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Climate Policies as a Catalyst for Green FDI

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March 2024

ABSTRACT: This paper assesses the role of climate policies as a catalyst of low carbon technologies deployment through foreign direct investment (FDI). Leveraging detailed cross-border project-level information, it identifies "green" FDI and finds that a higher number of active climate policies is associated with higher levels of green FDI inflows. Importantly, climate policies do not appear to be linked to lower levels of non-green projects, suggesting relatively small overall costs from the green transition. The paper also finds heterogeneity across sectors and policy instruments. The association between climate policies and green projects is particularly strong in energy and manufacturing, and when the composition of the recipient's climate portfolio is tilted towards binding policies (e.g., taxes and regulation) and expenditure measures. Finally, results point to policy spillovers, whereby larger climate policy portfolios in the source country are linked to higher green FDI outflows, but green subsidies can discourage them. This, in turn, implies that subsidies could hamper efforts to deploy low-carbon technologies across countries.

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WORKING PAPERS

Climate Policies as a Catalyst for Green FDI

Prepared by Samuel Pienknagura[1]

[1] I thank Zeina Hasna, Florence Jaumotte, Antong Anthony Liu, Henk Jan Reinders, and Gregor Schwerhoff for helpful comments and discussions. The views expressed in the paper are those of the authors and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

Climate Policies as a Catalyst for Green FDI *

Samuel Pienknagura†

March 2024

Abstract

This paper assesses the role of climate policies as a catalyst of low carbon technologies deployment through foreign direct investment (FDI). Leveraging detailed cross-border project-level information, it identifies "green" FDI and finds that a higher number of active climate policies is associated with higher levels of green FDI inflows. Importantly, climate policies do not appear to be linked to lower levels of non-green projects, suggesting relatively small overall costs from the green transition. The paper also finds heterogeneity across sectors and policy instruments. The association between climate policies and green projects is particularly strong in energy and manufacturing, and when the composition of the recipient's climate portfolio is tilted towards binding policies (e.g., taxes and regulation) and expenditure measures. Finally, results point to policy spillovers, whereby larger climate policy portfolios in the source country are linked to higher green FDI outflows, but green subsidies can discourage them. This, in turn, implies that subsidies could hamper efforts to deploy low-carbon technologies across countries.

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1 Introduction

Curbing greenhouse gas (GHG) emissions is a global priority in the fight against climate change and its adverse consequences for economic and financial stability. Key to this objective is the deployment of low-carbon technologies (LCTs) (Rogelji, Shindell, and Jiang 2018). The deployment of LCTs is especially important in emerging market and developing economies (EMDEs), which typically are not producers of LCTs and have much higher emissions per unit of output than advanced economies (see Capelle et al., 2023). Thus, the the adoption of LCTs by EMDEs can result in substantial emission reductions (Glennerster and Jayachandran, 2023).

One important channel through which EMDEs can access LCTs is through foreign direct investment and by the presence of multinational corporations. Foreign-owned firms in emerging markets exhibit lower carbon intensity than domestic firms in high-emissions sectors (Borga et al., 2023) and use less energy than local firms (Brucal, Javorcik, and Love, 2019). The higher emissions intensity of local firms in EMDEs is driven in part by older physical capital, lower research intensity, and less effective management practices (see Capelle et al., 2023). In addition to the direct impact it can have on reducing emissions, foreign direct investment can also help relax financing constraints to finance green projects in EMDEs. Against this backdrop, a key question is how to stimulate FDI inflows that are aligned with climate objectives—that is, attracting foreign firms with a lower carbon footprint, or involved in activities that contribute to the green transition.

This paper studies the link between climate policies and "green" FDI flows, defined as projects in low carbon activities. Leveraging detailed cross-border project-level information, it estimates the link between climate policies and greenfield FDI flows and projects at different levels of data aggregation. Evidence from aggregate-level data (destination country-year), shows that countries with a higher number of active climate policies exhibit higher levels of green greenfield FDI inflows, both in levels and as a share of GDP, and a higher number of green projects. This is confirmed by evidence from bilateral-level analysis—a higher number of climate policies in the destination country is associated with higher levels of bilateral green flows and projects. Moreover, I find that the positive relationship between climate policies and green FDI inflows/projects is stronger in EMDEs compared to AEs, illustrating the potential role of climate policies as a catalyst for LCT diffusion across borders. While establishing causality is always a challenging task, results from a IV exercise, which instruments climate policies with a proxy of climate policies in nearby countries, provides suggestive evidence of climate policies having a positive impact on green FDI inflows.

Importantly, the findings in the paper suggest that the economic costs of more stringent climate policies, at least from the point of view of their connection to non-green and total greenfield FDI flows, are, if anything, small. Evidence from aggregate data shows that the link between climate policies and non-green FDI flows (both in levels and as a share of GDP) is in most cases small and statistically insignificant. In turn, the link with total greenfield FDI is estimated to be positive, in levels, and insignificant as a share of GDP.

Results also point to heterogeneous costs and benefits from climate policies across sectors. The positive association between climate policies and green FDI inflows is mostly seen in industry, services and energy, whereas for other sectors the relationship is statistically insignificant. For non-green FDI, results point to a positive relationship between climate policies and flows to industry, while in energy, non-green FDI is negatively associated with climate policies. Thus, findings point to two patterns. In some sectors, non-green projects appear to capture many activities that are complementary to green projects. This may be the case in industrial sectors, such as car manufacturing, where non-green inputs (e.g. batteries and other cars parts) are used in the production of green products (e.g., electric vehicles). In other sectors, however, green projects and non-green projects are substitutes, which means that climate policies foster green projects at the expense of non-green ones. This may be the case in the energy sector. Aggregate findings suggest that these opposing effects across sectors tend to cancel out.

Evidence from bilateral analysis highlights potential heterogeneity in the effect of different climate policies implemented by the recipient country. Expenditure measures (such as subsidies) and taxes (including carbon taxes and policies that put limits on emissions) have a positive and statistically effect on green FDI inflows, with the estimated effect for the former being larger. Regulations in the destination country, on the other hand, have a small positive and statistically insignificant effect on bilateral FDI inflows

Turning to the role of policies in the source country, bilateral analysis uncovers potential cross-country spillovers. A higher number of climate policies in the source country is associated with both higher green FDI flows and projects, a finding that is robust to the use of alternative climate policy measures. However, results also point to heterogeneity across policy instruments. There is a positive, albeit insignificant, relationship between taxes and regulations and green FDI outflows. Expenditure measures by the source country, on the other hand, are linked with lower green FDI outflows. Thus, when it comes to some expenditure measures, results point to potential tensions between incentives to attract green FDI and global objectives to facilitate the deployment of LCTs at a global scale.

Notably, our findings also point to a positive link between climate policies in the source country and non-green FDI outflows, especially when considering projects. Two possible forces may lie behind this result. On the one hand, climate policies in the source country may foster complementary green and non-green investments abroad that may then be used in source country to comply with climate regulations. For example, regulations on car emissions in high income countries may incentivize car manufacturers based in those countries to invest (domestically and abroad) in projects related to EVs (green) and other car parts (non-green). On the other hand, it may also reflect the off-shoring of "dirty" projects, whereby firms may respond to more stringent climate regulation by setting "dirty" processes abroad (see Li and Zhou, 2017). Further studying which of these two effects are behind the findings in this paper is an important area for future research , as it is key to fully understand the international implications of more stringent climate regulation.

This paper contributes to several strands of the literature. From an econometric and data standpoint, this paper follows closely Burger, Ianchovichina, and Rijkers (2016). However, contrary to the focus of this paper, the authors estimate the impact of political uncertainty on total greenfield FDI flows, without distinguishing between green and non-green flows.

Closely related to this paper is the large literature studying how climate policies affect aggregate FDI flows. One common hypothesis in this literature, the so-called pollution-haven hypothesis, argues that more lenient environmental regulation fosters FDI, yet empirical studies have found inconclusive evidence in support of the hypothesis (see Cole, Elliot, and Zhang, 2017 for a summary). A recent contribution to this debate is Gu and Hale (2023). The authors study the impact of natural disasters and climate policies on aggregate FDI. Consistent with previous literature, and as in this paper, the authors find no systematic evidence of negative impacts of climate policies on aggregate FDI inflows. I expand the work of Gu and Hale (2023) and previous studies assessing the impact of climate policies on FDI along two dimensions. First, in addition to studying the relationship between climate policies and aggregate FDI, I zoom-in into the connection between climate policies and green FDI. This, which is the main focus of this paper, is critical to study both the potential economic impact of the green transition and also to understand the potential role of climate policies as a catalyst for green technology diffusion. As a second extension, I present evidence of the heterogeneous effect of different climate policies on green FDI and of the role of climate policies in source countries, especially countries where LCTs are produced, in affecting deployment through green FDI.

More broadly, this paper relates to the large body of literature studying the impact of climate policies on economic activity. So far, these studies have yielded inconclusive results—some find either zero or small positive impacts of reforms implemented in Europe (Barker et al., 2009; Enevoldsen, Ryelund, and Andersein, 2009; Metcalf and Stock, 2020) and North America (Murray and Rivers, 2015; Bernard and Kichian, 2021; Metcalf, 2019), and others find negative impacts (Kanzig and Konradt, 2023). The findings in this paper provide an additional explanation as to why these inconclusive effects may arise.

The rest of this paper is organized as follows. Section 2 describes the data and econometric approach used in the analysis. Section 3 presents results from the different empirical exercises conducted to assess the link between climate policies and greenfield FDI. Finally, section 4 concludes.

2 Econometric Approach and Data

This section describes the data sources and econometric strategies used in the analysis. Additional details about specific variables constructed for the analysis are presented in Annexes A and B.

2.1 Data

The econometric exercises in this paper rely on data from different sources.

Greenfield FDI data: Data on greenfield FDI comes from the fDi Markets database, a comprehensive, global, register of cross-border greenfield FDI announcements. Data starts in 2003 and is updated monthly. The data covers new projects and expansions of existing projects and is collected primarily from public sources (including newswires from tens of thousands of global media sources and over 3000 promotion agency sources) and from market research and publication companies. Projects are then cross-referenced against multiple sources, especially investing firms' sources.

While the data does not have limits on the size of the projects, which makes it comprehensive, it can differ from official FDI numbers for several reasons. First, it excludes mergers and acquisitions and other equity and non-equity investments. Joint ventures are included if they lead to a new physical operation and if the project is majority owned by a foreign firm. Second, it combines announcements and opened projects, and includes multi-year investment plans, which means that actual flows in a given year can be overreported. Finally, in some instances, investment figures are not provided, in which case the database reports an estimated investment amount.

Despite these shortcomings, Aiyar, Malacrino and Presbitero (2023) show that there is a strong correlation between country-level gross FDI flows and aggregate greenfield FDI values stemming from fDi markets. Moreover, the number of bilateral (country-pair) projects, which is verifiable information, and investment values are highly correlated, providing further validation to the investment data.

Importantly for the purpose of this paper, fDi markets provides detailed project level information, which allows to distinguish between different types of investments. In addition to information related to the source and destination country, the database includes information about the targeted sector, and a description of the type of activity pursued by each project. In particular, the data classifies projects according to clusters and also tags projects with specific labels.[1] I use the clusters and tags to create a "green" label (see Annex A for details). All other projects are classified as non-green. Note that non-green projects can include direct substitutes of green projects (e.g. a coal plant), but they also capture other projects that could be complementary to green activities or not necessarily related. This will be an important consideration when assessing the link between climate policies and non-green projects.

For the econometric analysis, I restrict the sample to countries that have at least one project (of any type) in more than 15 years.

Turning to patterns in the data, evidence suggests that global green FDI has accelerated since 2016. The rising trend in green FDI is evident when looking at the composition of total greenfield FDI—green FDI flows accounted for 10 percent of total greenfield FDI between 2014 and 2017, and by 2022 it had reached 40 percent of total investment (Figure 1, panel A). A similar increase is seen for green FDI projects as a percent of total projects. A large amount of green FDI inflows into emerging market and developing economies still comes from advanced economies, although inflows from other emerging market and developing economies are not negligible (Figure 1, panel B).

Aggregate FDI data: Data on aggregate FDI flows comes from the Financial Flows and Analytics (FFA) database constructed by the IMF's Research Department (see Bluedorn et al., 2013 for a description and application of the database). The database contains information for 165 countries dating back to 1970. It compiles data on capital flows from the IMF's Balance of Payments Statistics database and extends it with data from other sources including Haver Analytics, the CEIC and EMED databases.

Climate Policies: Data on climate policies comes from two sources. The main source is the Climate Policy Database (CPD)[2], which provides the most comprehensive international dataset on climate policies, although it is not exhaustive (see Nascimento, 2021 and Linsenmeier, Mohommad, and Schwerhoff, 2022). The database is based on other international datasets, reports and country-specific documents, and it incorporates a variety of other popular databases covering climate policies (or in some cases more broadly environmental policies), such as the Climate Change Laws of the World and the Organisation for Economic Co-operation and Development (OECD) policy instruments database. The database can generally be considered complete for G20 economies (including EU member countries that are individual members of the G20, but not other EU members) and 18 other countries, and also includes advanced and emerging economies in Europe, Asia and Latin America and some less-developed countries.

As in Linsenmeier, Mohommad, and Schwerhoff (2022), I only include policies that

[1] A project can have multiple tags. For example, a new plant assembling electric vehicles, can have tags, such as "electric vehicles", "battery supply chain" or "autonomous vehicles".

[2] https://www.climatepolicydatabase.org/

have climate change mitigation as one of their objectives (roughly 93 percent of policies). EU policies are applied to each member country's policy portfolio. If a country became a member after the policy was decided in the EU, the date of policy adoption is the year of joining the EU. I exclude sub-national policies, which may contaminate results.

The main variable of interest will be the change in a country's total number of active climate policies (in some exercises I also explore the role of subsets of policies). One limitation of the CPD is that it does not contain information about the stringency of a country's climate policy portfolio. Given this, I also employ the OECD's environmental policy stringency index (EPS), which has a more limited country, sectoral, and instrument coverage compared to the CPD, but captures the intensity of policies, as a robustness exercise.[3]

Every policy in the CPD carries information on policy objectives, administrative level, and instrument types. Using this information, policies are classified based on their impact on the government's budget. In particular, I create four categories: (*i*) policies that generate revenue (such as carbon taxes or schemes capping emissions), (*ii*) policies that generate expenses (e.g., R&D subsidies or feed-in-tariffs), (*iii*) regulations with no budget impact, and (*iv*) nonregulatory budget neutral policies (e.g., national strategies, voluntary emission restrictions). Additional details of the classification are found in Annex B.

Countries have introduced climate policies to address the challenges of climate change. This process accelerated in high-income countries following the Kyoto Protocol and the third Intergovernmental Panel on Climate Change (IPCC) assessment report. Around the time of the fourth assessment report, the process sped up in middle-income and low-income countries, but there are still noticeable differences in the number of policies per country across income groups (Figure 2, Panel A).[4] There are also notable differences in the composition of climate policy portfolios across income groups. Figure 2, Panel B, shows that although budget-neutral measures are the most common in all countries, almost one-fifth of policies in advanced economies generate government expenditure (compared with just over 15 percent and 10 percent in middle-income and low-income countries, respectively). This may reflect greater fiscal space in advanced economies. In addition, revenue-generating measures are used more frequently in advanced economies and, to a lesser extent, in middle-income countries. This may reflect the more advanced stage of climate policies in these countries (Linsenmeier, Mohommad, and Schwerhoff, 2022).

Country-level macroeconomic variables: Data on country-level variables come from two sources. Capital stocks, employment, population and real GDP come from the

[3]For the latest EPS update, see Kruse et al. (2022). The latest update of the EPS index consists of three equally-weighted subindices, which respectively group market based (e.g. taxes, permits and certificates), non-market based (e.g. performance standards) and technology support policies, and quantifies the intensity of environmental regulations in a way that is comparable across countries and over time.

[4]All Figures and Tables are presented in Annex C.

Penn World Tables, version 10.1. Data on total trade over GDP, average applied tariffs and average MFN tariffs come from the World Bank's World Development Indicators (WDI). Tariffs applied on low carbon technologies (LCT) goods, as defined in Howell et al. (2023), are constructed using tariff information from UNCTAD's Trade Analysis Information System (TRAINS). More details on the construction of LCT tariffs can be found in Pienknagura (2024).

Bilateral variables: Data on bilateral variables (distance, a trade agreement dummy, and other gravity variables) are from CEPII's gravity database version 202211 (see Conte, Cotterlaz and Mayer, 2022).

2.2 Econometric Approach

I study the link between climate policies and FDI by exploiting different levels of aggregation of the data.

Aggregate FDI inflows: I begin by aggregating greenfield FDI data at the recipient country-year level. This allows me to estimate the relationship between climate policies and FDI inflows (projects), where I distinguish between total greenfield FDI inflows (projects), green FDI inflows (projects), and non-green inflows (projects). In particular, I estimate two sets of regressions. The first zooms into the relationship between climate policies and the level of FDI inflows (the number of projects).[5] To address the presence of zero values for both inflow values and projects (especially for green projects), I estimate the relationship using the poisson-pseudo maximum likelihood estimator (PPML) proposed by Santos-Silva and Tenreyro (2006). More precisely, I estimate the following equation:

$$y^h_{i,t} = exp\{\alpha_i + \beta log(CP_{i,t-1}) + \gamma X_{i,t-1}\} + \epsilon_{i,t} \tag{1}$$

where $h \in \{total, green, non-green\}$ is the type of FDI flow, $y^h_{i,t}$ is either the real dollar value of greenfield FDI inflows or the number of projects of type h in country i in year t, α_i is a country fixed effect, $log(CP_{i,t-1})$ is the natural logarithm of the stock of climate policies, and $X_{i,t-1}$ is a set of controls in $t-1$, including trade over GDP, the log of the capital stock per employee, the log of GDP per capita, and GDP growth.[6] My interest will be on the coefficient β. I also estimate extensions of (1) that include country-specific time trends and lagged values of the left hand-side variable.

In addition to estimating (1), I also estimate the effect of climate policies on FDI

[5]Burger, Ianchovichina, and Rijkers (2016) follow a similar approach to study the impact of political instability on FDI.

[6]Some of the controls (trade openness and GDP growth) are based on previous empirical studies of FDI inflows (see, for example, Gu and Hale, 2023). I also include variables capturing returns to investment, such as GDP per capita and the capital stock per employee.

inflows as a share of GDP. At this level of aggregation, estimating this relationship is useful as it allows me to compare results with those of previous studies (e.g., Gu and Hale, 2023). To this end, I estimate the following equation:

$$\frac{FDI^h_{i,t}}{GDP_{i,t}} = \alpha_i + \beta log(CP_{i,t-1}) + \gamma X_{i,t-1} + \epsilon_{i,t} \tag{2}$$

where, as before, h indicates the type of FDI flow, which now also includes net total FDI flows from FFA, i is the recipient country, t is the year, $CP_{i,t-1}$ is the stock of climate policies, and $X_{i,t-1}$ includes the same set of controls as before. I estimate equation (2) using standard panel regression methods.

Sectoral FDI inflows: Next, I exploit information about the sector that each FDI project targets to construct sector-level FDI inflows and number of projects.[7] With this information, I study whether climate policies have heterogeneous effects across sectors by estimating the following variant of (1):

$$y^h_{i,s,t} = exp\{\alpha_i + \omega_i * year + \sigma_{s,t} + \gamma X_{i,t} + \sum_s \phi_s log(CP_{i,t})\mathbb{1}(sector = s)\} + \epsilon_{i,s,t} \tag{3}$$

where now ϕ_s is the sector-specific elasticity of FDI inflows (projects) of flow type h, in sector s, with respect to climate policies. $\mathbb{1}(sector = s)$ is an indicator function that takes value 1 if the cross-border project is described as targeting sector s. In addition to controls described above, the specification includes sector-time fixed effects, $\sigma_{s,t}$, country fixed effects (α_i) and a country-specific time trend.

Bilateral FDI flows: To further understand the link between climate policies and FDI inflows, I estimate a variant of a gravity model for FDI inflows (projects). Such specification has the advantage that (*i*) it allows to control for gravity variables that are typically associated with FDI, and (*ii*) allows to study potential policy spillovers. In particular, using fDI market's information, I construct bilateral FDI flows from sender country j to recipient country i in year t for FDI type h. Given the prevalence of zeroes, I estimate the following baseline equation using the PPML estimator:

$$x^h_{i,j,t} = exp\{\alpha_i + \omega_{j,t} + \beta log(CP_{i,t-1}) + \gamma X_{i,t-1} + \delta Z_{i,j,t-1}\} + \epsilon_{i,t} \tag{4}$$

where, in addition to the variables mentioned above, I now include country i's average applied tariff on LCT goods as well as the average applied tariff on merchandise imports,

[7] I map sectoral information from fDi markets to ISIC one digit sectors and group FDI into the following sectors: *Agriculture and Mining*, *Energy*, *Construction*, *Manufacturing*, *Services*, and *Others*. *Others* includes Waste management and Space and Defense.

country-pair variables (geographic distance, a trade agreement dummy).[8] In some specifications, instead of including time invariant bilateral variables (e.g. distance), I include country-pair fixed effects. As before, x is either the bilateral FDI dollar flow (in real terms) or the number of projects of type h. Note that all sender-country time-varying variables are captured by the fixed effects $\omega_{j,t}$.

The country-pair analysis is also used to explore the potential link between climate policies in the sender country and bilateral FDI flows. In particular, I study a variant of (4) where now i is the sender country and j is the destination country (where all time-varying recipient country variables, including climate policies, are controlled by a destination country-year fixed effect).

Next I extend the country-pair analysis to study potential differences in the connection between FDI flows and different climate policy instruments both in the destination and source countries. As discussed in Annex B, I group policies according to their impact on the government's budget—those that generate revenue, those that create an expense, those that are budget neutral and entail binding regulations, and those that are budget neutral and do not entail binding regulations. With these groupings at hand, I estimate the following variation of equation (4):

$$x^h_{i,j,t} = exp\{\alpha_i + \omega_{j,t} + \beta log(CP_{i,t-1}) + \gamma X_{i,t-1} + \delta Z_{i,j,t-1} + \sum_p \pi_p share_{i,p,t-1}\} + \epsilon_{i,t} \quad (5)$$

where, depending on the exercise, i is either the source or destination country (conversely, j is the partner country in the bilateral flow), and $share_{i,p,t-1}$ is the share of climate policies of type $p \in \{revenue, expenditure, regulations\}$ in country i's climate policy portfolio. Note that because I control for the (log) of country i's climate policy portfolio and because I exclude non-regulatory neutral policies, π_p captures the effect on bilateral FDI of type h of increasing the share of climate policies of type p at the expense of non-regulatory neutral policies, and keeping the size of the climate portfolio constant. Such approach has been pursued in the public finance literature when assessing the impact of different types of taxes on growth (see Arnold et al., 2011; Acosta-Ormaechea and Morozumi, 2021). The specification is also useful to overcome the fact that, for some policy types, many countries in the sample have no policies in place which, under the log transformation, would entail dropping them from the analysis. The specification in (5) also allows to calculate the elasticity of $x^h_{i,j,t}$ with respect to policy type p by applying the following formula:

[8]While some bilateral variables are not time varying (e.g. distance), for simplicity I group all bilateral variables in $Z_{i,j,t-1}$.

$$\frac{\partial lnFDI^{green}}{\partial lnP_p} = \beta share_p + \pi_p(1 - share_p)share_p - share_p \sum_{q \neq p} \pi_q share_q\} \quad (6)$$

Using (6), I estimate the effect of each policy type on green FDI flows for the country with the average share of each policy type.

3 Results

This section studies the link between climate policies and FDI using data at different levels of aggregation. I begin by presenting evidence based on aggregate FDI flows. Then I exploit sectoral information in the greenfield FDI data to explore the potentially heterogeneous effect of climate policies across sectors. Finally, I present evidence from bilateral FDI flows, focusing on their connection with climate policies implemented in both source and destination countries.

3.1 Evidence from Aggregate FDI inflows

Results in Table 1 show that a higher number of active climate policies is associated with larger green FDI inflows and projects. As shown in columns (1) and (5), the estimated coefficient for a country's climate policy count is positive and statistically significant, suggesting countries experience an increase in green FDI inflows/projects as they expand their climate policy portfolios. Reassuringly, the estimated coefficient when looking at projects is similar to the one when studying inflows, suggesting that the estimated effects are not purely a byproduct of the measurement error in the fDi markets database (see Section 2). Results do not appear to be driven by secular changes at the country level, as the magnitude and statistical significance of the coefficient associated with climate policies is virtually unchanged by the inclusion of a country-specific linear trend (columns (2) and (6)).

Next, I explore the extent to which results are explained by persistence in FDI flows/projects. In particular, I control for (the log of) past FDI flows/values. Note that, while in this case the point estimate of the coefficient for climate policies is lower compared to specifications that do not control for lagged values, the coefficient remains statistically significant (columns (3) and (7)). The inclusion of lagged values of projects and flows reduces substantially the number of observations in the sample. Thus, I re-estimate the specifications in columns (2) and (6) with the sub-sample that excludes observations where flows/projects in $t-1$ are zero. Results, shown in columns (4) and (8), are virtually unchanged compared to those using the full sample. This suggests that differences in the estimated coefficients in columns (2) and (3) (columns (6) and (7)) are not the byproduct of the smaller sample used in the latter.

The estimated association between climate policies and green FDI inflows is also significant from an economic standpoint. A one standard deviation increase in the number of climate policies is associated with a 15 percent increase in green FDI inflows and projects. Equivalently, results based on the most conservative estimate (columns (3) and (7)) indicate that an increase in the climate policy count from the EMDE median in 2019 to the 75th percentile would be related with a 20 percent increase in green FDI flows/projects.

One concern of an expansive climate policy agenda is the potential adverse impact it may have on overall economic activity—in the specific case of the analysis in this paper, on overall FDI inflows.[9] For example, Dabla-Norris et al. (2023) show that, in the case of carbon taxes, concerns about the economic costs and effectiveness of the policy are top of mind for respondents who oppose it.

This concern is tackled, in the case of FDI, by estimating equation (1) for non-green FDI inflows/projects, as well as total FDI. Table 2 shows that an increase in the climate policy count has, depending on the specification, either a positive and significant association with non-green FDI flows or a statistically insignificant relationship. Moreover, the values of the estimated coefficients are substantially lower compared to those for green FDI inflows. As a result, the link between climate policies and total FDI inflows (Table 3) is, in most cases, positive and statistically significant, with the estimated coefficient being smaller than for green FDI flows, as expected.

To further delve on the connection between climate policies and FDI flows, and to facilitate comparisons with previous studies (e.g. Gu and Hale, 2023), Table 4 shows results from the estimation of equation (2), where now the dependent variable is FDI flows as a share of GDP. Columns 1 through 4 show that a higher number of climate policies is robustly associated with higher levels of green FDI as a share of GDP. This relationship is robust to the inclusion of a country-specific time trend (column 2) and to the inclusion of lagged values of the dependent variable (column 3).[10] By contrast, results in columns 5-8 suggest, that climate policies are associated with lower FDI inflows in non-green projects, although the coefficient is statistically insignificant. Next, Table 5 turns to estimating the overall effect of climate policies on greenfield FDI as a share of GDP. Results from a similar set of specifications as in Table 4 (columns 1-4), point to a statistically insignificant relationship

[9]Empirical assessments of the economic impact of climate policies have found mixed results: some studies find either zero or small positive impacts of reforms implemented in Europe (Barker et al., 2009; Enevoldsen, Ryelund, and Andersein, 2009; Metcalf and Stock, 2020) and North America (Murray and Rivers, 2015; Bernard and Kichian, 2021; Metcalf, 2019), and others find negative impacts (Kanzig and Konradt, 2023).

[10]Column 3 shows that there is a degree of convergence of green FDI flows relative to GDP, as the coefficient for lagged values is negative. Moreover, this specification yields a higher coefficient for climate policies, a finding that is not simply driven by a smaller sample (see column 4).

between climate policies and overall greenfield FDI as a share of GDP.

The negligible effect of climate policies on non-green FDI may reflect fact that non-green FDI includes both carbon-intensive projects (such as those associated with fossil fuels), which are likely hampered by climate policies, but also activities that complement green projects and thus benefit from more stringent climate policies (for example, those providing inputs to green projects or those reliant on the output of green projects). Overall, the sum of the individual effect of climate policies on green and non-green FDI flows, respectively, yields a relatively negligible effect on total greenfield investment. Note that this does not preclude FDI inflows into some sectors from being adversely affected by climate policies (a point I explore in more detail next); it just points to a lack of aggregate effects. Similar conclusions emerge when studying the relationship between climate policies and net aggregate FDI inflows (column 5), a result that is consistent with Gu and Hale (2023). Importantly, these patterns are based on historical data, and may change as the balance between green and non-green FDI changes.

Turning back to the relationship between climate policies and green FDI documented in Table 1 and Table 4, one concern is that the countries that receive larger flows of green investments have larger stocks of active climate policies because their economies are more prepared to adapt to these policies. This concern applies even if using the lagged value of policies, which could be argued to be less sensitive to contemporaneous FDI flows, and if the dependent variable captures FDI announcements (not disbursements), since there may still be anticipation effects and announcements may be the results of negotiations that are known by policy makers in advance.

Table 6 partly addresses this concern by presenting results from an instrumental variables (IV) exercise, where climate policies are instrumented by the distance-weighted stock of policies in other countries.[11] The rationale for the strategy is that climate policies are adopted in regional waves, and countries learn about the experience of other countries. The key assumption of the exercise is that the instrument does not directly affect green FDI flows. As can be seen in columns 1 and 2, the coefficient for distance-weighted policies abroad, in a regression of green FDI that also includes domestic policies, is not statistically significant, proving reassurance that the exclusion restriction holds. Note that this does not mean that policies in other countries are not related to green FDI flows. In fact, later in the paper I show, using bilateral flows, that there is a positive associations between the source countrys' policies and green FDI flows. Rather, results in columns 1 and 2 of Table 6, suggest that global policy trends are not directly linked to aggregate green FDI inflows as a share of GDP.

Reassuringly, results from our IV exercise confirm the positive link between climate

[11] A similar strategy has been previously used in Acemoglu et al. (2019), David, Komatsuzaki, and Pienknagura (2022), and Hadzi-Vaskov, Pienknagura, and Ricci (2023).

policies and green investments as a percent of GDP, with the estimated coefficient being approximately twice as large as the OLS results in Table 4 (Table 6, columns 3 and 4).[12] This suggests that anticipation effects and endogeneity more broadly actually dampen the link between green FDI and climate policies.

In sum, tables 1-6 document a systematic positive and significant relationship between action on the climate front (as proxied by countries' number of active climate policies) and green greenfield FDI inflows; while the link with non-green and overall greenfield FDI is either positive but small (in levels) or statistically insignificant (as a share of GDP). I turn next to exploring whether there are differences in the link between climate policies and FDI flows across sectors.

3.1.1 Sectoral Heterogeneity

Table 7 shows estimates stemming from equation 3, where the coefficient of climate policies is allowed to vary across sectors. Results point to heterogeneity in the link between climate policies and green FDI (columns 1-4)—there is a positive and statistically significant relationship with projects and flows into industry and service sectors, and a positive and statistically significant link with green FDI inflows into the energy sector (for projects the coefficient is positive but statistically insignificant). For other sectors, the estimated coefficients are insignificant and, in some cases, negative. The adverse relationship between climate policies and non-green FDI flows also appears to be concentrated in a handful of sectors. Climate policies have the largest adverse effect on non-green FDI flows and projects into agriculture and energy, whereas they also appear to be associate with lower non-green construction projects. One notable case is industry, where climate policies also have a positive and significant relationship with non-green FDI inflows.

The sectoral analysis points to two patterns in terms of the relationship between climate policies and FDI. On the one hand, there is evidence of complementarities between green and non-green activities for industry. This may be the case, for example, in the transportation sector, where the production of batteries and other car parts, may be used for both green (e.g. electric vehicles) and non-green (e.g. internal combustion engine vehicles) processes. On the other hand, in the energy sector there appears to be a clearer divide between green and non-green projects, whereby green projects substitute non-green ones. As a result, the results are indicative that a stronger climate agenda can be associated with higher FDI in both green and non-green projects in the former, while it can be linked with a higher number of green projects at the expense of non-green ones in the latter.

[12]The Kleibergen-Paap Wald statistic is above the Cragg-Donald critical values, suggesting that the null of weak instruments is rejected.

3.2 Evidence from Bilateral Flows

To gain further insights into the role of climate policies for green FDI, the rest of the paper turns to bilateral gravity estimations. This approach has two important features. First, it allows to include a rich set of controls that could affect FDI flows. For example, geographic and cultural proximity are two attributes associated with larger FDI flows, and the gravity framework makes it possible to take these factors into account. We can also include fixed effects which absorb unobservable variables. As will be discussed in more detail, the exact set of fixed effects varies by exercise. The second advantage of the bilateral analysis is that it is well suited for studying the role of both policies in the recipient country as well as those in the sender country. Adding this layer into the analysis is useful given current concerns about the potential spillovers of climate policies in advanced economies on deployment of green technologies to EMDEs.

Table 8 shows estimation results based on the specification in equation 4, which studies the link between climate policies in the destination country and bilateral green and non-green FDI flows. The specification includes destination country fixed effects, which capture all time-invariant country characteristics, source country-year fixed effects, aimed at capturing all source country-specific variables (e.g., growth, rule of law, or level of development), a dummy taking value one if the country-pair has a trade agreement in place, and either standard time-invariant gravity variables (distance, common language) or a full set of country-pair fixed effects. Note, that given our interest in the link between destination country climate policies—which do not vary across source countries—and FDI flows, we cannot include a full set of destination-time fixed effects.[13] I adopt a similar hybrid gravity approach when studying the connection with climate policies in the source country. In addition to climate policies, I control for other destination country variables which are likely to affect FDI flows. These include the log of (real) GDP and population, both aimed at controlling for size, the log of the destination country's capital stock, aimed at controlling for potential diminishing returns to capital, and trade-weighted LCT and overall applied tariffs.[14]

As with aggregate flows, results show that a larger number of climate policies in the destination country is associated both with higher bilateral green FDI flows and number of green projects (Columns 1 and 3). The estimated coefficients are both statistically and economically significant—estimates imply that a one standard deviation increase in the stock

[13]In this sense, our methodology follows the strategy in Burger, Ianchovichina and Rijkers (2016), who adopt a similar hybrid approach to study the impact of destination-country uncertainty on bilateral FDI flows.

[14]Bloningen (2005) discusses the different channels through which lower trade costs can influence multinational corporations' decisions to invest in other countries. Moreover, Bloningen and Piger (2014) use a Bayesian approach and find that the destination country's openness to trade is an important determinant of FDI flows.

of climate policies in the recipient country is associated with an increase in bilateral green FDI inflows (the number of green projects) of 7 percent (6 percent), on average. The estimated coefficients for climate policies in the destination country in the FDI inflows and projects regressions are robust to the inclusion of a full set of country-pair dummies (columns 2 and 4).

Importantly, results also provide support to the importance of trade openness, in the form of lower tariffs, for the deployment of LCTs through FDI. Lower LCT tariffs are found to be associated with higher green FDI inflows. Trade protection can have opposing effects on FDI inflows a priori. It can induce multinational corporations to relocate to protected markets to circumvent tariffs (tariff-jumping FDI; see Bloningen 2005) , but it can also increase the cost of imported inputs and discourage FDI in activities that rely heavily on such goods, especially when there is scarcity of cheaper domestically sourced alternatives. Results point to the latter effect dominating when it comes to green FDI—lower tariffs for LCT goods are associated with higher values for both green FDI inflows and green projects (for which LCT imports are presumably crucial inputs). Trade policy thus appears to be another important policy variable linked with LCT diffusion through green FDI inflows, by reducing the cost of the technology. Emerging market and developing economies, in particular, have substantial room to reduce tariffs on LCT goods (see Pienknagura, 2024).

Consistent with results in Tables 2 and 4, results in Table 8 show no systematic evidence that climate policies in the destination country hinders non-green FDI inflows (columns 5 and 6). They do exhibit a negative link with bilateral non-green projects (columns 7 and 8), albeit the estimated coefficients are smaller compared to those for green projects.

A key question to understanding the potential role of climate policies as a catalyst for LCT deployment across countries is whether results in Table 8 hold for EMDEs. There are reasons for why this may not be the case. As argued in Pigato et al. (2020), weak fundamentals (such as low human capital or weak rule of law) may hamper EMDE's ability to leverage climate policies to boost LCT deployment, including through FDI. Against this backdrop, I re-run the exercise in Table 8, now splitting the sample between destination countries that are advanced economies and those that are EMDEs.

Importantly, results in Table 9 show that the positive relationship between climate policies and green FDI inflows/projects is not driven exclusively by advanced economies; in fact, estimates point to a stronger link in emerging market and developing economies. In both income groups, a higher number of climate policies in the destination country is associated with higher green FDI inflows and projects. However, while in EMDEs coefficients are statistically significant in all cases, in AEs effects are significant only for green projects and the estimated coefficients are somewhat smaller. This indicates that foreign investors may be less constrained than domestic firms by absorptive capacity, since they can partially overcome these barriers by transferring firm-specific know-how and deploying qualified personnel to their foreign affiliates.

Next I study the link between climate policies in the *source* country and bilateral FDI flows. To do so, I adjust the specification in 4 by controlling for source country fixed effects, source country-time varying variables (the log of GDP and population) and a full set of destination country-year fixed effects. As before, I present two specifications—one controlling for bilateral variables (distance, common language) and one controlling for the full range of country-pair fixed effects.

Results in Table 10 show that climate policies in the source country are linked with higher bilateral green FDI flows. I find that the coefficient for climate policies is positive both in the case of green FDI flows and projects, but the estimated coefficients are higher and more statistically significant in the case of green projects (columns 3, 4). For flows, the effect is statistically significant only when controlling for the full set of country-pair fixed effects (column 2).

Notably, climate policies in the source country are also associated with higher bilateral non-green FDI flows, especially in the case of projects (Table 10, columns 5-8). Two possible forces may lie behind this result. On the one hand, climate policies in the source country may foster complementary green and non-green investments abroad that may then be used in source country to comply with climate regulations. For example, regulations on car emissions in high income countries may incentivize car manufacturers based in those countries to invest (domestically and abroad) in projects related to EVs (green) and other car parts (non-green). On the other hand, the result for non-green projects may also reflect the off-shoring of "dirty" projects, whereby firms may respond to more stringent climate regulation by setting "dirty" processes abroad (see Li and Zhou, 2017). Further studying which of these two effects dominates the findings in this paper is an important area for future research in order to fully understand the international implications of more stringent climate regulation.

Taken together, the results from the analysis of bilateral flows highlight the importance of international coordination and cooperation. Concerted efforts to enact climate policies may lower the risk of firms in advanced economies offshoring polluting activities to EMDEs. Coordination and cooperation in the design of policies may also be important to facilitate the deployment of LCTs to EMDEs through green FDI. I turn to this issue next.

3.2.1 Heterogeneity by Policy Instrument

To gain further insights about the link between climate policies and green FDI flows, I exploit the typology of climate policies described in Annex B and study how each type of policy relates with green FDI flows/projects. The classification is based on the impact of policies on the government's budget. Among policies that are budget neutral, I distinguish between binding regulations and non-binding policies.

To do so, I estimate equation 5. The strategy follows the literature estimating the impact of different taxes on growth (see Arnold et al., 2011, and Acosta-Ormaechea and Morozumi, 2021). Compared to a specification in which the log of the count of each policy type is included as a regressor, the specification in equation 5 has the advantage that it does not drop countries that do not have active policies of one type. Further, the specification in equation 5 provides insights into two different questions. First, the coefficients π_p quantify the change in green FDI flows/projects as countries re-balance the composition of their climate policy portfolios from non-binding policies to binding ones, keeping the total number of policies constant. Second, using using 6, it allows to compute the marginal effect of an additional policy of each kind on green FDI.

Table 11 shows that, keeping the total number of policies constant, countries that re-balance their climate policy portfolios from non-binding policies towards revenue generating measures and expenditure measures see an increase in both total green FDI inflows and projects. A re-balancing towards regulation also boosts green FDI, but the statistical significance of the effect on flows is weaker. Thus, results suggest that countries that move towards binding policies appear to be more effective in attracting green FDI.

In the case of policies in the source countries, results point in the opposite direction. A re-balancing of the source country's climate policy portfolio away from non-binding measures is associated with lower bilateral flows, especially when it comes to expenditure measures.

To the assess the overall effect of an increase in each policy type in both the source and destination country, Figure 3 applies results from Table 11 on equation 6. These are evaluated using the average share of each policy type in our sample. Results suggest that, among climate policies in the destination country, government expenditure and revenue measures show the strongest association with green FDI in the recipient country. Other policies, including non-binding neutral policies, have a non significant effect. This points to the importance of binding policies when seeking to attract green FDI inflows. By contrast, Figure 3 also shows that higher levels of expenditure measures (such as subsidies) in the source country are associated with lower green FDI outflows, while non-binding regulations boost them. Other policy instruments have either a positive or statistically insignificant effect.

To further explore the role of the stringency of climate policies in the source countries, I use the the OECD's EPS index and its sub-components. In particular, I modify the specification in equation 4 to first include the value of the EPS index in the source country and then to include four sub-components of the index: (i) taxes and certificates, (ii) non-market based policies (regulations), (iii) feed-in-tariffs, and (iv) R& subsidies. Note that while the set of policies in the EPS is narrower compared to those in the CPD, the first components would roughly map into revenue measures, non-market based policies are mostly regulations, and the latter two are expenditure measures. Moreover, while the EPS' country coverage is smaller compared to the CPD, a large set of the source countries are included.[15]

Table 12 broadly confirms the results in Figure 3. First, higher values of the EPS in the source country, which implies more stringent climate policies, is associated with larger green FDI outflows/projects abroad (columns 1, 2, 5, 6). A breakdown of the EPS into its sub-components confirms the negative link of key expenditure measures in the source country with green FDI outflows—countries with higher R&D subsidies exhibit lower green FDI outflows. One difference between the results in Figure 3 and those in Table 12 regards the effect of revenue measures. A higher intensity of taxes and certificates in the source country, as measured by the EPS, is associated with higher green FDI outflows, whereas revenue measures, as defined in Annex B, do not have a statistically significant effect. Two potential reasons for why this difference emerges are (i) the fact that the EPS captures the intensity of policies, and (ii) it focuses on a narrower set of revenue measures.

It is also worth highlighting the fact that both the exercise in Figure 3 and the one in Table 12 capture mostly the short-term effect of subsidies, which may otherwise be important for the development of new LCTs and for future deployment (see Hasna et al., 2023, for a discussion). Thus, the analysis points to potential trade-offs between short- and long-term deployment objectives. This trade-off appears milder with other types of subsidies, such as feed-in tariffs, which have a positive, albeit only marginally significant, effect on green FDI outflows.

4 Conclusions

In addition to their essential direct role in curbing emissions and reducing the macro-critical risks associated with climate change, climate policies can could help countries seek technology-based solutions to climate change. This paper shows that a higher number of climate policies, especially those that affect governments' budgets (revenue and expenditure measures) and those imposing regulations, are linked with higher green FDI inflows. The estimated effect of climate policies on non-green FDI is small and statistically insignificant, and so is the link with overall FDI. This suggests that the economic costs of the climate transition, at least from the point of view of FDI, appear to be, if anything, small. Importantly, the link between climate policies and green FDI inflows is highest in EMDEs, which typically do not produce these technologies, making diffusion particularly relevant.

[15]The EPS index is not used in other exercises assessing the effect of recipients' countries policies because in those cases, the set of countries with available EPS data is rather limited. For source, countries on the other hand, these are mostly countries covered by the EPS data.

The positive connection between climate policies and green FDI is driven by projects in key sectors—industry, energy, and services. However, while in industry a boost in climate policies is associated with an increase in both green and non-green FDI, pointing to complementarities between green and non-green activities, in energy, non-green projects are hampered by climate policies. This result highlights the heterogeneous effect of climate policies across sectors, and also across activities within sectors.

Results from the paper also highlight the importance of international coordination and cooperation in facilitating the deployment of LCTs through FDI, as there is evidence of climate policies spillovers. Countries that implement climate policies increase the share of green FDI in their overall outflows, which suggests that they export the low-carbon technologies to other countries. Yet some policies may create tension between domestic and global climate objectives. For example, the use of subsidies—which may be warranted in the presence of externalities and market failures and could over time boost LCT trade if they lead to lower production costs—is linked with lower green FDI outflows. This highlights the importance of international coordination and cooperation in the design of climate strategies.

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A Identifying “Green” Greenfield FDI Projects

To identify projects related to ”green” activities I combine information about the project’s cluster and tags, as follows. All projects belonging to the “Environmental Technology” Cluster are labeled as green projects. In addition, projects with the following tags are also labeled as green:

- Alternative proteins
- Carbon capture
- Cleantech
- Cultured meats
- Electric vehicles
- Hydorgen
- Photovalic
- Plant-based foods
- Vegan industries
- Wind power technologies
- Sustainable tourism
- Waste to energy

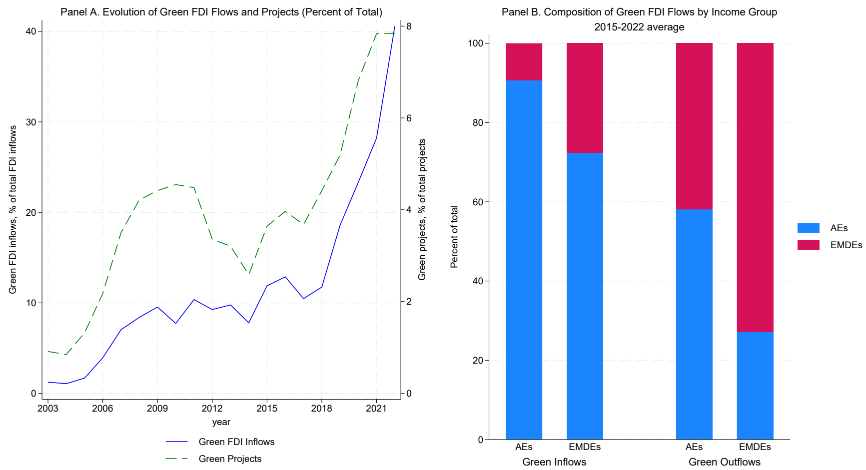
The above are activities related to climate change mitigation (CCM) and environmentally related technologies (ERT). Based on this classification, I label about 13,000 projects as green over the 20 years of available data, out of a total of close to 300,000 (about 4 percent).

B Classification of Climate Policies by their Impact on the Government's Budget

In order to assess the impact of different policies on FDI flows, we map the different types of policies recorded in the climate policy database into those generating government revenue (e.g. taxes and tariffs), those generating expenses (e.g. subsidies and feed-in-tariffs) and those that are budget neutral. Among the latter, we distinguish between regulation, which typically impose compliance costs for users/firms, and those that are non-regulatory (e.g. self-imposed firm and sectoral targets). Table A1 provides the full list of policies and their classification.

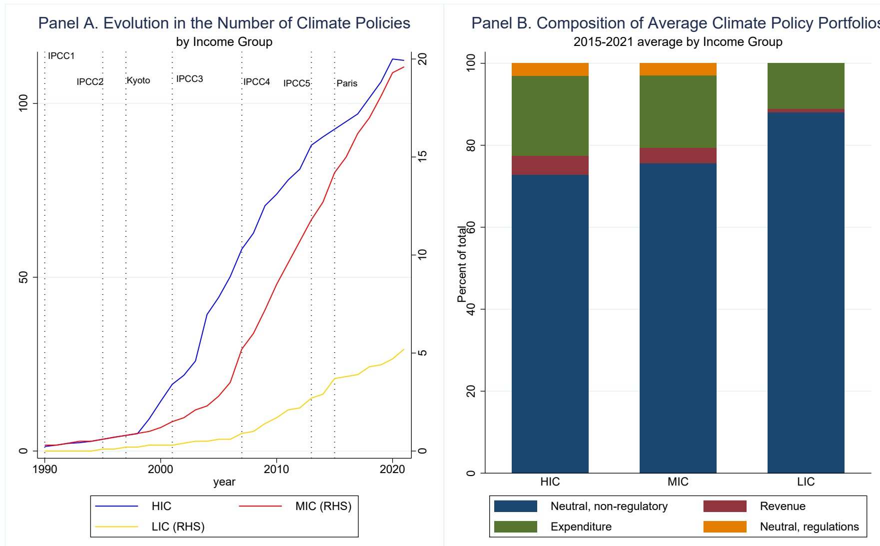
C Figures and Tables

Figure 1: Evolution and Composition of Green FDI Flows and Projects



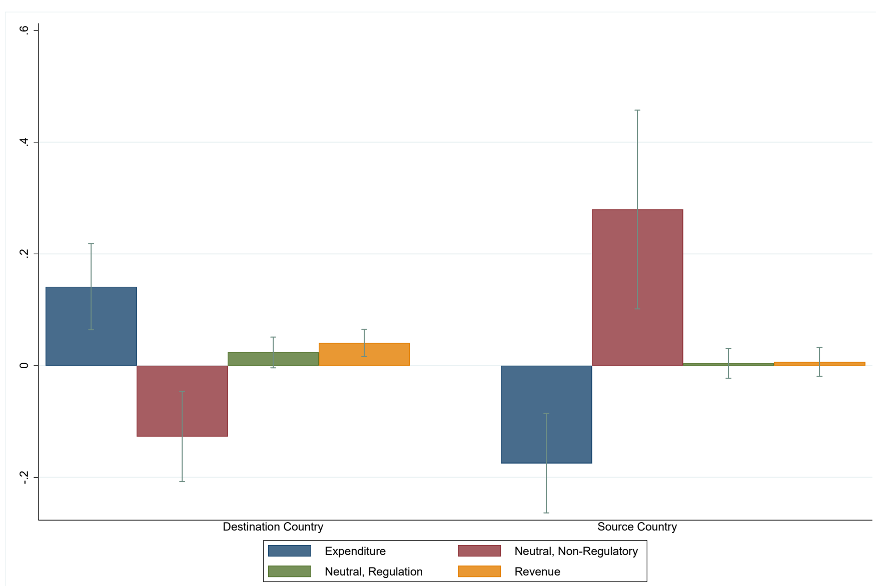
Source: Hasna et al. (2023) based on the FT's fDi markets database.
Note: Income groups are based on the World Bank's income classification.

Figure 2: Evolution and Composition of Climate Policies Across Income Groups



Source: Hasna et al. (2023) based on the Climate Policy Database.
Note: Income groups are based on the World Bank's income classification. In Panel A, dashed lines mark the dates of key international climate policy milestones. HIC= High-income country; MIC= Middle-income country; LIC= Low-income country

Figure 3: Impact of Climate Policies, by Policy Type
(response to a one st. dev. change in each instrument)



Note: Whiskers are 90 percent confidence interval. Bars are derived from equations (5) and (6) in the main text.

Table 1: Climate Policies and Green FDI: Evidence from Aggregate Data

VARIABLES	Projects				Inflows			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log Number of climate policies (t-1)	0.6358***	0.6950***	0.2361***	0.6093***	0.6341***	0.6963***	0.2799**	0.5055***
	(0.1146)	(0.1121)	(0.0746)	(0.1280)	(0.1400)	(0.1309)	(0.1216)	(0.1437)
Trade over GDP (t-1)	0.0057***	0.0056***	0.0007	0.0045**	0.0096**	0.0095**	0.0051	0.0079*
	(0.0021)	(0.0021)	(0.0019)	(0.0022)	(0.0040)	(0.0040)	(0.0042)	(0.0043)
GDP growth (t-1)	-0.2905	-0.2134	0.6781	-0.2588	-0.3324	-0.2612	1.3972	-0.1606
	(1.2680)	(1.2549)	(0.9563)	(1.3060)	(1.6889)	(1.6703)	(1.5389)	(1.8214)
log GDP per capita (t-1)	0.8374***	0.6871**	0.5670**	0.6348*	0.8552*	0.6878	0.9921**	0.8079
	(0.3178)	(0.3106)	(0.2882)	(0.3671)	(0.4671)	(0.4435)	(0.5030)	(0.5663)
log Capital per worker (t-1)	-0.4294**	-0.4423**	-0.4929***	-0.5034**	-0.4123	-0.4279	-0.4684	-0.3427
	(0.1958)	(0.1982)	(0.1696)	(0.2292)	(0.2912)	(0.2931)	(0.3012)	(0.3424)
log Green greenfield projects (t-1)			0.5079***					
			(0.0339)					
log Green greenfield inflows (t-1)							0.2805***	
							(0.0375)	
Constant	-3.6801	-2.2540	0.6507	-0.4445	0.5638	2.1726	-0.3059	0.8955
	(2.5316)	(2.6110)	(2.2895)	(3.0235)	(3.9332)	(3.8514)	(4.3362)	(4.7092)
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Country-specific trend	NO	YES	YES	YES	NO	YES	YES	YES
Observations	1608	1608	999	999	1608	1608	999	999

Note: Robust Standard Errors in parenthesis.
*** p<0.01, ** p<0.05, * p<0.1

Table 2: Climate Policies and Non-Green FDI: Evidence from Aggregate Data

VARIABLES	Projects				Inflows			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log Number of climate policies (t-1)	0.1682***	0.0746***	-0.0016	0.0389	0.0180	0.0971*	0.0953	0.0986
	(0.0351)	(0.0268)	(0.0232)	(0.0290)	(0.0383)	(0.0525)	(0.0611)	(0.0621)
Trade over GDP (t-1)	0.0007	0.0030***	-0.0001	0.0024**	-0.0004	0.0028	0.0034	0.0035
	(0.0010)	(0.0009)	(0.0009)	(0.0010)	(0.0015)	(0.0026)	(0.0031)	(0.0032)
GDP growth (t-1)	3.0697***	0.9127**	0.7998**	0.7127**	3.3325***	1.6360***	1.4125**	1.4185**
	(0.4791)	(0.3646)	(0.3170)	(0.3585)	(0.6736)	(0.6292)	(0.6334)	(0.6386)
log GDP per capita (t-1)	-0.2399**	0.5650***	0.2322**	0.5745***	0.0350	0.2527	0.2251	0.2438
	(0.1151)	(0.1267)	(0.1176)	(0.1330)	(0.1366)	(0.2323)	(0.2387)	(0.2326)
log Capital per worker (t-1)	0.1732**	0.0156	-0.0114	0.0123	-0.2909***	-0.0984	-0.1385	-0.1364
	(0.0845)	(0.0811)	(0.0719)	(0.0840)	(0.0995)	(0.1678)	(0.1705)	(0.1715)
log Non-green greenfield projects (t-1)			0.3818***					
			(0.0290)					
log Non-green greenfield inflows (t-1)							0.0301	
							(0.0393)	
Constant	5.2498***	-0.5944	1.4055	-0.4574	12.3333***	7.5541***	7.9655***	8.0180***
	(1.0430)	(1.3657)	(1.2463)	(1.4454)	(1.1927)	(2.3060)	(2.3786)	(2.3837)
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Country-specific trend	NO	YES	YES	YES	NO	YES	YES	YES
Observations	1,660	1,660	1,583	1,583	1,660	1,660	1,583	1,583

Note: Robust Standard Errors in parenthesis.
*** p<0.01, ** p<0.05, * p<0.1

Table 3: Climate Policies and Total Greenfield FDI: Evidence from Aggregate Data

VARIABLES	Projects				Inflows			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log Number of climate policies (t-1)	0.1790***	0.0871***	0.0055	0.0519*	0.0588	0.1370***	0.1345**	0.1467**
	(0.0361)	(0.0270)	(0.0232)	(0.0292)	(0.0389)	(0.0526)	(0.0593)	(0.0617)
Trade over GDP (t-1)	0.0008	0.0031***	-0.0002	0.0025**	0.0001	0.0029	0.0032	0.0035
	(0.0010)	(0.0009)	(0.0010)	(0.0010)	(0.0015)	(0.0026)	(0.0030)	(0.0031)
GDP growth (t-1)	2.9730***	0.8606**	0.7855**	0.6713*	3.1480***	1.5066**	1.3304**	1.3205**
	(0.4756)	(0.3737)	(0.3201)	(0.3681)	(0.6562)	(0.6178)	(0.6188)	(0.6308)
log GDP per capita (t-1)	-0.2143*	0.5776***	0.2367**	0.5877***	0.0037	0.2893	0.2478	0.2901
	(0.1165)	(0.1285)	(0.1179)	(0.1349)	(0.1372)	(0.2240)	(0.2296)	(0.2260)
log Capital per worker (t-1)	0.1628*	0.0131	-0.0301	0.0070	-0.2548**	-0.1615	-0.2236	-0.2151
	(0.0851)	(0.0816)	(0.0719)	(0.0845)	(0.1000)	(0.1659)	(0.1676)	(0.1696)
log Total greenfield projects (t-1)			0.3906***					
			(0.0292)					
log Total greenfield inflows (t-1)							0.0746**	
							(0.0346)	
Constant	5.1064***	-0.7114	1.5373	-0.5463	12.1293***	7.8705***	8.2789***	8.4002***
	(1.0476)	(1.3703)	(1.2435)	(1.4472)	(1.2295)	(2.2889)	(2.3653)	(2.3787)
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Country-specific trend	NO	YES	YES	YES	NO	YES	YES	YES
Observations	1,660	1,660	1,583	1,583	1,660	1,660	1,583	1,583

Note: Robust Standard Errors in parenthesis.
*** p<0.01, ** p<0.05, * p<0.1

Table 4: Climate Policies and Greenfield FDI (as a share of GDP)

VARIABLES	Green FDI				Non-Green FDI			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log Number of climate policies (t-1)	0.1159***	0.2298***	0.2917***	0.2586***	-0.3366	-0.0088	-0.1229	-0.0964
	(0.0406)	(0.0794)	(0.1033)	(0.0963)	(0.2153)	(0.3405)	(0.4133)	(0.4030)
Trade over GDP (t-1)	0.0020*	0.0026	0.0028	0.0023	0.0125	0.0484	0.0697*	0.0634*
	(0.0011)	(0.0018)	(0.0020)	(0.0020)	(0.0145)	(0.0324)	(0.0405)	(0.0361)
GDP growth (t-1)	-0.2792	-0.4911	-0.5136	-0.4579	7.8521***	4.4288**	5.8520**	5.3027**
	(0.3476)	(0.3872)	(0.4022)	(0.4073)	(2.5688)	(2.1016)	(2.4563)	(2.2285)
log GDP per capita (t-1)	-0.0388	0.1859	0.2052	0.1752	-4.5456***	-3.3872***	-3.9999***	-3.4976***
	(0.1389)	(0.1469)	(0.1648)	(0.1677)	(1.0616)	(0.9687)	(1.1862)	(1.0856)
log Capital per worker (t-1)	-0.1434	-0.1781	-0.1864	-0.2009	1.1562**	0.2730	0.3879	0.2151
	(0.0955)	(0.1724)	(0.1783)	(0.1809)	(0.5440)	(0.7228)	(0.7210)	(0.7378)
Green greenfield FDI over GDP (t-1)			-0.1470**					
			(0.0618)					
Non-green greenfield FDI over GDP (t-1)							-0.1330	
							(0.1418)	
Constant	1.8544*	-0.1566	-0.3649	0.1623	31.8186***	28.0951**	31.6229**	28.8903**
	(1.1052)	(1.9660)	(2.1050)	(2.1736)	(7.4247)	(12.4708)	(14.2373)	(13.8005)
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Country-specific trend	NO	YES	YES	YES	NO	YES	YES	YES
Observations	2,088	2,088	2,010	2,010	2,088	2,088	2,010	2,010
R-squared	0.2592	0.3518	0.3715	0.3573	0.2314	0.2922	0.2997	0.2863

Note: Robust Standard Errors in parenthesis.
*** p<0.01, ** p<0.05, * p<0.1

Table 5: Climate Policies and FDI (as a share of GDP)

VARIABLES	Total Greenfield FDI				Net FDI Flows
	(1)	(2)	(3)	(4)	(5)
log Number of climate policies (t-1)	-0.2206	0.2210	0.1653	0.1622	-0.1793
	(0.2200)	(0.3420)	(0.4128)	(0.4030)	(0.2672)
Trade over GDP (t-1)	0.0146	0.0510	0.0719*	0.0657*	0.0189
	(0.0145)	(0.0324)	(0.0407)	(0.0361)	(0.0222)
GDP growth (t-1)	7.5729***	3.9377*	5.2996**	4.8448**	-0.2182
	(2.5917)	(2.0921)	(2.4239)	(2.2242)	(5.2530)
log GDP per capita (t-1)	-4.5844***	-3.2013***	-3.7555***	-3.3224***	1.6435
	(1.0651)	(0.9559)	(1.1552)	(1.0685)	(1.3760)
log Capital per worker (t-1)	1.0128*	0.0948	0.1837	0.0142	-0.2916
	(0.5497)	(0.7276)	(0.7265)	(0.7442)	(1.0532)
Total greenfield FDI inflows over GDP (t-1)			-0.1213		
			(0.1411)		
Constant	33.6730***	27.9385**	31.1088**	29.0526**	-10.0448
	(7.5074)	(12.4806)	(14.1089)	(13.7980)	(13.0550)
Country FE	YES	YES	YES	YES	YES
Country-specific trend	NO	YES	YES	YES	YES
Observations	2,088	2,088	2,010	2,010	2,513
R-squared	0.2477	0.3101	0.3163	0.3055	0.4133

Note: Robust Standard Errors in parenthesis.
*** p<0.01, ** p<0.05, * p<0.1

Table 6: Climate Policies and Greenfield FDI (as a share of GDP)—IV Results

Dep. Var.:	Green greenfield FDI (percent of GDP)			
	OLS		IV	
	(1)	(2)	(3)	(4)
log Number of climate policies (t-1)	0.1628**	0.2222**	0.3799**	0.4376**
	(0.0821)	(0.1058)	(0.1640)	(0.2224)
log Distance-weighted number of climate policies abroad (t-1)	0.1251	0.1199		
	(0.0970)	(0.1316)		
Green greenfield FDI inflows over GDP (t-1)		-0.1441**		-0.1500**
		(0.0629)		(0.0631)
Trade over GDP (t-1)	0.0023	0.0025	0.0025	0.0027
	(0.0017)	(0.0018)	(0.0017)	(0.0019)
GDP growth (t-1)	-0.1309	-0.1229	-0.0642	-0.0511
	(0.3080)	(0.3263)	(0.3161)	(0.3424)
log GDP per capita (t-1)	0.0342	0.0451	-0.0426	-0.0439
	(0.1384)	(0.1603)	(0.1608)	(0.1974)
log Capital per worker (t-1)	-0.2077	-0.2233	-0.2240	-0.2450
	(0.1764)	(0.1840)	(0.1786)	(0.1885)
Constant	1.3578	1.3206		
	(2.0150)	(2.1942)		
Observations	2,041	1,964	2,041	1,964
R-squared	0.3415	0.3606	0.0004	0.0227
Country FE	YES	YES	YES	YES
Country-specific trend	YES	YES	YES	YES

Note: Robust Standard Errors in parenthesis.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 7: Climate Policies and FDI: Sector Level Data

	Green Greenfield FDI				Non-green Greenfield FDI			
	Projects		Flows		Projects		Flows	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log Number of climate policies (t-1)	0.2183**		0.5854***		-0.0790**		0.0303	
	(0.0910)		(0.1183)		(0.0359)		(0.0716)	
log Number of climate policies (t-1) x agriculture dummy		-0.2415		-0.2582		-0.2687***		-0.2759***
		(0.2329)		(0.1991)		(0.0382)		(0.0872)
log Number of climate policies (t-1) x energy dummy		0.0153		0.3668**		-0.2070***		-0.1354*
		(0.0900)		(0.1452)		(0.0339)		(0.0751)
log Number of climate policies (t-1) x construction dummy		-0.0473		0.3328		-0.0854*		0.0242
		(0.4689)		(0.5265)		(0.0472)		(0.0847)
log Number of climate policies (t-1) x industry dummy		0.2616***		0.5097***		0.0469		0.1847***
		(0.0929)		(0.1534)		(0.0315)		(0.0705)
log Number of climate policies (t-1) x services dummy		0.2650***		0.3594**		0.0079		0.1002
		(0.1001)		(0.1674)		(0.0321)		(0.0738)
log Number of climate policies (t-1) x other dummy		-0.1040		-0.0932		0.1055		0.2752
		(0.0993)		(0.1637)		(0.1106)		(0.2199)
Trade over GDP (t-1)	-0.0001	-0.0014	-0.0051	-0.0074	0.0006	0.0008	0.0011	0.0007
	(0.0040)	(0.0042)	(0.0073)	(0.0073)	(0.0014)	(0.0013)	(0.0036)	(0.0037)
GDP growth (t-1)	2.0054	1.9013	0.7815	0.6861	1.7467***	1.7850***	2.3618***	2.4679***
	(1.3456)	(1.3645)	(1.9301)	(1.9849)	(0.4062)	(0.4011)	(0.8502)	(0.8314)
log GDP per capita (t-1)	0.3793	0.4608	0.1447	0.1624	0.1280	0.0960	-0.3989	-0.4375
	(0.4864)	(0.4821)	(0.7795)	(0.7593)	(0.1496)	(0.1484)	(0.2953)	(0.2809)
log Capital per worker (t-1)	-0.0311	-0.0048	-0.5563	-0.4843	0.0289	0.0128	0.3421*	0.2940
	(0.3426)	(0.3419)	(0.5721)	(0.5685)	(0.0949)	(0.0927)	(0.2025)	(0.1963)
Constant	-2.7578	-3.4252	9.9895	9.8840	2.7370*	2.8228*	7.2393**	7.9715**
	(5.0428)	(4.9715)	(7.6964)	(7.7098)	(1.6612)	(1.6127)	(3.4874)	(3.3485)
Country FE	YES	YES	YES	YES	YES	YES	YES	YES
Country-specific trend	YES	YES	YES	YES	YES	YES	YES	YES
Sector-time FE	YES	YES	YES	YES	YES	YES	YES	YES
Observations	10,322	10,554	10,322	10,554	24,206	24,700	24,206	24,700

Note: Robust Standard Errors in parenthesis.
*** p<0.01, ** p<0.05, * p<0.1

Table 8: Climate Policies in the Destination Country and Greenfield FDI

	Green Greenfield FDI				Non-green Greenfield FDI			
	Flows		Projects		Flows		Projects	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Number of climate policies (in logs), destination country	0.2852*	0.2303*	0.2110***	0.2209***	0.0008	-0.0029	-0.1793***	-0.1730***
	(0.1548)	(0.1321)	(0.0773)	(0.0745)	(0.0618)	(0.0477)	(0.0222)	(0.0173)
Real GDP (in logs), destination country	1.0813	0.9522*	0.4437	0.6530**	0.0057	-0.0020	-0.0335	-0.0884
	(0.6896)	(0.5569)	(0.3466)	(0.3144)	(0.2134)	(0.1880)	(0.1030)	(0.0735)
Population in destination country (in logs)	5.7522***	6.3005***	5.1248***	5.1639***	1.7074***	1.3910***	1.7104***	1.5464***
	(1.3196)	(1.1558)	(0.9197)	(0.9173)	(0.5426)	(0.4744)	(0.2328)	(0.1628)
Capital stock (in logs), destination country	-0.4443	-0.1297	-0.5254***	-0.4915**	-0.1773	-0.2694**	-0.4936***	-0.4893***
	(0.3803)	(0.3346)	(0.2019)	(0.1912)	(0.1444)	(0.1261)	(0.0605)	(0.0432)
Trade-weighted LCT tariffs, destination country	-0.1091***	-0.1092***	-0.0432**	-0.0504**	-0.0404**	-0.0462***	-0.0430***	-0.0453***
	(0.0160)	(0.0136)	(0.0155)	(0.0131)	(0.0077)	(0.0064)	(0.0077)	(0.0063)
Trade-weighted Applied tariffs, destination country	0.0379	0.0376	0.0050	0.0068	0.0196	0.0246*	0.0453***	0.0454***
	(0.0418)	(0.0326)	(0.0205)	(0.0196)	(0.0148)	(0.0131)	(0.0070)	(0.0053)
Bilateral distance (in logs)	-0.5568***		-0.4675***		-0.5348***		-0.5166***	
	(0.0652)		(0.0326)		(0.0243)		(0.0120)	
Bilateral trade agreement dummy	-0.0535	-0.4968*	0.0028	-0.3077*	0.0057	-0.3707	0.0303	0.0973**
	(0.1113)	(0.2751)	(0.0651)	(0.1584)	(0.0582)	(0.2464)	(0.0262)	(0.0381)
Common language dummy	1.0148***		0.7657***		0.8127***		0.7655***	
	(0.1173)		(0.0639)		(0.0661)		(0.0235)	
Constant	-64.8961***	-77.3506***	-52.9323***	-60.0762***	-5.9582	-4.5746	-3.3599	-4.7585***
	(15.0233)	(12.6234)	(9.5875)	(9.5692)	(5.4912)	(4.9434)	(2.4820)	(1.7666)
Destination country FE	YES	YES	YES	YES	YES	YES	YES	YES
Source country-Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Source country-Destination country FE	NO	YES	NO	YES	NO	YES	NO	YES
Observations	39,719	12,073	39,719	12,073	111,359	51,231	111,359	51,231

Note: Robust Standard Errors in parenthesis.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 9: Climate Policies in the Destination Country and Green Greenfield FDI: by Income Level

	High-income Countries				Middle-income Countries			
	Flows		Projects		Flows		Projects	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Number of climate policies (in logs), destination country	0.2222	0.2383	0.1658*	0.1646	0.2794*	0.3752**	0.1994*	0.2700**
	(0.1892)	(0.2099)	(0.0990)	(0.1037)	(0.1641)	(0.1726)	(0.1145)	(0.1175)
Real GDP (in logs), destination country	1.0791	2.1602**	2.6231***	2.9389***	0.8475	0.3310	-1.4482***	-1.1637***
	(1.2362)	(0.9563)	(0.7587)	(0.5894)	(0.7593)	(0.6489)	(0.3882)	(0.3819)
Population in destination country (in logs)	4.6345***	4.9543***	-0.0426	0.1899	7.9877***	8.4803***	11.0126***	10.5905***
	(1.7772)	(1.5132)	(1.0533)	(1.0300)	(1.8521)	(1.9245)	(1.2111)	(1.2442)
Capital stock (in logs), destination country	-0.1949	-0.0867	-0.9641***	-0.8596***	0.2338	0.9632*	0.6234*	0.7874**
	(0.6037)	(0.5172)	(0.3145)	(0.2884)	(0.5891)	(0.5136)	(0.3186)	(0.3338)
Trade-weighted LCT tariffs, destination country	-0.0234	-0.0448	-0.0138	-0.0298	-0.1443***	-0.1306***	-0.0423*	-0.0349
	(0.1191)	(0.1068)	(0.0683)	(0.0638)	(0.0411)	(0.0374)	(0.0247)	(0.0242)
Trade-weighted Applied tariffs, destination country	0.0190	-0.0279	-0.0158	-0.0038	0.0453	0.0348	-0.0104	-0.0148
	(0.0932)	(0.0770)	(0.0581)	(0.0536)	(0.0440)	(0.0344)	(0.0228)	(0.0221)
Bilateral distance (in logs)	-0.5867***		-0.5067***		-0.6274***		-0.5213***	
	(0.0795)		(0.0432)		(0.1125)		(0.0634)	
Bilateral trade agreement dummy	-0.2054	0.0943	-0.2519***	-0.1536	0.2125	-1.0699***	0.3736***	-0.4772**
	(0.1759)	(0.3488)	(0.0938)	(0.2266)	(0.1720)	(0.3308)	(0.1085)	(0.2159)
Common language dummy	0.6980***		0.6648***		1.4814***		1.0204***	
	(0.1610)		(0.0842)		(0.1563)		(0.0893)	
Constant	-53.2478**	-77.9404***	-18.9934*	-31.3703***	-101.6944***	-115.7596***	-117.1766***	-122.6227***
	(21.5450)	(16.7563)	(11.2446)	(10.3982)	(22.9574)	(23.9188)	(15.0959)	(15.8589)
Destination country FE	YES	YES	YES	YES	YES	YES	YES	YES
Source country-Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Source country-Destination country FE	NO	YES	NO	YES	NO	YES	NO	YES
Observations	16,069	6,553	16,069	6,553	14,782	4,315	14,782	4,315

Note: Robust Standard Errors in parenthesis.
*** p<0.01, ** p<0.05, * p<0.1

Table 10: Climate Policies in the Source Country and Greenfield FDI

	Green Greenfield FDI				Non-green Greenfield FDI			
	Flows		Projects		Flows		Projects	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Number of climate policies (in logs), source country	0.4188	0.4878*	0.6545***	0.5709***	0.2103	0.1702*	0.0799**	0.0985***
	(0.3014)	(0.2812)	(0.2108)	(0.1919)	(0.1298)	(0.1005)	(0.0331)	(0.0226)
Real GDP (in logs), source country	1.5763***	1.7985***	0.5835*	0.6868**	1.5754***	1.6116***	0.6261***	0.4815***
	(0.5860)	(0.5840)	(0.3182)	(0.2962)	(0.2404)	(0.1895)	(0.0978)	(0.0707)
Population in source country (in logs)	-0.7211	-1.6720	-0.5359	-0.9857	-0.3407	-0.5229*	0.7028***	0.6968***
	(1.4547)	(1.4502)	(0.7116)	(0.7130)	(0.3450)	(0.2822)	(0.1717)	(0.1310)
Bilateral distance (in logs)	-0.5402***		-0.4562***		-0.4894***		-0.5188***	
	(0.0570)		(0.0301)		(0.0223)		(0.0111)	
Bilateral trade agreement dummy	0.1634	-0.0988	0.0728	0.0920	0.0778	-0.2463*	-0.0031	-0.0010
	(0.1086)	(0.2823)	(0.0623)	(0.1792)	(0.0521)	(0.1407)	(0.0231)	(0.0310)
Common language dummy	0.8989***		0.8000***		0.8352***		0.8739***	
	(0.1024)		(0.0547)		(0.0517)		(0.0208)	
Constant	-8.2953	-4.8729	-2.6305	-1.9165	-10.1591**	-15.9582	-10.6480***	-9.4317
	(15.7159)	(14.9039)	(8.1515)	(7.9289)	(4.9280)	(11.7336)	(2.0246)	(5.8116)
Source country FE	YES	YES	YES	YES	YES	YES	YES	YES
Destination country-Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Source country-Destination country FE	NO	YES	NO	YES	NO	YES	NO	YES
Observations	57,722	13,455	57,722	13,455	160,501	67,427	160,501	67,427

Note: Robust Standard Errors in parenthesis.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 11: Climate Policies and Green Greenfield FDI: The Role of Different Policies

	Destination Country Policies				Source Country Policies			
	Flows		Projects		Flows		Projects	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Number of climate policies (in logs), destination country	0.1771	0.1319	0.1613**	0.1755**				
	(0.1494)	(0.1319)	(0.0770)	(0.0752)				
Share of government expenditure measures, destination country	3.0298***	2.5628***	2.1437***	1.9394***				
	(1.0312)	(0.9289)	(0.6002)	(0.5694)				
Share of regulation measures, destination country	4.2384*	3.3774	4.7049***	4.4177***				
	(2.3614)	(2.1117)	(1.4342)	(1.3418)				
Share of government revenue measures, destination country	6.2569***	7.2369***	3.3054***	3.5479***				
	(1.9935)	(1.9905)	(1.2746)	(1.2033)				
Real GDP (in logs), destination country	1.2026*	1.0309*	0.5060	0.7190**				
	(0.6939)	(0.5450)	(0.3527)	(0.3175)				
Population in destination country (in logs)	6.0641***	6.6953***	5.5116***	5.4802***				
	(1.2803)	(1.1873)	(0.9353)	(0.9435)				
Capital stock (in logs), destination country	-0.4841	-0.1651	-0.5106**	-0.4817**				
	(0.3952)	(0.3372)	(0.2056)	(0.1937)				
Trade-weighted LCT tariffs, destination country	-0.1039**	-0.1030***	-0.0369*	-0.0449**				
	(0.0409)	(0.0333)	(0.0217)	(0.0211)				
Trade-weighted applied tariffs, destination country	0.0422	0.0412	0.0117	0.0143				
	(0.0424)	(0.0323)	(0.0206)	(0.0197)				
Number of climate policies (in logs), source country					0.7913***	0.5668**	0.7900***	0.6518***
					(0.3064)	(0.2757)	(0.2322)	(0.2076)
Share of government expenditure measures, source country					-4.3027**	-1.2199	-2.2286***	-1.3746*
					(1.7972)	(1.6576)	(0.8596)	(0.7940)
Share of regulation measures, source country					-2.5423	-1.8571	-0.3235	-0.2026
					(2.1107)	(2.3098)	(1.2981)	(1.3122)
Share of government revenue measures, source country					-0.4001	1.2610	-1.2891	-1.6170
					(3.4932)	(3.4822)	(1.7173)	(1.5063)
Real GDP (in logs), source country					1.5595***	1.7382***	0.6791**	0.7533**
					(0.6012)	(0.5866)	(0.3284)	(0.3046)
Population in source country (in logs)					-2.0221	-2.0557	-1.3864*	-1.4922*
					(1.5575)	(1.5579)	(0.7743)	(0.7762)
Bilateral distance (in logs)	-0.5556***		-0.4670***		-0.5353***		-0.4557***	
	(0.0651)		(0.0327)		(0.0563)		(0.0301)	
Bilateral trade agreement dummy	-0.0438	-0.4303*	0.0093	-0.2784*	0.1664	-0.1446	0.0759	0.0840
	(0.1110)	(0.2492)	(0.0650)	(0.1583)	(0.1084)	(0.2824)	(0.0622)	(0.1779)
Common language dummy	1.0180***		0.7635***		0.8996***		0.8026***	
	(0.1169)		(0.0635)		(0.1024)		(0.0547)	
Constant	-70.1447***	-82.9483***	-58.9939***	-65.2995***	5.3994	0.1093	5.2638	2.7043
	(14.9837)	(13.2340)	(9.9749)	(10.0341)	(16.7233)	(16.0854)	(8.6796)	(8.4693)
Destination country FE	YES	YES	YES	YES	NO	NO	NO	NO
Destination country-Year FE	NO	NO	NO	NO	YES	YES	YES	YES
Source country FE	NO	NO	NO	NO	YES	YES	YES	YES
Source country-Year FE	YES	YES	YES	YES	NO	NO	NO	NO
Source country-Destination country FE	NO	YES	NO	YES	NO	YES	NO	YES
Observations	39,719	12,073	39,719	12,073	57,722	13,455	57,722	13,455

Note: Robust Standard Errors in parenthesis.
*** p<0.01, ** p<0.05, * p<0.1

Table 12: Climate Policies in Source Country and Greenfield FDI: Robustness to EPS index

	Flows				Projects			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EPS index, Source country	0.2448**	0.3704***			0.1324**	0.1835***		
	(0.1197)	(0.1264)			(0.0611)	(0.0598)		
EPS Feed-in-tariffs sub-component, Source country			0.0215	0.0571*			-0.0036	0.0102
			(0.0309)	(0.0313)			(0.0162)	(0.0159)
EPS R&D sub-component, Source country			-0.1243**	-0.1244**			-0.0701**	-0.0672***
			(0.0570)	(0.0509)			(0.0294)	(0.0260)
EPS Market based sub-component			0.3710***	0.4090***			0.2079***	0.2182***
			(0.1144)	(0.1086)			(0.0619)	(0.0579)
EPS Non-market based sub-component			0.0671	0.1470**			0.0124	0.0317
			(0.0731)	(0.0698)			(0.0367)	(0.0337)
Real GDP (in logs), source country	1.8404***	2.1268***	1.5239**	1.4211**	1.0740***	1.0228***	1.1805***	1.0835***
	(0.6108)	(0.6029)	(0.6248)	(0.6658)	(0.2862)	(0.2673)	(0.3001)	(0.2808)
Population in source country (in logs)	-3.8251	-8.7935***	-3.3359	-6.4640**	-3.5648***	-4.2381***	-3.5219**	-3.7232***
	(2.6704)	(2.7415)	(2.6628)	(2.8300)	(1.3712)	(1.3914)	(1.3865)	(1.3680)
Bilateral distance (in logs)	-0.4868***		-0.4910***		-0.4202***		-0.4315***	
	(0.0599)		(0.0582)		(0.0327)		(0.0322)	
Bilateral trade agreement dummy	0.1348	-0.1202	0.1189	-0.0090	0.0473	0.2523	0.0265	0.1870
	(0.1200)	(0.3171)	(0.1184)	(0.2968)	(0.0674)	(0.1941)	(0.0667)	(0.1859)
Common language dummy	0.7991***		0.8038***		0.7305***		0.7260***	
	(0.1083)		(0.1050)		(0.0585)		(0.0580)	
Constant	23.1253	70.2878**	22.4991	54.7921*	26.5931*	31.6665**	24.8233*	25.2476*
	(28.1744)	(28.2776)	(28.0088)	(28.1072)	(14.7115)	(14.8970)	(14.6413)	(14.4170)
Source country FE	YES	YES	YES	YES	YES	YES	YES	YES
Destination country-Year FE	YES	YES	YES	YES	YES	YES	YES	YES
Source country-Destination country FE	NO	YES	NO	YES	NO	YES	NO	YES
Observations	27,826	10,734	29,019	11,354	27,826	10,734	29,019	11,354

Note: Robust Standard Errors in parenthesis.
*** p<0.01, ** p<0.05, * p<0.1

Table A1: Classification of Policies by Impact on Governments' Budget

CPD classification	Type of Policy by Impact on Government Budget
Direct investment; Funds to sub-national governments; Infrastructure investment; Demonstration projects; Research program; Technology development; Technology deployment and diffusion; Feed-in-tariffs or premiums; Loans; Grants and subsidies; Retirement premium; Tax relief	Expense
Removal of fossil fuels; CO2 taxes; Energy and other taxes; User charges; GHG emission reduction crediting and offsetting; GHG emission allowance	Revenue
Grid access and priority for renewables; Performance label; Institutional creation; Strategic Planning; Auditing; Codes and standards; Building Standards; Industrial air pollution standards; Product standards; Sectoral standards; Vehicle air pollution standards; Vehicle fuel-economy and emission standards; Monitoring; Obligation schemes; Other mandatory requirements	Neutral, regulations
Formal and legally binding climate strategy; Political and non-binding climate strategy; Procurement rules; Tendering schemes; Green and white certificates; Advise or aid in implementation; Information provision; performance label; Comparison label; Endorsement label; Professional training and qualification; Institutional creation; Strategic planning	Neutral, non-regulatory

Note: See Hasna et al. (2023) for further discussion.

PUBLICATIONS

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