EU environmental standards, an increased amount of EU energy-intensive trade with poorer countries. However, they do not observe this relationship for toxic-intensive trade. There are several studies that do not support the existence of the PHH. Eskeland and Harrison [32] examine the pattern of US foreign investment in Mexico, Venezuela, Morocco, and Côte d’Ivoire and find only weak evidence that foreign firms locate in sectors that have higher levels of air pollution. Mukhopadhyay and Chakraborty’s [33] study of the Indian economy suggests that that

liberalization of trade policy in the country has not been associated with pollution intensive industrial development. Marconi [34] observes no evidence of a pollution haven effect on the bilateral trade patterns between Europe and China. Based on a detailed meta-analysis of the PHH literature, Rezza [30] concludes an absence of consensus on the association between FDI and environmental regulation. Poelhekke and Van Der Ploeg [35] observe that for outward FDI from the Netherlands, there exists a *pollution haven* effect for FDI in traditional capital-intensive and pollution-intensive industries with high capital costs (natural resources extraction and refining, constructions, refining, food processing etc.) to countries with weak environmental regulation and enforcement. The authors also note a contrary, *green haven* effect for CSR-minded industries where sustainable management matters (like machines, electronics, automotive, transportation and communication) for countries with more stringent and better enforced regulations.

We observe a varied landscape of results as we examine the literature on association between social factors (S) and FDI inflows. Theory suggests that a greater level of human capital characterized as the growth of education, life expectancy, and economic well-being will contribute to host country productivity and therefore enhance FDI inflows [36,37]. Borensztein et al. [38] suggest that countries may need a minimum threshold stock of human capital in order to experience positive effects of FDI. This finding is also echoed in Li and Liu [39] who conclude that the level of human capital is very significant for inward FDI to positively promote economic growth in developing countries. Developed countries are expected to have a higher level of human capital and hence to benefit more from FDI than developing countries. As most less developed countries do not meet the threshold requirement, they may find it difficult to benefit from inward FDI. Sharma and Gani [40] find that FDI is positively associated with improvements in HDI. In contrast to these findings, an exhaustive analysis by Iamsiraroj [15] covering 124 countries over 1971–2010 notes a negative correlation between primary schooling and FDI inflows. The author concludes that a basic level of human capital in the host country is not a prerequisite to attract foreign investment.

The association between governance (G) and FDI has been well documented in the extant literature. Canh, Binh, Thanh, and Schinkus [41] offer a comprehensive review. Studies by Globerman and Shapiro [42], Mengistu and Adhikary [43], Buchanan, Le and Rishi [10], Saidi, Ochi, Ghadri [44] note that good institutions and governance, and lower levels of corruption [45] attract FDI [10,42–45]. Canh et al. [41] find that domestic economic policy uncertainty has an adverse impact of FDI inflows. More recently, Bailey [46] conducts a meta-analysis of institutional factors and FDI attractiveness and observes that political stability, democracy, and rule of law pull in FDI, whereas corruption, cultural distance and tax rates deter FDI. In the same vein, a study by Contractor, Dangol, Nuruzzaman, and Raghunath [47] finds that FDI is attracted to countries with stronger contract enforcement and more efficient international trade regulations. Goh, Wong, and Tham [48] observe a complementary relationship between trade and inward FDI in the case of Malaysia. Villaverde and Maza [49] observe that factors such as economic conditions (labor productivity, total and private technological capital, R&D investment, human capital, number of internet users and per capita GDP), labor conditions and market size are important determinants of FDI in the case of regions in Spain. Reiter and Steensma [50] find that FDI is more positively related with human development when corruption is low and when FDI policy imposes restrictions on foreign investors to invest in certain sectors and protects domestic investors.

In sum, the previous literature has mainly focused on the linkages between FDI and the individual components of E, S, and G. Our study considers the association between all ESG factors (combined) and FDI. We believe this exploration is deserving of greater academic attention especially as national governments are looking at ESG factors to attract sustained FDI inflows to achieve their SDG goals. Partly reflecting lackluster global investment trends, developing countries are not seeing the required levels of FDI that is essential to their sustainable development goals. The pandemic will make the task of channeling FDI



to SDG relevant sectors in countries even more daunting and risks upending their progress toward SDG goals. Do ESG factors help attract FDI? Addressing this question from a country perspective is relevant and requires a deeper analysis of the linkages between ESG issues and FDI. We provide a multi-country analysis of the ESG-FDI linkages next.

### 3. Materials and Methods

Our study examines the association between FDI and ESG factors over the 2006–2018 period for a sample of 161 countries. The panel data comprises of 109 low- to middle-income countries and 52 high income economies as classified by the World Bank [51]. We also separately examine the association between FDI and ESG for 46 low- to middle-income commodity exporting countries and 14 low- to middle-income emerging market economies [52]. We obtain country statistics from the World Development Indicators [53]. Our ESG factors that encompass Environmental, Social, and Governance-based indicators and are described next.

#### 3.1. ESG Factors

##### 3.1.1. Environmental Factors (E)

For our study, we aggregate environmental factors as comprising of climate risk variables, measures pertaining to carbon emissions, and sustainability disclosures.

The Global Climate Risk Index (GCRI) [54] is used to proxy for the climate risk associated with a country. The GCRI analyzes to what extent countries and regions have been affected by the impact of weather-related loss events (storms, floods, heat waves etc.). The GCRI is not a measure of climate change or sustainable action as much as a measure of climate risk as measured by actual losses incurred due to weather-events. It is based on the following indicators, (i) number of deaths, (ii) number of deaths per 100,000 inhabitants, (iii). sum of losses in USD in purchasing power parity (PPP) as well as (iv) losses per unit of gross domestic product (GDP). We use the current GCRI value for a year to capture climate risk. We expect an inverse relationship between FDI inflows and climate risk—higher the climate risk, the lower the FDI to a destination country. A low GCRI score implies a higher level of impact of weather-related loss and higher climate risk and hence, we expect a positive coefficient on GCRI indicating that higher scores (implying lower climate risk) attract higher levels of FDI.

We use the per capita CO<sub>2</sub> emissions in tons (CO<sub>2</sub>PC) as our proxy for a clean environment. We posit those countries with lower carbon emissions (cleaner environments) will be perceived as more attractive destinations for FDI inflows. Thus, consistent with the ESG investment trends, we expect lower levels of CO<sub>2</sub>PC to be associated with higher levels of FDI. But, as noted above and consistent with the PHH, firms may relocate “dirty” industries to countries with less stringent environmental regulations. Our empirical tests in the next section will provide evidence on the relative strength of each of these motivations for FDI inflows.

Corporate social responsibility (CSR) and sustainability reporting have taken on growing importance as society demands greater regulation and transparency of corporations and financial markets. More than 50% of global exchanges provide guidance to listed companies on sustainability reporting [14]. The Global Reporting Initiative is a reporting standard that is utilized by 78% of the companies reporting sustainability data. When destination countries adopt such initiatives, it can signify a tightening of regulations as well as an increased monitoring by the financial markets of the sustainability records of companies. We hypothesize that such disclosure regulations enhance the level of transparency of the environmental records of companies and deter them from investing in pollution-intensive and other environmental damaging ventures. For our empirical analysis, we use the information provided by the Initiative for Responsible Investment [55] to construct a dummy variable (SUSDUM) that takes the value of “1” starting from the year from which a mandatory environmental disclosure regulation was passed by a country for listed companies. We posit that FDI inflows will be attracted to countries with sustainability

reporting, partially as a response to stakeholder initiatives and partially as a response to the risk-mitigation efforts by companies and their need for transparency about the same. Thus, we expect a positive coefficient on the SUSDUM variable.

### 3.1.2. Social Factors (S)

We measure progress on the social front by the Human Development Index (HDI). The HDI embodies Amartya Sen's "capabilities" approach to understanding human well-being, which emphasizes the importance of ends (like a decent standard of living) over means (like income per capita) [56]. Key capabilities are instrumentalized in HDI by the inclusion of proxies for three important ends of development: access to health, education, and goods. The HDI is widely recognized as a proxy for social development which is a very complex issue to measure. Thus, the HDI has become an official government statistic for countries to measure their progress toward SDG goals. The HDI is a composite of factors that include schooling for adults and children, life expectancy at birth and gross national income per capita [57]. Consistent with the trend in ESG investments, we posit that countries with a higher HDI scores will be more attractive destinations for FDI.

### 3.1.3. Governance Factors (G)

We measure the level of governance in a country via the World Governance Indicators (WGI) [58]. The WGI reports data on six broad dimensions of governance, namely: (I) voice and accountability; (II) political stability and absence of violence; (III) government effectiveness; (IV) regulatory quality; (V) rule of law; and (VI) control of corruption. These indicators are highly correlated, thus for our analysis, we aggregate the six indicators of governance to create a more comprehensive measure (GOVERN) (Buchanan et al. [10] observe that these components are highly correlated and so use the first principal component as their proxy for governance. We do not adopt this approach as using the first principal component by itself results in a loss of information. We use an additive index to capture all aspects of governance. Consistent with the literature, we expect FDI to be positively associated with governance—better governance, attracts higher levels of FDI.

## 3.2. Estimation Model

We adopt the following fixed-effects estimation model (We confirmed the usage of the fixed effects model by running a Hausman test. We utilize robust standard errors in our econometric estimation) for the 2006 to 2018 period for our panel data sample of 161 countries. We use the same model for our panel of 14 low- to middle-income emerging market economies and 46 low- to middle-income commodity exporting countries.

$$\begin{aligned} \text{FDI}_{i,t} = & \beta_0 + \beta_1 * (\text{GCFGDP}_{i,t}) + \beta_2 * (\text{GDPPCAPGR}_{i,t}) + \beta_3 * (\text{TRADEGDP}_{i,t}) \\ & + \beta_4 * (\text{GCRI}_{i,t}) + \beta_5 * (\text{CO2PC}_{i,t}) + \beta_6 * (\text{SUSDUM}_{i,t}) + \beta_7 * (\text{GOVERN}_{i,t}) \\ & + \beta_8 * (\text{HDI}_{i,t}) + \beta_9 * (\text{CRISIS}_{i,t}) + \beta_{10} * (\text{LAGFDI}_{i,t-1}) + \text{error} \end{aligned} \quad (1)$$

In this equation, *i* represents country, and *t* represents year in the panel. Our dependent variable is FDI inflows as a percentage of GDP (FDIGDP) of the destination country. In Section 3.1 above, we have described the ESG variables and our expectations for the coefficients on those variables. In addition to the ESG variables, we use the following independent variables as control variables in our estimation based on previous research on FDI.

**GCFGDP:** Gross capital formation as a percentage of GDP. We use this measure as a proxy for the domestic investment climate in a destination country. The sign of the coefficient on this variable may be negative or positive depending on whether FDI is crowded in or crowded out by domestic investment. Buchanan et al. (2012) find a positive association between FDI and domestic investment [10].

**GDPPCAPGR:** GDP per capita growth. We use this variable for each destination country in our sample to indicate economic growth and standards of living. Similar to

Buchanan et al. (2012), we expect a positive coefficient on this variable—the higher the growth per capita, the more attractive the destination [10].

TRADEGDP: Imports plus exports as a percentage of GDP. We use this variable as measure of the trade openness of a country. Similar to Buchanan et al. (2012), we expect a positive coefficient on this variable [10].

CRISIS: This is a dummy variable that captures the global financial crisis of 2008–2009.

We consider the possibility that ESG-factor induced FDI is a phenomenon restricted to higher-income destination countries that have reached the peak threshold of the environmental Kuznets curve (EKC). The EKC posits that in the initial stages of economic development and growth, a country's environmental record deteriorates up to a certain threshold of income. Beyond this, economic development and growth sustain improved progress on the environmental front. To account for the existence of the EKC, in addition to the body of evidence in support of the PHH, we separately examine the impact of ESG factors on low- and middle-income emerging market economies and, separately, for low- and middle-income commodity exporters. We exclude high-income countries as they are more likely to be sources of FDI rather than destinations. Such high-income commodity exporters represent oil exporters. We adopt the same estimation model as described in Equation (1).

All descriptive statistics are contained in Table 1. Table 2 provides correlations between ESG factors and other independent variables.

**Table 1.** Descriptive statistics for countries from WDI.

Time	FDI (Percent of GDP)	Gross Capital Formation (Percent of GDP)	Trade as (Percent of GDP)	GDP Per Capita Growth	CO <sub>2</sub> Per Capita Emissions (Tons)	Governance Score	Global Climate Risk Score	Human Development Index
2006	8.42	24.24	88.45	4.29	4.48	−0.64	59.34	0.66
2007	9.42	25.41	90.15	4.32	4.46	−0.59	55.24	0.66
2008	7.21	26.04	92.30	2.32	4.43	−0.57	58.92	0.67
2009	5.95	23.95	81.70	−1.31	4.50	−0.61	58.97	0.67
2010	6.57	24.56	86.35	2.87	4.33	−0.60	72.80	0.68
2011	6.81	24.92	90.94	2.31	4.32	−0.58	67.21	0.68
2012	7.33	25.11	91.99	2.87	4.37	−0.58	81.95	0.69
2013	5.06	24.73	92.02	1.82	4.28	−0.56	74.28	0.69
2014	5.34	24.74	90.79	1.92	4.20	−0.50	78.64	0.70
2015	5.56	24.96	87.72	1.48	4.15	−0.52	79.61	0.70
2016	4.59	24.85	85.21	1.56	4.15	−0.53	85.13	0.70
2017	4.26	24.45	88.21	2.06	4.16	−0.55	77.34	0.71
2018	3.03	24.81	90.55	2.01	4.16	−0.55	79.89	0.71

Note: The number of countries varies from 149 to 253 depending on variable and year [53].



**Table 2.** Correlation matrix with Bonferroni adjusted significance levels at  $p > 0.05$  level.

	GCRI	CO2PC	HDI	SUSDUM	GOVERN
GCRI	1				
CO2PC	0.1093 *	1			
HDI	0.0247	0.5861 *	1		
SUSDUM	−0.0828 *	0.1003 *	0.2809 *	1	
GOVERN	0.0186	0.4314 *	0.7672 *	0.2875 *	1
GCFGDP	0.0473	0.0742	0.0427	−0.036	−0.0199
GDPPCAPGR	−0.036	−0.1131 *	−0.059	−0.0444	−0.0800 *
TRADEGDP	0.2522 *	0.2358 *	0.2881 *	−0.0731 *	0.3271 *
	GCFGDP	GDPPCAPGR	TRADEGDP		
GCFGDP	1				
GDPPCAPGR	0.2336 *	1			
TRADEGDP	0.1013 *	0.0268	1		

\* Significant at  $p < 0.05$ .

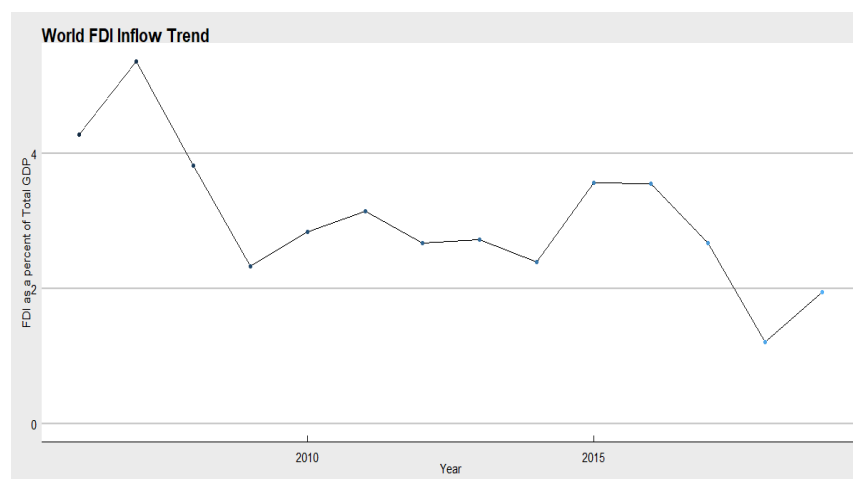
## 4. Results and Discussion

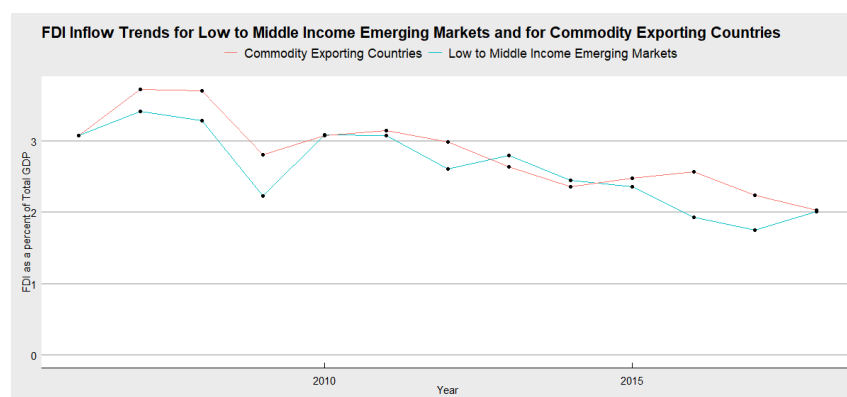
### 4.1. ESG and FDI Trends

Over 2006–2018, FDI flows have reduced from \$22 trillion to \$11 trillion. Figure 2 describes the trend in FDI flows as a percentage of GDP over our sample time-period. FDI inflows represent anywhere between 2% and 3% of GDP for commodity exporters and 3.5% to 5.5% of GDP for emerging markets (Figure 3).

Next, we examine the trends for countries in the upper and lower quartile of our ESG variables—GCRI, CO2PC, SUSDUM, HDI, and GOVERN. We classified countries into quartiles based on their overall 2006–2018 average.

As displayed in Figure 4a, FDI as a percentage of GDP for countries in the upper quartile of GCRI score (representing low climate risk) dropped from 11% of GDP to 6% of GDP in 2018. By contrast, FDI inflows for countries in the lower quartile of GCRI, representing higher climate risk, ranges from 2.6% in 2006 to 1.7% in 2018. For the upper quartile of countries classified by per capita carbon emissions (CO2PC) Figure 4b indicates that FDI inflows have dropped from about 4% in 2006 to about 1.1% in 2018. By contrast, for the lower quartile of carbon emitting countries, FDI as a percentage of GDP ranges from 2.6% to 2.8%.

**Figure 2.** World trends in FDI as a percentage of GDP.



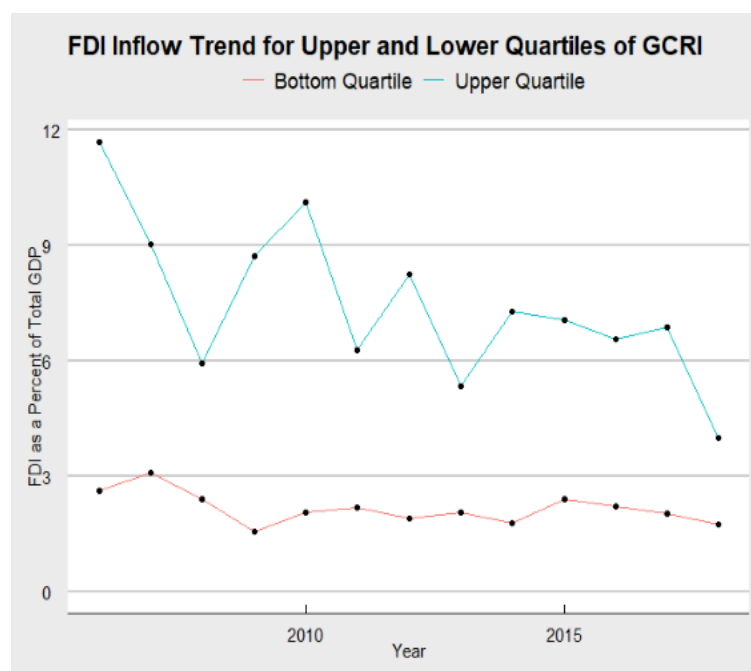
**Figure 3.** FDI as percent of GDP for emerging markets and commodity exporters.

When our sample is partitioned by HDI, Figure 5a shows that FDI inflows to the upper quartile of countries declines from 4.3% in 2006 to 0.9% in 2018. For the lower quartile of countries, FDI to GDP falls from 2.3% in 2006 to 1.1% in 2018. FDI inflows to countries in the upper quartile of the governance variable (GOVERN) suggest a declining trend (Figure 5b) dropping from 4.3% in 2006 to 0.83% in 2018. For the lower quartile countries, the FDI inflows drop from 2.6% in 2006 to 1.2% in 2018.

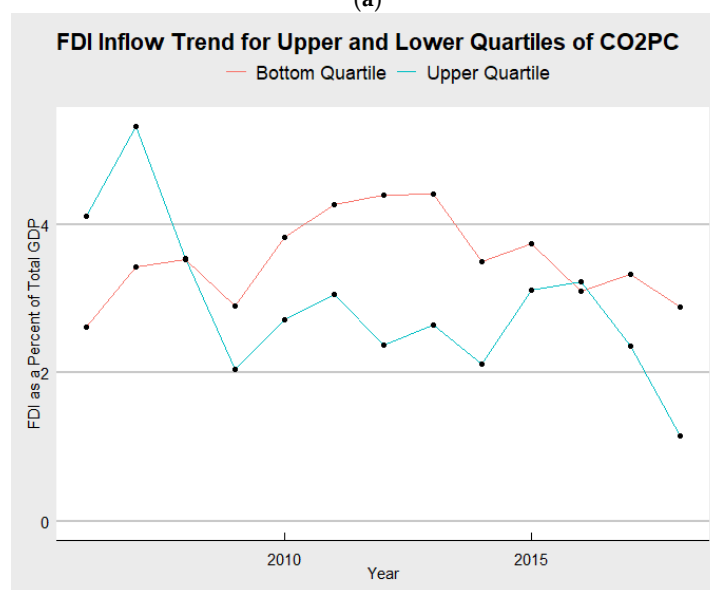
#### 4.2. Full Sample Results

Our results for the full sample of 161 countries are displayed in Table 3. The table notes that domestic investment (GCFGDP) is positively and significantly associated with our dependent variable (FDIGDP). This is per expectation and possibly due to the existence of complementarities between domestic investment and FDI. Higher domestic investment signals low uncertainty and a good investment climate for foreign investors. Per capita GDP growth (GDPPCAPGR) is positively and significantly associated with our dependent variable (FDIGDP) which is consistent with literature—higher per capita GDP growth rates are positively associated with higher levels of FDI inflows. The coefficient for trade openness (TRADEGDP) is also positively and significantly associated with FDIGDP indicating that the more open an economy, the higher the inflow of FDI as a percentage of GDP. The variable CRISIS has a negative and significant association with the level of FDI inflows and supports the view that FDI as a percentage of GDP significantly reduced during the financial crisis of 2008 and 2009. FDIGDP is also positively and significantly associated with lagged FDI indicating a certain momentum in the investment stream—increases in FDI inflows are sustained over a period of time.

Where our ESG variables are concerned, the coefficients on CO2PC and SUSDUM do not achieve significance, indicating no significant linkages with FDI inflows. Contrary to our expectations, the coefficient on the variable GCRI is weakly significant but negative indicating that FDI can flow to destination countries despite their higher levels of climate risk (i.e., low GCRI scores). Additionally, contrary to our expectations, the variable HDI is significantly negative indicating that FDI is attracted to destinations with lower levels of HDI. This negative association was also observed by [15] in a study of 124 countries over 1971–2010. The only ESG factor that attains significance as per our expectations is GOVERN. The coefficient on GOVERN is significantly positive indicating that good quality governance matters for FDI inflows. This is consistent with previous results obtained by [10].

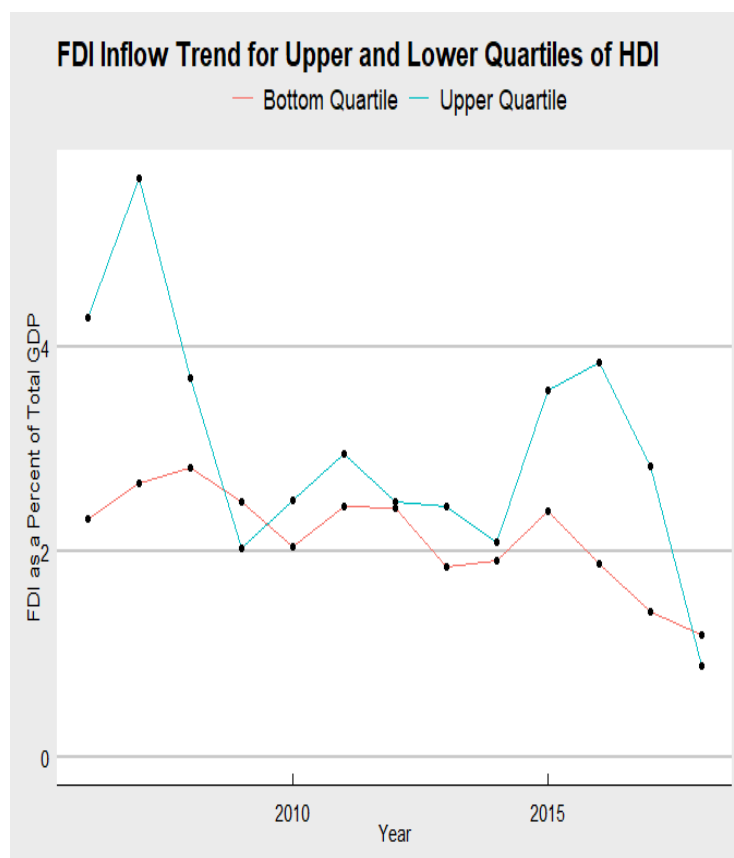


(a)

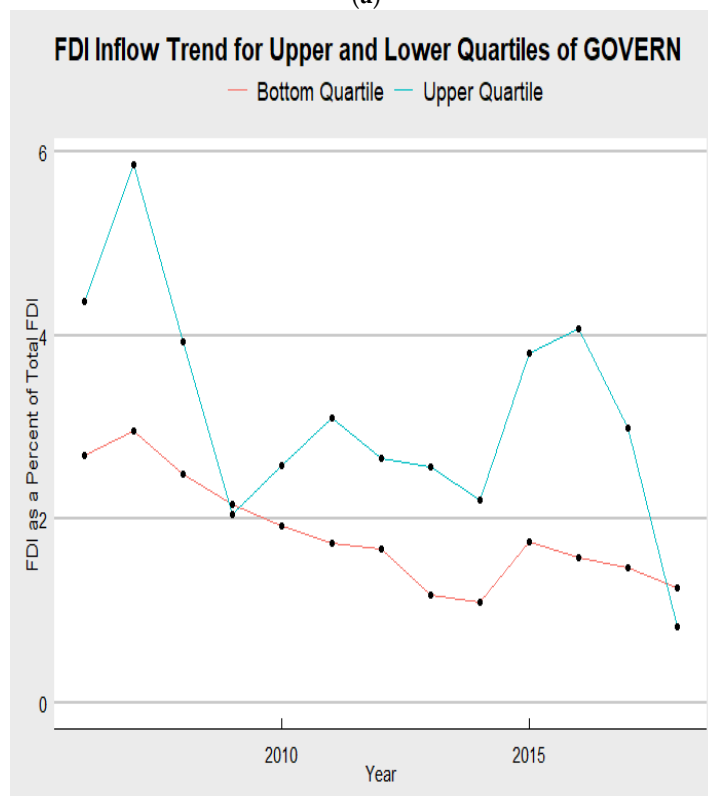


(b)

**Figure 4.** GCRI and CO2PC and FDI inflows: (a) climate risk (GCRI); (b) carbon emissions (CO2PC).



(a)



(b)

**Figure 5.** HDI and GOVERN and FDI inflows: (a) human development index (HDI); (b) governance (GOVERN).

**Table 3.** FDI Inflows as a percentage of GDP: results for full sample.

VARIABLES	FULL SAMPLE
GCFGDP	0.0268 *** (0.00452)
GDPPCAPGR	0.0315 *** (0.00645)
TRADEGDP	0.00462 *** (0.00158)
GCRI	−0.00131 * (0.000771)
CO2PC	0.0357 (0.0281)
SUSDUM	0.142 (0.114)
GOVERN	0.0974 *** (0.0318)
HDI	−4.884 *** (1.170)
CRISIS	−0.109 * (0.0604)
LAG FDIGDP	0.203 *** (0.0469)
CONSTANT	3.099 *** (0.822)
Observations	1583
Countries	161
R-squared	0.700

Robust standard errors in parentheses, \*\*\*  $p < 0.01$ , \*  $p < 0.1$ .

#### 4.3. FDI Inflows to Emerging Markets and Commodity Exporters

Table 4, column 1 reports the results of the impact of ESG factors for our sample of low- to middle-income emerging market countries. For emerging markets, the climate risk variable (GCRI) is not significant. The coefficient on CO2PC is positive and significant, suggesting that emerging markets with higher carbon emissions are incrementally associated with higher FDI inflows. This is consistent with the PHH explanation. Emerging market countries that require sustainability disclosures do not attract incrementally higher levels of FDI inflows as percentage of total FDI—the coefficient term on the variable SUSDUM is not significant. In the case of the governance variable, the coefficient on GOVERN is not significant indicating that governance does not matter for FDI inflows to these emerging market economies. Finally, the coefficient on the human development variable (HDI) is significantly negatively associated with FDI inflows indicating that higher levels of HDI deter FDI inflows to middle- and low-income emerging market economies relative to the full sample of countries. One explanation may be that higher levels of HDI are associated with higher labor costs and regulations in those countries and are a deterrent to FDI. Of the control variables, GCFGDP and GDPPCAPGR are significant indicating that a robust domestic investment climate and economic growth attract FDI. Trade openness (TRADEGDP) does not impact FDI inflows.



**Table 4.** FDI Inflows as a percentage of GDP: results for low- to middle-income emerging market countries and commodity exporters.

VARIABLES	(1)	(2)
	Emerging Markets	Commodity Exporters
GCFGDP	0.0497 ** (0.0215)	0.0277 *** (0.00859)
GDPPCAPGR	0.0573 ** (0.0239)	0.0448 *** (0.0118)
TRADEGDP	0.00437 (0.00705)	0.00848 *** (0.00316)
GCRI	−0.000430 (0.00193)	−0.00172 (0.00130)
CO2PC	0.369 * (0.218)	0.101 (0.0850)
SUSDUM	0.239 (0.150)	0.485 *** (0.138)
GOVERN	0.0330 (0.0598)	0.0302 (0.0454)
HDI	−6.487 ** (2.691)	−6.787 *** (2.300)
CRISIS	0.0523 (0.126)	−0.134 (0.113)
LAG FDIGDP	0.113 (0.0973)	0.141 (0.0924)
CONSTANT	2.275 (1.632)	3.726 ** (1.445)
Observation	168	465
Countries	14	46
R-squared	0.537	0.632

Robust standard errors in parentheses, \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table 4, column 2 reports the results of the impact of ESG factors for low- to middle-income commodity exporters. We examine these countries as they are more susceptible to environmental deterioration given the nature of their primary industry. For our sample of commodity exporters, the two environment factors of climate risk (GCRI) and carbon emissions per capita (CO2PC) and the governance factor (GOVERN) are not significant. However, the coefficient on the variable SUSDUM is significant and positive indicating that sustainability reporting in a destination country attracts FDI. This may be reflective of the significant amount of attention being paid by stakeholders of companies to the sourcing of commodities and transparency enforced by destination countries seems to attract FDI to such countries. Similar to emerging markets, the coefficient on the social factor (HDI) is significantly negative indicating that high scores on human development deter HDI to commodity exporting countries.

## 5. Conclusions

Environmental, social, and governance (ESG) factors have become an important part of global investment decisions. This study aimed to examine the association between ESG factors and FDI for a sample of 161 countries. Our study was motivated by a gap in the literature that has primarily focused on ESG factors and their role in driving portfolio investments. There has been no consistent examination of the linkages between combined ESG factors and FDI and, specifically, on the role of such factors in attracting FDI to middle- and low-income emerging markets and commodity exporting countries. An analysis of the ESG-FDI association has implications for policy. ESG factors can potentially help attract FDI inflows and such inflows can in turn help nurture improvements in a country's progress towards SDGs and simultaneously boost its economic growth. Our study employed a sample of 161 countries to gather econometric evidence on global market-based incentives to maintain focus on SDGs.

For the full sample, our results indicate that FDI inflows to countries are associated with standard economic factors that include domestic investment climate, per capita GDP growth and trade openness. We find that climate risk does not deter FDI and that there is no association between FDI and carbon emissions and sustainability reporting. We also note that higher levels of HDI deter FDI inflows to emerging markets. We believe that this might have to do with higher labor costs and labor regulation in these markets. We do observe an increase in FDI inflows associated with better quality of governance in a country. Good governance seems to matter to FDI investors.

In the case of emerging markets, our results indicate no significant association between climate risk and FDI. However, we note that higher levels of CO<sub>2</sub> emissions per capita are associated with higher levels of FDI inflows. One interpretation of this result is that FDI seeks pollution havens, consistent with the PHH. An alternative interpretation is that countries with higher levels of per capita CO<sub>2</sub> emissions may attract "green" FDI. A limitation of our study is that our FDI data is not disaggregated enough to distinguish between the two. Sustainable reporting requirements do not have any significant impact on FDI investments. The governance variable does not matter for FDI inflows to low- to middle-income emerging market economies.

The only environmental variable that is significant in the case of commodity exporting countries, is the requirement to provide sustainability reporting in a destination country. We believe that this is the outcome of attention being paid by stakeholders on the sourcing of commodities. Sustainability reporting requirements provide a degree of transparency to FDI investments made in destination countries for source country stakeholders. The governance variable does not have any impact for FDI inflows to low- to middle income commodity exporting economies. The HDI variable, however, is significantly but negatively associated with FDI indicating that higher level of social and human development in a low- to middle-income commodity exporter destinations deters FDI inflows. All the traditional economic variables—domestic investment climate, per capita GDP growth and trade openness are positive and significant for commodity exporting countries.

Overall, results indicate that good scores on ESG factors other than governance do not matter for FDI. The observed negative coefficients between HDI and FDI inflows suggest that social factors and a basic level of human development in the destination country is not a prerequisite to attract foreign investment. Indeed, it rather tends to reduce foreign investment. We find some evidence for the PHH in the case of emerging market economies. We do observe that sustainability reporting standards attract FDI to commodity exporting countries perhaps by providing a level of transparency surrounding such investments.

In addition to the ones mentioned above, there are several other possibilities for further research. Our sample period ends in 2018 and does not capture the impact of FDI collapse in 2020, falling 42% from \$1.5 trillion in 2019 to an estimated USD 859 billion [40]. Such a low level was last seen in the 1990s and is more than 30 percent below the investment trough that followed the 2008–2009 global financial crisis. This COVID-19-induced crisis will provide a possible natural experiment to re-examine the role of ESG factors as countries

rebuild their economies. UNCTAD forecasts a weak global outlook for FDI except in areas of technology and healthcare. As more data becomes available, researchers will be able to examine the composition of FDI to ascertain whether ESG factors are significant in attracting a certain type of FDI. This would help us better understand the observed positive association between per capita carbon emissions and FDI for emerging markets. Our findings suggest that HDI factors do not matter for the full sample and for middle to low-income emerging economies but act as a deterrent for FDI to commodity exporters. In a post pandemic future, HDI will be a more carefully assessed metric as breakdown in health care have engendered significant supply chain consequences not foreseen previously. Additionally, potentially there may be an increase in FDI routed into healthcare industry. We also believe that the scope of sustainable reporting will broaden as there is now a newfound respect for the perceived connections between sustainable environments and supply chain disruptions. As a policy issue, we believe sustainable reporting will become more pervasive, as it provides transparency to stakeholders about the ESG performance of companies and information to governments that is relevant to the achievement of their SDG goals.

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## References

1. Morgan, J.P. Why Covid-19 Could Be a Major Turning Point for Esg Investing. 1 June 2020. Available online: <https://www.jpmorgan.com/insights/research/covid-19-esg-investing> (accessed on 15 July 2020).
2. US SIF Foundation Report on US Sustainable and Responsible Investing and Impact Investing Trends. 2020. Available online: [https://www.ussif.org/files/Publications/2019USSIFAnnualReport\\_online.pdf](https://www.ussif.org/files/Publications/2019USSIFAnnualReport_online.pdf) (accessed on 21 March 2021).
3. Chang, R.D.; Zuo, J.; Zhao, Z.; Zillante, G.; Gan, X.; Soebarto, V. Evolving Theory of Sustainability and Firms: History, future Directions and implications for renewable energy research. *Renew. Sustain. Energy Rev.* **2017**, *72*, 48–56. [CrossRef]
4. Bowen, H.R.; Johnson, F.E. *Social Responsibility of a Business*; Harper & Brothers: New York, NY, USA, 1953.
5. Carroll, A.B. A Three -dimensional conceptual model of Corporate Performance. *Acad. Manag. Rev.* **1979**, *4*, 497–505. [CrossRef]
6. Freeman, R.E. *Strategic Management: A Stakeholder Approach*; Pitman: Boston, MA, USA, 1984.
7. Eccles, R.; Klimento, S. The Investor Revolution-Shareholders are getting serious about sustainability. *Harv. Bus. Rev.* **2019**, *97*, 106–116.
8. Dowling, J.; Pfeffer, J. Organizational legitimacy: Social values and organizational behavior. *Pac. Sociol. Rev.* **1975**, *18*, 122–136. [CrossRef]
9. United Nations. *Transforming Our World: The 2030 Agenda for Sustainable Development, Sustainable Development Knowledge Platform*; United Nations: New York, NY, USA, 2015; Available online: <https://sustainabledevelopment.un.org/post2015/transformingourworld/publication> (accessed on 15 July 2020).

10. Buchanan, B.G.; Le, Q.V.; Rishi, M. Foreign direct investment and institutional quality: Some empirical evidence. *Int. Rev. Financ. Anal.* **2012**, *21*, 81–89. [\[CrossRef\]](#)
11. Dunning, J.H. Location and the multinational enterprise: A neglected factor? *J. Int. Bus. Stud.* **1998**, *29*, 45–66. [\[CrossRef\]](#)
12. Hong, E.; Lee, I.H.; Makino, S. Outbound Foreign Direct Investment (FDI) Motivation and Domestic Employment by Multinational Enterprises (MNEs). *J. Int. Manag.* **2019**, *25*, 100657. [\[CrossRef\]](#)
13. UNCTAD. Global Trade Update. October 2020. Available online: <https://unctad.org/webflyer/global-trade-update-october-2020> (accessed on 20 January 2021).
14. UNCTAD. World Investment Report 2021. Available online: <https://unctad.org/webflyer/world-investment-report-2021> (accessed on 15 June 2021).
15. Iamsiraroj, S. The foreign direct investment–economic growth nexus. *Int. Rev. Econ. Financ.* **2016**, *42*, 116–133. [\[CrossRef\]](#)
16. Bernow, S.; Klempner, B.; Magnin, C. *From Why' to 'Why not': Sustainable Investing as the New Normal*; McKinsey & Company: New York, NY, USA, 2017; Available online: <https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/from-why-to-why-not-sustainable-investing-as-the-new-normal> (accessed on 15 June 2020).
17. Bassen, A.; Timo, B.; Gunnar, F. ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *J. Sustain. Financ. Invest.* **2015**, *5*, 210–233.
18. Khan, M.; Serafeim, G.; Yoon, A. Corporate Sustainability: First Evidence on Materiality. *Account. Rev.* **2016**, *91*, 1697–1724. [\[CrossRef\]](#)
19. Anthony, C.N.; Rezaee, Z. Business sustainability performance and cost of equity capital. *J. Corp. Financ.* **2015**, *34*, 128–149.
20. Chipalkatti, N.; Le, Q.V.; Rishi, M. Portfolio Flows to Emerging Markets: Do Corporate Transparency and Public Governance Matter? *Bus. Soc. Rev.* **2007**, *112*, 227–249. [\[CrossRef\]](#)
21. Pisani, N.; Kolk, A.; Ocelík, V.; Wu, G. Does it pay for cities to be green? An investigation of FDI inflows and environmental sustainability. *J. Int. Bus. Policy* **2019**, *2*, 62–85. [\[CrossRef\]](#)
22. Wang, J.; Yu, J.; Zhong, R. Country Sustainable Development and Economic Growth: The International Evidence. 11 February 2020. Available online: <https://ssrn.com/abstract=3350232> (accessed on 25 June 2020). [\[CrossRef\]](#)
23. Hübel, B. Do Markets Value ESG Risks in Sovereign Credit Curves? *Q. Rev. Econ. Financ.* **2020**. Available online: <https://doi.org/10.1016/j.qref.2020.11.003> (accessed on 20 June 2021). [\[CrossRef\]](#)
24. Crifo, P.; Diaye, M.A.; Oueghlissy, R. The Effect of Countries' ESG Ratings on their Sovereign Borrowing Costs. *Q. Rev. Econ. Financ.* **2017**, *66*, 13–20. [\[CrossRef\]](#)
25. Golub, S.S.; Kauffmann, C.; Yeres, P. Defining and Measuring Green FDI: An Exploratory Review of Existing Work and Evidence. In *OECD Working Papers On International Investment*; 2011/02; OECD Publishing: Paris, France, 2011.
26. Spatareanu, M. Searching for Pollution Havens: The Impact of Environmental Regulations on Foreign Direct Investment. *J. Environ. Dev.* **2007**, *16*, 161–182. [\[CrossRef\]](#)
27. Dam, L.; Scholtens, B. Environmental regulation and MNEs location: Does CSR matter? *Ecol. Econ.* **2008**, *67*, 55–65. [\[CrossRef\]](#)
28. MacDermott, R. Trade Agreements and the Environment: An Industry Level Study for NAFTA. *Glob. Econ. J.* **2006**, *6*, 1850090. [\[CrossRef\]](#)
29. MacDermott, R. A Panel Study of the Pollution-Haven Hypothesis. *Glob. Econ. J.* **2009**, *9*, 1850154. [\[CrossRef\]](#)
30. Rezza, A. A meta-analysis of FDI and environmental Regulations. *Environ. Dev. Econ.* **2014**, *20*, 185–208. [\[CrossRef\]](#)
31. Cave, L.; Blomquist, G. Environmental policy in the European Union: Fostering the development of pollution havens? *Ecol. Econ.* **2008**, *65*, 253–261. [\[CrossRef\]](#)
32. Eskeland, G.; Harrison, A. Moving to greener pastures? Multinationals and the pollution haven hypothesis. *J. Dev. Econ.* **2003**, *70*, 1–23. [\[CrossRef\]](#)
33. Mukhopadhyay, K.; Chakraborty, D. Pollution Haven and Factor Endowment Hypotheses Revisited: Evidence from India. *J. Quant. Econ.* **2006**, *4*, 111–132. [\[CrossRef\]](#)
34. Marconi, D. Environmental Regulation and Revealed Comparative Advantages in Europe: Is China a Pollution Haven? *Rev. Int. Econ.* **2013**, *20*, 616–635. [\[CrossRef\]](#)
35. Poelhekke, S.; van der Ploeg, F. Green Haven and Pollution Havens. (October 29, 2012). De Nederlandsche Bank Working Paper No. 353. Available online: <http://dx.doi.org/10.2139/ssrn.2168237> (accessed on 25 June 2020).
36. Benhabib, J.; Spiegel, M.M. The role of human capital in economic development: Evidence from aggregate -country data. *J. Monet. Econ.* **1994**, *34*, 143–173. [\[CrossRef\]](#)
37. Nelson, R.R.; Phelps, E.S. Investment in humans, technological diffusion, and economic growth. *Am. Econ. Rev.* **1966**, *56*, 69–75.
38. Borensztein, E.; De Gregorio, J.; Lee, J.-W. How does foreign direct investment affect economic growth? *J. Int. Econ.* **1998**, *45*, 115–135. [\[CrossRef\]](#)
39. Li, X.; Liu, X. Foreign direct investment and economic growth: An increasingly endogenous relationship. *World Dev.* **2005**, *33*, 393–407. [\[CrossRef\]](#)
40. Sharma, B.; Gani, A. The Effects of Foreign Direct Investment on Human Development. *Glob. Econ. J.* **2004**, *4*, 1850025. [\[CrossRef\]](#)
41. Canh, N.P.; Binh, N.T.; Thanh, S.D.; Schinckus, C. Determinants of foreign direct investment inflows: The role of economic policy uncertainty. *Int. Econ.* **2020**, *161*, 159–172. [\[CrossRef\]](#)
42. Globerman, S.; Shapiro, D. Governance Infrastructure and US Foreign Direct Investment. *J. Int. Bus. Stud.* **2003**, *34*, 19–39. [\[CrossRef\]](#)

- 
43. Mengistu, A.A.; Bishnu, K.A. Does good governance matter for FDI inflows? Evidence from Asian economies. *Asia Pac. Bus. Rev.* **2011**, *17*, 281–299. [[CrossRef](#)]
  44. Saidi, Y.; Ochi, A.; Ghadri, H. Governance and FDI Attractiveness: Some Evidence from Developing and Developed Countries. *Glob. J. Manag. Bus. Res.* **2013**, *13*, 14–24.
  45. Brada, J.C.; Drabek, Z.; Méndez, J.A.; Pérez, M.F. National levels of corruption and foreign direct investment. *J. Comp. Econ.* **2018**, *47*, 31–49. [[CrossRef](#)]
  46. Bailey, N. Exploring the relationship between institutional factors and FDI attractiveness: A meta-analytic review. *Int. Bus. Rev.* **2018**, *27*, 139–148. [[CrossRef](#)]
  47. Contractor, F.; Dangol, R.; Nuruzzaman, N.; Raghunath, S. How do country regulations and business environment impact foreign direct investment (FDI) inflows? *Int. Bus. Rev.* **2020**, *29*, 101640. [[CrossRef](#)]
  48. Goh, S.K.; Wong, K.; Tham, S.Y. Trade linkages of inward and outward FDI: Evidence from Malaysia. *Econ. Model.* **2013**, *35*, 224–230. Available online: <https://EconPapers.repec.org/RePEc:eee:ecmode:v:35:y:2013:i:c:p:224-230> (accessed on 15 July 2020). [[CrossRef](#)]
  49. Villaverde, J.; Maza, A. Foreign Direct Investment in Spain: Regional Distribution and Determinants. *Int. Bus. Rev.* **2012**, *21*, 722–733. [[CrossRef](#)]
  50. Reiter, S.L.; Steensma, H.K. Human Development and Foreign Direct Investment in Developing Countries: The Influence of FDI Policy and Corruption. *World Dev.* **2010**, *38*, 1678–1691. [[CrossRef](#)]
  51. World Bank. World Bank Country and Lending Groups. Available online: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups> (accessed on 15 July 2020).
  52. IMF. World Economic Outlook, “Adjusting to Lower Commodity Prices” Annex Table 2.1.2. Available online: <https://www.imf.org/external/pubs/ft/weo/2015/02/> (accessed on 15 July 2020).
  53. World Development Indicators. Available online: <https://databank.worldbank.org/home> (accessed on 15 July 2020).
  54. Global Climate Risk Index. Available online: <https://germanwatch.org/en/crri> (accessed on 15 July 2020).
  55. Initiative for Responsible Investment. Global CSR Disclosure. Available online: <https://iri.hks.harvard.edu/> (accessed on 15 July 2020).
  56. Sen, A. *Commodities and Capabilities*; Elsevier Science Publishing Co.: North-Holland, Amsterdam, The Netherlands, 1985.
  57. United Nations Development Program. Human Development Indicators. Available online: <http://hdr.undp.org/en/content/human-development-index-hdi> (accessed on 15 July 2020).
  58. World Bank. World Governance Indicators. Available online: <https://datacatalog.worldbank.org/dataset/worldwide-governance-indicators> (accessed on 15 July 2020).