#### ARTICLE





# How FDI reshapes host markets' trade profile and politics 🤤

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#### **Abstract**

A fast-growing literature indicates that firms' engagement in foreign direct investment (FDI) and trade is key to understanding deepening global value chains and their political implications. However, existing studies have mainly focused on the ramifications for FDI home countries while often overlooking the *firm-product level* interactions between FDI and trade, where their interdependencies manifest. This study examines how firms' FDI reshapes host countries' trade profiles at this level, empowering new political coalitions for trade liberalization. Analyzing greenfield FDI projects globally since 2003, we find that hosts experienced an average increase of over 45 export products in the following year. To overcome the challenges of connecting firms to products, we link FDI data with Vietnamese customs records. We find that Vietnamese export (import) volumes of FDI-related products increased by 90% (30%) within 4 years of initial investments. Importantly, these products also benefited from more substantial tariff cuts in bilateral Free Trade Agreements.

One of the most critical developments in the global economy in the past half-century is the enormous growth in international trade driven by fragmented global production (Bernard et al., 2012). Such changes have had profound implications on geopolitics (Farrell & Newman, 2022; Miller, 2022), immigration politics (Helms, 2024; Peters, 2017), environmental politics (Cory, Lerner, & Osgood, 2021), labor rights (Malesky & Mosley, 2018), and globalization backlash (Mansfield & Rudra, 2021).

The primary driving force behind this transformation of the global trade environment is the proliferation of global value chains (GVCs) organized by multinational corporations (MNCs) through their foreign direct investment (FDI). As a result, a growing body of literature seeks to enhance our understanding of the connections between FDI, GVCs, and trade policymaking (e.g., Anderer, Dür, & Lechner, 2020; Baccini, Pinto, & Weymouth, 2017; Manger, 2009; Osgood, 2018; Zeng, Sebold, & Lu, 2020). Nonethe-

less, the majority of this research focuses on shifts in trade patterns and policies in countries originating FDI (i.e., home countries) rather than in the countries receiving FDI (i.e., host countries) (e.g., Blanchard & Matschke, 2015). This represents a notable gap, as FDI can significantly reshape trade and trade politics not only back home but also in the host country, or even beyond bilateral home-host country pairs. Moreover, most empirical analyses of FDI's impact on trade patterns and policy have been limited to indirect assessments at a highly aggregated country level (e.g., Büthe & Milner, 2008), despite the theoretical importance of firms and products emphasized in the literature (Bernard et al., 2012). For many researchers, this limitation has been primarily due to the empirical challenges in directly linking FDI with trade at the firm-product level. Consequently, comprehensive empirical investigations of FDI's political effects on trade policymaking, especially through GVCs, are still scarce.

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The Cornell Center for Social Sciences verified that the data and replication code submitted to the AJPS Dataverse replicates the numerical results reported in the main text of this article.

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To address these gaps, we examine how deepening GVCs can reshape trade policymaking in host markets at the level of firms and products. First, we study how MNCs' manufacturing FDI fundamentally changes host countries' import and export trade profiles. We anticipate that host countries will expand their trade in sectors and products directly related to MNCs' FDI activities. Second, we argue that this transformation in trade profiles will foster and empower new political coalitions between domestic suppliers and foreign MNCs that influence host countries' trade policies (e.g., Manger, 2012; Osgood, 2018). This political coalition will be broad-based, as firms within the same value chain will develop common interests in advocating for liberal trade policies beyond their own products, industries, or countries. The broad political coalition facilitates host governments' negotiations on trade liberalization with their partners, especially concerning exporting or importing highly differentiated products directly tied to MNCs. Importantly, we argue that MNCs' FDI activities influence not only trade patterns and policies between the host and home but also between the host and third parties, as MNCs and their GVC partners would benefit from access to larger markets.

To test the implications of our argument, we construct new data sets that carefully link FDI and trade activities. We first identify all manufacturing greenfield FDI projects made by MNCs globally between 2003 and 2017 based on proprietary fDi Markets data<sup>1</sup> and investigate whether FDI substantially alters the extensive margins of trade in host countries. Consistent with our expectations, the analyses show that countries with new inward greenfield manufacturing FDI projects tend to expand their number of unique exported products by over 45 in the subsequent year. Notably, the results suggest that these newly exported products stem from MNCs' FDI activities rather than from host countries' inherent factors of production, such as labor and capital, with which hosts are abundantly endowed.

Next, we extend the analysis to evaluate our theory more precisely at the firm-product level—the level at which cross-country firm-level activities actually transpire. Linking firms to products, however, is a notoriously difficult task because such information is generally confidential and unobservable to researchers. As a result, it has been one of the main obstacles to scholars seeking to study trade and FDI

together. To overcome this empirical challenge, we focus on the case of Vietnam, where unique firm-product level customs data are available. Specifically, we parse through a massive amount of Vietnamese customs data and identify the exact Harmonized System (HS) codes of products traded by individual firms. We then manually link the exporting or importing firms in the customs data to MNCs' greenfield FDI projects in Vietnam between 2003 and 2017. Beyond data advantages, Vietnam is also an optimal case to test our theory as it is one of the most rapidly growing economies with substantial increases in inward FDI and changing local political dynamics (Malesky, 2008; Malesky, Gueorguiev, & Jensen, 2015).

Using the new data, we investigate the effect of FDI on Vietnam's intensive margin of trade. To account for a potential selection bias whereby MNCs choose to invest in Vietnam given its pre-existing trade environment and political institutions, we use the difference-in-differences (DiD) identification strategy combined with a matching estimator (Imai, Kim, & Wang, 2023). Specifically, we match each product exported/imported by an MNC with other products similar in terms of various pre-FDI characteristics (e.g., trade volume, product differentiation, upstreamness). The results suggest that FDI's effect on Vietnam's intensive margins was substantial. Compared to similar Vietnamese products, the export volume of products related to MNCs and their affiliates increased by 90% within 4 years of initial investments, while the import volume of MNC-related products grew by 30%.

Lastly, but most importantly, we examine whether products linked to FDI tend to enjoy deeper trade liberalization. Focusing on the 2015 Free Trade Agreement (FTA) between Vietnam and one of its fastest-growing export and import markets, South Korea, we find that FDI led to tariff cuts, with a more pronounced effect associated with MNCs' earlier and more established FDI projects. Compared to other similar products within the same industry, products related to FDI received 30% and 19% larger import tariff cuts from the Vietnamese and Korean governments, respectively. Furthermore, the tariff reduction effects were not confined to investments made by MNCs headquartered in FTA partner countries, suggesting that FDI can influence trade politics and policy beyond its host and home country. To the best of our knowledge, our study is the first to show that product-level trade policies are directly linked to prior inward FDI projects. We then assess the generalizability of our findings by examining trade agreements signed by almost 40 host countries, although at a more aggregated industry level due to data availability. Consistently, we find deeper liberalization associated

<sup>&</sup>lt;sup>1</sup> Greenfield FDI is a type of FDI in which MNCs establish new production facilities or offices in a different country. fDi Markets (https://www.fdimarkets.com/) covers greenfield investment reports for all countries and sectors worldwide and is one of the most comprehensive databases available. The data improve upon the balance-of-payments FDI flow data commonly used by researchers and known to introduce severe biases in empirical studies (Kerner 2014; Jung, Owen, & Shim 2021).

with FDI. Altogether, the results provide supportive evidence for our argument that political coalitions built around MNCs' GVCs are influential, and coalition members are thus more capable of obtaining liberal trade policies for their input or output products.

Overall, this study contributes to our understanding of the politics of economic globalization in three main ways. First, complementing a large literature that shows how trade agreements increase FDI inflows (e.g., Büthe & Milner, 2008), we show how the relationship can also hold in the opposite direction: MNCs' FDI activities shape product-specific policies within trade agreements. While some studies have used MNCs' FDI to explain the creation or proliferation of preferential trade agreements (e.g., Chase, 2003; Manger, 2012), our contribution lies in examining its effect on the variation in product-level trade liberalization within such agreements. Furthermore, by demonstrating FDI's effects in *host* countries as well as third-party nations connected via GVCs, we extend earlier research that has focused on FDI's impact on home countries' trade liberalization (e.g., Blanchard & Matschke, 2015; Milner, 1988; Osgood, 2018). Second, our findings also contribute to the broader debate on the externalities of FDI for host countries. The literature on FDI's effects on macroeconomic outcomes in host countries (e.g., growth) has been generally mixed (Alfaro et al., 2010), while micro-level evidence of its effects on trade has been sparse (Kastratović, 2020). Our findings based on firm and product-level data contribute by showing positive FDI effects on both extensive and intensive margins of trade in host countries. More broadly, we extend existing research on the organization of MNCs' supply chains within and across industries (e.g., Alfaro & Charlton, 2009; Helpman, 2006) by developing and testing their implications for product-level trade patterns and policies. Finally, responding to calls in the field to promote empirical research at the intersection of trade and FDI (Pandya, 2016), we developed an accompanying open-source R software package, concordance, that provides various automated tools to link products and investments that, unfortunately, are recorded based on distinct classification schemes.

# THE EFFECTS OF FOREIGN DIRECT INVESTMENT ON HOST COUNTRY TRADE POLITICS

In this section, we develop a theoretical framework for examining how FDI shapes host countries' trade policies toward *products* directly tied to MNCs. We first explore how host governments allocate resources in favor of MNC-related activities through industrial

policies, aligning domestic firms' economic activities with MNCs' global trade networks and influencing both product diversity and trade volume. We then illustrate how this reallocation of resources can further drive the liberalization of GVC-related products in trade policymaking. Altogether, our framework integrates the new-new trade theory and firm-centered theories of trade politics (Kim & Osgood, 2019) with the literature on industrial policy in the era of global production (Harrison & Rodriguez-Clare, 2010).

# Foreign direct investment reallocates resources to multinational corporation (MNC)-related activities

Our theory is motivated by the empirical observation that trade flows are significantly influenced by firms' transnational investment activities, which rapidly reorganize factors of production globally. For example, Vietnam is now the world's second-largest cellphone exporter after China, exporting \$35.5 billion in 2019. Given its relative abundance in labor, why has Vietnam risen as a top producer of cell phones, a capital-intensive product? One of the main reasons is that Samsung, a South Korean conglomerate, has made significant greenfield and R&D investments in Vietnam since its first plant opened in the Bac Ninh province in 2008, transforming Vietnam's industry structure. In contrast, as Samsung phones are now assembled in Vietnam, South Korea has become only the world's 8th largest exporter of cell phones in 2019, with merely around 10% of Vietnam's export volume (United Nations Statistics Division, 2024). FDI has also changed Vietnam's import profile. Since local companies are not yet ready to produce or supply complex electronic components for high-tech MNCs (e.g., INTEL and SAMSUNG) at the required quality standards, Vietnam has now begun to import a large volume of such intermediate goods. Hence, with the influx of FDI, labor-abundant developing countries such as Vietnam have moved beyond their traditional reliance on the export of raw materials and labor-intensive goods in international trade. Instead, they have increasingly focused on producing and exporting sophisticated upstream and downstream manufactured products to participate in GVCs, combining cheaper labor and land with substantial foreign capital and MNC-specific intermediate goods.

Building on such observations, we argue that FDI changes host countries' resource allocation for two main reasons. First, FDI will boost local supply chain partners' productivity, which can lead to the business expansion of the local partners. This productivity

enhancement can occur through various channels. For instance, it is well documented that MNCs often demand higher product quality, leading them to not only transfer production knowledge and technologies but also assist in improving production management and enhancing local partners' quality control systems (e.g., Sahoo & Dash, 2022). Although evidence on direct technological spillovers from foreign to host countries as a whole remains inconclusive (e.g., Ashraf, Herzer, & Nunnenkamp, 2016), numerous studies have found significant productivity gains among local production chain partners of MNCs (e.g., Javorcik, 2004). Such productivity increases can then lead to the expansion of local supply chain partners' sales, operations, and employment (e.g., Calligaris et al., 2023).

Second, given the potential benefits for local employment, finance, and tax revenue, FDI may prompt host governments to redirect resources in ways that favor MNCs and their local partners (e.g., Danzman, 2019). Increasingly, governments also recognize the positive externalities of industrial agglomeration, such as local input-output linkages, labor market pooling, and knowledge spillovers (Ellison, Glaeser, & Kerr, 2010), especially when local firms are integrated into global production chains. Such benefits of localized collaboration between domestic and foreign companies further incentivize host governments to support MNC-related activities. Empirical evidence from Danzman and Slaski (2022) shows that MNCs embedded in local markets are more likely to receive policy incentives, underscoring the strategic importance governments place on fostering these partnerships. These incentives take various forms, such as the construction of special economic zones (SEZs) equipped with state-of-the-art facilities and connectivity, often located near major transportation hubs for MNCs like ports, airports, and highways. Other measures include subsidies, streamlined business registration processes, relaxed labor laws, and guarantees against expropriation. Such preferential policies can significantly lower operating costs for MNCs and their local supply chain partners, giving them a competitive edge over purely domestic firms. In the context of the "new industrial policy" literature (Juhász, Lane, & Rodrik, 2023), FDI prompts the provision of public inputs customized to firms' needs and adapted to the new market dynamics created by FDI.

We argue that such FDI-induced resource shifts give host countries a new source of comparative advantage that substantially broadens their trade margins in both product variety (extensive) and volume (intensive). In addition to the direct effect of MNCs' on-site production on imports and exports of their inputs and outputs, the productivity boost in local firms directly

linked to MNCs and supported by favorable host government policies enables host countries to export and import a broader range of products than would be possible when relying solely on their locally abundant production factors. Building on the canonical Ricardian model by Dornbusch et al. (1977), we formally demonstrate that the set of products a country produces under competitive equilibrium grows as the relative productivity of foreign capital connected local firms increases (see Supporting Information Appendix A.1, pp. 1–2). Consequently, we predict that countries with higher levels of FDI inflows will exhibit a more diverse array of exported and imported products compared to those with similar initial levels of trade engagement but lower levels of FDI inflows (extensive margin, Hypothesis 1).

Furthermore, we expect the presence of MNCs in a host country to increase the host's volume of imports and exports, particularly for products tied to the MNCs' operations. This is because MNCs' access to vast foreign markets and their global distribution networks, alongside the synergistic partnerships between locally abundant factors and foreign capital, can enhance trade's intensive margin through economies of scale and experience. To be clear, empirical research across various countries generally confirms FDI's positive effect on export volumes, but these studies often limit their focus to macroeconomic or sectoral levels (Kastratović, 2020). Our approach diverges and improves upon existing work by positing that FDI increases the trade volume of inputs and outputs directly associated with MNC's on-site activities at the product level. In particular, we anticipate that the volume of exports (or imports) of products linked to MNCs' FDI activities in host countries will grow more significantly over time compared to similar products unrelated to FDI, even within the same industry (intensive margin, Hypothesis 2).

# Foreign direct investment creates and empowers new political coalitions in trade

We contend that FDI-induced changes in production activities and resource allocation in the host country, as discussed previously, create and empower new political coalitions in trade liberalization across various firms connected to GVCs while weakening the political influence of unconnected firms and industries.

To begin with, GVC linkages create common interests for *product-specific* trade liberalization among a large group of host country constituents participating in the GVC. These constituents include MNCs and their upstream suppliers and downstream users or distributors. A key reason for such com-

mon interests is that firms participating in GVCs are connected through intertwined contractual relations, and thus upstream trade barriers can increase the input costs for GVC firms operating downstream, and downstream trade barriers can also reduce the demand for outputs produced by GVC firms operating upstream (see, e.g., Meckling & Hughes, 2017). Therefore, although GVC firms may span various industries, such interdependencies help unite GVC firms' preferences toward trade liberalization on products used or produced in the GVC network, creating common interests beyond their own products or industry (Manger, 2012; Osgood, 2018).<sup>2</sup>

These new and broad GVC coalitions can be politically influential in host trade policymaking for several reasons. First, GVC coalitions suffer less from collective action problems than firms outside GVCs. It is well known that large firms such as MNCs benefit more from free trade (e.g., Jensen, Quinn, & Weymouth, 2015; Milner, 1988) and are thus more willing to lead lobbying for trade liberalization due to their differentiated products and concentrated benefits, regardless of whether others contribute or not (e.g., Kim & Osgood, 2019).<sup>3</sup> In addition, the contractual GVC connections discussed earlier further reduce free-rider problems among GVC participants by incentivizing collective organization among the firms in the network (Kim & Osgood, 2019; Manger, 2012). Specifically, even if domestic producers do not directly serve foreign markets, they are still incentivized to advocate for trade liberalization on behalf of their downstream MNC partners who operate in larger markets. This is because domestic suppliers to MNCs can indirectly benefit from increased economies of scale.4 Such mitigated collective action problems among firms connected through GVCs contrast sharply with the various domestic cleavages that can exist among social groups, which often hinder coalition-building (Doner & Schneider, 2016).

Second, GVC coalitions face lower domestic political opposition to trade liberalization on GVC-related products, largely due to the diffuse costs such liberalization imposes on non-GVC firms and industries. This stems from the fact that the final products MNCs produce in the host country, or the intermediate goods

required by GVCs as inputs, are often highly differentiated, proprietary, or of exceptionally high quality.<sup>5</sup> As a result, few domestic firms produce, or are capable of producing, similar or substitutable goods that compete directly with the MNCs and their GVC partners (Kim, 2017). This expectation naturally follows our earlier discussion on the extensive margin, where FDI often broadens the trade profile of host countries by introducing entirely new product categories. The fact that the products are new suggests minimal competition from domestic firms in those specific product spaces. Consequently, domestic firms' opposition to the liberalization of GVC-related products is likely weak or entirely absent.

Third, MNCs are well known to be politically influential. An extensive literature, mostly focusing on developed countries, documents how large firms such as MNCs excel in influencing policy outcomes through lobbying and political donations (e.g., de Figueiredo & Richter, 2014; Lee, 2023). This is because larger firms have more financial resources to expend and the scale to make investments in political influence profitable (Kim & Osgood, 2019). Consistent with this literature, a fast-growing body of research shows that MNCs have been largely successful in shaping developed FDI home countries' trade policies toward products produced by MNCs' foreign affiliates (e.g., Blanchard & Matschke, 2015).

MNCs also enjoy bargaining advantages in developing FDI host countries, which increase their policy influence. A well-established literature on FDI and expropriation risks shows that MNCs can leverage their size and the many benefits they bring (e.g., jobs, higher wages, technology, and tax revenue) to shape host country policies in ways that protect their long-term investments (e.g., Kobrin, 1987; Wellhausen, 2015). MNCs also have the advantage of being politically adept, given their abundant political experience at home and abroad. For example, MNCs are known to increase their bargaining power through promises of new investment or threats to withdrawal (Nye, 1974), making alliances with local leaders (Malesky, 2008) and host governments (Pinto & Pinto, 2008), building political ties with hostcountry policymakers (Faccio, 2006), integrating into GVCs (Johns & Wellhausen, 2016), and even requesting home government assistance (Wellhausen, 2015). While existing studies have focused mainly on MNCs' use of bargaining advantages and strategies in shaping host investment policies, we argue that similar advantages and strategies can also increase MNCs' influence on trade policies in host countries.

 $<sup>^2\,\</sup>rm Our$  argument builds on and extends arguments about shared interests formed along GVCs in areas of investment protection (Johns & Wellhausen 2016), WTO trade disputes (Kim & Spilker 2019), or climate action (Cory, Lerner, & Osgood 2021).

<sup>&</sup>lt;sup>3</sup> For example, MNCs have independently played a heavy role in Vietnamese trade policymaking. Media reports indicate that SAMSUNG had directly requested the Prime Minister for "preferential tax treatment for its new Samsung CE Complex" (Vietnam Briefing, 2015).

<sup>&</sup>lt;sup>4</sup> For instance, a tight network exists between Vietnamese domestic packaging companies and the MNCs in Vietnam they supply with packaging materials (Bach, 2020). The Vietnam Packaging Association, whose members include some of these domestic suppliers, notes that "the opportunity is huge" with the 17 trade agreements (Vietnam Packaging Association, 2023).

<sup>&</sup>lt;sup>5</sup> For example, INTEL in Vietnam claimed that they had difficulty finding local suppliers that meet "the quality requirements that Intel products demand" (Du et al., 2018).

Finally, GVC partners further increase MNCs' policy influence in the host country. The longer and more established an MNC is in the host country, the deeper and wider its relationship networks are between the MNC and local GVC partners. This enhances MNCs' bargaining power in policymaking (Kobrin, 1987), as the growth of interest groups and constituents who benefit from GVCs offers MNCs additional leverage in policy negotiations against the host government. Furthermore, given the common interests and contractual connections discussed earlier, MNCs can more easily mobilize and coordinate GVC partners in their lobbying campaigns (Manger, 2012), boosting GVC coalitions' political influence over potential domestic opposition from unconnected firms and industries.

Taken together, we expect host governments to have strong incentives to push for more liberal trade policies (e.g., lower tariffs on exports and imports) on products directly linked to MNCs' inward FDI activities when negotiating agreements with their trade partners (Hypothesis 3). Importantly, our expectation about FDI's effect on product-specific trade liberalization should not be limited to cases involving the FDI host-home country pair. Instead, it should also apply to FDI from third-party countries, as their MNCs and their GVC partners should also benefit from access to larger markets.<sup>6</sup> Our argument thus extends existing studies focusing only on how MNCs shape trade patterns and policies between the host and home country (e.g., Blanchard & Matschke, 2015). Our argument also joins emerging research that extends the literature's focus from explaining GVC participants' preferences (e.g., Meckling & Hughes, 2017; Osgood, 2018) to explaining GVC effects on trade policy outcomes (e.g., Anderer, Dür, & Lechner, 2020; Blanchard & Matschke, 2015).

#### **DATA AND MEASURES**

Testing our theory's implications requires data that link firms' FDI and trade activities. Yet, researchers have faced considerable empirical challenges when constructing such data. Most importantly, granular firm-level data on investments and trade transactions are often unavailable to researchers. On the one hand, firms do not publicly disclose their international transactions at the product level out of concern that their competitors could take advantage of the information and undercut their prices or even deter their market entry. On the other hand, while researchers can easily calculate aggregate country-level FDI flows using

data on countries' balance of payments, detecting FDI at the firm level is more difficult, especially when investment activities occur strictly within a firm's boundary.

Furthermore, even when granular investment and trade data are available, the lack of standard industry- and product-level classification systems puts enormous constraints on connecting FDI and trade activities. For example, the United States uses the North American Industry Classification System (NAICS) to categorize domestic business establishments (including FDI), whereas the standard tariff nomenclature for internationally traded products is the HS. Again, this is because firms do not necessarily disclose the set of specific products associated with their investment decisions. Below, we discuss how we use granular information on greenfield investments and declaration-level Vietnamese customs data to construct data sets that overcome these challenges.

### Greenfield foreign direct investment data

In this study, we focus on greenfield FDI because it tends to introduce dramatic changes in production technologies, such as new facilities and production lines, and thus allows us to more directly investigate the relationships between foreign investments and subsequent trade consistent with our theoretical framework. Furthermore, it has been the main mode of FDI inflow for developing countries (Antràs & Yeaple, 2014).

To measure greenfield FDI, we obtained data from fDi Markets, which covers all reports of new cross-border greenfield projects since 2003. The data include detailed information such as the name, location, and industry of the parent/subsidiary, as well as project-specific business activities. To the best of our knowledge, it is the most comprehensive and reliable source of greenfield FDI available and has been used by several recent studies (e.g., Andrews, Leblang, & Pandya, 2018; Jung, Owen, & Shim, 2021) and in the annual World Investment Report of the United Nations Conference on Trade and Development (2023).

We further refine the fDi Markets data in two ways. First, since fDi Markets codes FDI projects based on

 $<sup>^6</sup>$  For example, the US–Vietnam FTA led to an increase in multinationals in Vietnam, especially from East Asian countries, as they saw an export opportunity to the US market (McCaig, Pavcnik, & Wong 2022).

<sup>&</sup>lt;sup>7</sup> Another important but smaller mode of FDI in developing countries involves foreign mergers & acquisitions (M&A) of host firms (Antràs & Yeaple, 2014). We note that the absence of M&A in our data should have two main implications for our findings. Our extensive margin estimates should be upper bounds since FDI through M&A acquires existing firms and production facilities instead of creating new ones and should thus introduce fewer completely new products compared to greenfield FDI. However, our intensive margin estimates should be lower bounds, as MNCs' M&A may also expand existing host firms' operations and production through capital infusion, technology transfer, and economies of scale (e.g., Guadalupe, Kuzmina, & Thomas 2012; Wang & Wang 2015).

news announcements, some projects may not realize. While fDi Markets verifies and removes such projects, it can take time to happen.8 To be more conservative in counting FDI projects, we thus only use data from fDi Markets up to 2017.9 Second, among these verified greenfield FDI projects, we only focus on those related to manufacturing. This is because we are mainly interested in FDI that is likely to affect a host country's export or import profile, rather than FDI engaging in service activities and targeting the host country's domestic market (e.g., finance, construction, and retail).10 We classify a project as manufacturing if it meets the following two criteria: (1) fDi Markets codes its investment activity as "Manufacturing" and (2) its assigned 3-digit NAICS code falls under "Manufacturing" according to the NAICS classification (i.e., 2-digit NAICS codes 31, 32, or 33). This ensures that we use a conservative definition of manufacturing that excludes greenfield investment activities that simply establish sales or marketing offices for goods in the manufacturing industry but do not involve production. Of 189,553 greenfield FDI projects that fDi Markets recorded between 2003 and 2017, our criteria yield 43,949 manufacturing-related projects. 12 See Supporting Information Appendix B.1 (p. 6) for further discussion of the data.

# Linking greenfield foreign direct investment and trade data

### Country-level data

To evaluate whether FDI increases host countries' extensive margins, we first construct a country-level panel data set that links greenfield manufacturing FDI projects to the number of unique products host countries export. Specifically, we use the fDi Markets data to identify all new greenfield manufacturing investment projects made by MNCs across countries between 2003 and 2017 and to construct measures of total new FDI projects for each country and year. We then trace the number of unique HS 6-digit products exported by countries in the UN Comtrade data set between

2004 and 2017 (the time frame lagged 1 year after the FDI data). To ensure the comparability of products across time and space, we use our concordance package to link each product to its latest nomenclature in HS Revision 2017. We then use 100 USD as a threshold for counting whether a product is exported from a country in a given year to reduce data noise stemming from unusually small transactions (e.g., test shipment or nonbusiness private shipment) or measurement errors. Additionally, we narrowed our sample to countries that consistently reported exports of at least 100 manufacturing products (out of 4,746 potential manufacturing products at the HS 6-digit level) throughout the period in order to reduce the influence of countries that underreport or do not report at all in some years. Lastly, we merge the two measures with additional country-level control covariates (GDP, population size, regime type, and export volume), yielding a balanced panel data set of 105 countries from 2004 to  $2017.^{13}$ 

Exploring the data, we find several cases where host countries began to export new products after receiving new greenfield FDI in related industries. For example, Vietnam exported 2,825 unique manufacturing products in 2003, and in 10 years, by 2013, the number had increased to 3,580. The set of added products included "clock or watch parts; dial" (HS 911430), the top exported product of Rhythm Precision Vietnam, a subsidiary of the Japanese clock-making firm Rhythm Watch that first invested and built its manufacturing plant in Hanoi back in November 2005. In the Empirical Findings section, we conduct a more systematic test of the effect of FDI on extensive margins using a broader set of host countries.

### Product-level data in Vietnam

To examine whether FDI increases intensive margins or trade liberalization at a more granular product level, we turn to the case of Vietnam and link project-level manufacturing greenfield FDI to HS 6-digit trade volumes and tariff rates using customs data provided by Datamyne, a commercial database. The data contain records of all export and import products that passed through Vietnamese ports, including detailed information such as exporter/importer firm names, product HS codes at the 8-digit level, and invoice values between January 2018 and April 2020. With this declaration-level data, we can thus observe the set of products each firm exported and imported from Vietnam. For example, the top three exporters in 2018 identified in this customs data include Intel

 $<sup>^8</sup>$  Our communication with fDi Markets representatives confirms this. Note also that announcement records in fDi Markets include both the start of operations (or completion of investment) and plans to build new facilities. While the former should begin to have some effect on trade, the latter may take longer. See Supporting Information Appendix B.1 (p. 6) for details.

 $<sup>^9</sup>$  We acquired data for all host countries up to 2013 in 2017 and additional data from 2014 to 2017 in 2022.

 $<sup>^{10}</sup>$  Data are also more limited for nonmanufacturing industries. Although we believe that investments in other sectors (e.g., services) will also affect trade profiles and policymaking, it is notoriously difficult to gather such data at the firm and product levels.

<sup>&</sup>lt;sup>11</sup> We use NAICS to minimize any potential measurement errors, as it is the categorization system used by fDi Markets.

 $<sup>^{12}\,\</sup>mathrm{See}$  Supporting Information Appendix Table  $\mathrm{B.4}$  for the breakdown of FDI projects by host country.

<sup>&</sup>lt;sup>13</sup> We rely on the World Bank's World Development Indicators for data on GDP and population, Marshall et al. (2017) for polity2 scores, and UN Comtrade for data on export volume.

PRODUCTS (a subsidiary of Intel, headquartered in the United States), Samsung Electronics (South Korea), and Fuhong Precision Component (a subsidiary of Focus PC Enterprises, Hong Kong).

To be sure, data missingness is often a concern when relying on customs declarations. Thus, we check whether the Vietnamese customs data are consistent with existing measurements of trade volume. Supporting Information Appendix Figure B.1 shows that export volumes from the customs data are consistent with those obtained from UN Comtrade at the aggregated HS 2-digit product level, with only a few exceptions involving shipbuilding industries (HS 89) and security-sensitive products.

Matching firm names across multiple data sources is another challenging task. Although the customs data come with the exporting/importing firm names, they are often only available in Vietnamese, while firm names in fDi Markets are in English. What makes the task even more challenging is that firm names are not necessarily consistent within or across the two data sets (e.g., "British American Tabacco" vs. "BAT"), and many similar firm names exist (e.g., "Samsung" and "Samsun CSA"). Furthermore, firm names may change over time (e.g., "Matsushita" to "Panasonic"). To address these issues, we carefully matched individual firm names between the FDI data and the customs data manually. Using the exporter-name (importername) search function in Datamyne, we searched for firm names that appeared in fDi Markets data. When there were multiple results in the customs data that contained our search term, we Google-searched each of the exporter (importer) names to ensure that they were linked to the MNC of interest. As a result, we were able to find export products for 243 parent MNCs involved in 365 manufacturing greenfield FDI projects and import products for 323 parent MNCs engaged in 449 projects.

Using the linkage information above between products and FDI projects through specific MNCs, we were then able to compute a product-level measure of the total number of new manufacturing greenfield FDI projects associated with each product in a given year. For our intensive margin analysis, we then create a dichotomous version of the measure, where a value of one indicates that there exists at least one new manufacturing greenfield FDI project associated with a product before a given year and zero otherwise.

We merge our product-level measures of FDI association with measurements of other product-level characteristics used in our analyses. These measures include product differentiation, upstreamness/downstreamness, intermediateness, and so forth. Note that constructing product-specific covariates requires researchers to navigate across various classification systems carefully. For example, Rauch

(1999) classifies each 4-digit Standard International Trade Classification (SITC) code by whether it is "differentiated" or not. Building on Rauch's classification, we measure the level of product differentiation for each HS 6-digit product by matching HS codes to SITC codes and then computing the share of matched codes classified as "differentiated." To measure upstreamness/downstreamness, we rely on the estimates from Antràs et al. (2012) for 40 countries between 1995 and 2011. Since these estimates were computed at the International Standard Industrial Classification (ISIC) 2-digit level, we matched HS 6-digit codes to ISIC 2-digit codes and then computed the weighted average of the estimates for each of our HS products. 14 We calculate intermediateness based on the share of HS 6-digit codes that include either the word "part(s)." "intermediate," or "component" in their description. We make all measures publicly available through our concordance package. Overall, our product-level panel data set consists of 5,115 unique HS 6-digit products across 15 years (2003–2017). 15

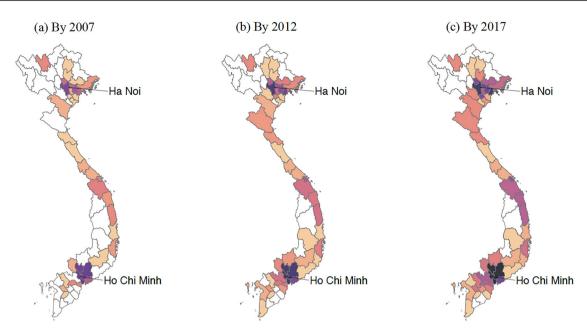
Empirical advantages aside, Vietnam represents a theoretically important case to focus on because Vietnam has become one of the top recipients of greenfield FDI and an integral part of GVCs (Malesky, Gueorguiev, & Jensen, 2015). According to fDi Intelligence, Vietnam was by far the top-ranked emerging economy in their Greenfield FDI Performance Index in 2014 and 2015, receiving around 6.5 times more greenfield FDI compared to the size of its economy (Financial Times, 2016). Figure 1 illustrates the increase and regional concentration of these FDI projects in Vietnam over time. Meanwhile, the volume of Vietnamese trade also exponentially increased over this period. As shown in Supporting Information Appendix Figure B.2, our data indicate that Vietnam scores high on both its total number of incoming greenfield FDI projects relative to the size of its economy and its growth in total export volume. Lastly, Vietnam has actively sought preferential trade agreements after joining the World Trade Organization (WTO) in 2007. Supporting Information Appendix Table B.3 shows that Vietnam is now deeply embedded in a network of bilateral and regional FTAs.

#### **EMPIRICAL FINDINGS**

We present below empirical analyses of our data. We first investigate whether new greenfield manufacturing FDI projects expand the number of unique HS

 $<sup>^{14}</sup>$  Since our panel extends beyond 2011, we use 2011 estimates for all subsequent years.

 $<sup>^{15}</sup>$  Products missing product differentiation and upstreamness/downstreamness measurements (270 products in total) are omitted from the panel. See Supporting Information Appendix Table B.2 for summary statistics.



**FIGURE 1** Increase in manufacturing greenfield foreign direct investment (FDI) projects in Vietnam, 2003–2017. The color scale corresponds to the cumulative count (log) of new greenfield FDI projects observed in each province in the period 2003–2007 (left), 2003–2012 (center), and 2003–2017 (right).

6-digit exports at the country level (i.e., the extensive margin) using our country-level panel data set. Next, we examine whether they increase trade volume at the product level (i.e., the intensive margin). To accurately evaluate this, we focus on the case of Vietnam and use our product-level data. Finally, we examine whether products directly associated with greenfield FDI in Vietnam, made by MNCs from various home countries between 2003 and 2014, enjoyed deeper tariff cuts in Vietnam's 2015 bilateral FTA with South Korea. To assess the external validity of our findings, we also expand the analysis to include trade agreements signed by 36 host countries.

# Effects of foreign direct investment on trade profiles

## Extensive margin

We begin by evaluating whether countries with new inward FDI projects were more likely to experience an expansion in their extensive margins of trade. To be sure, the expansion of extensive margins should depend on the baseline number of traded goods and other economic factors. For example, countries that have already received significant foreign investments, such as China, the United States, India, and Russia, tend to have less room for expansion in the variety of goods exported as they are already exporting a wide variety of products (see Supporting Information Appendix Figure C.1). To address this issue, we fit

a set of regression models to the country-level panel data (2004–2017) discussed in the Data and Measures section and estimate the effect of inward FDI on a country's extensive margin in the following year, controlling for the extensive margin in the previous year and other covariates as follows:

$$Y_{it} = \beta X_{i,t-1} + \rho Y_{i,t-1} + \delta \mathbf{Z}_{i,t-1} + \gamma_t + \varepsilon_{it}, \qquad (1)$$

where  $Y_{it}$  is the number of unique HS 6-digit products that country i exported (imported) at time t, the binary indicator  $X_{i,t-1}$  denotes whether country i had at least one new inward manufacturing greenfield FDI project at t-1, and  $Y_{i,t-1}$  denotes the dependent variable lagged by 1 year to account for baseline levels of extensive margins. Wariables  $\mathbf{Z}_{i,t-1}$  include a set of covariates for country i at t-1 (logged GDP, logged population, polity 2, and logged total export volume in USD), and  $\gamma_t$  denotes year fixed effects. We cluster standard errors by country to account for within-country correlations of errors.

Consistent with Hypothesis 1, we find that countries with at least one new inward manufacturing greenfield FDI project in a given year add over 45 more HS 6-digit products to their export extensive margins in the subsequent year, holding other factors constant. For countries with the mean export extensive margin of 2917, this represents at least an approximately 2% increase in extensive margins in the next

<sup>&</sup>lt;sup>16</sup> To test for unit root, we conducted the Augmented Dickey–Fuller test for panel data and rejected the null that all series are unit roots.

**TABLE 1** New greenfield foreign direct investment (FDI) and the expansion of export extensive margins. Using the country-level panel data set described in the Data and Measures section, we find that a country's new inward manufacturing greenfield FDI projects are associated with a larger extensive margin (HS 6-digit products) in the following year. Columns (1) to (4) show coefficients estimated using ordinary least squares (OLS) regressions with/without a lagged dependent variable and with/without year and country fixed effects. Columns (5) and (6) present results with the dependent variable operationalized as the percent change in a country's extensive margin between t-1 and t.

	Extensive margin (t)				Δ Extensive margin	
	(1)	(2)	(3)	(4)	(5)	(6)
FDI ( <i>t</i> –1, binary)	46.988**	45.237**	56.298*	53.646*	3.703*	3.630*
	(12.666)	(12.823)	(26.105)	(25.433)	(1.670)	(1.653)
Extensive margin ( <i>t</i> –1)	0.973**	0.970**			-0.004*	-0.004*
	(800.0)	(800.0)			(0.002)	(0.002)
GDP ( <i>t</i> –1, logged)	13.001*	7.336	240.729	344.089*	0.880	0.644
	(6.227)	(6.486)	(153.122)	(158.062)	(0.906)	(0.894)
Population ( <i>t</i> –1, logged)	-5.538	-4.375	281.140	348.429	0.041	0.085
	(3.810)	(3.807)	(468.910)	(491.091)	(0.375)	(0.379)
Polity 2 ( <i>t</i> –1)	-0.741	-0.496	-9.442	-9.486	0.089	0.099
	(0.849)	(0.838)	(6.883)	(6.932)	(0.131)	(0.129)
Export value ( <i>t</i> –1, logged)	-2.359	4.233	30.237	50.729	0.058	0.350
	(6.010)	(6.521)	(33.254)	(49.879)	(1.220)	(1.213)
Constant	-123.353				-15.356	
	(79.368)				(9.859)	
N	1,470	1,470	1,470	1,470	1,470	1,470
Countries	105	105	105	105	105	105
Years	14	14	14	14	14	14
FE: year		✓		✓		✓
FE: country			✓	✓		
$R^2$	0.990	0.990	0.980	0.980	0.037	0.046
Adj. R <sup>2</sup>	0.990	0.990	0.979	0.979	0.033	0.033
BIC	18,616.497	18,687.480	20,342.135	20,417.375	12311.860	12393.725
Log likelihood	-9,282.723	-9,270.810	-9,769.951	-9,760.167	-6,130.404	-6,123.933

Note: Standard errors clustered by country in parentheses.

year. Table 1 summarizes the results across various model specifications.  $^{17}$  Note that our main specifications in columns (1) and (2) do not include country fixed effects. This is because it is well known that the ordinary least squares (OLS) estimate of  $\beta$  will suffer from significant "Nickell bias" if we include both country fixed effects and a lagged dependent variable in models covering relatively short time periods (Nickell, 1981). As a robustness check, therefore, we analyze results only exploiting within-country variation by including country fixed effects without the lagged dependent variable in columns (3) and (4).

Our findings are robust to these model specifications. Furthermore, using the fixed effects counterfactual estimator known to be more reliable than the two-way fixed effects estimator (column (4)) when treatment timing is different and treatment effects are heterogeneous (Liu, Wang, & Xu, 2024), we find consistent and even larger overall effects of new greenfield FDI ( $\approx$  89), with more sizable and precisely estimated effects for countries that are treated for longer periods. 18 Additionally, when we use the within-country change in extensive margin from the previous year as an alternative measure of the dependent variable (columns (5) and (6)), we find that new inward greenfield FDI projects in a country are associated with an around 4% increase in the country's export extensive margin. Using the Heckman treatment effect

<sup>\*</sup>*p* < .05, \*\**p* < .01.

 $<sup>^{17}</sup>$  We also estimate effects using a 2-year lag instead of one, which allows more time for FDI effects to materialize but reduces our sample size due to fDi Markets data availability. The results are mostly consistent with our main findings in Table 1, with generally larger point estimates but less precise estimates in the country fixed effects models. See Supporting Information Appendix Table C.2 for details.

<sup>&</sup>lt;sup>18</sup> See Supporting Information Appendix Figure C.2 for details.

model (see Greene, 2003) to more explicitly model and account for potential biases due to FDI's selection into countries, we find consistent results with larger estimates for export extensive margins ( $\approx 58$ ) and similar estimates for year-over-year percentage changes in export extensive margins ( $\approx 4\%$ ). Lastly, we find similar, albeit slightly less precise, effects on import extensive margins (see Supporting Information Appendix C.1.2, pp. 10–11). Altogether, these results provide evidence suggesting a positive effect of new greenfield FDI on extensive margins.

### Intensive margin

Next, we turn to the Vietnamese product-level panel data (2003–2017) discussed in the Data and Measures section to conduct a close within-country test of FDI's effect on trade volume (Hypothesis 2). One main concern when examining the product-level effect of FDI on trade volume is that MNCs may choose to invest in a country given its pre-existing trade environment (Büthe & Milner, 2008) and political institutions (Li& Resnick2003; Jensen, 2008; Pandya, 2014; Pinto, 2013), leading to a potential selection bias. To address this concern, we use a DiD identification strategy combined with a matching method to account for any confounding due to pre-treatment covariates and time trends (Imai, Kim, & Wang, 2023).

### Difference-in-differences

The outcome variable  $Y_{kt}$  is the annual export (import) volume of product k in year t from (by) Vietnam to (from) the world. The treatment variable  $X_{lt}^*$  is a dichotomous variable indicating whether, since the beginning of our study in 2003, there has been at least one new greenfield investment associated with product k before year t. Formally,  $X_{kt}^* = 1\{\sum_{t'=2003}^t X_{kt'} > 0\}$ , where  $X_{kt}$  denotes the total number of greenfield FDI projects associated with product k in year t. In other words, we consider the very first year of MNC investments related to product k as the treatment while taking the "staggered adoption" approach for our estimation. This is because we are interested in analyzing the long-term effects of FDI, as trade volume tends to grow gradually over time once a manufacturing facility is established. Note that because fDi Markets data only started in 2003, products associated with greenfield investments made before 2003 are considered unrelated to FDI at the outset of our analyses and will only be considered treated when additional FDI projects are associated with the product after 2003. As such, the approach will give us a more conservative estimate of the effect of FDI. When the outcome is

Vietnamese export volume, we measure  $X_{kt}$  based on the exports of each FDI firm. In contrast, when the outcome is Vietnamese import volume, we measure  $X_{kt}$  through import declarations of each FDI firm. Moreover, in the latter case, when associating FDI projects with imports, we only link imports of products above the median level of upstreamness to be consistent with our theoretical framework.

For each treated product k whose treatment status changes from 0 to 1 in year t, we create a set of control products k' based on the history of treatment status:

$$\mathcal{M}_{kt} = \left\{ k' : k' \neq k, X_{k't'} = 0 \ \forall \ t' \leq t \right\}. \tag{2}$$

That is, we compare each FDI-associated product against a set of other products with no connections to greenfield investments. To make a tighter comparison, we restrict and refine this matched set based on their similarity in pre-treatment covariates. First, we draw products from those in the same HS section. For example, the control set for product HS 854231 (electronic integrated circuits) consists of other similar products within the HS Section XVI category for machinery and mechanical appliances. Second, we put heavier weights (see  $w_{k't}$  in Equation 3) on products that are similar regarding the following pretreatment characteristics: Vietnamese average MFN tariff rate, import/export volume in the rest of the world (logged), mean import/export volume across all importing/exporting countries (logged), the number of countries Vietnam imports from or exports to, whether the import/export volume had missingness before augmenting with mirror data, product differentiation, intermediateness, and upstreamness/downstreamness.

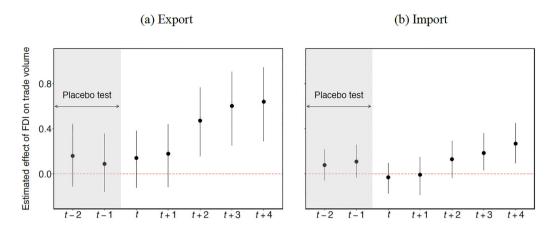
Given the matched set for each FDI-related product, we then use the following non-parametric DiD estimator to evaluate the effect of FDI on the changes in trade volume:

$$\hat{\beta} = \frac{1}{\sum D_{kt}} \sum_{k \in K} \sum_{t=L+1}^{T-F} D_{kt}$$

$$\left\{ (Y_{k,t+F} - Y_{k,t-1}) - \sum_{k' \in \mathcal{M}_{kt}} w_{k't} (Y_{k',t+F} - Y_{k',t-1}) \right\}, \quad (3)$$

where  $D_{kt} = 1$  if  $X_{kt}^*$  changed from 0 to 1 in year t, L represents the number of years for which we match treatment history (lag), and F is the future year we estimate the effects (lead). We weight each control unit using the weights  $w_{k't}$  obtained by the covariate balancing propensity score (CBPS, Imai & Ratkovic, 2014) method that balances the full set of covariates and the lagged dependent variable. Supporting Information Appendix Figures C.3 and C.4 show that the proposed refinement method significantly improves the covariate balance between the products associated with FDI

<sup>&</sup>lt;sup>19</sup> See Supporting Information Appendix Tables C.3 and C.4 for details.



**FIGURE 2** Effects of foreign direct investment (FDI) on trade volume. We present the estimated effects of a new manufacturing greenfield FDI project on the logged export volume (left) and import volume (right) of associated HS 6-digit products at t + k for  $k \in \{0, 1, 2, 3, 4\}$ . The vertical bars represent 95% confidence intervals. Results show that a new manufacturing greenfield FDI project is estimated to increase the export volume of associated products by up to 90% within 4 years while increasing the import volume by up to 30%. In contrast, point estimates for time placebo tests (shaded in gray) are indistinguishable from zero.

projects and those in the matched sets that are not associated with any projects.

Consistent with Hypothesis 2, we find that new manufacturing greenfield FDI projects increase both the export and import volume of FDI-related products in subsequent years. Moreover, the effects are persistent and grow over time. As shown in the left panel of Figure 2, a new manufacturing greenfield FDI project made at year t increases the export volume of associated HS 6-digit products from around 15% at time t to 90% at time t+4 (see Supporting Information Appendix Table C.8 for details). While the effect size is more moderate for imports, a new FDI project is still estimated to increase the import volume of associated upstream products by approximately 30% at time t + 4. To ensure the validity of the parallel trend assumption, we also conduct a set of time placebo tests. Here, we estimate the effect of greenfield investment at time t on the differences in trade volume in the pretreatment periods at t-1 and t-2. As expected, we find that the pre-treatment trend is indistinguishable from zero.

Overall, we find that new manufacturing greenfield FDI projects lead to increased trade of FDI-associated products between Vietnam and the rest of the world. Together with the cross-country evidence on the extensive margin, the findings support our theory that greenfield investments change both the extensive and intensive margins of trade for host countries.

# Effects of foreign direct investment on trade liberalization

We turn to investigate the effect of FDI on trade liberalization. We begin by analyzing product-level tariff cuts in the 2015 Korea–Vietnam bilateral FTA.<sup>20</sup> In the 10 years between 2009 and 2019, South Korea became Vietnam's third fastest-growing export market (after the United States and China) and second fastest-growing import market (after China) (OEC, 2020). Furthermore, as discussed in the Data and Measures section, examples of MNCs investing in Vietnam to facilitate final product exports to and intermediate product imports from large markets abound. As such, the FTA is a valuable case to test whether FDI has influenced trade policy outcomes through GVCs in ways consistent with our theoretical framework.

We conduct two analyses, one focusing on Korea's tariff cuts for Vietnamese products and the other on Vietnam's tariff cuts for Korean products. We fit the Tobit model below to a subset (2003–2014) of our product-level data discussed in the Data and Measures section:

$$Y_k^* = \alpha_{j[k]} + \beta X_{kt} + \delta \mathbf{Z}_k + \varepsilon_k,$$

$$Y_k = \begin{cases} Y_k^* & \text{if } Y_k^* > 0\\ 0 & \text{if } Y_k^* \le 0 \end{cases}, \tag{4}$$

where the outcome variable  $Y_k^*$  measures the depth of liberalization based on the logged difference between the MFN tariff rate and the FTA preferential rate. Following our theory, we focus on Vietnamese tariff reduction for their imported products from Korea while also analyzing the changes in Korean import tariffs toward Vietnamese exports. We compute our measures based on the tariff-line data from Barari

 $<sup>^{20}</sup>$  The FTA was signed on May 5, 2015, and entered into force on December 20, 2015.

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and Kim (2022).<sup>21</sup> To facilitate consistent product comparisons across the two countries, we compute the mean tariff cut for HS 6-digit product k using the rates of all HS 10-digit tariff-line products within the same HS 6-digit category. We then log-transform the measure to account for the skewed distribution of the variable. Note that the outcome variable is time-invariant, and thus our analysis leverages the variation across products.

The variable  $\alpha_{i[k]}$  represents industry fixed effects at the HS section level (HS section j corresponding to HS 6-digit product k) that account for industry-level characteristics that may affect both FDI inflows and tariff cuts. The key predictor  $X_{kt}$ is a dichotomous variable measuring whether there were any new greenfield manufacturing FDI projects in Vietnam associated with product k for the first time in period t. The variables  $\mathbf{Z}_k$  represent an array of product-level controls aggregated over time by taking their mean values between 2003 and 2014. They include Vietnamese import/export volume (logged), import/export volume in the rest of the world (logged), mean import/export volume across all importing/exporting countries (logged), the number of countries Vietnam imports from or exports to (logged), product differentiation, intermediateness, and upstreamness/downstreamness. We compute heteroskedasticity-robust standard errors to account for non-constant variance in the errors.

Consistent with our expectations, we find that HS 6-digit products linked to greenfield manufacturing FDI projects in Vietnam generally enjoy larger tariff cuts from both Korea and Vietnam in the 2015 FTA. Figure 3 presents the effect of FDI across the entire period between 2003 and 2014 and shows that FDIassociated Vietnamese export products received 19% deeper tariff cuts from Korea compared to similar products unrelated to FDI. Similarly, FDI-associated Vietnamese import products received 30% deeper tariff cuts from Vietnam. To address potential selection bias by firms entering the Vietnamese market due to expectations about future trade policies, we conducted an instrumental variable analysis. Following an identification strategy similar to Autor, Dorn, and Hanson (2013), we used the average number of new FDI projects in the same NAICS industry in the rest of the world as an instrument. This approach captures exogenous global technological shocks driving FDI while assuming they influence Vietnamese trade policy only indirectly through increased investment in the same industry. The results, shown in Figure 3, remain statistically and substantively robust (see Supporting Information Appendix Section D.1, pp. 14–16,

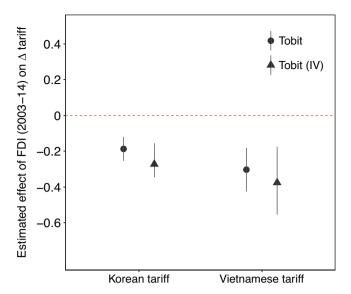


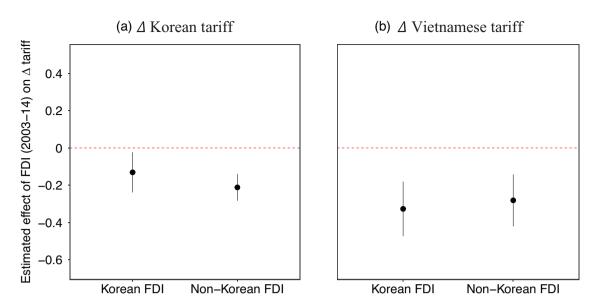
FIGURE 3 Effects of foreign direct investment (FDI) on tariff cuts. We present the effect of greenfield manufacturing FDI projects (2003–2014) on the average HS 6-digit product-level tariff cut (logged) in the 2015 South Korea–Vietnam Free Trade Agreement (FTA). The figure shows point estimates and 95% confidence intervals from Tobit and instrumental variable (IV) analyses. Vietnamese export products linked to multinational corporations' (MNCs') FDI projects received deeper Korean tariff cuts (left), while Vietnamese import products tied to these projects experienced deeper Vietnamese tariff cuts (right).

for details). Finally, we also estimate time-varying effects and find stronger results among products linked to earlier FDI projects. This aligns with the argument that earlier MNC entrants are more likely to have established value chain networks, fostering stronger political coalitions and influence (see Supporting Information Appendix Section D.2, pp. 16–19, for details).

Importantly, we show in Figure 4 that the tariff reduction effect we find is not simply driven by Korean MNCs' FDI in Vietnam. Disaggregating the overall effect of FDI by origin, Korean versus non-Korean, we find that both types led to tariff cuts in the 2015 FTA. The left panel shows that Vietnamese export products associated with Korean FDI enjoyed deeper Korean tariff cuts by about 13% compared to those unrelated to any FDI projects. Meanwhile, Vietnamese export products associated only with non-Korean FDI experienced tariff cuts by about 21%. The right panel shows that Vietnamese import products associated with Korean FDI (only non-Korean FDI) experienced Vietnamese tariff cuts by around 33% (28%). These results suggest that MNCs' FDI activities can influence trade politics and policy outcomes in third-party countries beyond the host-home country pair.

Lastly, we evaluate the external validity of our findings by expanding our analysis to include trade agreements signed by 36 host countries between

 $<sup>^{21}</sup>$  The authors compile product-level tariff data from UNCTAD's Trade Analysis Information System (TRAINS) and the World Bank's World Integrated Trade Solution (WITS) database.



**FIGURE 4** Effects of Korean and non-Korean foreign direct investment (FDI) in Vietnam on tariff cuts. We present the overall estimated effect of FDI occurrence (2003–2014) on tariff cuts by FDI origin. The left estimate in each panel focuses on the effect of Korean multinational corporations' (MNCs) FDI, while the right estimate focuses only on the effect of FDI from non-Korean MNCs. The panels present point estimates and 95% confidence intervals.

2003 and 2015. We identify these countries based on hosts with at least one FTA entered into force during the sample period, product-level variation in inward FDI projects, and available data for host or partner covariates.<sup>22</sup> For each host country, we focus on its latest FTA during the sample period and estimate the effect of inward FDI projects on the host and partner's tariff cuts in the FTA. We focus on the latest FTA because our FDI data only started in 2003, and as discussed earlier, it takes time for FDI's effects to realize. However, unlike the Korea-Vietnam FTA case, we could not match FDI projects to tariffs at a fine-grained firm-product level without systematic customs data across countries. Consequently, we rely on the concordance between NAICS 3-digit industry codes and HS 4-digit product codes to obtain HS products corresponding to each FDI project. Since this approach can be noisier, we fit the following varying-intercept model to leverage information across industries and countries (i.e., partial pooling) while accounting for our data's complex hierarchical structure:

$$Y_{ig} \sim N\left(\alpha + \eta_i + \theta_{h[g]} + \beta \mathbf{X}_i + \gamma \mathbf{Z}_g, \sigma_y^2\right),$$
 (5)

where  $Y_{ig}$  is the mean logged tariff cut of HS 4-digit product g in host country i's latest FTA during our

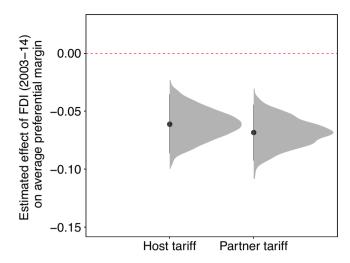
sample period.<sup>23</sup> The fixed intercept is denoted by  $\alpha$ , the varying intercept for each HS 2-digit group h[g] that g belongs to is represented by  $\theta_{h[g]}$ , and  $\eta_i$  denotes the varying intercept for host country i. The covariates X<sub>i</sub> include the key predictor, cumulative binary FDI (up to the year before the FTA entered into force), as well as the GDP per capita (logged) and polity2 scores of host and partner countries (in the year before the FTA entered into force). The HS 4-digit level covariates  $\mathbf{Z_g}$  include mean import/export volume across all importing/exporting countries (logged), total world export volume (logged), differentiation. intermediateness. product upstreamness/downstreamness.24

Consistent with our previous findings, we find substantial tariff reductions by both host and partner countries across products associated with host countries' inward FDI. Figure 5 shows the posterior distributions and the 95% credible intervals (vertical line) of FDI's effects estimated with Bayesian inference. The results suggest that, on average, FDI-associated products experienced 6.1% deeper tariff cuts from the host country and 6.8% deeper cuts from the partner country. Taken together, our findings provide strong empirical support for Hypothesis 3, suggesting that governments are more inclined to liberalize trade

<sup>&</sup>lt;sup>22</sup> For FTA data, we rely on the Design of Trade Agreements (DESTA) Database. See <a href="https://www.designoftradeagreements.org/">https://www.designoftradeagreements.org/</a>. Supporting Information Appendix Table D.5 shows the list of the hosts and their FTAs included in the analysis.

 $<sup>^{23}</sup>$  To account for any potential tariff phase-outs, we use 2021 preferential tariff rates from the WITS database. Supporting Information Appendix Figure D.5 shows similar results when using the deepest instead of mean tariff cuts, which further helps reduce noise due to less precise concordances between FDI projects and HS products.

<sup>&</sup>lt;sup>24</sup> Supporting Information Appendix D.3.2 (pp. 19–20) presents further details about the multilevel model, implementation, and convergence diagnostics.



F1GURE 5 Effects of foreign direct investment (FDI) on mean tariff cuts: 36 host countries and their latest Free Trade Agreements (FTAs) between 2003 and 2015. We present the estimated effects of FDI on the mean HS 4-digit product-level tariff cut (logged) in a host country's FTA. The left estimate shows the impact on the host's tariffs, and the right on the partner's tariffs. In both cases, FDI-linked products received deeper cuts. The figure includes point estimates, posterior distributions, and 95% credible intervals from Bayesian estimates.

policies for products directly linked to MNCs' FDI activities, even when compared to similar products within the same industry.

#### CONCLUSION

To what extent and how does MNCs' FDI influence host countries' trade patterns and policies? Using data that capture linkages between FDI and trade activities at the firm-product level, we find that greenfield FDI substantially changes hosts' trade profile and volume. We also find that it affects the host country's trade agreements with and market access to not just the home country but even third-party countries. Specifically, Vietnamese trade margins significantly expanded due to increased FDI from many developed countries. Moreover, the products imported and exported by these MNCs received substantially deeper tariff cuts in the bilateral FTA between Vietnam and South Korea. We further confirm these findings based on large-scale cross-country analyses.

Further research is needed to explore the implications of our study. First, a key implication of our findings is that employment ties with MNCs, and consequently their GVCs, may play an increasingly critical role in shaping individual trade attitudes. This stands in contrast to earlier studies that emphasized the importance of factor ownership (Scheve & Slaughter, 2001), occupation (Owen & Johnston, 2017), or sector (Hiscox, 2002). Instead, our findings are more

consistent with the growing perspective that individual trade preferences are closely tied to the interests of their employing firms (Lee & Liou, 2022; Owen & Quinn, 2016). More work at the individual level is needed to disentangle the relative influence of GVC connections vis-à-vis the other factors above. Additionally, since GVCs incentivize local labor, foreign capital, and their partners to advocate for open trade policies collectively, the traditional focus on domestic political cleavages along factoral or sectoral lines may become increasingly outdated. Therefore, scholars should seek to assess the distributional consequences of trade both within and outside GVCs. A promising approach for more accurately capturing domestic trade preferences could involve utilizing data and measures on the composition of FDI across industries.

Second, our theory suggests that governments face unique political pressures when formulating policies for goods or services with significant value chain linkages. However, observing firm-level political activities is highly challenging, especially in developing country contexts. We are thus constrained in our ability to measure the formation of MNC-led political coalitions and directly test their impact on trade policymaking. To be sure, new studies have begun to examine joint political activities among firms connected through GVCs, but they tend to focus on developed countries and have yet to directly examine the impact of such coalitional forces on trade policies (e.g., Zhang 2025). Our study thus complements this important emerging literature, but further research that examines the causes and consequences of GVC political coalitions more directly and in different contexts is sorely needed.

Lastly, by revealing substantial differences in trade policies toward goods produced and exported by MNCs compared to other domestically produced products, our findings suggest that trade policymaking goes far beyond national and product boundaries. Future research should strive to close the gap between studies of FDI and international trade by directly incorporating network structures formed by MNCs and their upstream and downstream partners or products.

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#### REFERENCES

- Alfaro, Laura, and Andrew Charlton. 2009. "Intra-Industry Foreign Direct Investment." *American Economic Review* 99(5): 2096–2119.
- Alfaro, Laura, Areendam Chanda, Sebnem Kalemli-Ozcan, and Selin Sayek. 2010. "Does Foreign Direct Investment Promote Growth? Exploring the Role of Financial Markets on Linkages." *Journal of Development Economics* 91(2): 242–56.
- Anderer, Christina, Andreas Dür, and Lisa Lechner. 2020. "Trade Policy in a GVC World: Multinational Corporations and Trade Liberalization." *Business and Politics* 22(4): 639–66.
- Andrews, Sarah, David Leblang, and Sonal S. Pandya. 2018. "Ethnocentrism Reduces Foreign Direct Investment." *The Journal of Politics* 80(2): 697–700.
- Antràs, Pol, and Davin Chor. 2018. "On the Measurement of Upstreamness and Downstreamness in Global Value Chains." In *World Trade Evolution: Growth, Productivity and Employment*, edited by Lili Yan Ing and Miaojie Yu, 126–94. New York: Taylor & Francis Group.
- Antràs, Pol, Davin Chor, Thibault Fally, and Russell Hillberry. 2012. "Measuring the Upstreamness of Production and Trade Flows." *American Economic Review* 102(3): 412–16.
- Antràs, Pol, and Stephen R. Yeaple. 2014. "Multinational Firms and the Structure of International Trade." In *Handbook of International Economics*, edited by Gita Gopinath, Elhanan Helpman, and Kenneth Rogoff, 4: 55–130. New York: Elsevier.
- Ashraf, Ayesha, Dierk Herzer, and Peter Nunnenkamp. 2016. "The Effects of Greenfield FDI and Cross-Border M&As on Total Factor Productivity." *The World Economy* 39(11): 1728–55.
- Autor, David H., David Dorn, and Gordon H. Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review* 103(6): 2121–68.
- Baccini, Leonardo, Pablo M. Pinto, and Stephen Weymouth. 2017. "The Distributional Consequences of Preferential Trade Liberalization: Firm-Level Evidence." *International Organization* 71(2): 373–95.
- Bach, Môc. 2020. "How are Vietnamese Enterprises Participating in Samsung's Supply Chain Doing?" *CafeF*. https://cafef.vn/doanhnghiep-viet-tham-gia-vao-41chuoi-cung-ung-cuasamsung-dang-lam-an-ra-sao-20201124180434957.chn (in Vietnamese).
- Barari, Soubhik, and In Song Kim. 2022. "Democracy and Trade Policy at the Product Level." Working paper, http://web.mit.edu/insong/www/pdf/poltrade.pdf
- Bernard Andrew B., J. Bradford Jensen, Stephen J. Redding, and Peter K. Schott. 2012. "The Empirics of Firm Heterogeneity and International Trade." *Annual Review of Economics* 4(1): 283–313.
- Blanchard, Emily J., and Xenia Matschke. 2015. "U.S. Multinationals and Preferential Market Access." *The Review of Economics and Statistics* 97(4): 839–54.
- Büthe, Tim, and Helen V. Milner. 2008. "The Politics of Foreign Direct Investment Into Developing Countries: Increasing FDI through International Trade Agreements?" *American Journal of Political Science* 52(4): 741–62.
- Calligaris, Sara, Flavio Calvino, Martin Reinhard, and Rudy Verlhac. 2023. "Is There a Trade-Off between Productivity and Employ-

- ment? A Cross-Country Micro-to-Macro Study." OECD Science, Technology and Industry Policy Papers, No. 157. Paris: OECD Publishing. https://doi.org/10.1787/99bede51-en
- Chase, Kerry A. 2003. "Economic Interests and Regional Trading Arrangements: The Case of NAFTA." *International Organization* 57(1): 137–74.
- Cory, Jared, Michael Lerner, and Iain Osgood. 2021. "Supply Chain Linkages and the Extended Carbon Coalition." *American Journal of Political Science* 65(1): 69–87.
- Danzman, Sarah Bauerle. 2019. Merging Interests: When Domestic Firms Shape FDI Policy. Cambridge: Cambridge University Press
- Danzman, Sarah Bauerle, and Alexander Slaski. 2022. "Incentivizing Embedded Investment: Evidence from Patterns of Foreign Direct Investment in Latin America." *The Review of International Organizations* 17(1): 63–87.
- de Figueiredo, John M., and Brian K. Richter. 2014. "Advancing the Empirical Research on Lobbying." *Annual Review of Political Science* 17(1): 163–85.
- Doner, Richard F, and Ben Ross Schneider. 2016. "The Middle-Income Trap: More Politics than Economics." *World Politics* 68(4): 608–44.
- Dornbusch, Rudiger, Stanley Fischer, and Paul Anthony Samuelson. 1977. "Comparative Advantage, Trade, and Payments in a Ricardian Model with a Continuum of Goods." *The American Economic Review* 67(5): 823–39.
- Du, Huynh The, Huynh Trung, Dung, Nguyen Xuan Thanh, and Do Thien Anh Tuan. 2018. "Intel Products Vietnam: 10-Year Investment Impact Study Report 2006–2016." Technical report, Fulbright School of Public Policy and Management. https://fsppm.fulbright.edu.vn/en/policy-papers/policy-research/intel-products-vietnam-10-year-investment-impact-study-report-2006-2016/
- Ellison, Glenn, Edward L. Glaeser, and William R. Kerr. 2010. "What Causes Industry Agglomeration? Evidence from Coagglomeration Patterns." *American Economic Review* 100(3): 1195–213.
- Faccio, Mara. 2006. "Politically Connected Firms." American Economic Review 96(1): 369–86.
- Farrell, Henry, and Abraham L. Newman. 2022. "Weak Links in Finance and Supply Chains Are Easily Weaponized." *Nature* 605: 219–22.
- Financial Times. 2016. "Vietnam Tops EM FDI Performance Index for Second Year." *Financial Times*. https://www.ft.com/content/6aacb62a-53db-11e6-9664-e0bdc13c3bef [Accessed 1st September 2025].
- Greene, William H. 2003. *Econometric Analysis*. Prentice Hall, Upper Saddle River, NJ.
- Guadalupe, Maria, Olga Kuzmina, and Catherine Thomas. 2012. "Innovation and Foreign Ownership." *American Economic Review* 102(7): 3594–627.
- Harrison, Ann, and Andrés Rodriguez-Clare. 2010. "Trade, Foreign Investment, and Industrial Policy for Developing Countries." *Handbook of Development Economics* 5: 4039–214.
- Helms, Benjamin. 2024. "Global Economic Integration and Nativist Politics in Emerging Economies." *American Journal of Political Science* 68(2): 595–612.
- Helpman, Elhanan. 2006. "Trade, FDI, and the Organization of Firms." *Journal of Economic Literature* 44(3): 589–630.
- Hiscox, Michael J. 2002. *International Trade and Political Conflict: Commerce, Coalitions, and Mobility*. Princeton: Princeton University Press.
- Imai, Kosuke, In Song Kim, and Erik H. Wang. 2023. "Matching Methods for Causal Inference with Time-Series Cross-Sectional Data." American Journal of Political Science 67(3): 587–605.
- Imai, Kosuke, and Marc Ratkovic. 2014. "Covariate Balancing Propensity Score." *Journal of the Royal Statistical Society: Series B (Statistical Methodology)* 76(1): 243–63.

- Javorcik, Beata Smarzynska. 2004. "Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers through Backward Linkages." *The American Economic Review* 94(3): 605–27.
- Jensen, J. Bradford, Dennis P. Quinn, and Stephen Weymouth. 2015. "The Influence of Firm Global Supply Chains and Foreign Currency Undervaluations on US Trade Disputes." *International Organization* 69(4): 913–47.
- Jensen, Nathan M. 2008. *Nation-States and the Multinational Corporation: A Political Economy of Foreign Direct Investment.*Princeton: Princeton University Press.
- Johns, Leslie, and Rachel L. Wellhausen. 2016. "Under One Roof: Supply Chains and the Protection of Foreign Investment." American Political Science Review 110(1): 31–51.
- Juhász, Réka, Nathan Lane, and Dani Rodrik. 2023. "The New Economics of Industrial Policy." Annual Review of Economics. 16: 213–42.
- Jung, Yoo Sun, Erica Owen, and Gyu Sang Shim. 2021. "Heterogeneity in How Investors Respond to Disputes: Greenfield Foreign Direct Investment and Coindustrial Disputes." The Journal of Politics 83(4): 1260–74.
- Kastratović, Radovan. 2020. "The Impact of Foreign Direct Investment on Host Country Exports: A Meta-Analysis." The World Economy 43(12): 3142–83.
- Kerner, Andrew. 2014. "What We Talk About When We Talk About Foreign Direct Investment." *International Studies Quarterly* 58(4): 804–15.
- Kim, In Song. 2017. "Political Cleavages within Industry: Firm-Level Lobbying for Trade Liberalization." *American Political Science Review* 111(1): 1–20.
- Kim, In Song, and Iain Osgood. 2019. "Firms in Trade and Trade Politics." *Annual Review of Political Science* 22: 399–417.
- Kim, Soo Yeon, and Gabriele Spilker. 2019. "Global Value Chains and the Political Economy of WTO Disputes." The Review of International Organizations 14(2): 239–60.
- Kobrin, Stephen J. 1987. "Testing the Bargaining Hypothesis in the Manufacturing Sector in Developing Countries." *International Organization* 41(4): 609–38.
- Lee, Haillie Na-Kyung, and Yu-Ming Liou. 2022. "Where You Work Is Where You Stand: A Firm-Based Framework for Understanding Trade Opinion." *International Organization* 76(3): 713–40.
- Lee, Jieun. 2023. "Foreign Direct Investment in Political Influence." *International Studies Quarterly*. 67(1): sqad005.
- Li, Quan, and Adam Resnick. 2003. "Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Inflows to Developing Countries." *International Organization* 57(1): 175–211.
- Liu, Licheng, Ye Wang, and Yiqing Xu. 2024. "A Practical Guide to Counterfactual Estimators for Causal Inference with Time-Series Cross-Sectional Data." *American Journal of Political Science* 68(1): 160–76.
- Malesky, Edmund J. 2008. "Straight Ahead on Red: How Foreign Direct Investment Empowers Subnational Leaders." *The Journal of Politics* 70(1): 97–119.
- Malesky, Edmund J., Dimitar D. Gueorguiev, and Nathan M. Jensen. 2015. "Monopoly Money: Foreign Investment and Bribery in Vietnam, a Survey Experiment." *American Journal of Political Science* 59(2): 419–39.
- Malesky, Edmund J., and Layna Mosley. 2018. "Chains of Love? Global Production and the Firm-Level Diffusion of Labor Standards." *American Journal of Political Science* 62(3): 712–28.
- Manger, Mark S. 2009. *Investing in Protection: The Politics of Preferential Trade Agreements between North and South.* Cambridge: Cambridge University Press.
- Manger, Mark S. 2012. "Vertical Trade Specialization and the Formation of North-South PTAs." World Politics 64(4): 622–58.

- Mansfield, Edward D., and Nita Rudra. 2021. "Embedded Liberalism in the Digital Era." *International Organization* 75(2): 558–85.
- Marshall, Monty, Keith Jaggers, and Ted Gurr. 2017. "Political Regime Characteristics and Transitions, 1800–2016, Polity IV Project." Center for Systemic Peace.
- McCaig, Brian, Nina Pavcnik, and Woan Foong Wong. 2022. "FDI Inflows and Domestic Firms: Adjustments to New Export Opportunities." Working Paper 30729. Working Paper Series, National Bureau of Economic Research.
- Meckling, Jonas, and Llewelyn Hughes. 2017. "Globalizing Solar: Global Supply Chains and Trade Preferences." *International Studies Quarterly* 61(2): 225–35.
- Miller, Chris. 2022. *Chip War: The Fight for the World's Most Critical Technology*. New York: Simon & Schuster.
- Milner, Helen V. 1988. Resisting Protectionism: Global Industries and the Politics of International Trade. Princeton: Princeton University Press.
- Nickell, Stephen. 1981. "Biases in Dynamic Models with Fixed Effects." *Econometrica* 49(6): 1417.
- Nye, Joseph S. 1974. "Multinational Corporations in World Politics." Foreign Affairs 53(1): 153–75.
- OEC. 2020. "The Observatory of Economic Complexity." https://oec. world/en/profile/country/vnm
- Osgood, Iain. 2018. "Globalizing the Supply Chain: Firm and Industrial Support for US Trade Agreements." *International Organization* 72(2): 455–84.
- Owen, Erica, and Dennis P. Quinn. 2016. "Does Economic Globalization Influence the US Policy Mood?: A Study of US Public Sentiment, 1956–2011." *British Journal of Political Science* 46(1): 95–125.
- Owen, Erica, and Noel P. Johnston. 2017. "Occupation and the Political Economy of Trade: Job Routineness, Offshorability, and Protectionist Sentiment." *International Organization* 71(4): 665–99.
- Pandya, Sonal S. 2014. "Democratization and Foreign Direct Investment Liberalization, 1970–2000." *International Studies Quarterly* 58(3): 475–88.
- Pandya, Sonal S. 2016. "Political Economy of Foreign Direct Investment: Globalized Production in the Twenty-First Century." Annual Review of Political Science 19: 455–75.
- Peters, Margaret E. 2017. *Trading Barriers: Immigration and the Remaking of Globalization*. Princeton: Princeton University Press.
- Pinto, Pablo M. 2013. Partisan Investment in the Global Economy: Why the Left Loves Foreign Direct Investment and FDI Loves the Left. Cambridge: Cambridge University Press.
- Pinto, Pablo M., and Santiago M. Pinto. 2008. "The Politics of Investment Partisanship: And the Sectoral Allocation of Foreign Direct Investment." *Economics & Politics* 20(2): 216–54.
- Rauch, James E. 1999. "Networks versus Markets in International Trade." *Journal of International Economics* 48(1): 7–35.
- Sahoo, Pravakar, and Ranjan Kumar Dash. 2022. "Does FDI Have Differential Impacts on Exports? Evidence from Developing Countries." *International Economics* 172: 227–37.
- Scheve, Kenneth F., and Matthew J. Slaughter. 2001. "What Determines Individual Trade-Policy Preferences?" *Journal of International Economics* 54(2): 267–92.
- United Nations Conference on Trade and Development. 2023. "World Investment Report." https://unctad.org/topic/investment/world-investment-report.
- United Nations Statistics Division. 2024. "UN Comtrade Database." https://comtradeplus.un.org/
- Vietnam Briefing. 2015. "Samsung Requests Tax Exemption for Its Samsung CE Complex in Vietnam." https://www.vietnam-briefing.com/news/samsung-requests-us155-million-tax-exemption.html/.

- Vietnam Packaging Association. 2023. "Program of Activities of Vietnam Packaging Association." https://www.vietnam-briefing.com/news/samsung-requests-us155-million-tax-exemption.html/.
- Wang, Jian, and Xiao Wang. 2015. "Benefits of Foreign Ownership: Evidence from Foreign Direct Investment in China." *Journal of International Economics* 97(2): 325–38.
- Wellhausen, Rachel L. 2015. *The Shield of Nationality: When Governments Break Contracts With Foreign Firms*. Cambridge: Cambridge University Press.
- Zeng, Ka, Karen Sebold, and Yue Lu. 2020. "Global Value Chains and Corporate Lobbying for Trade Liberalization." *The Review of International Organizations* 15(2): 409–43.
- Zhang, Hao. 2025. "Commerce, Coalitions, and Global Value Chains: Coordinated and Collective Lobbying on Trade." *American Journal of Political Science 1-19*.

#### SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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