Trading Places: How Trade Policy Is Reshaping Multinational Firms' Location*

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Abstract

This paper provides new evidence on tariff-induced reorganization of multinational production. Exploiting the 2018–2019 U.S. tariffs on Chinese goods, we show that Chinese MNEs expanded foreign affiliates disproportionately in third countries with high revealed production suitability for serving the U.S. market, especially in tariff-exposed sectors. Trade agreements with the U.S. amplified this reallocation. We also document that firms anticipated these trade policy changes as tariff increases began to be proposed in 2016-2017. Back-of-the-envelope calculations suggest tariff-induced Chinese FDI in third countries accounts for 43–52% of Chinese cross-border investment projects.

Keywords: Multinational Firms, Foreign Direct Investment, Trade Policy, Tariffs
JEL-Codes: F13, F21, F23

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1. Introduction

The global economy witnessed a major shift in trade policy in 2018-2019 when the U.S. imposed higher tariffs on imports from China (hereafter "U.S. tariffs"). The resulting significant trade reallocation has been thoroughly examined (e.g., Amiti et al., 2019, Fajgelbaum et al., 2020, 2024, Freund et al., 2024, Alfaro and Chor, 2023). Besides these direct trade effects, the higher tariffs may have induced changes in production across economies. Thus, multinational enterprises (MNEs) may have adjusted their networks of foreign affiliates, including through expanding in suitable third countries, to reduce the incidence of the higher trade costs along their supply chains. Evidence in this regard is, however, limited to particular countries.[1]

This paper uses the 2018-2019 U.S. tariffs on imports from China to study such potential foreign direct investment (FDI) spillover effects of trade policy across countries, thus shedding light on an important understudied margin of adjustment in global production. More specifically, we examine whether and to what extent Chinese MNEs responded to the U.S. tariffs by increasing their foreign affiliates in third countries and how economies' production suitability for serving the U.S. market and trade agreements shaped this adjustment.[2] Importantly, given the increased trade policy uncertainty (TPU) preceding tariff implementation, we also explore whether firms anticipated them and began reconfiguring their networks of foreign affiliates in advance.

To do so, we combine data on the location and sector of MNEs' foreign affiliates and their headquarters (from Dun & Bradstreet's *WorldBase*) across nearly 50 host and home countries over time with measures of countries' revealed production suitability, trade agreement coverage, and sectoral tariff exposure (in 2018-19 and historically). We focus on the extensive margin, which accounts for most of MNEs' expansion over time (Ramondo et al., 2015, Garetto et al.,

[1] Data from Scopus suggests that, whereas academic studies on the "trade war" surged (725 articles in *Economics, Econometrics and Finance* in 2016-24 versus 39 in 2000-15), only 7 examine its effects on FDI (214 on trade).

[2] We check non-Chinese MNEs' response, and account for the U.S. MNEs' reaction to China's tariffs (Section 4).

2019a). To capture countries' revealed production suitability, we use insights from classical trade theory whereby economies with similar technologies or relative factor endowments are predicted to exhibit similar export patterns and identify them using two approaches: i) estimates from Fajgelbaum et al. (2024) distinguishing countries that substituted for China and expanded exports to third markets; and ii) an ex-ante export similarity index differentiating countries whose pre-tariff U.S.-bound exports' composition resembled China's, from others.

Descriptive analysis reveals that Chinese MNEs expanded more in countries with high revealed production suitability relative to relevant previous trends, especially in sectors with high exposure to the U.S. tariffs (Figure 1). This expansion started mainly in 2016-2017, suggesting that anticipation associated with TPU likely shaped Chinese MNEs' location patterns.

To assess whether these factors induced the observed shifts in Chinese multinational production, we estimate a gravity-based specification using Poisson Pseudo Maximum Likelihood (PPML) relating the number of MNEs' foreign affiliates at the country-pair-sector-year level to key country attributes (i.e., high revealed production suitability or a trade agreement with the U.S.) and sector characteristics (i.e., exposure to U.S. tariffs), along with rich fixed effects (i.e., country-pair-sector, home-country-sector-year, and host-country-sector-year levels) and bilateral linear trends controlling for confounding factors.

Estimates from these specifications on cross country-sector data over time reveal three main findings. First, in response to the U.S. tariffs, countries with high revealed production suitability –captured using either measure– experienced a statistically significant increase in the number of Chinese MNEs' foreign affiliates they host relative to other countries, providing evidence of cross-country spillovers from U.S. trade policy through FDI.[3] Second, this increase has been strongest in highly tariff-exposed sectors: countries with high revealed production suitability attracted 14% more Chinese MNEs' foreign affiliates in those sectors, approximately one additional affiliate per sector. Third, tariff-free access

[3] This channel is significant: third countries (outside of the U.S.) accounted for about 80% of Chinese MNEs' foreign affiliates in 2015.

to the U.S. market via trade agreements has been an additional driver of MNE reallocation. Back-of-the-envelope calculations using supplementary data suggest these effects are economically significant: tariff-induced Chinese FDI in third countries conservatively accounts for 36–44% of Chinese cross-border investment projects and 35–59% of non-tax-haven outward FDI in 2015, when both policy treatment and anticipation effects are considered.

Finally, TPU has also impacted MNE location. Estimates indicate likely anticipation effects: once potential U.S. tariff increases on imports from China began to feature in the 2016 U.S. presidential campaign –which signaled the reversal or a long-standing stable trade policy (Handley and Limão, 2022)– Chinese MNEs started to raise the number of their affiliates in countries with suitable production capabilities and trade agreements with the U.S., which could provide them with insurance against these tariffs (Carballo et al., 2022). This has been particularly the case in sectors in which China historically faced a higher risk of tariff hikes before its WTO accession in 2001 (Alessandria et al., 2025b).

Anecdotal evidence corroborates these findings. Huafu Fashion—a major yarn manufacturers—announced a USD 362 million expansion in Vietnam in December 2018, shortly after textiles became subject to U.S. tariffs, with the company's filings citing tariff motivations and Vietnam's favorable conditions.[4] A large tire manufacturer, Huayi Group, started exploring options in Thailand early, stressing the crucial role of tariff uncertainty.[5] In another tariff-exposed sector, Hisense, a major TV manufacturer, expanded its Monterrey facility in 2021, highlighting Mexico's structural advantages and preferential U.S. market access.[6]

Our findings connect to wide research on MNE location decisions and FDI, synthesized by Blonigen (2005), Blonigen and Piger (2014), and Antràs and Yeaple (2014),[7], including studies examining the link between trade policy and FDI

[4] Huafu Fashion Co., Ltd., Company Filing, December 17, 2018.

[5] "The risk of the U.S. Department of Commerce imposing tariffs (...) is too much for Double Coin [Huayi's subsidiary] to blindly ignore". *Modern Tire Dealer*, October 27, 2015. *Modern Tire Dealer*, June 11, 2019.

[6] The firm's Vice President noted: "Hisense Monterrey is, technically speaking, a Mexican legal entity, and it has all the benefits under the free trade agreement.", *Free Malaysia Today*, August 17, 2022.

[7] See, e.g., Helpman et al. (2004), Ramondo and Rodriguez-Clare (2013), Alfaro and Chen (2014), Ramondo et al. (2015), Conconi et al. (2016), Tintelnot (2017), Alviarez (2019), Garetto et al. (2019b), Antràs et al. (2022).

(Blonigen, 2002, Chen, 2009, Alfaro et al., 2016, McCaig et al., 2022). However, empirical literature on trade policy's effects on production location is still underdeveloped (Antràs and Chor, 2022). Only few papers have explored trade policy spillover effects through FDI,[8] and none assess the role of country characteristics and policies in shaping these impacts. We provide systematic evidence that other countries have become unintended beneficiaries of U.S. tariffs, with gains accruing to economies based on production suitability and preferential trade access.

Second, we add to the literature on 2018-2019 U.S.-China trade tensions and their economic effects, primarily on trade (Amiti et al., 2019, Fajgelbaum et al., 2020, Alfaro and Chor, 2023, Handley et al., 2023, Freund et al., 2024, Iyoha et al., 2024)[9] by showing that they affected MNE spatial distribution patterns and created FDI outside of the U.S.[10] Thus, we generalize results in Utar et al. (2025), Utar (2026), who highlight the role of these firms in trade adjustment in Mexico, and in Flaaen et al. (2020), who study production reallocation in the washing machine sector.[11] We find that U.S. tariff increases have been associated with the establishment of foreign affiliates of Chinese MNEs in countries offering appropriate conditions.[12] Since this involves production shifts, the effects may be more persistent than trade reallocation alone suggests; and may have wider economic impacts locally given the well-documented spillovers from FDI.[13]

Third, we contribute to the literature on TPU effects. Previous studies examine how TPU affects trade and other outcomes (e.g., Pierce and Schott, 2016, Handley

[8] Utar et al. (2025), Utar (2026) document spillovers through global value chains, and the role of MNEs in Mexico. McCaig et al. (2022) find that foreign MNEs drove employment adjustment to a trade agreement with the U.S. Gopinath et al. (2025) and Blonigen et al. (2004) examine bilateral FDI effects of trade restrictions, and Baldwin et al. (1995) and Tamberi (2024) study investment effects of EU (dis)integration.

[9] Studies also explore labor-market (e.g., Cavalcanti et al., 2026) or political outcomes (e.g., Blanchard et al., 2024). See Fajgelbaum and Khandelwal (2022) for a review.

[10] As MNEs mediate most of cross-border trade (e.g., Antràs et al., 2024, Bilir et al., 2019), our estimates suggest that MNE location decisions may have helped shape these effects, especially as we show that MNEs reconfigured their networks of foreign affiliates in advance, potentially anticipating tariff changes.

[11] Arizala et al. (2025) show that FDI into Mexico rose more in sectors affected by the U.S. tariffs on China.

[12] Xue (2024) models FDI diversion theoretically. Gopinath et al., 2024, Aiyar et al., 2024, Blanchard et al., 2021 explore changes in cross-border trade and FDI in response to broad geopolitical realignments.

[13] See, e.g., Haddad and Harrison (1993), Aitken and Harrison (1999), Alfaro et al. (2004), Javorcik (2004), Haskel et al. (2007), Keller and Yeaple (2009), Alfaro-Ureña et al. (2022), and Carballo et al. (forthcoming).

and Limão, 2017a, Graziano et al., 2020a,b, Benguria et al., 2022, Alessandria et al., 2025b). However, evidence linking TPU to the configuration of MNE networks remains scarce. To the best of our knowledge, we are the first to show that, when TPU rises in a relevant export destination, firms may strategically adjust the location of their affiliates to minimize its impact. Our estimates indicate that this adjustment may increase foreign MNE activity in suitable third countries, particularly when in a trade agreement with the MNEs' export destination.[14]

The paper is organized as follows. Section 2 provides the policy context. Section 3 presents the data. We study the role of revealed production suitability and sectoral tariff exposure in Section 4, and the role of trade agreements and TPU in Section 5. Section 6 concludes.

2. Policy Context: U.S. 2018-2019 Tariffs

The 2018-2019 U.S. tariffs marked a sharp departure from long-term policy of maintaining low and stable import tariffs (Fajgelbaum et al., 2020). Tariff increases were substantial in scope, eventually corresponding to U.S. imports equivalent to about 2.6% of GDP (Fajgelbaum and Khandelwal, 2022). This policy was largely asymmetric across origin countries, with Chinese products being targeted almost exclusively (Mattoo and Staiger, 2019, Grossman et al., 2024). This event offers a natural experiment to study MNE reallocation and possible FDI spillovers in third countries.

The rise in TPU is another pertinent feature of the 2018-2019 tariff episode. Trade-related announcements—including tariff increases—featured prominently in the program of the winning presidential candidate during the 2016 U.S. electoral campaign and several concrete actions were taken shortly after assuming office in 2017 (see Handley and Limão, 2017b). These developments are reflected in the evolution of the U.S. TPU Index (Caldara et al., 2020). This index started to increase when a proposal of a 45% tariff on China was made in January 2016, and

[14] The closest evidence suggesting MNE reorganization in response to TPU concerns FDI inflows (Bao et al., 2022, Jardet et al., 2023, Tamberi, 2024). Other sources of trade uncertainty, such as disruptions, can also induce reorganization in supply chains, e.g. Heise et al. (2025).

shot further up after the first tariff hikes in January 2018 (Figure 2). Heightened TPU and possible anticipation by firms will thus feature in our analysis.

China also faced the risk of higher tariffs in the past. Before China's WTO entry, the U.S. was not constrained by WTO disciplines on the tariffs it could impose on China's imports. As such, prior to 2001, Chinese exports could have been subject to higher tariffs if an annual review by the US Congress did not renew the MFN status (Handley and Limão, 2017a, 2022). These potential higher tariffs were listed in the U.S. "Column 2" tariff schedule and could contain information about sectors historically more prone to import protection from Chinese products by the U.S.. In fact, there is a positive correlation between the share of products with positive 2018-2019 tariffs and those historical tariffs, thus suggesting that this might have been the case (see Annex Figure B1.1).

3. Data

We build a rich dataset that combines four main databases.

Multinational Activity: We use data on MNE global networks of foreign affiliates from Dun & Bradstreet (D&B) *WorldBase*.[15] We compute the number of MNEs' foreign affiliates by country-pair-sector-year over the period 2005-2022.[16] We observe 27 3-digit level NAICS sectors across country pairs. This level of aggregation allows us to analyze reallocation of MNE activity across sectors and countries in ways that would be impossible with the official, highly aggregate, FDI data.[17]

Trade Policy: We build on studies identifying a shift in the U.S. trade policy marked by tariffs targeting specific countries in 2018-2019 (e.g., Mattoo and Staiger, 2019, Fajgelbaum and Khandelwal, 2022). Our analysis defines 2018-2022

[15] We do not have access to data on sales, employment or investment values that would permit us to study the effects on the intensive margin.

[16] This data has been extensively used in the empirical literature on multinational activity and firm boundaries (e.g., Alfaro and Charlton, 2009, Acemoglu et al., 2016, Alfaro et al., 2019, 2024).

[17] For instance, all manufacturing is combined into one sector in FDI statistics. Our data also captures better spatial patterns of multinational production (e.g., Lipsey, 2010, Tørsløv et al., 2022).

as the policy treatment period and 2016-2017—covering the period of higher TPU prior to tariff implementation (see Section 2)—as the anticipation period, consistent with prior studies (e.g., Handley and Limão, 2017a,b, 2022).

Country Characteristics: We employ two country classifications to identify revealed production suitability to attract Chinese FDI as a response to the U.S. trade policy. First, a theory-based empirical classification of countries based on Fajgelbaum et al. (2024)'s trade elasticity estimates, and second, an export similarity index constructed using country-product (6-digit HS) data from COMTRADE. In addition, we employ data on countries' coverage by a preferential trade agreement (PTA) with the U.S. from USTR (2024) and other PTAs from the WTO (see Table A1.1 in the Appendix).

Sector Characteristics: We use the tariff data from Fajgelbaum et al. (2020) to construct sector level tariff exposure. Specifically, we calculate the share of Chinese export products (6-digit HS) affected by U.S. import tariff increases within each sector (3-digit NAICS).[18] Sectors are considered as highly exposed if they have above the median share of products affected by tariff hikes (see Appendix Table A1.2).[19] Using data from Alessandria et al. (2025a), we compute U.S.'s Column 2-MFN tariff margins—i.e., the potential U.S. tariff increase on Chinese goods as of 2000, if the U.S. were not constrained by WTO disciplines.[20]

The combined dataset is a panel with a country-pair-sector-year as the unit of observation. The data covers 48 host countries, 50 home countries, and 27 sectors for the years 2005-2022.[21] Table A1.3 reports descriptive statistics.

[18] We define a 6-digit product as affected if it is listed in Fajgelbaum et al. (2020). The total number of products within a 3-digit NAICS is computed using the correspondence from Pierce and Schott (2012). In robustness checks, we also employ data on tariffs imposed by other countries, notably China on U.S.

[19] We also consider alternative exposure measures and account for China's tariffs on the U.S. (see Section 4).

[20] The underlying tariff data were first compiled by Feenstra et al. (2002). We use 2000 data as it was the last year in which China had faced risk of tariffs outside WTO (Handley and Limão, 2017a) and to ensure that MFN tariffs were not a result of Chinese MNE activity.

[21] These 48 host countries correspond to those included in Fajgelbaum et al. (2024). The 50 home countries jointly account for 96% of the MNEs worldwide. Our sample starting in 2005 covers at least a decade prior to the start of the U.S. administration enacting the tariffs and avoids conflating the effects of China's WTO accession. We lack data on MNEs' foreign affiliates beyond 2022.

4. How Revealed Production Suitability and Tariff Exposure Have Shaped Multinational Reallocation

To examine whether Chinese MNE responses to U.S. tariffs reflect host economies' production suitability, we formulate the following testable hypotheses:

Hypothesis 1 *Chinese MNEs expanded their foreign affiliates more in countries with high revealed production suitability after U.S. tariffs were implemented.*

Hypothesis 2 *The expansion of Chinese MNEs in countries with high revealed production suitability is mostly explained by changes in sectors more exposed to U.S. tariff increases.*

To empirically test Hypothesis 1, we estimate the following equation at the country-pair-sector-year level using PPML:

$$N_{ijkt} = \exp\left\{\beta \mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1\} + \alpha X_{ijt} + \mathbf{FE}\right\} + v_{ijkt} \quad (1)$$

where the dependent variable (N_{ijkt}) is the number of MNEs' foreign affiliates from a given home country i in the host country j in sector k in year t. The indicator $\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1\}$ takes a value of 1 if: i) MNEs' home country is China[22]; ii) the host is classified as having high *revealed production suitability* ($\Psi_j = 1$) (see below); and iii) the year corresponds to the period in which the U.S. tariffs were in place (i.e. $\eta_t = 1$ where $t = \{2018, ..., 2022\}$). β is the coefficient of interest and captures the differential effect of the U.S. tariffs on the establishment of foreign affiliates by Chinese MNEs in third countries with certain underlying characteristics. Specifically, $\beta > 0$, implies Chinese MNEs expanded their activity relatively more in countries with favorable conditions in 2018-2022.

We define revealed production suitability using two alternative approaches. First, we employ theory-based export elasticity estimates from Fajgelbaum et

[22] Specifically, $\Omega_i = \mathbb{1}\{i = CN\}$ where CN denotes China. We exclude the U.S. and China (i.e., $j \neq \{CN, US\}$) as host countries since we are interested in the effects of tariffs on multinational activity in third countries.

al. (2024) to identify countries that expanded exports to both the U.S. and third markets as a consequence of the U.S. 2018-2019 tariffs. These countries can be considered substitutes for China that were able to augment supply (i.e., operating along downward-sloping supply curves) ("SD").[23] We classify the resulting 19 countries as having suitable production conditions to attract Chinese MNEs.

Second, since these revealed characteristics emerge from trade responses that could have potentially been influenced by MNE reallocation itself, we also construct an *ex-ante* indicator to identify countries with pre-existing suitable production capabilities. Drawing on classical trade theory, whereby similarity in export baskets reflects underlying similarities in technology or relative factor endowments, we compute an export similarity index measuring the correlation across products between each country's and China's exports to the U.S. market, using 2015 HS6 product-level data.[24] The top quartile (12) countries whose pre-tariff U.S. export patterns are highly similar to China's ("HS" countries) are considered as having suitable production conditions for Chinese MNEs to operate therein and export therefrom.

The remaining terms are controls and fixed effects intended to capture FDI pull and push factors. In particular, X_{ijt} is a vector containing three binary indicators that identify whether countries i and j have a preferential trade agreement, an international investment agreement and a double taxation treaty; and $\mathbf{FE} \equiv \delta_{ijk}^{IJK} + \delta_{ikt}^{IKT} + \delta_{jkt}^{JKT} + \delta_{ij}^{IJ,trend} \times t$ where δ_{ijk}^{IJK} are country-pair-sector fixed effects, δ_{ikt}^{IKT} are home-country-sector-year effects, δ_{jkt}^{JKT} are host-country-sector-year fixed effects, and $\delta_{ij}^{IJ,trend} \times t$ are country-pair linear trends.

Hence, identification comes from within country-pair-sector variations that deviate from pre-2018 bilateral trends and across host countries with different revealed production suitability. Standard errors are clustered at the country-pair level.

To test Hypothesis 2, we modify Equation 1 to include an additional term (τ_k^h)

[23] SD is for "Substitute" and "Downward-slopping supply curve".

[24] Specifically, we compute $\text{corr}(x^c, x^i) = \frac{\sum_{h\in\Omega}(x_h^c - \overline{x^c})(x_h^i - \overline{x^i})}{\sqrt{\sum_{h\in\Omega}(x_h^c - \overline{x^c})^2 \sum_{h\in\Omega}(x_h^i - \overline{x^i})^2}}$, where x_h^i and x_h^c are log exports of product h to the US from country i and China respectively. Appendix C provides further discussion.

that takes a value of 1 for sectors with high tariff exposure (i.e., if a sector has above the median share of products affected by the increase in U.S. tariffs) and 0 otherwise and allow the effect to vary (β_κ) by the type of sector (κ):[25]

$$N_{ijkt} = \exp\left\{ \sum_{\kappa=0}^{1} \beta_\kappa \mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = \kappa\} + \alpha X_{ijt} + \mathbf{FE} \right\} + \upsilon_{ijkt} \quad (2)$$

Estimates of Equation 1 and Equation 2 are presented in Table 1, whereby Columns 1-2 correspond to those of the former and Columns 3-4 to those of the latter.

First, we find evidence supporting Hypothesis 1: Countries with high revealed production suitability experienced a statistically significant increase in the number of foreign affiliates of Chinese MNEs relative to other countries in response to the U.S. tariffs, under both classification approaches. In line with Hypothesis 2, Chinese MNEs expanded in those countries, especially in sectors with high U.S. tariff exposure compared to other countries. Estimates suggest that third countries that have high revealed productive suitability attracted on average 14% more Chinese MNEs' foreign affiliates in the highly tariff-exposed sectors relative to other countries after the tariffs' introduction.[26] This represents approximately one to two additional Chinese MNE affiliate per highly tariff-exposed sector in countries with favorable productive suitability conditions.[27] This indicates FDI spillovers from trade policy across third countries.

We test robustness to alternative variable definitions, sample composition, the specificity of effects to Chinese MNEs, and potential confounders including U.S. MNE responses and transshipment.

[25] In robustness checks, we test alternative exposure measures. Results are in line with the baseline (see below).

[26] $[(exp(0.130) - 1)100]\% = 14\%$ and $[(exp(0.133) - 1)100]\% = 14\%$.

[27] The mean number of Chinese affiliates in countries with high revealed productive suitability in highly tariff-exposed sectors in 2015 was 9.83 (SD) and 11.66 (HS). Given the estimated effects, these countries gained on average $9.83 \times (\exp(0.130) - 1) = 1.37$ additional affiliates (SD) and $11.66 \times (\exp(0.133) - 1) = 1.66$ additional affiliates (HS) relative to the pre-treatment baseline.

First, our findings are robust to considering alternative variable definitions. Specifically, results are comparable when using variants of the export similarity measure, including: i) an extensive margin version that captures whether a country exported a given product to the U.S. in 2015 (rather than log exports) to identify the presence rather than intensity of export capabilities; and ii) a version that combines the intensive and extensive margin components (Columns 1-2, Appendix Table A1.4).[28] Estimates also remain in line with the baseline when defining the sector based on the MNE's foreign affiliate instead of the headquarters' (Columns 3-4, Appendix Table A1.4).[29] Second, we confirm that results are not driven by specific observations by sequentially excluding each host country and sector (Appendix Figure B1.2).[30] Third, we establish that the pattern is specific to Chinese MNEs: we explore whether MNEs from other countries show similar responses to U.S. tariff changes and find that the estimated coefficients for high-tariff-exposure sectors are not significant and positive in most countries (Appendix Figure B1.3).[31] This is plausible as foreign MNEs operating in China mainly export to non-U.S. markets. Data from BEA (2021) and OECD (2024) confirm that China does not serve as a direct U.S. export platform: the U.S. share of manufacturing exports by U.S. majority-owned foreign affiliates in China was only 4.5% in 2015.[32] Additionally, unlike advanced-economy MNEs with established global networks, Chinese firms had underdeveloped networks requiring extensive-margin adjustment. Fourth, we address the fact that China imposed tariffs on U.S. exports as a response to U.S. tariffs by (i) excluding observations involving the U.S. MNEs, and (ii) controlling for the potential response of U.S. MNEs to establish affiliates in countries that can act as U.S. substitutes and can expand production in sectors more exposed to Chinese tariffs (Columns 1-3 in the Appendix Table A1.5). We also account for possible effects of

[28] The combined measure computes the top quartile of the average between the baseline and extensive margin correlations.

[29] More than 85% of Chinese foreign affiliates operate in a sector different from their parents.

[30] Additional tests exclude country-sectors that faced U.S. tariff increases or retaliated against the U.S., and tax haven home countries (Tørsløv et al., 2022). Results remain robust (not reported).

[31] Other countries' MNEs could have a similar behavior if these firms were exposed to the policy shock through their foreign affiliates (e.g., by exporting a large share of affiliates' output in China to the U.S.).

[32] That share has remained stable in 2015-2022. Data on all foreign affiliates show similar patterns.

U.S. tariffs imposed on other countries by re-estimating the results after having removed those home-country-sector observations from the sample (Columns 4-5 in Appendix Table A1.5). Results remain robust in all these case.[33] Fifth, we also examine whether our results could simply reflect transshipment activity. To do so and establish how Chinese exports to third countries reacted to U.S. tariffs, we replace the baseline dependent variable with export values and re-estimate Equations 1-2. Should MNE reallocation mainly capture transshipment, we would expect the tariffs effects on Chinese exports to third countries to resemble our baseline. This is not the case (see Annex Table A1.6). This aligns with studies showing limited transhipment activity in response to the 2018-2019 tariffs.[34]

5. The Role of Trade Agreements and the Timing of the Adjustments

Trade agreements can magnify the effects of countries' revealed production suitability by providing higher preferential margins once the 2018-2019 U.S. tariffs were implemented. Additionally, even before tariff implementation, PTAs could have acted as insurance against tariff hikes, making destinations more attractive amid trade policy uncertainty (Carballo et al., 2022).[35]

To formally assess the role of PTAs, we formulate the additional hypotheses:

Hypothesis 3: *Conditional on high production suitability, countries with a PTA with the U.S. experienced larger Chinese MNE expansion:*

3a. *than non-PTA countries in highly tariff-exposed sectors*

3b. *in highly tariff-exposed sectors than in other sectors*

[33] In Column 3 of Appendix Table A1.5 we show that U.S. MNEs did not respond to China tariffs in the same way. Unsurprisingly, given the already extensive network of U.S. MNEs and our focus on the extensive margin. In 2015, the mean total number of affiliates per host country was 3 for Chinese and 45 for U.S. MNEs.

[34] see Rotunno et al., 2024, Iyoha et al., 2024, Utar et al., 2025, Chen et al., 2025, Garred and Yuan, 2025, Utar, 2026.

[35] Policy concerns have been raised about this channel. US ITC (2024) found that "at least some Chinese manufacturers (...) are already taking advantage of this opportunity" to assemble in Mexico products with high Chinese content and access U.S. markets under preferential tariffs. See also Brown et al. (2024) for related Congressional concerns.

3c. *in potentially highly tariff-exposed sectors than in other sectors*

5.1. The Role of Trade Agreements

To test Hypothesis 3a-b, we estimate the following equation by PPML:

$$N_{ijkt} = \exp\left\{ \sum_{\kappa=0}^{1}\sum_{\ell=0}^{1}\sum_{\mu=0}^{1} \beta^{\eta,\tau}_{\kappa,\ell,\mu} \mathbb{1}\left\{\Omega_i = 1, \Psi_j = \mu, \eta_t = 1, \tau^h_k = \kappa, PTA^{US}_{jt} = \ell\right\} + \right.$$
$$\left. + \alpha X_{ijt} + \mathbf{FE} \right\} + v_{ijkt} \quad (3)$$

where Ω_i, Ψj, η_t and τ_k are defined as in Equation 1-2. We also add an additional condition ($PTA^{US}_{jt} = \ell$) and allow the coefficient β to vary depending on whether the host country has a PTA with the United States or not (where ℓ identifies the presence of a PTA).[36] The controls are the same as in Equations 1-2.

Table 2 reports estimates of Equation 3. These estimates indicate that countries with high revealed production suitability and a PTA with the U.S. attracted 20% more foreign affiliates from Chinese MNEs in most tariff-affected sectors relative to countries without favorable production conditions and no PTAs (Row 1). Counterparts with high revealed production suitability but no PTA with the U.S. experienced a 12% increase in these foreign affiliates in most tariff-affected sectors relative to the same control group (Row 2).[37] Yet, the difference between those two sets of countries is marginally insignificant.[38] These estimates would indicate that Hypothesis 3a would not hold during the implementation period. Hence, at least initially, MNEs do not appear to have relocated specifically to countries with preferential U.S. market access to circumvent tariffs. Similarly, conditional on high revealed production suitability and PTA coverage, the difference between the expansion of Chinese MNEs into highly tariff-exposed and other sectors (Rows 1 and 4) is also statistically insignificant, which is not in line with Hypothesis 3b.

[36] The omitted category consists of host countries with low revealed production suitability and without a PTA with the U.S. (i.e., $\Psi j = 0$, $PTA^{US}_{jt} = 0$).

[37] $[(exp(0.180) - 1)100]\% = 20\%$ and $[(exp(0.112) - 1)100]\% = 12\%$.

[38] This is also the case when we do not differentiate the effect by sector-level tariff exposure (see Appendix Table A1.7).

These findings remain robust across alternative specifications, including computing the similarity correlation using the alternative definitions of the export similarity index (Appendix Table A1.8), considering MNE foreign affiliate sector definitions rather than headquarters' (Appendix Table A1.9), and employing modified versions of the tariff exposure measure based on sectors' tariff average or the share of products with pre-tariff U.S. imports from China (Appendix Table A1.10).

Sequential MNE entry under increased TPU may explain this pattern. If firms could anticipate tariff increases, they could have established foreign affiliates in countries with suitable production conditions and PTAs with the U.S. prior to the tariff introduction to benefit from such a base in case of tariff actions; and these countries would have experienced larger Chinese MNE entry right before the tariff hike. In particular, firms could have *ex ante* considered PTAs as targeted sector-specific insurance, thus entering first economies offering both favorable production conditions and trade agreements with the U.S. especially in those sectors with perceived higher risk of tariff increases based on historical information. However, once tariff increases materialized, PTAs acquired a new role as broad insurance against further tariff increases in other sectors. This shift would have triggered expansion into previously unexposed sectors, diluting the observable relationship between PTA coverage and entry in tariff-affected industries in the policy treatment period as shown in Table 2.

5.2. When the Adjustment Began

To examine anticipatory behavior and test Hypothesis 3c, we adjust the specification:

$$N_{ijkt} = \overbrace{\exp\left\{\sum_{\kappa=0}^{1}\sum_{\ell=0}^{1}\sum_{\mu=0}^{1}\beta_{\kappa,\ell,\mu}^{\eta,T_k^h}\mathbb{1}\left\{\Omega_i=1,\Psi_j=\mu,\eta_t=1,T_k^h=\kappa,PTA_{jt}^{US}=\ell\right\}\right.}^{\text{Policy Treatment Period Effects (2018-2022)}} +$$

$$+\overbrace{\sum_{\kappa=0}^{1}\sum_{\ell=0}^{1}\sum_{\mu=0}^{1}\beta_{\kappa,\ell,\mu}^{\tilde{\eta},T_k^h}\mathbb{1}\left\{\Omega_i=1,\Psi_j=\mu,\tilde{\eta}_t=1,T_k^h=\kappa,PTA_{jt}^{US}=\ell\right\}}^{\text{Anticipation Period Effects (2016-2017)}} +$$

$$\left.+\alpha X_{ijt}+\mathbf{FE}\right\}+\upsilon_{ijkt} \quad (4)$$

where we add terms for the anticipation period ($\tilde{\eta}_t = 1$ for $t = \{2016, 2017\}$) in addition to the policy treatment period. The control group is the same as in Equation 3. We also replace the original sectoral high tariff exposure indicator τ_k^h with T^h, which is now alternatively defined based on: (i) *actual* tariff exposure to the U.S. tariffs on China (τ_k^h), as before; and (ii) *potential* tariff exposure ($\tilde{\tau}_k^h$). To construct *potential* tariff exposure, we use information on positive U.S. "Column 2"-MFN tariff margins in 2000. Specifically, T_k^h is an indicator that takes the value of 1 if the sector has above the median share of HS6 products with a positive margin between the "Column 2" and the MFN tariff in 2000, and 0 otherwise.

Estimates of Equation 4 are shown in Table 3. Panel A presents the estimated coefficients corresponding to the policy treatment period (i.e., 2018-2022), whereas Panel B those to the anticipation period (i.e., 2016-2017). First, estimates reported in Rows 1 and 2 in Panel A suggest that, conditional on having high revealed production suitability, countries with a PTA with the U.S. have, in fact, attracted statistically significantly more affiliates of Chinese MNEs in tariff-exposed sectors than their counterparts without such an agreement, once anticipation effects are accounted for (with p-values of the difference close to zero). The estimates in Panel B reveal a positive, statistically significant anticipation effect in 2016-2017 (Row 7), which is smaller than the post-tariff effect: countries with suitable production conditions and a PTA with the U.S. registered a 23% increase in Chinese MNEs in sectors exposed to tariffs right before implementation higher than coun-

tries without such conditions relative 34% thereafter (with the difference being significant at 10%).[39] This means that countries with high revealed production suitability and PTA coverage attracted just over two additional Chinese MNE affiliates in highly exposed sectors than countries without such conditions.[40]

Interestingly, the difference between highly exposed and less exposed sectors in countries with PTAs and high revealed production suitability remains insignificant (Rows 1 and 4) when we consider only actual tariff exposure (Columns 1-2). Yet, once we use Column 2-MFN 2000 tariff margins to construct sectoral tariff exposure ($\tilde{\tau}_k$), the results remain broadly the same but the difference in the expansion of Chinese MNEs into countries with revealed production suitability and a PTA with the U.S. in *potentially* highly exposed sectors relative to other sectors becomes statistically significant (Columns 3 and 4).[41] This is consistent with PTAs serving as hedges against tariffs for firms seeking reinsurance against possible future hikes based on information available at that time. More precisely, given the high level of uncertainty around the implementation of tariffs (see Figure 2), firms may have relied on their perception of *potential* tariff exposure when planning their investments. As such, potential tariffs, as captured by the historical "Column 2"-MFN positive margins, could capture relevant factors shaping firm beliefs before the actual tariffs were implemented.[42]

Finally, countries with a PTA with the U.S. but lacking favorable production capabilities showed no significant increase in Chinese MNE affiliates, regardless of tariff exposure, even controlling for anticipation.[43]

[39] Using SD results: $[(exp(0.207) - 1) \times 100]\% = 23\%$ and $[(exp(0.294) - 1) \times 100]\% = 34\%$ (HS are very similar).

[40] With a mean of 6.33 Chinese affiliates in countries with favorable conditions and PTAs, and an estimated effect of 34%, the absolute difference is $6.33 \times (\exp(0.294) - 1) = 2.16$ affiliates.

[41] These findings are robust to alternative sector definitions, export similarity indices, and tariff exposure measures (Appendix Tables A1.8-A1.10). Further tests confirm that the anticipatory effect does not simply capture deviations from pre-trends before 2016 (Appendix Table A1.11), as the additional term we include for 2014-2015 is insignificant while the baseline and anticipatory effects remain robust. Other definitions of the pre-anticipation period (2013-2015 and 2010-2015) yield the same results (not reported).

[42] Table A1.2 in Appendix provides a list of sectors by type of exposure, including those that change classification (312, 331 and 339 have high exposure and 322, 322 and 323 low exposure based on $\tilde{\tau}_k^h$).

[43] The effect in tariff-exposed sectors is significantly stronger after tariff implementation, relative to the anticipation period, for countries with appropriate production capabilities and no PTA coverage (Rows 2 and 8 for SD: p=0.03).

We perform a back-of-the-envelope calculation using supplementary data on the number and value of investment projects by Chinese firms from the Orbis cross-border investment database to further gauge the magnitude of these effects.[44] We value each additional affiliate obtained from our estimates at the median pre-treatment observed project size to isolate potential simultaneous changes in project sizes. This yields a conservative estimate of Chinese tariff-induced investment in third countries,[45] which accounts for 43-52% of Chinese FDI projects and 41–70% of Chinese outward non-tax-haven FDI in 2015, when policy treatment and anticipation effects are taken into account (see Table A1.12).

6. Concluding Remarks

This paper provides –to the best of our knowledge– first cross-country evidence of FDI spillovers into third countries from a trade policy using the 2018-2019 U.S. tariffs as a case study. We examine how these tariffs affected Chinese MNE affiliate networks across third countries, and identify which host economies experienced the strongest expansion.

We show that countries' production capabilities consistently shaped Chinese MNE reallocation, regardless of whether revealed export substitutability or similarity is considered-—particularly in the sectors most exposed to U.S. tariffs.

Additionally, we find that policy played a distinct role: preferential trade agreements influenced MNE location strategies even before tariff implementation. Chinese firms appear to have preemptively opened affiliates to countries that combined production advantages with preferential access to the U.S., using information available at the time to anticipate which sectors could be targeted. Importantly, trade agreements alone, without the underlying structural conditions, did not result in a stronger MNE expansion.

Our results highlight that understanding FDI reallocation is crucial for assessing trade policy's full effects and mechanisms of adjustment and can be

[44] We do not observe investment values in our main estimation sample.

[45] We use medians (not means), pool greenfield and brownfield projects in the denominator, and include estimated project sizes, which are typically smaller than reported values (Breinlich et al., 2020).

particularly relevant given recent tariff increases *and* trade agreement renegotiations that may reduce the insurance value of preferential market access.

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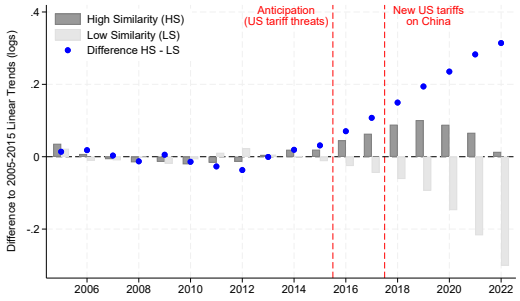
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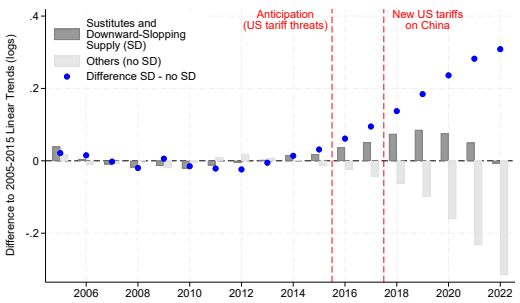
Figure 1: Reallocation of MNE Activity Across Types of Countries and Sectors

A. Revealed Production Suitability

(i) By Export Similarity to China

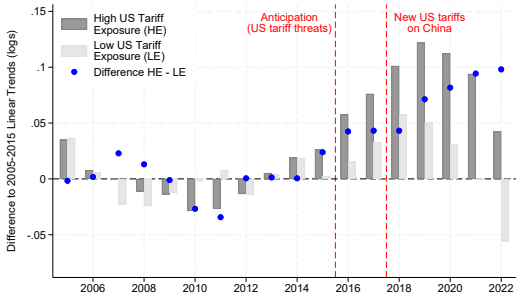


(ii) By Capacity to Substitute China's Exports

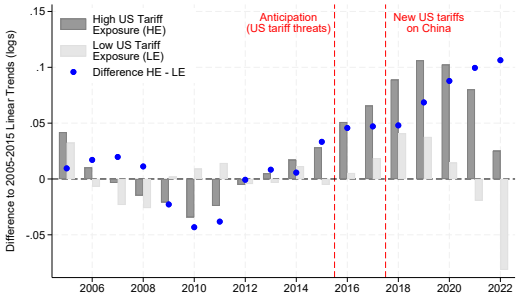


B. Sectoral Tariff Exposure to US Tariffs on China

(i) Highly Similar Countries (HS)

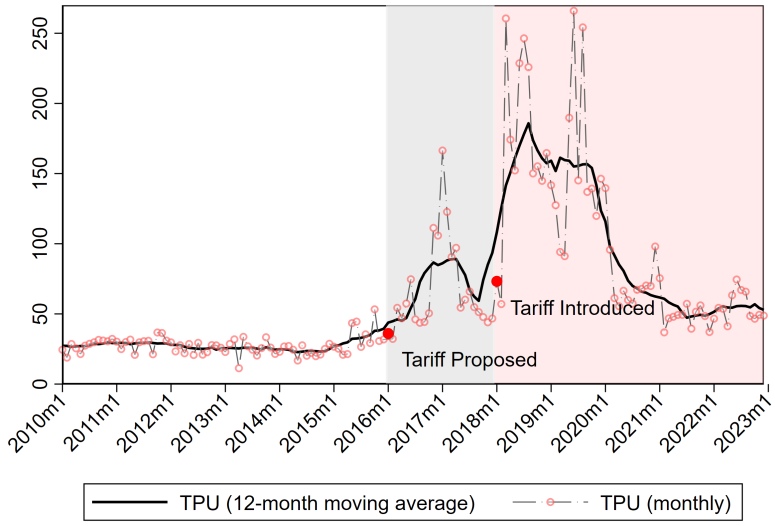


(ii) Substitutes with Production Expansion Capabilities (SD)



Note: Figures show the log difference from 2005-2015 group-specific linear trends in the total number of Chinese affiliates in countries with or without revealed production suitability (RPS, Panel A) and, within those, in sectors with high or low US tariff exposure (Panel B), as defined in Section 4. Left panels classify countries as having RPS using an export similarity index to China computed in 2015 (HS); right panels use Fajgelbaum et al. (2024)'s classification of China's substitutes with a downward-sloping supply curves (SD).

Figure 2: Trade Policy Uncertainty in the U.S. over Time



Source: The figure shows the evolution of the monthly news-based U.S. trade policy uncertainty index (TPU) based on the data from Caldara et al. (2020) along with information tariff events from Handley and Limão (2017b) and Bown (2018). *Tariff Proposed* refers to an announcement of a future tariff on China by the eventually winning presidential candidate in January 2016 and *Tariff Introduced* refers to the first tariff hike applied to Chinese goods in January 2018.

Table 1: Differential Effects of the U.S. Tariffs on Chinese MNEs' Foreign Affiliates across Countries and Sectors

	(1)	(2)	(3)	(4)
Ψ_j *definition:*	*SD*	*HS*	*SD*	*HS*
The Role of Structural Country Characteristics and Sector Exposure				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1\}$	0.114*	0.120**		
	(0.046)	(0.043)		
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 1\}$			0.130**	0.133**
			(0.044)	(0.042)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 0\}$			0.077	0.091
			(0.073)	(0.069)
Fixed Effects, Linear Trends, and Controls:				
Country-Pair-Sector	✓	✓	✓	✓
Host-Country-Sector-Year	✓	✓	✓	✓
Home-Country-Sector-Year	✓	✓	✓	✓
Country-Pair Time Trend	✓	✓	✓	✓
Country-Pair Controls	✓	✓	✓	✓
Observations	188,291	188,291	188,291	188,291

Note: $\Omega_i = 1$ identifies China as the home country, $\Psi_j = 1$ denotes host countries with high revealed production suitability identified alternatively as SD: China substitutes and having a downward-sloping aggregate supply curve based on Fajgelbaum et al. (2024), and HS: highly similar to China based on 2015 product exports to the US. See Appendix Table A1.1 for the full lists. $\eta_t = 1$ corresponds to the period in which the U.S. tariffs were in place, i.e. $t = \{2018, ..., 2022\}$. $\tau_k^h = 1$ identifies sectors with high exposure to increases in tariffs (above the median share of HS6 products with U.S. tariffs on China being imported by the U.S.) and $\tau_k^h = 0$ those with low exposure (below the median). See Appendix Table A1.2 for the full list. Standard errors clustered by country-pair are reported in parentheses. ** p<0.01, * p<0.05, † p<0.1

Table 2: Differential Effects of the U.S. Tariffs on Chinese MNEs' Foreign Affiliates by Trade Agreement Status

	(1)	(2)
Ψ_j *definition:*	SD	HS
The Role of Structural and Policy Country Characteristics and Sector Exposure		
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 1, PTA_{jt}^{US} = 1\}$	0.180**	0.174**
	(0.058)	(0.054)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 1, PTA_{jt}^{US} = 0\}$	0.112*	0.116*
	(0.051)	(0.048)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, \tau_k^h = 1, PTA_{jt}^{US} = 1\}$	-0.079	-0.086
	(0.073)	(0.072)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 0, PTA_{jt}^{US} = 1\}$	0.124†	0.121†
	(0.074)	(0.065)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 0, PTA_{jt}^{US} = 0\}$	0.097	0.108
	(0.080)	(0.076)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, \tau_k^h = 0, PTA_{jt}^{US} = 1\}$	0.093	0.091
	(0.067)	(0.060)
Fixed Effects, Linear Trends, and Controls:		
Country-Pair-Sector	✓	✓
Host-Country-Sector-Year	✓	✓
Home-Country-Sector-Year	✓	✓
Country-Pair Time Trend	✓	✓
Country-Pair Controls	✓	✓
Observations	188,291	188,291

Note: $\Omega_i = 1$ identifies China as the home country, $\Psi_j = 1$ denotes host countries with high revealed production suitability, identified alternatively as SD: China substitutes and having a downward-sloping aggregate supply curve based on Fajgelbaum et al. (2024), and HS: highly similar to China based on 2015 product exports to the US. See Appendix Table A1.1 for the full lists. $\tau_k^h = 1$ identifies sectors with high exposure to increases in tariffs (above the median share of HS6 products with U.S. tariffs on China being imported by the U.S.) and $\tau_k^h = 0$ those with low exposure (below the median). $\eta_t = 1$ corresponds to the period in which the U.S. tariffs were in place, i.e. $t = \{2018, ..., 2022\}$. $PTA_{jt}^{US} = 1$ when a country is covered by a preferential trade agreement with the United States in the given year, or zero otherwise. Standard errors clustered by country-pair are reported in parentheses. ** p<0.01, * p<0.05, † p<0.1

Table 3: Differential Effects of the U.S. Tariffs on Chinese MNEs' Foreign Affiliates by Trade Agreement Status, Accounting for Anticipation Effects

	(1)	(2)	(3)	(4)
Ψ_j *definition:*	SD	HS	SD	HS
	$T_k^h = \tau_k^h$		$T_k^h = \tilde{\tau}_k^h$	
Trade Policy Period (2018-2022)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	0.294**	0.289**	0.336**	0.335**
	(0.066)	(0.061)	(0.068)	(0.062)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$	0.138*	0.147**	0.136*	0.154**
	(0.057)	(0.057)	(0.060)	(0.057)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	-0.106	-0.111	-0.069	-0.070
	(0.099)	(0.098)	(0.083)	(0.081)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	0.204*	0.204**	0.153†	0.139†
	(0.088)	(0.078)	(0.082)	(0.076)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$	0.128	0.148	0.134	0.131
	(0.093)	(0.091)	(0.088)	(0.090)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	0.105	0.104†	0.087	0.076
	(0.068)	(0.060)	(0.064)	(0.061)
Anticipation (2016-2017)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	0.207**	0.208**	0.221**	0.223**
	(0.041)	(0.040)	(0.032)	(0.031)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$	0.029	0.034	0.030	0.039†
	(0.018)	(0.021)	(0.019)	(0.021)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	-0.079	-0.078	-0.067†	-0.065
	(0.052)	(0.052)	(0.040)	(0.040)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	0.041	0.046	0.020	0.020
	(0.054)	(0.053)	(0.048)	(0.048)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$	0.050	0.065	0.052	0.057
	(0.042)	(0.043)	(0.044)	(0.047)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	0.089**	0.093**	0.115**	0.115**
	(0.023)	(0.022)	(0.031)	(0.031)
Fixed Effects, Linear Trends, and Controls:				
Country-Pair-Sector	✓	✓	✓	✓
Host-Country-Sector-Year	✓	✓	✓	✓
Home-Country-Sector-Year	✓	✓	✓	✓
Country-Pair Time Trend	✓	✓	✓	✓
Country-Pair Controls	✓	✓	✓	✓
Observations	188,291	188,291	188,291	188,291

Note: $\Omega_i = 1$ identifies China as the home country, $\Psi_j = 1$ denotes host countries with high revealed production suitability, defined alternatively as SD: China substitutes and having a downward-sloping aggregate supply curve based on Fajgelbaum et al. (2024), and HS: highly similar to China based on 2015 product exports to the US. See Appendix Table A1.1 for the full lists. $\eta_t = 1$ corresponds to the period in which the U.S. tariffs were in place, i.e. $t = \{2018, ..., 2022\}$ and $\tilde{\eta}_t = 1$ corresponds to the anticipation period, i.e., the two years right before the tariff introduction (i.e., $t = \{2016, 2017\}$) $T_k^h = 1$ identifies sectors with high exposure to increases in tariffs (above the median share of HS6 products with U.S. tariffs on China being imported by the U.S.) and $T_k^h = 0$ those with low exposure (below the median). Columns 1-2 use the U.S. post-2018 tariff (τ_k^h) and Columns 3-4 use the U.S. "Column 2"-MFN tariff margins in 2000 ($\tilde{\tau}_k^h$) to construct T_k^h. $PTA_{jt}^{US} = 1$ when a country is covered by a preferential trade agreement with the U.S. in the given year and zero otherwise. Standard errors clustered by country-pair are reported in parentheses. ** p<0.01, * p<0.05, † p<0.1

Appendix A. Additional Tables

Table A1.1: Countries' Classification by Revealed Production Suitability and PTA Status with the US

Host Country	SD	HS	PTA with the US	Host Country	SD	HS	PTA with the US
Argentina	-	-	-	Japan	-	-	-
Australia	-	-	✓	Malaysia	✓	✓	-
Austria	-	-	-	Mexico	✓	✓	✓
Bangladesh	-	-	-	Netherlands	✓	-	-
Belgium	✓	-	-	New Zealand	-	-	-
Brazil	-	-	-	Peru	-	-	✓
Bulgaria	✓	-	-	Philippines	-	-	-
Canada	-	-	✓	Poland	✓	-	-
Chile	-	-	✓	Portugal	✓	-	-
Colombia	-	-	✓	Romania	-	-	-
Czech Republic	✓	-	-	Singapore	-	-	✓
Denmark	-	-	-	Slovakia	-	-	-
Egypt	-	-	-	Slovenia	-	-	-
Finland	✓	-	-	South Africa	-	-	-
France	✓	✓	-	South Korea	✓	✓	✓
Germany	✓	✓	-	Spain	-	-	-
Greece	-	-	-	Sweden	-	-	-
Hong Kong	-	-	-	Switzerland	-	✓	-
Hungary	✓	-	-	Taiwan	✓	✓	-
India	✓	✓	-	Thailand	✓	✓	-
Indonesia	-	-	-	Turkey	-	-	-
Ireland	-	-	-	Ukraine	-	-	-
Israel	-	-	✓	United Kingdom	✓	✓	-
Italy	✓	✓	-	Vietnam	✓	✓	-

Note: SD: classified as having high revealed production suitability based on Fajgelbaum et al. (2024) (countries identified as substitutes to China and having a downward-sloping aggregate supply curve). HS: classified as having high revealed production suitability based on the 2015 product-level export to the US correlation vs China (top quartile). Countries are listed in alphabetical order.

Table A1.2: Sectors by Exposure to the U.S. Trade Policy

NAICS Code (3 digits)	Description
High Exposure	
313	Textile Mills
314	Textile Product Mills
315	Apparel Manufacturing
316	Leather and Allied Product Manufacturing
321	Wood Product Manufacturing*
322	Paper Manufacturing*
323	Printing and Related Support Activities*
326	Plastics and Rubber Products Manufacturing
327	Nonmetallic Mineral Product Manufacturing
332	Fabricated Metal Product Manufacturing
333	Machinery Manufacturing
334	Computer and Electronic Product Manufacturing
335	Electrical Equipment, Appliance, and Component Manufacturing
337	Furniture and Related Product Manufacturing
Low Exposure	
111	Crop Production
112	Animal Production and Aquaculture
113	Forestry and Logging
114	Fishing, Hunting and Trapping
211	Oil and Gas Extraction
212	Mining (except Oil and Gas)
311	Food Manufacturing
312	Beverage Manufacturing*
324	Petroleum and Coal Products Manufacturing
325	Chemical Manufacturing
331	Primary Metal Manufacturing*
336	Transportation Equipment Manufacturing
339	Miscellaneous Manufacturing*

Note: Table lists 3-digit level NAICS sectors by exposure to change in tariffs imposed on Chinese products defined as the share of HS6 products with U.S. tariffs on China. Sectors indicated by $*$ change exposure status when employing the potential exposure measure (share of HS6 products with positive Column 2-MFN tariff margin in 2000).

Table A1.3: Number of Chinese Foreign Affiliates by Type of Host Country and Exposure to U.S. Tariffs. 2005-2022

Year	(a) Total	(b) Substitutes-DSS Countries (SD)	Share in Total (b)/(a)	(c) Sectors with high exposure to new tariffs in DS Countries	Share in DS Countries (c)/(b)	(d) DS Countries with PTA with the US	Share in Total (d)/(a)	(e) Sectors with High Exposure to New Tariffs in DS-PTA w/US Countries	Share in DS-PTA w/US Countries (e)/(d)
2005	2,010	1,046	52.0%	739	70.7%	93	4.6%	49	52.7%
2006	2,103	1,081	51.4%	763	70.6%	94	4.5%	50	53.2%
2007	2,256	1,139	50.5%	802	70.4%	96	4.3%	52	54.2%
2008	2,435	1,207	49.6%	845	70.0%	101	4.1%	56	55.4%
2009	2,606	1,296	49.7%	895	69.1%	104	4.0%	57	54.8%
2010	2,824	1,376	48.7%	941	68.4%	105	3.7%	58	55.2%
2011	3,086	1,484	48.1%	1,013	68.3%	108	3.5%	60	55.6%
2012	3,361	1,598	47.5%	1,100	68.8%	123	3.7%	66	53.7%
2013	3,621	1,721	47.5%	1,184	68.8%	126	3.5%	68	54.0%
2014	3,922	1,864	47.5%	1,277	68.5%	137	3.5%	72	52.6%
2015	4,208	1,998	47.5%	1,376	68.9%	145	3.4%	76	52.4%
2016	4,559	2,177	47.8%	1,500	68.9%	163	3.6%	88	54.0%
2017	4,908	2,361	48.1%	1,622	68.7%	174	3.5%	92	52.9%
2018	5,305	2,583	48.7%	1,769	68.5%	181	3.4%	94	51.9%
2019	5,654	2,792	49.4%	1,918	68.7%	182	3.2%	94	51.6%
2020	5,889	2,956	50.2%	2,036	68.9%	188	3.2%	94	50.0%
2021	6,055	3,080	50.9%	2,122	68.9%	192	3.2%	96	50.0%
2022	6,093	3,110	51.0%	2,140	68.8%	193	3.2%	96	49.7%

Note: Number of Chinese foreign affiliates in host countries included in the analysis by Substitute-DSS (SD) status and exposure to the U.S. trade policy. See Table A1.1 for the list and classification of host countries and table A1.2 for sectors classified as having high exposure to the U.S. trade policy.

Year	(a) Total	(b) High Similarity Countries (HS)	Share in Total (b)/(a)	(c) Sectors with High Exposure to New Tariffs in HS Countries	Share in HS Countries (c)/(b)	(d) HS Countries with PTA with the US	Share in Total (d)/(a)	(e) Sectors with High Exposure to New Tariffs in HS-PTA w/US Countries	Share in HS-PTA w/US Countries (e)/(d)
2005	2,010	950	47.3%	677	71.3%	93	4.6%	49	52.7%
2006	2,103	983	46.7%	699	71.1%	94	4.5%	50	53.2%
2007	2,256	1,032	45.7%	736	71.3%	96	4.3%	52	54.2%
2008	2,435	1,089	44.7%	772	70.9%	101	4.1%	56	55.4%
2009	2,606	1,161	44.6%	817	70.4%	104	4.0%	57	54.8%
2010	2,824	1,227	43.4%	854	69.6%	105	3.7%	58	55.2%
2011	3,086	1,312	42.5%	908	69.2%	108	3.5%	60	55.6%
2012	3,361	1,400	41.7%	976	69.7%	123	3.7%	66	53.7%
2013	3,621	1,518	41.9%	1,055	69.5%	126	3.5%	68	54.0%
2014	3,922	1,639	41.8%	1,135	69.2%	137	3.5%	72	52.6%
2015	4,208	1,745	41.5%	1,213	69.5%	145	3.4%	76	52.4%
2016	4,559	1,906	41.8%	1,328	69.7%	163	3.6%	88	54.0%
2017	4,908	2,066	42.1%	1,435	69.5%	174	3.5%	92	52.9%
2018	5,305	2,255	42.5%	1,561	69.2%	181	3.4%	94	51.9%
2019	5,654	2,430	43.0%	1,691	69.6%	182	3.2%	94	51.6%
2020	5,889	2,554	43.4%	1,777	69.6%	188	3.2%	94	50.0%
2021	6,055	2,659	43.9%	1,851	69.6%	192	3.2%	96	50.0%
2022	6,093	2,685	44.1%	1,865	69.5%	193	3.2%	96	49.7%

Note: Number of Chinese foreign affiliates in host countries included in the analysis as having a High Similarity (HS) to China status and exposure to the U.S. trade policy. See Table A1.1 for the list and classification of host countries and table A1.2 for sectors classified as having high exposure to the U.S. trade policy.

Table A1.4: Alternative Export Similarity and Multinationals' Sector Definition.

	Export Similarity		Affilliate's Sector	
	(1)	(2)	(3)	(4)
	Ψ_j *definition:*		Ψ_j *definition:*	
	Extensive Margin	Combined Margins	SD	HS
The Role of Country Characteristics				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 1\}$	0.127**	0.104*	0.096*	0.076†
	(0.042)	(0.044)	(0.042)	(0.042)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 0\}$	0.095	0.108	-0.062	-0.058
	(0.074)	(0.069)	(0.057)	(0.055)
Fixed Effects, Linear Trends, and Controls:				
Country-Pair-Sector	✓	✓	✓	✓
Host-Country-Sector-Year	✓	✓	✓	✓
Home-Country-Sector-Year	✓	✓	✓	✓
Country-Pair Time Trend	✓	✓	✓	✓
Country-Pair Controls	✓	✓	✓	✓
Observations	188,291	188,291	237,313	237,313

Note: $\Omega_i = 1$ identifies China as the home country, $\Psi_j = 1$ denotes host countries with high revealed production suitability, identified alternatively as SD: China substitutes and having a downward-sloping aggregate supply curve based on Fajgelbaum et al. (2024), and HS: highly similar to China based on 2015 product exports to the US. See Appendix Table A1.1 for the full lists. $\eta_t = 1$ corresponds to the period in which the U.S. tariffs were in place, i.e. $t = \{2018, ..., 2022\}$. $\tau_k^h = 1$ identifies sectors with high exposure to increases in tariffs (above the median share of HS6 products with U.S. tariffs on China being imported by the U.S.) and $\tau_k^h = 0$ those with low exposure (below the median). See Appendix Table A1.2 for the full list. Columns 1-2 present results using alternative approaches to calculating the export correlation defining the export similarity measure. Column 1 employs an extensive margin version that captures whether a country exported a given product to the U.S. in 2015, i.e. being in the top quartile. Column 2 employs a version that combines intensive and extensive margin components, i.e. being in the top quartile of the average between the baseline and extensive margin correlations (Column 2). Columns 3-4 present results where sectors are defined as the affiliates' rather than the headquarters'. Standard errors clustered by country-pair are reported in parentheses. ** p<0.01, * p<0.05, † p<0.1.

Table A1.5: Controlling for U.S. MNEs' Response to Chinese Tariffs and the Role of U.S. Tariffs on Other Countries.

	(1)	(2)	(3)	(4)	(5)
Ψ_j *definition:*	SD	HS	SD	SD	HS
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 1\}$	0.128**	0.133**	0.133**	0.138**	0.133**
	(0.044)	(0.043)	(0.044)	(0.037)	(0.036)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 0\}$	0.060	0.078	0.078	0.075	0.091
	(0.073)	(0.069)	(0.073)	(0.063)	(0.060)
$\mathbb{1}\{\Omega_i^{US} = 1, \Psi_j^{US} = 1, \eta_t = 1, \tau_k^{h,CN} = 1\}$			-0.014		
			(0.009)		
$\mathbb{1}\{\Omega_i^{US} = 1, \Psi_j^{US} = 1, \eta_t = 1, \tau_k^{h,CN} = 0\}$			-0.005		
			(0.014)		
Fixed Effects, Linear Trends, and Controls:					
Country-Pair-Sector	✓	✓	✓	✓	✓
Host-Country-Sector-Year	✓	✓	✓	✓	✓
Home-Country-Sector-Year	✓	✓	✓	✓	✓
Country-Pair Time Trend	✓	✓	✓	✓	✓
Country-Pair Controls	✓	✓	✓	✓	✓
Observations	170,924	170,924	188,291	140,206	140,206

Note: Columns 1-2 present results excluding observations involving the U.S. MNEs. Column 3 presents results controlling for the response of U.S. MNEs in countries that can act as U.S. substitutes in sectors more exposed to China tariffs, using the respective data from Fajgelbaum et al. (2020, 2021) and Fajgelbaum et al. (2024). Columns 4-5 present results removing from the sample home country-sectors with at least one product affected by a US tariffs. $\Omega_i = 1$ ($\Omega_i^{US} = 1$) identifies China (the United States) as the home country, and the host country is a third country other than China and the United States, $\Psi_j = 1$ ($\Psi_j^{US} = 1$) denotes host countries with high revealed production suitability for identified alternatively as SD: China (the United States) substitutes and having a downward-sloping aggregate supply curve based on Fajgelbaum et al. (2024), and HS: highly similar to China based on 2015 product exports to the US. See Appendix Table A1.1 for the full lists. $\eta_t = 1$ corresponds to the period in which the U.S. tariffs were in place, i.e. $t = \{2018, ..., 2022\}$. $\tau_k^h = 1$ ($\tau_k^{h,CN} = 1$) identifies sectors with high exposure to increases in US (China) tariffs (above the median share of HS6 products) and $\tau_k^h = 0$ those with low exposure (below the median). See Appendix Table A1.2 for the full list. Standard errors clustered by country-pair are reported in parentheses. ** p<0.01, * p<0.05, † p<0.1.

Table A1.6: Differential Effects of the U.S. Tariffs on Chinese Exports

	(1)	(2)	(3)	(4)
	Same sample		Full sample	
	SD	HS	SD	HS
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 1\}$	0.013	0.030	0.011	0.016
	(0.036)	(0.038)	(0.033)	(0.036)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 0\}$	-0.089†	-0.123**	-0.118**	-0.134**
	(0.046)	(0.046)	(0.036)	(0.037)
Observations	188,173	188,173	1,123,320	1,123,320

Note: Dependent variable is export value. $\Omega_i = 1$ identifies China as the home country, $\Psi_j = 1$ denotes host countries with high revealed production suitability, identified alternatively as SD: China substitutes and having a downward-sloping aggregate supply curve based on Fajgelbaum et al. (2024), and HS: highly similar to China based on 2015 product exports to the US. See Appendix Table A1.1 for the full lists. $\eta_t = 1$ corresponds to the period in which the U.S. tariffs were in place, i.e. $t = \{2018, ..., 2022\}$. $\tau_k^h = 1$ identifies sectors with high exposure to increases in tariffs (above the median share of HS6 products with U.S. tariffs on China being imported by the U.S.) and $\tau_k^h = 0$ those with low exposure (below the median). See Appendix Table A1.2 for the full list. Standard errors clustered by country-pair are reported in parentheses. ** p<0.01, * p<0.05, † p<0.1

Table A1.7: The Additional Role of Trade Agreements Across All Sectors.

	(1)	(2)
Ψ_j *definition:*	SD	HS
Trade Policy Period (2018-2022)		
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, PTA_{jt}^{US} = 1\}$	0.252**	0.248**
	(0.061)	(0.054)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, PTA_{jt}^{US} = 0\}$	0.136*	0.149*
	(0.062)	(0.059)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, PTA_{jt}^{US} = 1\}$	-0.025	-0.029
	(0.071)	(0.069)
Anticipation (2016-2017)		
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, PTA_{jt}^{US} = 1\}$	0.129**	0.131**
	(0.020)	(0.019)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, PTA_{jt}^{US} = 0\}$	0.037*	0.045*
	(0.017)	(0.019)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, PTA_{jt}^{US} = 1\}$	-0.017	-0.015
	(0.034)	(0.034)
Fixed Effects, Linear Trends, and Controls:		
Country-Pair-Sector	✓	✓
Host-Country-Sector-Year	✓	✓
Home-Country-Sector-Year	✓	✓
Country-Pair Time Trend	✓	✓
Country-Pair Controls	✓	✓
Observations	188,291	188,291

Note: $\Omega_i = 1$ identifies China as the home country, $\Psi_j = 1$ denotes host countries with high revealed production suitability, identified alternatively as SD: China substitutes and having a downward-sloping aggregate supply curve based on Fajgelbaum et al. (2024), and HS: highly similar to China based on 2015 product exports to the US. See Appendix Table A1.1 for the full lists. $\eta_t = 1$ corresponds to the period in which the U.S. tariffs were in place, i.e. $t = \{2018, ..., 2022\}$ and $\tilde{\eta}_t = 1$ corresponds to the anticipation period, i.e., the two years immediately before the U.S. tariffs became in place (i.e., $t = \{2016, 2017\}$). $PTA_{jt}^{US} = 1$ when a country is covered by a preferential trade agreement with the United States in the given year, or zero otherwise. Standard errors clustered by country-pair are reported in parentheses. ** p<0.01, * p<0.05, † p<0.1.

Table A1.8: Extensive Margin and Combined Margins Similarity Definitions.

	(1)	(2)	(3)	(4)
Ψ_j *definition:*	Extensive Margin Similarity		Combined Margins Similarity	
New Trade Policy Period (2018-2022)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	0.178**	0.289**	0.154**	0.265**
	(0.056)	(0.066)	(0.055)	(0.064)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$	0.108*	0.126*	0.083	0.109†
	(0.050)	(0.060)	(0.051)	(0.061)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	-0.082	-0.112	-0.105	-0.134
	(0.075)	(0.102)	(0.074)	(0.100)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	0.135†	0.214*	0.129*	0.212**
	(0.073)	(0.091)	(0.062)	(0.076)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$	0.116	0.143	0.126†	0.168†
	(0.080)	(0.099)	(0.075)	(0.091)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	0.101	0.111	0.093	0.106†
	(0.067)	(0.071)	(0.058)	(0.059)
Anticipation (2016-2017)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$		0.201**		0.200**
		(0.041)		(0.040)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$		0.016		0.021
		(0.020)		(0.021)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$		-0.085		-0.086†
		(0.053)		(0.052)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$		0.041		0.054
		(0.058)		(0.052)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$		0.048		0.084†
		(0.048)		(0.044)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$		0.090**		0.098**
		(0.027)		(0.021)
Fixed Effects, Linear Trends, and Controls:				
Country-Pair-Sector	✓	✓	✓	✓
Host-Country-Sector-Year	✓	✓	✓	✓
Home-Country-Sector-Year	✓	✓	✓	✓
Country-Pair Time Trend	✓	✓	✓	✓
Country-Pair Controls	✓	✓	✓	✓
Observations	188,291	188,291	188,291	188,291

Note: $\Omega_i = 1$ identifies China as the home country, $\Psi_j = 1$ denotes host countries with high revealed production suitability, identified as HS: highly similar to China based on 2015 product exports to the US. See Appendix Table A1.1 for the full lists. $\eta_t = 1$ corresponds to the period in which the U.S. tariffs were in place, i.e. $t = \{2018, ..., 2022\}$ and $\tilde{\eta}_t = 1$ corresponds to the anticipation period, i.e., the two years immediately before the U.S. tariffs became in place (i.e., $t = \{2016, 2017\}$). $T_k^h = 1$ identifies sectors with high exposure to increases in tariffs (above the median share of HS6 products with U.S. tariffs on China being imported by the U.S.) and $T_k^h = 0$ those with low exposure (below the median). See Appendix Table A1.2 for the full list. $PTA_{jt}^{US} = 1$ when a country is covered by a preferential trade agreement with the United States in the given year, or zero otherwise. Estimations use alternative approaches to calculating the export correlation defining the export similarity measure, i.e., an extensive margin version that captures whether a country exported a given product to the U.S. in 2015 (Column 1-2); and a version that combines intensive and extensive margin components, i.e. top quartile of the average between the baseline and extensive margin correlations (Column 3-4). Standard errors clustered by country-pair are reported in parentheses. ** p<0.01, * p<0.05, † p<0.1.

Table A1.9: Tariff Exposure by MNE Affiliate's Sector.

	(1)	(2)	(3)	(4)
Ψ_j *definition:*	SD	HS	SD	HS
New Trade Policy Period (2018-2022)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	0.178**	0.149**	0.243**	0.203**
	(0.058)	(0.052)	(0.072)	(0.065)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$	0.081	0.053	0.075	0.030
	(0.052)	(0.048)	(0.067)	(0.063)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	-0.034	-0.061	-0.047	-0.084†
	(0.046)	(0.038)	(0.054)	(0.045)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	-0.036	-0.017	-0.001	0.007
	(0.061)	(0.050)	(0.075)	(0.060)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$	-0.112	-0.099	-0.135	-0.140†
	(0.074)	(0.070)	(0.090)	(0.084)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	-0.165†	-0.151†	-0.175†	-0.172†
	(0.085)	(0.079)	(0.104)	(0.096)
Anticipation (2016-2017)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			0.139**	0.121*
			(0.051)	(0.047)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$			0.016	-0.008
			(0.041)	(0.037)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			-0.020	-0.037
			(0.039)	(0.034)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			0.002	-0.010
			(0.047)	(0.041)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$			-0.056	-0.082*
			(0.044)	(0.041)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			-0.002	-0.014
			(0.060)	(0.058)
Fixed Effects, Linear Trends, and Controls:				
Country-Pair-Sector	✓	✓	✓	✓
Host-Country-Sector-Year	✓	✓	✓	✓
Home-Country-Sector-Year	✓	✓	✓	✓
Country-Pair Time Trend	✓	✓	✓	✓
Country-Pair Controls	✓	✓	✓	✓
Observations	237,313	237,313	237,313	237,313

Note: $\Omega_i = 1$ identifies China as the home country, $\Psi_j = 1$ denotes host countries with high revealed production suitability, identified alternatively as SD: China substitutes and having a downward-sloping aggregate supply curve based on Fajgelbaum et al. (2024), and HS: highly similar to China based on 2015 product exports to the US. See Appendix Table A1.1 for the full lists. $\eta_t = 1$ corresponds to the period in which the U.S. tariffs were in place, i.e. $t = \{2018, ..., 2022\}$ and $\tilde{\eta}_t = 1$ corresponds to the anticipation period, i.e., the two years immediately before the U.S. tariffs became in place (i.e., $t = \{2016, 2017\}$). $T_k^h = 1$ identifies sectors with high exposure to increases in tariffs (above the median share of HS6 products with U.S. tariffs on China being imported by the U.S.) and $T_k^h = 0$ those with low exposure (below the median). See Appendix Table A1.2 for the full list. $PTA_{jt}^{US} = 1$ when a country is covered by a preferential trade agreement with the United States in the given year, or zero otherwise. Standard errors clustered by country-pair are reported in parentheses. ** p<0.01, * p<0.05, † p<0.1.

Table A1.10: Alternative Exposure Measures to U.S. Tariffs.

Panel A. Accounting for U.S. Trade Exposure

	(1)	(2)	(3)	(4)
T_k^h *definition:*	Share of Products with Positive U.S. Imports			
Ψ_j *definition:*	SD	HS	SD	HS
New Trade Policy Period (2018-2022)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	0.186**	0.185**	0.301**	0.300**
	(0.055)	(0.050)	(0.062)	(0.056)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$	0.109*	0.122*	0.135*	0.154**
	(0.052)	(0.048)	(0.059)	(0.057)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	-0.077	-0.079	-0.101	-0.102
	(0.068)	(0.067)	(0.093)	(0.092)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	0.117	0.101	0.196*	0.182*
	(0.072)	(0.065)	(0.084)	(0.078)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$	0.102	0.090	0.136	0.130
	(0.075)	(0.075)	(0.088)	(0.089)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	0.100	0.087	0.110	0.098
	(0.065)	(0.061)	(0.068)	(0.063)
Anticipation (2016-2017)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			0.208**	0.210**
			(0.032)	(0.031)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$			0.026	0.034
			(0.020)	(0.023)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			-0.070	-0.068
			(0.052)	(0.052)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			0.040	0.040
			(0.049)	(0.049)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$			0.060	0.069
			(0.041)	(0.043)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			0.085**	0.085**
			(0.023)	(0.022)
Fixed Effects, Linear Trends, and Controls:				
Country-Pair-Sector	✓	✓	✓	✓
Host-Country-Sector-Year	✓	✓	✓	✓
Home-Country-Sector-Year	✓	✓	✓	✓
Country-Pair Time Trend	✓	✓	✓	✓
Country-Pair Controls	✓	✓	✓	✓
Observations	188,291	188,291	188,291	188,291

ctd. **Panel B. Accounting for Size of Tariffs**

	(1)	(2)	(3)	(4)
T_k^h *definition:*	Average US Tariff on China			
Ψ_j *definition:*	SD	HS	SD	HS
New Trade Policy Period (2018-2022)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	0.157**	0.145**	0.256**	0.244**
	(0.053)	(0.048)	(0.060)	(0.055)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$	0.112*	0.107*	0.142*	0.140*
	(0.051)	(0.049)	(0.058)	(0.057)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$	-0.013	-0.025	-0.032	-0.043
	(0.061)	(0.059)	(0.080)	(0.079)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	0.162	0.180†	0.229†	0.254*
	(0.104)	(0.094)	(0.122)	(0.111)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$	0.090	0.149	0.112	0.187
	(0.098)	(0.095)	(0.116)	(0.114)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$	-0.014	0.002	-0.010	0.012
	(0.066)	(0.056)	(0.076)	(0.065)
Anticipation (2016-2017)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			0.138**	0.135**
			(0.021)	(0.020)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$			0.041*	0.042*
			(0.017)	(0.019)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			-0.043	-0.046
			(0.037)	(0.036)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			-0.019	0.001
			(0.070)	(0.065)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$			0.012	0.055
			(0.060)	(0.063)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			0.050	0.067†
			(0.039)	(0.035)
Fixed Effects, Linear Trends, and Controls:				
Country-Pair-Sector	✓	✓	✓	✓
Host-Country-Sector-Year	✓	✓	✓	✓
Home-Country-Sector-Year	✓	✓	✓	✓
Country-Pair Time Trend	✓	✓	✓	✓
Country-Pair Controls	✓	✓	✓	✓
Observations	188,291	188,291	188,291	188,291

Note: $\Omega_i = 1$ identifies China as the home country, $\Psi_j = 1$ denotes host countries with high revealed production suitability, identified alternatively as SD: China substitutes and having a downward-sloping aggregate supply curve based on Fajgelbaum et al. (2024), and HS: highly similar to China based on 2015 product exports to the US. See Appendix Table A1.1 for the full lists. $\eta_t = 1$ corresponds to the period in which the U.S. tariffs were in place, i.e. $t = \{2018, ..., 2022\}$ and $\tilde{\eta}_t = 1$ corresponds to the anticipation period, i.e., the two years immediately before the U.S. tariffs became in place (i.e., $t = \{2016, 2017\}$). $T_k^h = 1$ identifies sectors with high exposure to increases in tariffs (above the median using the industry indicator in the column header) and $T_k^h = 0$ those with low exposure (below the median). $PTA_{jt}^{US} = 1$ when a country is covered by a preferential trade agreement with the United States in the given year, or zero otherwise. Standard errors clustered by country-pair are reported in parentheses. ** p<0.01, * p<0.05, † p<0.1.

Table A1.11: The Role of Anticipation and Pre-Anticipation Periods

	(1)	(2)	(3)	(4)
T_k^h *definition:*			$T_k^h = \tau_k^h$	
Ψ_j *definition:*	SD	HS	SD	HS
New Trade Policy Period (2018-2022)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1\}$	0.183**	0.195**		
	(0.047)	(0.049)		
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			0.318**	0.313**
			(0.059)	(0.057)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$			0.153**	0.166**
			(0.048)	(0.052)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			-0.102	-0.107
			(0.118)	(0.118)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0\}$	0.122	0.151†		
	(0.085)	(0.084)		
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			0.199*	0.201*
			(0.087)	(0.080)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$			0.155†	0.181*
			(0.089)	(0.090)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \eta_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			0.141*	0.142**
			(0.057)	(0.050)
Anticipation (2016-2017)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1\}$	0.065†	0.072*		
	(0.035)	(0.037)		
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			0.228**	0.229**
			(0.052)	(0.051)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$			0.038	0.046
			(0.035)	(0.037)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			-0.079	-0.078
			(0.077)	(0.076)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0\}$	0.037	0.059		
	(0.051)	(0.051)		
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			0.033	0.040
			(0.068)	(0.066)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$			0.071	0.092†
			(0.050)	(0.052)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_t = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			0.121**	0.126**
			(0.028)	(0.026)

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	(1)	(2)	(3)	(4)
T_k^h *definition:*			$T_k^h = \tau_k^h$	
Ψ_j *definition:*	SD	HS	SD	HS
Pre-Anticipation (2014-2015)				
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_{t-s} = 1, T_k^h = 1\}$	0.016	0.016		
	(0.036)	(0.037)		
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_{t-s} = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			0.076†	0.075†
			(0.046)	(0.045)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_{t-s} = 1, T_k^h = 1, PTA_{jt}^{US} = 0\}$			0.005	0.005
			(0.040)	(0.040)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_{t-s} = 1, T_k^h = 1, PTA_{jt}^{US} = 1\}$			-0.028	-0.029
			(0.055)	(0.054)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_{t-s} = 1, T_k^h = 0\}$	0.014	0.027		
	(0.038)	(0.038)		
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_{t-s} = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			-0.061	-0.056
			(0.052)	(0.051)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \tilde{\eta}_{t-s} = 1, T_k^h = 0, PTA_{jt}^{US} = 0\}$			0.048	0.062
			(0.039)	(0.040)
$\mathbb{1}\{\Omega_i = 1, \Psi_j = 0, \tilde{\eta}_{t-s} = 1, T_k^h = 0, PTA_{jt}^{US} = 1\}$			0.095**	0.098**
			(0.034)	(0.032)
Fixed Effects, Linear Trends, and Controls:				
Country-Pair-Sector	✓	✓	✓	✓
Host-Country-Sector-Year	✓	✓	✓	✓
Home-Country-Sector-Year	✓	✓	✓	✓
Country-Pair Time Trend	✓	✓	✓	✓
Country-Pair Controls	✓	✓	✓	✓
Observations	188,291	188,291	188,291	188,291

Note: $\Omega_i = 1$ identifies China as the home country, $\Psi_j = 1$ denotes host countries with high revealed production suitability, identified alternatively as SD: China substitutes and having a downward-sloping aggregate supply curve based on Fajgelbaum et al. (2024), and HS: highly similar to China based on 2015 product exports to the US. See Appendix Table A1.1 for the full lists. $\eta_t = 1$ corresponds to the period in which the U.S. tariffs were in place, i.e. $t = \{2018, ..., 2022\}$, $\tilde{\eta}_t = 1$ corresponds to the anticipation period, i.e., the two years immediately before the U.S. tariffs became in place (i.e., $t = \{2016, 2017\}$), and $\tilde{\eta}_{t-s} = 1$ corresponds to the pre-anticipation period, i.e., the two years before the first meaningful increase in trade policy uncertainty (i.e., $t = \{2014, 2015\}$). $T_k^h = 1$ identifies sectors with high exposure to increases in tariffs (above the median share of HS6 products with U.S. tariffs on China being imported by the U.S.) and $T_k^h = 0$ those with low exposure (below the median). See Appendix Table A1.2 for the full list. $PTA_{jt}^{US} = 1$ when a country is covered by a preferential trade agreement with the United States in the given year, or zero otherwise. Standard errors clustered by country-pair are reported in parentheses. ** p<0.01, * p<0.05, † p<0.1.

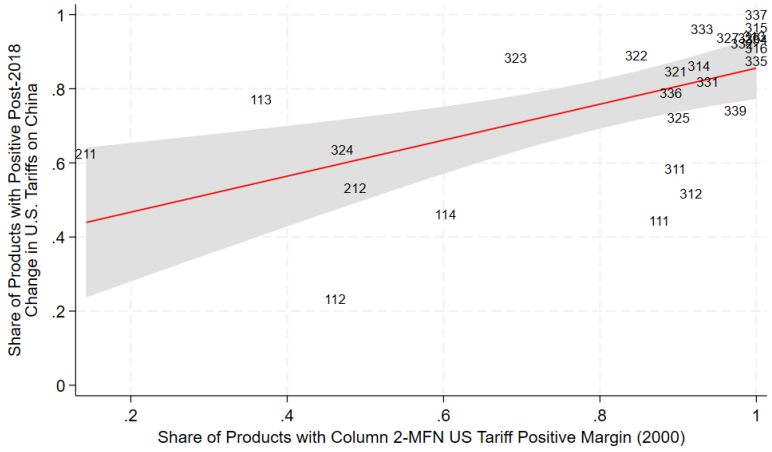
Table A1.12: Back-of-the-Envelope Estimate: Tariff-Induced Chinese FDI in Third Countries

	Estimated Policy Effect			Tariff-Induced Affiliates		Tariff-Induced Value	
	Coefficient $\hat{\beta}$ (a)	**Country-Sector Pairs** (b)	**Implied Affiliates per Pair** (c)	**Total** (d)=(b)×(c)	**Share of Chinese FDI Projects (%)** (e)	**Value (bln USD)** (f)=(d)×CAPEX	**Share of Non-Tax Haven Chinese FDI (%)** (g)
Panel A. Baseline							
SD	0.130**	266 (19×14)	1.37	363	**40.6**	16.0	**54.7**
HS	0.133**	168 (12×14)	1.66	279	**31.2**	8.8	**30.2**
Panel B. Policy Treatment and Anticipation Effects							
SD (total)				463	**51.7**	20.4	**69.7**
Treatment: PTA	0.294**	28 (2×14)	2.16	61	6.8	2.7	9.2
Anticipation: PTA	0.207**	28 (2×14)	1.45	41	4.6	1.8	6.2
Treatment: non-PTA	0.138*	238 (17×14)	1.51	361	40.3	15.9	54.3
Anticipation: non-PTA	0.029	238 (17×14)	—	—	—	—	—
HS (total)				382	**42.7**	12.1	**41.4**
Treatment: PTA	0.289**	28 (2×14)	2.12	59	6.6	1.9	6.4
Anticipation: PTA	0.208**	28 (2×14)	1.46	41	4.6	1.3	4.4
Treatment: non-PTA	0.147**	140 (10×14)	2.02	282	31.5	8.9	30.6
Anticipation: non-PTA	0.034	140 (10×14)	—	—	—	—	—

Notes: Notes: This table provides back-of-the-envelope estimates translating treatment effects into counts and values of tariff-induced Chinese affiliates, benchmarked against Chinese outward FDI in 2015. Column (a) reports the estimated coefficients on tariff-induced FDI in host countries with high revealed production suitability, identified alternatively using supply-side (SD) and export-similarity (HS) criteria, and depending on their PTA coverage. Panel A uses the pooled coefficients from Table 1, columns (3)–(4). Panel B uses the PTA coefficients from Table 3, columns (1)–(2), which identify both policy treatment and anticipation effects. Column (b) reports the number of country-sector pairs (countries×sectors with $\tau_k^h = 1$). Column (c) computes additional affiliates per country-sector pair as $\bar{Y} \times (\exp(\hat{\beta}) - 1)$, where $\bar{Y}$ is the mean number of Chinese affiliates in highly exposed sectors in 2015. Column (d) reports total tariff-induced affiliates, computed as (b)×(c). Column (e) expresses column (d) as a share of the 895 observed Chinese cross-border investment projects in 2015. Column (f) reports the estimated value of tariff-induced FDI, obtained by multiplying column (d) by the median pre-treatment per-project investment value in 2015 ($44.0 million for SD; $31.7 million for HS). Investment values are drawn from Orbis, pooling greenfield CAPEX and M&A deal values for the relevant country group and high-exposure sectors. Column (g) expresses column (f) as a share of total non-tax-haven Chinese outward FDI in 2015 ($29.2 billion), defined as total outward FDI excluding flows to Hong Kong (China), the Netherlands, the Cayman Islands, the British Virgin Islands, and Bermuda, as reported in China Statistics Press (2016) and UNCTAD (2025). Anticipation coefficients for non-PTA countries are not statistically significant; remaining columns are not computed (—). Totals in Panel B exceed Panel A because Panel B additionally captures anticipation effects and allows heterogeneous treatment effects across PTA and non-PTA countries. $^{**}p<0.01$, $^{*}p<0.05$, $^{\dagger}p<0.1$.

Appendix B. Additional Figures

Figure B1.1: Exposure to U.S. Tariffs vs. Pre-WTO Accession U.S. Tariffs

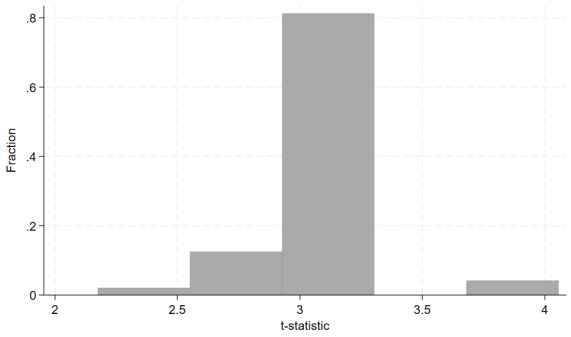


Note: The figure shows the sectoral (3-digit NAICS) correlation between the share of products with a positive change in U.S. tariffs on China between 2018-2022 and the previous period and the share of products with positive Column 2-MFN margin in 2000. Fitted line: $y = 0.37^{*} + 0.49^{**}x$, with $R^2 = 0.34$.

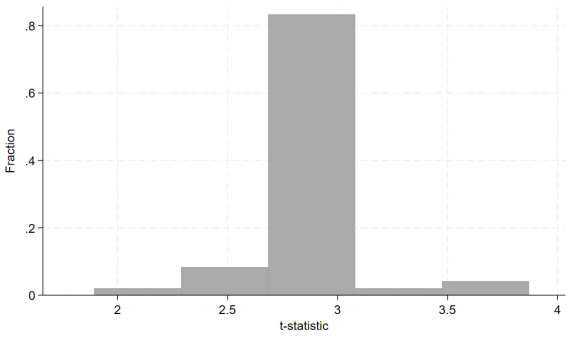
Figure B1.2: Distribution of t-Statistics of the Effect of the U.S. Tariffs with High Revealed Production Suitability When Excluding Each Host Country and Sector at a Time

A. Distributions Excluding Host Countries

(i) High Export Similarity to China (HS)

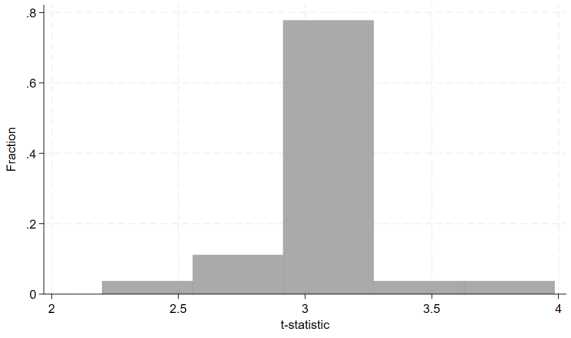


(ii) Capacity to Substitute China's Exports (SD)

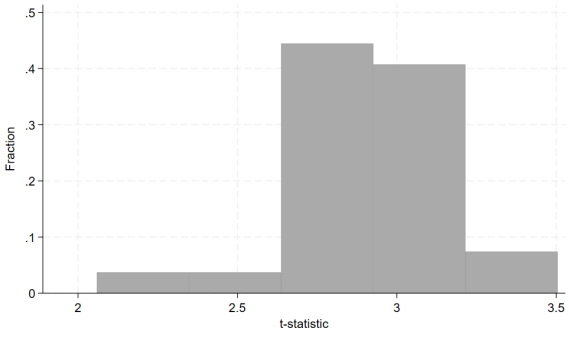


B. Distribution Excluding Sectors

(i) High Export Similarity to China (HS)



(ii) Capacity to Substitute China's Exports (SD)

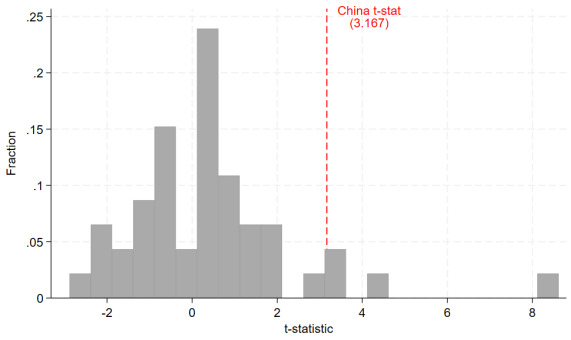


Note: The figures shows the distribution of the t-stat of $\hat{\beta}_1$ ($\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 1\}$ coefficient) in Table 1 Columns 3-4 when: (A) one host country is excluded from the sample at a time, and (B) one sector is excluded from the sample at a time. Please see the note in Table 1 for the estimation details.

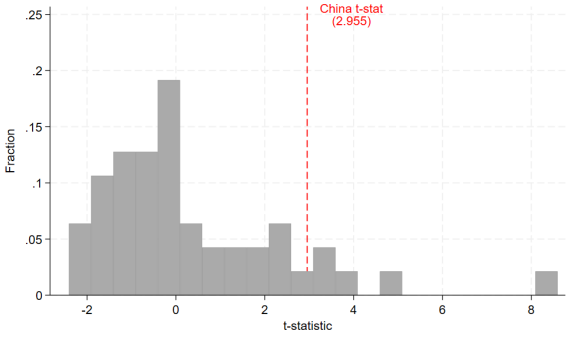
Figure B1.3: Distribution of t-Statistics of the Effect of the U.S. Tariffs on Host Countries with High Revealed Production Suitability by Home Country

A. Sectors with High Exposure to US Tariffs

(i) High Export Similarity to China (HS)

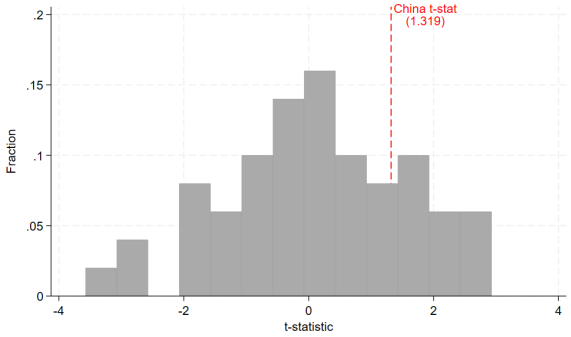


(ii) Capacity to Substitute China's Exports (SD)

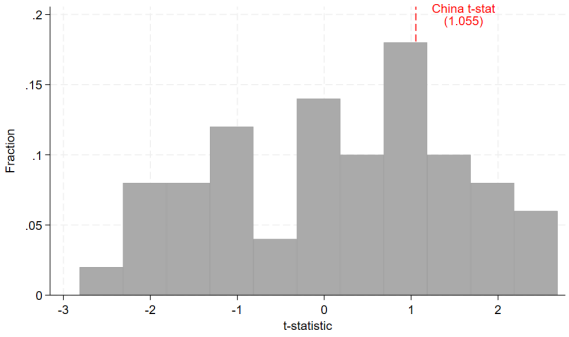


B. Sectors with Low Exposure to US Tariffs

(i) High Export Similarity to China (HS)



(ii) Capacity to Substitute China's Exports (SD)



Note: Figures in panel A show the distributions of the t-stat of $\hat{\beta}_1$ ($\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 1\}$ coefficient) as in Table 1 Columns 3-4 alternatively assuming that each home country is China. Figures in panel B show the distributions of the t-stat of $\hat{\beta}_0$ ($\mathbb{1}\{\Omega_i = 1, \Psi_j = 1, \eta_t = 1, \tau_k^h = 0\}$ coefficient) as in Table 1 Columns 3-4 alternatively assuming that each home country is China. Please see the note in Table 1 for the estimation details.

Appendix C. Export Similarity Index

In this section, we provide a further discussion of our similarity measure, which is intended to capture revealed production suitability.

A key reason that motivates an additional method to capture revealed production suitability is that the classification from Fajgelbaum et al. (2024) may be endogenous to multinational reallocation. Following results in Figure 4 in that paper, countries can be classified as being substitutes to China and having a downward-sloping aggregate export supply curve based on their exports' response to the 2018-2019 US tariffs on China. The nature of their analysis reassures that the estimates they obtained can be understood as partial elasticities, i.e. causal changes in exports conditional on other factors such as changes in aggregate demand. This is the strength of this measure: it measures exactly the elasticity needed for the analysis.

As an alternative, we employ the similarity measure to address certain limitations of the baseline approach, while acknowledging a trade-off in identification precision. Specifically, we employ 2015 country-product (6 digits of HS) data, i.e. before any indication of meaningful changes in U.S. trade policy, to construct the following measure:

$$\text{corr}(x^c, x^i) = \frac{\sum_{h\in\Omega}(x_h^c - \overline{x^c})(x_h^i - \overline{x^i})}{\sqrt{\sum_{h\in\Omega}(x_h^c - \overline{x^c})^2 \sum_{h\in\Omega}(x_h^i - \overline{x^i})^2}}, \tag{A1.1}$$

where x_h^i and x_h^c are product h log exports to the US from country i and China respectively.

To clarify how this measure captures production similarity while mitigating certain identification threats, suppose that country-product-specific log export demand is additive in demand and supply components:

$$x_h^i = \varepsilon[mc_h^i + s^i] + \tilde{d}_h, \tag{A1.2}$$

where ε is an export elasticity, mc_h^i is the (mean zero) country i-specific marginal cost, s^i captures any country-specific productivity determinants and $\tilde{d}_h$ is a product h-specific demand determinant capturing e.g. the level of competition in that product.[46]

Replacing A1.2 into A1.1, defining $d_h = \tilde{d}_h/\varepsilon$ and assuming that $\text{corr}(mc, d) = 0$, we get:

[46] Such a log export demand function can be micro-founded by standard trade models generating CES import demand systems and ad-valorem trade costs.

$$
\begin{aligned}
\mathbf{corr}(\boldsymbol{x^c}, \boldsymbol{x^i}) &= \frac{|\Omega|^{-1} \sum_{h \in \Omega} (mc_h^i + d^i - \bar{d})(mc_h^c + d^i - \bar{d})}{\sqrt{(\sigma_{mc}^{2,c} + \sigma_d^2)(\sigma_{mc}^{2,i} + \sigma_d^2)}} \\
&= \frac{\sigma_{mc}^c \sigma_{mc}^i \times \text{corr}(mc^c, mc^i) + \sigma_d^2}{\sqrt{(\sigma_{mc}^{2,c} + \sigma_d^2)(\sigma_{mc}^{2,i} + \sigma_d^2)}} \\
&= A^i \times \mathbf{corr}(\boldsymbol{mc^c}, \boldsymbol{mc^i}) + B^i. \qquad \text{(A1.3)}
\end{aligned}
$$

Equation A1.3 shows that under this standard formulation of the export demand, the correlation between log export values of country i and China is an affine function of the correlation between country i and China's marginal costs to serve the US. As such, this measure captures how similar country i and China are in terms of their production structure and therefore how attractive country i is to Chinese multinationals when seeking to substitute Chinese exports to the US.[47]

[47] A similar analysis can be done to analyze the extensive margin, i.e. the existence of positive export demand across products. In that case, $\mathbf{corr}(\boldsymbol{z^c}, \boldsymbol{z^i})$ where $z_h^i = 1[x_h^i > \bar{x}_h]$, where $\bar{x}_h$ is an export entry threshold.