Investing in Friends: The Role of Geopolitical Alignment in FDI Flows*

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Abstract

Firms and policy makers are increasingly looking at friend-shoring to make supply chains less vulnerable to geopolitical tensions. We test whether these considerations are shaping FDI flows, using investment-level data on almost 300,000 instances of greenfield FDI between 2003 and 2022. Estimates from a gravity model, which controls for standard push and pull factors, show an economically significant role for geopolitical alignment in driving the geographical footprint of bilateral investments. This result is robust to the inclusion of standard bilateral drivers of FDI—such as geographic distance and trade flows—and the strength of the effect has increased since 2018, with the resurgence of trade tensions between the U.S. and China. Moreover, our results are not limited to greenfield FDI, but hold also for M&As.

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1 Introduction

Rising geopolitical tensions, and the uneven distribution of past gains from globalization, have contributed to increasing skepticism toward multilateralism and to the growing appeal of inward-looking policies (Colantone and Stanig, 2018; Rodrik, 2018; Autor *et al.*, 2020; Pastor and Veronesi, 2021). Brexit, the trade tensions between the U.S. and China, and Russia's invasion of Ukraine all pose a challenge to international relations and could herald a reversal of global economic integration. A slowdown in globalization—often referred to as "slowbalization"—is not new and, for most countries, dates to the aftermath of the global financial crisis (Antràs, 2020; Baldwin, 2022). Within this slowdown, a fall in foreign direct investmnet (FDI) has been particularly visible, with global FDI declining from 3.3 percent of GDP in the 2000s to 1.3 percent over the last 5 years. While many different factors could be responsible for this protracted phase of slowbalization, including increasing automation and technological change (Alonso, Berg, Kothari, Papageorgiou and Rehman, 2022), the fragmentation of capital flows along geopolitical fault lines and the potential emergence of regional blocs are novel elements.

Firms and policy makers are increasingly looking at friend-shoring, nearshoring and reshoring as strategies to move production processes to trusted countries with aligned political preferences, to make supply chains more resilient and less vulnerable to geopolitical tensions. Recently, the U.S. Treasury Secretary argued that, rather than being highly reliant on countries with which the U.S. has geopolitical frictions, firms should move towards the friend-shoring of supply chains to a large number of trusted countries. In Europe, the French government has been urging the EU to accelerate production targets, weaken state aid rules, and develop a "Made in Europe" strategy to counter domestic production subsidies provided by the recent U.S. Inflation Reduction Act (IRA). In China, too, government directives aim to replace imported technology with local alternatives to reduce its dependence on geopolitical rivals.

The importance of friend-shoring goes beyond just announcements. Recent large-scale policies implemented by major countries to strengthen strategic domestic manufacturing sectors suggest that a shift in cross-border capital flows is being incentivized. Most notable is a series of recent bills in the U.S.—such as the CHIPS and Science Act and the IRA—and in Europe—such as the European Chips Act—that aim to alter the fundamentals of multinational enterprises' production and sourcing strategies, thereby inducing a reconfiguration of supply chain networks. The rising interest in friend-shoring is a significant reversal of the traditional division of production pursued through offshoring, driven predominantly by international cost differentials in labor and input costs (Feenstra, 1998; Antràs and Yeaple, 2014).

Such reversals are likely to have a differential impact on host countries depending on the features of the investment they receive. For instance, if an investment originates in a geopolitically distant country, or takes place in a sector considered strategic, it is more likely to be reshored in the context of hightened geopolitical tension. As discussed in Section 2, we use project-level data on almost 300,000 instances of greenfield foreign direct investment between 2003 and 2022 to understand the role of geopolitical alignment between source and host countries in driving FDI flows. Geopolitical alignment is measured using voting patterns at the United Nations General Assembly (UNGA) and captures similarity in geopolitical preferences across country pairs. The dyadic structure of the data on FDI and geopolitical alignment allows us to estimate a standard gravity model, which absorbs push and pull factors with time-varying source and host country fixed effects.

Our results—presented in Section 3—show that an increase in geopolitical distance is associated with a significant and economically meaningful decline in FDI. This result in not limited to greenfield FDI, but holds also for brownfield FDI (mergers and acquisitions—M&As). The role of geopolitical distance is particularly relevant in low- and middle-income countries and for investment in strategic sectors. The role of geopolitical distance is robust to the inclusion of standard bilateral drivers of greenfield FDI—such as geographic distance and trade flows—and has increased since 2018, with the resurgence of trade tensions between the U.S. and China.

Related literature. Most of the literature on the drivers of FDI has stressed the role played by geography, as well as common historical and cultural traits, such as a shared language, institutions, and colonial relationships (see Blonigen, 2005; Blonigen and Piger, 2014, for a review). The empirical studies have either focused on specific source and destination countries or, when looking at large samples, have used bilateral data published by UNCTAD for a short period of time (2001-2012) (see, for instance, Kox and Rojas-Romagosa, 2020). We contribute to that literature by showing—in a large sample of about 180 countries spanning the last 20 year—that FDI flows are driven not just by geographical and cultural distance between the host and source countries, but also by the geopolitical distance between them.

Some studies suggest that better diplomatic and political relations are associated with larger direct investment flows across countries. However, these studies are either based on specific source countries—like the U.S. (Desbordes, 2010) or China (Li, Meyer, Zhang and Ding, 2018)—or on a relatively small set of source and host countries (Desbordes and Vicard, 2009; Bertrand, Betschinger and Settles, 2016). Contrary to this body of evidence, Damioli and Gregori (2022) look at M&A activity within Europe and find that cross-border acquisitions of European companies are more likely when the source and the destination countries are more geopolitically distant. We contribute to this literature providing a comprehensive analysis of the role of geopolitical distance on FDI flows across a large sample of advanced and developing countries over the last 20 years, a period during which geopolitical tensions moved in both directions. In addition, the availability of investment-level data allow us to look at important aspects of heterogeneity, such as the sectoral dimension.

There is also an extensive literature showing that geopolitical alignment with the major Western countries (for example the U.S. by itself, or the G7) matters for the allocation of bilateral aid (Alesina and Dollar, 2000; Faye and Niehaus, 2012), as well as for multilateral lending (Barro and

Lee, 2005; Kilby, 2009; Vreeland and Dreher, 2014). We extend this literature by showing that geopolitical alignment is not only associated with larger aid flows, but also with more FDI. In this respect, our analysis is related to a number of contributions showing that ideological alignment with foreign governments affects cross-border trade (Fuchs and Klann, 2013; Davis, Fuchs and Johnson, 2019; Fisman, Knill, Mityakov and Portnykh, 2022; Jakubik and Ruta, 2023) and capital flows (Gupta and Yu, 2007; Knill, Lee and Mauck, 2012; Kempf, Luo, Schäfer and Tsoutsoura, 2021; Lugo and Montone, 2022).

2 Data

Our main analysis relies on proprietary data on bilateral greenfield foreign direct investment from fDi Markets, a service from the Financial Times which tracks new physical projects and expansions of existing investments that create new jobs and capital investment.[1] The data are collected primarily from publicly available sources (e.g., media sources, industry organizations, investment promotion agency newswires) and report investment-level information for over 300,000 FDI instances between January 2003 and December 2022. For each investment, we know the source and destination countries, as well as the sector, activity (e.g., business services, sales, R&D), type (new investment or expansion), volume (in USD) and number of jobs created.

The volume of capital investment and associated jobs are often estimated rather than based on directly reported data. The reliability of these data is tested by aggregating the volumes at the destination country-year level and contrasting them with gross FDI inflows as published in the World Economic Outlook (WEO). Figure A1 shows that the two distributions show a large degree of overlap (Panel a) and the two sets of data are highly correlated (in Panel b the correlation is equal to 0.54). This is consistent with Toews and Vézina (2022), using a smaller sample. In addition, the count and volume of bilateral investment are highly correlated (Panel c), supporting the choice of using the count data in our analysis. Both variables, once aggregated at the source-destination-year level, are top-winsorised with a threshold corresponding to the 0.1 percent of the observations.

As data on mergers and acquisitions (M&As) are not available from the same data source, our main analysis is based on greenfield investment.[2] However, we also use cross-border M&A data from Refinitiv Eikon to complement the baseline analysis of greenfield FDI.[3]

We combine data on earnings calls from NL Analytics (Hassan, Hollander, van Lent and

[1]fDi Markets does not track mergers and acquisitions and other international equity investments, investment projects that do not create new jobs, or companies which establish a foreign subsidiary without a physical company presence.

[2]New (greenfield) investments are more numerous than M&As, especially in emerging and developing economies, are more strongly correlated with aggregate data on FDI, and are less frequently concentrated in tax havens.

[3]The Refinitiv Eikon database has superceded the SDC Platinum database by Thomson Reuters, which has been studied extensively in recent academic research such as Erel *et al.* (2022) and Bergant *et al.* (2023). This dataset also serves as underlying data for cross-border M&As reported in the World Investment Report by UNCTAD.

Tahoun, 2019) and a study from the Atlantic Council to define strategic sectors at the 3-digit industry level, based on the following steps. First, we rely on a list proposed by the Atlantic Council to identify as strategic these sectors: semiconductors, telecommunications and 5G infrastructure, equipment needed for the green transition, pharmaceutical ingredients, and strategic and critical minerals. These sectors are mapped into the 3-digit industry classification based on ISIC Revision 4. Second, amongst the manufacturing and mining sectors, the 3-digit industry groups which fall in the top-3 deciles of mentions of reshoring-related terms in companies' earnings calls between 2017-2022 are added to the list. The data on earning calls are obtained through NL Analytics and we simply compute a measure of exposure counting the share of sentences mentioning reshoring, nearshoring or friendshoring (with or without the hyphen "-") over the total number of sentences in the earnings call (see Hassan, Hollander, van Lent and Tahoun, 2019, for more details on the data and the text mining approach). The manufacture of textiles, which also falls in the top-3 deciles of reshoring terms mentions, is excluded.

Our measure of geopolitical distance is based on voting patterns in at the United Nations General Assembly (UNGA). In particular, we follow Bailey, Strezhnev and Voeten (2017) and use the *ideal point distance* (IPD).[4] Some recent studies of geoeconomic fragmentation focus on specific recent important votes, such as the March 2022 UNGA vote on resolution ES-11/1 on "Aggression against Ukraine" (Javorcik, Kitzmüller, Schweiger and Yildirim, 2022). However, since our analysis looks at the role of geopolitical alignment over the last 20 years, we need a measure that is available and comparable over a long period of time. The IPD has these characteristics given that it is estimated in a way that keeps "constant" the agenda of the UNGA, so that differences in alignments over time are not driven by changes in the topics discussed at the UN, but by genuine shifts in geopolitical preferences between country pairs. While the IPD is widely used in political science and in economics, scholars have also proposed alternative measures. The findings of this paper are robust to the use of the S score or the Pi (π) proposed by Signorino and Ritter (1999) and Häge (2011), respectively.

Data on standard gravity variables including geographical distance, common language, legal framework and colonial ties are taken from the CEPII gravity dataset (Conte, Cotterlaz and Mayer, 2022).

The final sample consists of 162 source countries and 180 destination countries for which we have complete data and at least one FDI sourced or received is reported. Given that tax havens are major recipients of direct investment from high-income countries (Hines, 2010), we run a robustness test excluding FDI from and to offshore financial centers and tax havens—as defined

[4] The measure is built by first estimating an ordered logit over three voting choices (yea, abstain, nay), where the choice depends on the parameters of the model combined with a latent vote-specific preference of each country in a given year. The latent process is estimated by imposing a Bayesian prior on the preferences and employing a Metropolis-Hastings/Gibbs sampler algorithm to infer the parameters of the logit model and then the posterior distribution of the latent preference parameters. The distance between two countries in each year is then computed as the absolute value of the difference between the inferred vote specific preference parameter. More details on the measurement and the estimation are provided in (Bailey, Strezhnev and Voeten, 2017).The IPD data up to 2021 are available from this link: https://dataverse.harvard.edu/dataverse/Voeten.

by (Damgaard, Elkjaer and Johannesen, 2019)—to mitigate the possibility that our findings are affected by phantom FDI.

3 Geopolitical distance and FDI flows

3.1 Event studies

We first offer suggestive evidence on the role of geopolitical distance from two recent important UN resolutions. Resolution 68/262 on the territorial integrity of Ukraine was adopted on 27 March 2014 in response to the Russian annexation of Crimea. The resolution recognizes the territorial integrity of Ukraine and underscores the invalidity of the 2014 Crimean referendum. Resolution 72/191 on Syria was adopted on 19 December 2017. This resolution strongly condemns the grave deterioration of the human rights situation in Syria, and the indiscriminate killing and deliberate targeting of civilians.

For each resolution, we consider the pattern of FDI flows from countries which approved the resolution to host countries which either voted against or abstained. We look at 8 quarters before and 8 quarters after the vote. The results are plotted in Figure 1. Notwithstanding some volatility, it is possible to see that the two series of FDI distinctly diverge after both resolutions, with investments to opposing countries being much lower than those to countries which approved the resolutions. This evidence, while purely descriptive, suggests that geopolitical factors affect MNCs' investment decisions.

3.2 Non-parametric evidence

Next, we provide more general, albeit still suggestive, evidence that geopolitical distance matters for FDI flows. First, countries are ranked based on their distance from the United States.[5] Then countries are divided into five groups $G \in \{1,2,...5\}$ based on their ranking—–very close, close, at a medium distance, far, and very far. A function $g(.) : C \rightarrow \{1,2,...5\}$ from the set of countries C to the set of groups $\{1,2,...5\}$ is defined such that if a country i belongs to group G then $g(i) = G$. Instances of FDI taking place between countries in the same group are then counted year by year. Finally, this number is divided by the total instances of FDI observed in the same year.

The measure of FDI geopolitical concentration in year t ($FDIGC_t$) is obtained as:

$$FDIGC_t = \frac{\sum_s \sum_d \mathbb{1}\left(g(s) = g(d)\right) FDI_{sdt}}{\sum_s \sum_d FDI_{sdt}} \tag{1}$$

where FDI_{sdt} is the sum of instances of FDI from source country s to destination country d observed in year t, and $\mathbb{1}(\cdot)$ is the indicator function taking value 1 if $g(s) = g(d)$ and 0 otherwise. As there are 25 combinations of groups from $\{1,2,...5\} \times \{1,2,...5\}$, while only the FDI taking place

[5]Similar results hold if another large country of reference (e.g., China) is chosen.

between countries belonging to the same group is counted in the numerator in the expression for $FDIGC_t$, if geopolitical distance did not matter the measure would equal 0.2; that is, one in five instances of FDI would take place between geopolitically close (aligned) countries. The top panel of Figure 2 shows that this is not the case. First, the blue line shows that $FDIGC_t$ is well above 0.35 throughout the sample. Second, it has increased to more than 0.5 in 2021.

As a point of comparison, we plot also an analogous measure based on geographical distance. This line shows that FDI takes place more frequently between geographically close countries than between countries further apart, but the red line is consistently below the blue line, suggesting that geopolitical distance is relatively more important. The ratio between the two lines summarizes the evolution of their relative importance, increasing from 1.2 in 2003 (the first year of data) to 1.3 in 2021, the last year.

To gauge the importance of geopolitical distance for different types of sectors, we repeat the exercise counting separately the FDI in strategic sectors and other sectors. Measures of FDI concentration are built based on geopolitical and geographic distance, and their year-by-year ratio is then normalized to one in 2003. The normalized series for the two groups of sectors is reported in the bottom panel of Figure 2. The chart shows that the increase in the relative importance of geopolitical distance for FDI decisions was markedly higher in strategic sectors (+26 percent) than for other sectors (+6 percent).

Finally, we replicate Figure 2 (panel a) using data on M&As. We find a similar and very striking upward pattern since the late 2010s in brownfield investment among geopolitically close countries, not matched by a similar trend for flows among geographically close countries (Figure A2). If anything, the share of brownfield investment taking place between aligned countries is larger (almost at 60 percent in 2021) than that of greenfield investment.

3.3 A gravity model

Given that various confounders could influence the patterns of Figure 2, we look at the relationship between geopolitical alignment and FDI in a standard gravity model, which allows controlling for many bilateral variables and country specific time-varying factors (Desbordes and Vicard, 2009; Chen and Lin, 2020; Kox and Rojas-Romagosa, 2020). Consider the following equation:

$$FDI_{sdt} = exp\left\{\alpha IPD_{sdt-1} + \beta Controls_{sd} + \tau_{st} + \phi_{dt}\right\}\epsilon_{sdt}, \quad (2)$$

where bilateral FDI flows (measured by the number of projects or their value) from the source country s to the destination country d in year t is a function of the lagged value of the ideal point distance IDP between countries d and s. As standard in gravity models, the specification controls for the geographical distance between source and destination countries (which could be correlated with geopolitical distance), and absorbs any unobservable time-varying push and pull factors by adding source country x year and destination country x year fixed effects. These fixed effects capture, for instance, business cycle dynamics which could instigate FDI outflows from the source country and attract inflows into the destination country. Similarly, factors such as an increase in political risk in the destination country, which is likely to be associated with a shift in geopolitical alignment, is controlled for by the fixed effect ϕ_{dt}. Our strategy keeps constant any change in political and economic risk in the destination country (possibly associated with a change in government) and just exploits the differential effect that such a change has on the geopolitical alignment across all source countries.

When interpreting our main results, one should keep in mind that the IPD could still capture the role of other associated macroeconomic factors. To mitigate this concern, in the robustness analysis we augment the gravity model with variables which could be associated with changes over time in geopolitical tensions between country pairs (i.e. bilateral imports, bilateral exchange rates). More fundamentally, even if in the gravity model the IPD is lagged, an important caveat is reverse causality. One could in fact argue that the direction of causality goes from FDI to geopolitical proximity, as countries could 'buy' future political friendship by increasing FDI. However, a simple regression of the IPD on future and lagged FDI (up to 3 years, controlling for the same variables and fixed effects as in equation 2) suggests that this may not be the case. The estimates show that all the lags not statistically significant, while only the contemporaneous value of FDI and the leads are statistically significant (and negative).

Since by construction most of the FDI_{sdt} cells are zeros, the model is estimated by Poisson pseudo-maximum likelihood (PPML), as proposed by Silva and Tenreyro (2006) and implemented by Correia, Guimarães and Zylkin (2020). Standard errors are clustered at the country-pair level, which is the dimension along which the IPD varies.

Baseline estimates. The main results are shown in Table 1, where the dependent variable is either the number of investments (Columns 1-3), or their value (columns 4-6). All specifications include time-varying source and destination country fixed effects and show that a greater geopolitical distance is associated with lower FDI flows. As expected, the estimated coefficient of the IPD becomes smaller when controlling for geographical distance, as these variables are correlated to the extent that political similarity reflects in part geographical proximity. Consistent with the literature (see Desbordes and Vicard, 2009; Blonigen and Piger, 2014, among others), countries which are further away tend to have lower FDI flows (columns 2 and 5). Similar patterns emerge when augmenting the model with controls for common legal origins, common language, and the presence of a colonial relationship (columns 3 and 6). The presence of cultural and historical ties is associated with larger FDI flows (Blonigen and Piger, 2014; Kox and Rojas-Romagosa, 2020). However, the interesting result is that the coefficient of IPD remains negative and statistically significant, even if it becomes smaller in size as part of the original correlation is absorbed by the control variables. The economic significance is substantial. A quantitative interpretation of the coefficient in column 3 suggests that as the IPD measure rises from the 25th to the 75th percentile (equivalent to moving the distance from that between South Korea and Japan to that between the

UK and Russia), FDI flows between countries declines by about 15 percent.

Heterogeneous effects. To explore how the importance of IPD for FDI changes across time, samples and types of FDI, we re-estimate the specification in equation (2) by interacting the coefficient α with various dummies. These results are reported in Table A1 and shown in Figure 3. First, the yellow bars show that the estimated semi-elasticity of FDI flows to geopolitical alignment has changed over time. The U shaped of the negative coefficients captures the fact that the negative relation between IPD and FDI was declining between the beginning of the sample (2003, soon after China joined the WTO) and 2017, while it increased since 2018, coincidentally with the resurgence of tensions between China and the United States. Importantly, the difference in the semi-elasticities between the 2009-17 and 2018-21 periods is statistically significant. Thus, if countries were to move further apart along geopolitical fault lines, FDI is likely to become more concentrated within blocs of aligned countries. The blue and red bars in the chart show that the negative relationship between FDI and IPD is driven (and approximately twice as large as the average one) if the destination or source country is an emerging market or a developing economy. Further analysis reveals that the association between IPD and FDI flows is driven especially by South-South flows (i.e., when both the source and the destination country is an emerging market or a developing economy). Finally, the green bars report the coefficient on IPD from two different regressions: one in which only FDI that are classified as strategic are included in the sample, and one in which only FDI in other sectors are included. The results show that the importance of IPD for FDI is larger for strategic sectors than other sectors.

Robustness. Our main findings are robust to alternative samples, alternative measures of geopolitical distance, and to the inclusion of additional control variables. We start by estimating the baseline specification in different samples (Table A2). The semi-elasticity is similar when restricting the sample to only manufacturing FDI (column 1) or services FDI (column 2), or when excluding country pairs that never registered an instance of FDI during the sample period (column 3). The results are also robust to excluding financial centers (Singapore, Bahamas, Malta, Cyprus, Luxembourg, The Netherlands and Ireland; see column 4)[6], and to excluding China, which could disproportionately affect the results by virtue of being both a large source and destination of FDI, especially among emerging and developing economies (column 5).

The results are robust to replacing the IPD measure with the rank of the destination country with respect to the source country in the IPD distribution (Table 2, column 1), or with alternative indicators of geopolitical distance, such as the S score (proposed by Signorino and Ritter, 1999, column 2) or the π score (proposed by Häge, 2011, column 3).

Finally, we augment the model with a set of other time-varying bilateral variables which could drive FDI flows and be associated with geopolitical distance. In column 4 we control for the an-

[6] We use the definition proposed by Damgaard, Elkjaer and Johannesen (2019); the data are available at: https://nielsjohannesen.net/fdidatabase/.

nouncement and implementation of bilateral trade barriers, as measured by Global Trade Alerts, which show no significant association with FDI but do not affect the estimation of the coefficient of the IPD. Then, we control for the intensity of trade flows, measured by bilateral imports (column 5), and by the annual change in the bilateral exchange rate (column 6). Both variables are associated with FDI flows, which are larger for country pairs that trade more and when the exchange rate of the source country appreciates. However, even controlling for these factors, the semi-elasticity between geopolitical distance and FDI remains stable and precisely estimated. Finally, one could argue that coefficient α picks up the effect of other factors which are specific to the country-pair and are potentially correlated with IPD. To address this concern we fully saturate equation 2 with country-pair fixed effects, which would absorb all these sources of heterogeneity. In this case, the interpretation of the coefficient α is more restrictive and within country-pair. This means that that the coefficient α picks up the effect of a deviation in political proximity between the source and the destination country on FDI flows. We find that the coefficient on the IDP becomes smaller (around half that of the baseline) but retains its statistical significance, when measuring FDI by its value (column 7, bottom panel). This is not the case when considering the number of instances of FDI, although the coefficient again becomes significant when restricting the sample to destination countries which are either emerging or developing countries.

Brownfield investment. The analysis discussed so far is based on greenfield investment. To be able to generalize our conclusions to gross FDI flows, we replicate our baseline results using bilateral data on cross-border M&As from 2003 to 2021 from the Refinitiv Eikon database, aggregated at the country-year level in terms of both number of deals and value (in USD). Consistent with our main results, we find that brownfield FDI flows are significantly lower between countries which are more geopolitically distant (Table A3).

4 Conclusions

FDI flows are increasingly concentrated among countries which are geopolitically aligned, especially in strategic sectors such as semiconductors. The role of geopolitical alignment in driving the geographical footprint of FDI is particularly evident for EMDEs and has increased since 2018, with the resurgence of trade tensions between the U.S. and China. If geopolitical tensions continue to rise and countries move further apart along geopolitical fault lines, FDI is likely to become ever more segregated within blocs of aligned countries.

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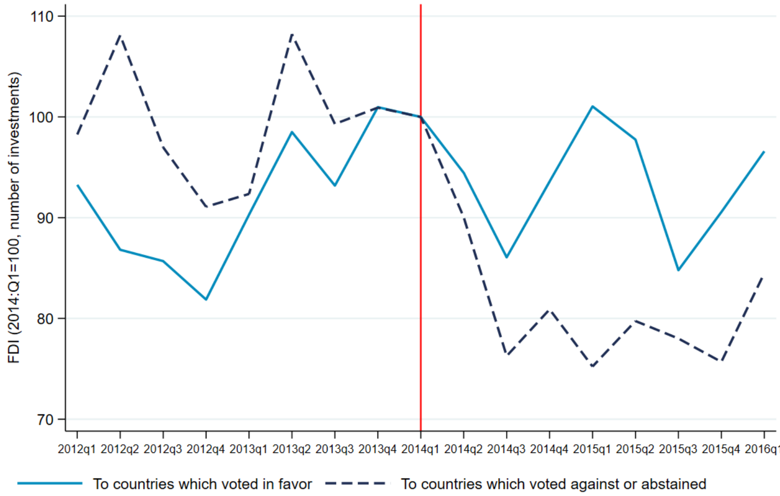
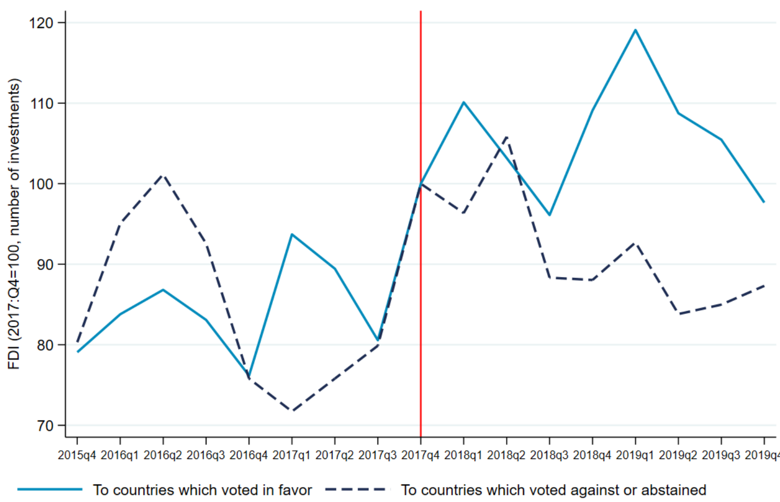
Figures

Figure 1: FDI flows around key UNGA resolutions



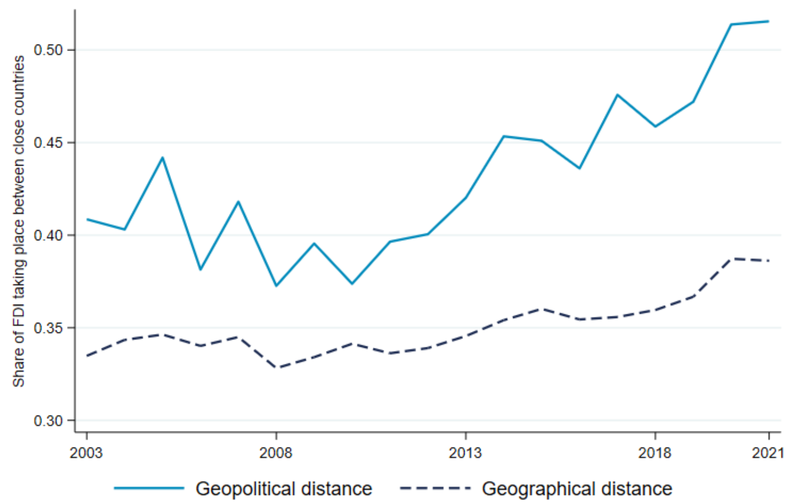
(a) FDI from countries which approved Resolution 68/262



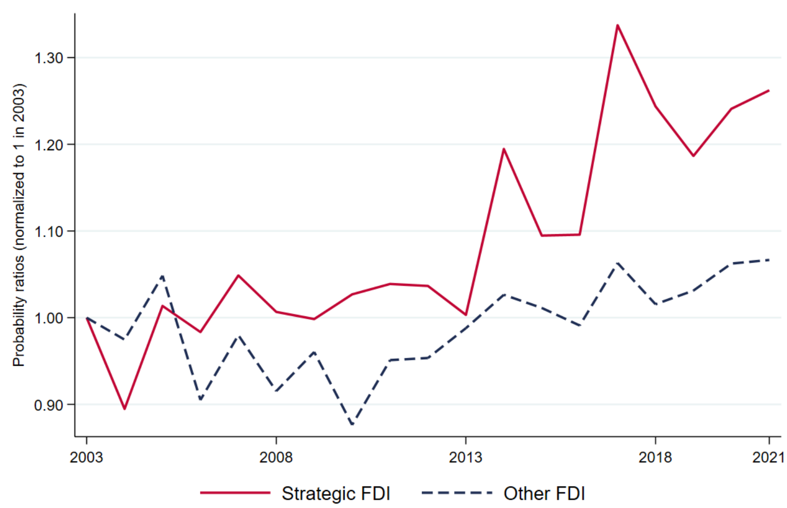
(b) FDI from countries which approved Resolution 72/191

Notes: The charts plots the number of greenfield FDI in each quarter from countrues which approved the UNGA resolution to countries which either voted against or abstained. The series are normalized to 100 in the quarter of the vote. Panel A refers to the resolution 68/262 (March 2014) about the territorial integrity of Ukraine. Panel B refers to the resolution 72/191 (December 2017) on human rights in Syria.

Figure 2: FDI flows to geopolitically close countries



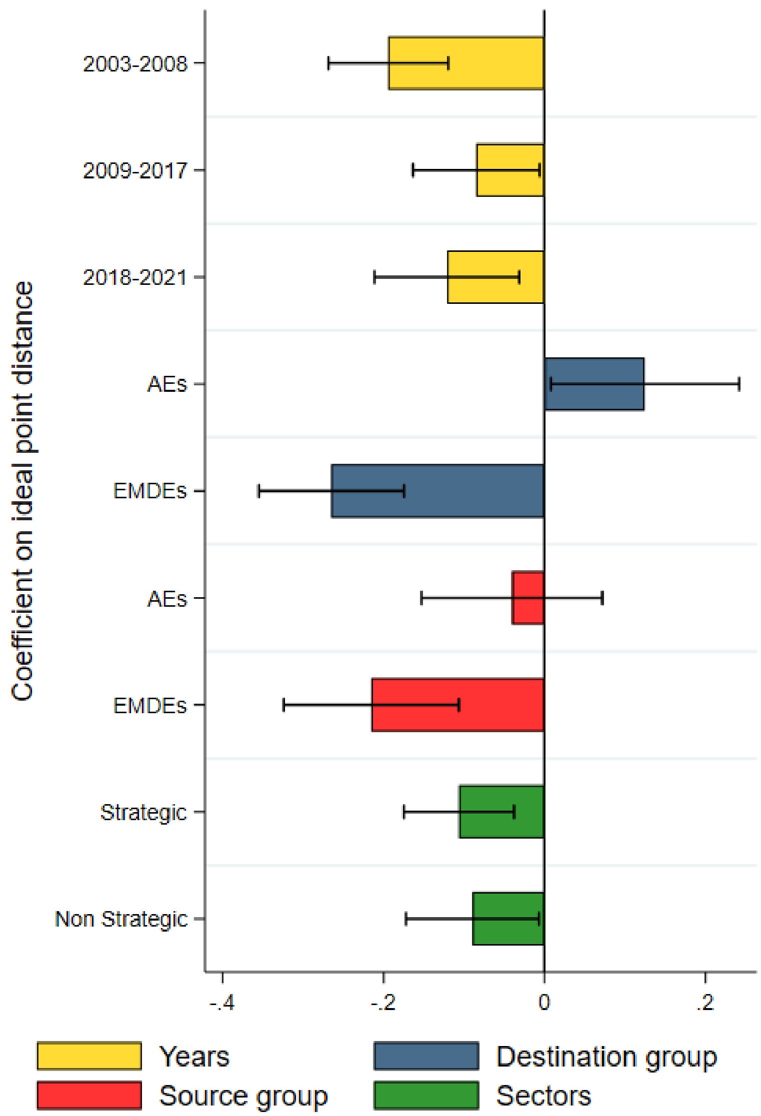
(a) Geopolitical vs geographical distance



(b) Strategic vs non-strategic FDI

Notes: Panel a plots the share of foreign direct investments in a year taking place between country pairs that are similarly distant from the United States (i.e., countries in the same quintile of the distance distribution), separately for geopolitical (solid line) and geographical (dashed line) distance. Panel b plots the ratio of the probability of FDI taking place between geopolitically close countries to the probability of FDI taking place between countries geographically close, separately for strategic (solid line) and other non-strategic (dashed line) FDI. The ratio is normalized to 1 in 2003.

Figure 3: Geopolitical distance and FDI: heterogeneous effects



Notes: the chart plots the coefficients of the IPD estimated from a gravity model for the number of foreign direct investment.

Table 1: Baseline results: Greenfield investment

The table reports the results of the estimation of equation 2 by Poisson pseudo-maximum likelihood. The sample spans the period 2003-2021. Standard errors in parenthesis are clustered at the source-destination pair level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable:	Greenfield FDI (number of projects)			Greenfield FDI (USD million)		
Ideal point distance, lagged	-0.3570***	-0.1448***	-0.1162***	-0.4563***	-0.2610***	-0.2162***
	(0.042)	(0.040)	(0.039)	(0.035)	(0.034)	(0.033)
Geographic distance		-0.6266***	-0.5694***		-0.6168***	-0.5720***
		(0.035)	(0.037)		(0.035)	(0.035)
Common legal origins			0.1541***			0.0503
			(0.048)			(0.051)
Common language			0.4768***			0.5446***
			(0.079)			(0.077)
Colonial or dependency relationship			0.4135***			0.4052***
			(0.083)			(0.085)
Observations	320,025	320,025	320,025	320,025	320,025	320,025
Source country x year FE	Y	Y	Y	Y	Y	Y
Destination country x year FE	Y	Y	Y	Y	Y	Y

Table 2: Robustness to alternative measure of geopolitical distance and additional controls

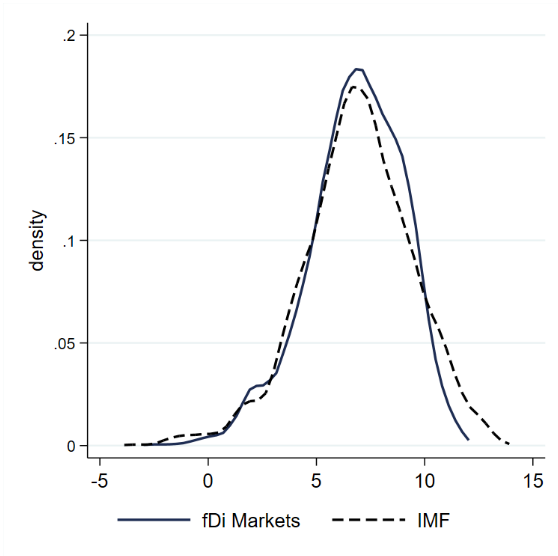
The table reports the results of the estimation of equation 2 by Poisson pseudo-maximum likelihood. The sample spans the period 2003-2021. Standard errors in parenthesis are clustered at the source-destination pair level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent Variable:	Greenfield FDI (number of projects)						
Ideal point distance, lagged				-0.1028**	-0.1182***	-0.1151***	0.0075
				(0.041)	(0.038)	(0.039)	(0.028)
Geographic distance	-0.5661***	-0.5747***	-0.5530***	-0.5604***	-0.3565***	-0.5680***	
	(0.036)	(0.036)	(0.036)	(0.038)	(0.040)	(0.037)	
Common legal origins	0.1538***	0.1494***	0.1533***	0.1546***	0.1102**	0.1544***	
	(0.048)	(0.048)	(0.047)	(0.049)	(0.048)	(0.048)	
Common language	0.4760***	0.4823***	0.4736***	0.4795***	0.4262***	0.4749***	
	(0.079)	(0.079)	(0.079)	(0.080)	(0.076)	(0.079)	
Colonial relationship	0.4106***	0.4148***	0.4263***	0.3976***	0.3923***	0.4149***	
	(0.084)	(0.081)	(0.082)	(0.087)	(0.078)	(0.083)	
Ideal point distance rank, lagged	-0.3281***						
	(0.094)						
S measure of distance, lagged		-0.2946***					
		(0.113)					
Pi measure of distance, lagged			-0.2809***				
			(0.067)				
Trade barriers, starting				-0.0010			
				(0.003)			
Trade barriers, announced				0.0020			
				(0.004)			
Imports					0.2012***		
					(0.018)		
Exchange rate (yearly change)						-2.4574***	
						(0.933)	
Dependent Variable:	Greenfield FDI (USD Million)						
Ideal point distance, lagged				-0.1854***	-0.2204***	-0.2157***	-0.1198**
				(0.035)	(0.032)	(0.033)	(0.055)
Geographic distance	-0.5717***	-0.5769***	-0.5478***	-0.5838***	-0.4082***	-0.5698***	
	(0.035)	(0.034)	(0.035)	(0.036)	(0.040)	(0.035)	
Common legal origins	0.0485	0.0405	0.0557	0.0648	0.0220	0.0501	
	(0.051)	(0.051)	(0.050)	(0.052)	(0.050)	(0.051)	
Common language	0.5508***	0.5500***	0.5389***	0.5176***	0.4989***	0.5434***	
	(0.078)	(0.078)	(0.076)	(0.079)	(0.074)	(0.077)	
Colonial or dependency relationship	0.3955***	0.4146***	0.4207***	0.3981***	0.3861***	0.4072***	
	(0.085)	(0.083)	(0.085)	(0.087)	(0.080)	(0.085)	
Ideal point distance rank, lagged	-0.5503***						
	(0.081)						
S measure of distance, lagged		-0.6239***					
		(0.099)					
Pi measure of distance, lagged			-0.4870***				
			(0.062)				
Trade barriers, starting				0.0012			
				(0.004)			
Trade barriers, announced				-0.0013			
				(0.004)			
Imports					0.1608***		
					(0.020)		
Exchange rate (yearly change)						-4.3679***	
						(1.076)	
Observations	320,025	319,987	319,987	252,172	257,077	317,770	115,637
Source country x year FE	Y	Y	Y	Y	Y	Y	Y
Destination country x year FE	Y	Y	Y	Y	Y	Y	Y
Country pair FE	N	N	N	N	N	N	Y

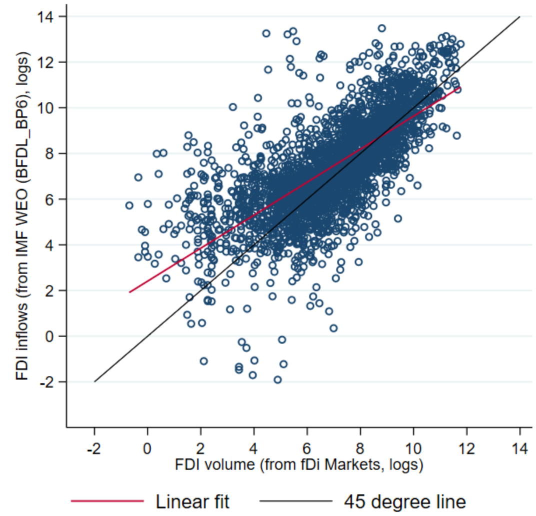
Online Appendix—Not for Publication

Additional Figures

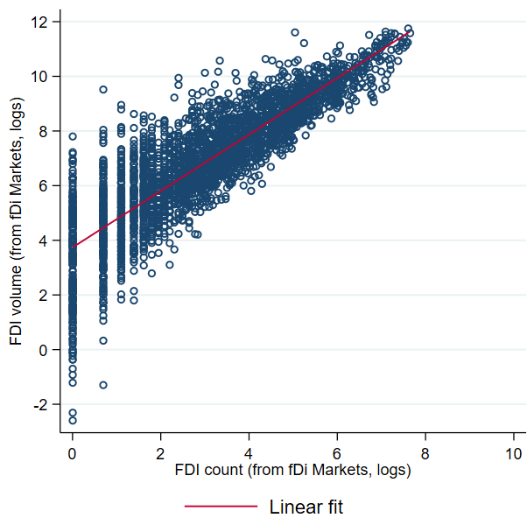
Figure A1: Data on FDI flows, micro vs macro



(a) Investment-level and aggregate FDI flows, densities



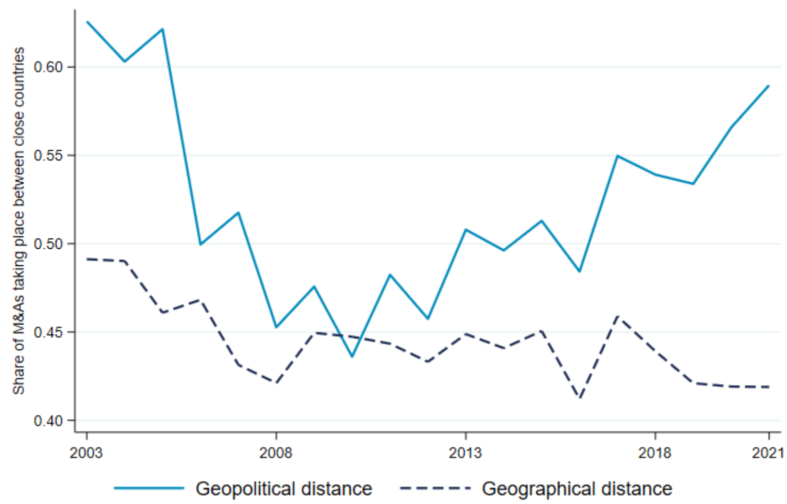
(b) Investment-level and aggregate FDI flows



(c) FDI count (number of individual investments) vs FDI volume

Notes: Panels a and b plot FDI inflows at the country-year level from the World Economic Outlook and from fDi Market between 2003 and 2021, in volume. Both variables are expressed in logarithms. Panel c plots FDI inflows at the country-year level only from fDi Market between 2003 and 2021, comparing flows in volumes and in number of investments. Both variables are expressed in logarithms.

Figure A2: M&As among geopolitically close countries



Notes: the chart plots the share of mergers and acquisitions (M&As) in a year taking place between country pairs that are similarly distant from the United States (i.e., countries in the same quintile of the distance distribution), separately for geopolitical (solid line) and geographical (dashed line) distance.

Additional Tables

Table A1: Heterogeneous results

The table reports the results of the estimation of equation 2 by Poisson pseudo-maximum likelihood. The sample spans the period 2003-2021. Standard errors in parenthesis are clustered at the source-destination pair level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable:	Greenfield FDI (number of projects)					
Ideal point distance, lagged	-0.1162**				-0.1064**	-0.0897*
	(0.0392)				(0.0350)	(0.0422)
Geographic distance	-0.5694***	-0.5696***	-0.5989***	-0.5693***	-0.3887***	-0.5525***
	(0.0368)	(0.0368)	(0.0374)	(0.0365)	(0.0350)	(0.0374)
Common legal origins	0.1541**	0.1542**	0.1504**	0.1588***	0.1587**	0.1694***
	(0.0482)	(0.0482)	(0.0499)	(0.0477)	(0.0521)	(0.0485)
Common language	0.4768***	0.4760***	0.4809***	0.4834***	0.3352***	0.4521***
	(0.0788)	(0.0788)	(0.0764)	(0.0782)	(0.0863)	(0.0822)
Colonial or dependency relationship	0.4135***	0.4120***	0.3727***	0.4073***	0.2515**	0.4230***
	(0.0834)	(0.0836)	(0.0847)	(0.0824)	(0.0816)	(0.0848)
Ideal point distance, lagged (2003-08)		-0.1943***				
		(0.0380)				
Ideal point distance, lagged (2009-17)		-0.0849*				
		(0.0401)				
Ideal point distance, lagged (2018-21)		-0.1214**				
		(0.0459)				
Ideal point distance, lagged, to AEs			0.1249*			
			(0.0597)			
Ideal point distance, lagged, to EMDEs			-0.2650***			
			(0.0460)			
Ideal point distance, lagged, from AEs				-0.0404		
				(0.0573)		
Ideal point distance, lagged, from EMDEs				-0.2154***		
				(0.0556)		
Observations	320025	320025	320025	320025	121213	116942
Source country x year FE	Y	Y	Y	Y	Y	Y
Destination country x year FE	Y	Y	Y	Y	Y	Y
Sample	All	All	All	All	Strategic	Other

Table A2: Robustness to alternative sample

The table reports the results of the estimation of equation 2 by Poisson pseudo-maximum likelihood. The sample spans the period 2003-2021. Standard errors in parenthesis are clustered at the source-destination pair level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)
Dependent Variable:	Greenfield FDI (number of projects)				
Ideal point distance, lagged	-0.1310***	-0.1157***	-0.1259***	-0.1229***	-0.1566***
	(0.034)	(0.043)	(0.038)	(0.039)	(0.041)
Geographic distance	-0.5102***	-0.6447***	-0.5368***	-0.5931***	-0.6135***
	(0.037)	(0.039)	(0.035)	(0.040)	(0.039)
Common legal origins	0.1389***	0.1537***	0.1652***	0.1590***	0.1578***
	(0.048)	(0.046)	(0.047)	(0.052)	(0.043)
Common language	0.3911***	0.5482***	0.4296***	0.4665***	0.4667***
	(0.078)	(0.080)	(0.076)	(0.084)	(0.081)
Colonial or dependency relationship	0.2805***	0.5056***	0.3950***	0.4266***	0.4196***
	(0.074)	(0.090)	(0.080)	(0.087)	(0.088)
Dependent Variable:	Greenfield FDI (USD Million)				
Ideal point distance, lagged	-0.1999***	-0.2352***	-0.2346***	-0.2106***	-0.2192***
	(0.032)	(0.038)	(0.032)	(0.033)	(0.036)
Geographic distance	-0.5743***	-0.5941***	-0.5331***	-0.6023***	-0.6105***
	(0.036)	(0.034)	(0.033)	(0.038)	(0.039)
Common legal origins	0.0478	0.1195**	0.0727	0.0643	0.0745
	(0.056)	(0.048)	(0.050)	(0.055)	(0.050)
Common language	0.5039***	0.6108***	0.4795***	0.5400***	0.5353***
	(0.084)	(0.076)	(0.075)	(0.079)	(0.081)
Colonial or dependency relationship	0.3320***	0.4889***	0.3845***	0.4160***	0.4030***
	(0.085)	(0.094)	(0.082)	(0.090)	(0.089)
Observations	229,262	269,436	115,659	291,547	312,830
Source country x year FE	Y	Y	Y	Y	Y
Destination country x year FE	Y	Y	Y	Y	Y
Sample	Manufacturing	Services	Restricted	No fin. centers	Drop China

Table A3: Baseline results: Brownfield investment flows

The table reports the results of the estimation of equation 2 by Poisson pseudo-maximum likelihood. The sample spans the period 2003-2019. Standard errors in parenthesis are clustered at the source-destination pair level. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable:	M&A (number of deals)			M&A (USD million)		
Ideal point distance, lagged	-0.5475***	-0.2813***	-0.2104***	-0.5161***	-0.3869***	-0.3332***
	(0.051)	(0.047)	(0.040)	(0.044)	(0.040)	(0.043)
Geographic distance		-0.7926***	-0.7360***		-0.5231***	-0.4889***
		(0.032)	(0.028)		(0.043)	(0.045)
Common legal origins			0.1886***			0.2642***
			(0.060)			(0.079)
Common language			0.5373***			0.1483
			(0.087)			(0.118)
Colonial or dependency relationship			0.1539*			0.0845
			(0.088)			(0.116)
Observations	148,013	148,013	148,013	148,013	148,013	148,013
Source country x year FE	Y	Y	Y	Y	Y	Y
Destination country x year FE	Y	Y	Y	Y	Y	Y