Political Beta

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Abstract

Using a portfolio theory framework, we introduce the concept of *political beta* to model firm-level export diversification in response to global political risk. Our model predicts that firms are less responsive to changes in political relations with lower beta countries – those that contribute less to the firm's total political risk. We document patterns consistent with our model using disaggregated Russian firm-by-destination-country data during 2001-2011: Trade is positively correlated with political relations, though the effect is far weaker for trading partners whose political relations with Russia are relatively uncorrelated with those of other partners in a firm's export portfolio.

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1. Introduction

Risk is a fundamental input into models of firm investment behavior. A large macro literature builds on the observation that greater uncertainty raises firms' required return on investment and uses the resultant insights to explain aggregate economic fluctuations (e.g., Bloom, 2009). Not all risks are created equal, however. Some risks can be traded and can thus be managed by financial instruments.[1] Others, many of which are important risk factors faced by firms (particularly in the international operations context), are not tradable.

In this paper, we frame a firm's management of such risks as analogous to an investor's portfolio choice problem. To this end, we build a model of firm operations/investment, drawing on insights from the rich literature in finance on optimal risk diversification dating back to seminal contributions by Sharpe (1964), Lintner (1965), and Merton (1973). We focus on political risk, a setting that is well-suited to analyzing a firm's portfolio of activities, and an area in which, to our knowledge, the model and insights we develop are new as a way of explaining firm choices.

It is very common for multinational firms to cite political exposure as a rationale for geographic diversification. Such concerns are exemplified by discussion of Russian oil companies' efforts to broaden their export options as the country's political relations with Europe – its traditional market – have deteriorated. A pipeline to the east has facilitated export opportunities in Asia, and China is now its second-largest market (after Germany), one with political frictions that are relatively uncorrelated (or as we document below, possibly even negatively correlated) with those of Europe.[2] Indeed, the message of our paper is that – in line with portfolio theory – international political risk can be modeled as a set of interdependent risks: a market is particularly valuable if it is relatively uncorrelated with others in a firm's "portfolio."[3]

[1] Hoberg and Moon (2017) find that operational hedging can be of value managing tradable risks as well. See also Kuzmina and Kuznetsova (2018).

[2] See https://www.forbes.com/sites/kenrapoza/2015/04/07/heres-where-russia-shipped-oil-last-year-as-ukraine-europe-diversifies/ (last accessed December 3, 2021)

[3] This view is well-summarized by the description of Ford Motor Company's management of its global currency risk, provided by an official at the company's treasury department: "Ford has managed foreign exchange risk associated with each currency exposure on an independent basis. Recently, we've developed a portfolio view of foreign exchange exposures across the company to assess and manage risk more holistically." See https://www.risk.net/awards/2443153/corporate-risk-manager-of-the-year-ford-motor-company (last accessed December 3, 2021). While the focus in this case is currency risk (which is distinct from political risk, in particular because it is a tradable risk) the key message is that some companies do use portfolio intuition to manage global risks.

The model we deploy formalizes this political hedging intuition, focused on export decisions, which correspond to our empirical application. We assume that exporting to a destination has two benefits – it increases current revenues, and also serves as "investment" by lowering costs (or increasing demand) in the next period. Political relations between the home and destination countries also affect contemporaneous profits, and the firm must make current export decisions with no knowledge of future political conditions. Our model yields the straightforward prediction that exports are positively correlated with the warmth of political relations. It also yields a more nuanced political hedging result, that export behavior responds less to changes in political relations with countries whose political ties are less positively (or even negatively) correlated with those of the firm's other export markets.

To test this model empirically, we use firm-by-destination-country administrative data from Russia for all exporting companies during 2001-2011, combined with a measure of bilateral political relations based on United Nations voting records (Gartzke, 2010).[4] More specifically, we use Russia's shifting political relationships over this period to study how firms respond to evolving political risks that potentially impact the ease with which they can engage in trade with particular countries. Our sample comprises more than 300,000 firm-destination-year-level observations on exports by around 50,000 firms across 180 export destination countries. Utilizing such granular data allows us to observe the response of an individual exporter to political relations between Russia and a given destination market, which is essential to assessing the (non-diversifiable) contribution of a given export market to the overall political risk "portfolio" for a firm's export markets.

Using an augmented gravity trade model, we find support for both of our primary predictions in the data. First, we verify that international trade is highly responsive to political relations. Even with the inclusion of a rich set of controls and fixed effects, we show that as political relations between Russia and a given country deteriorate, companies decrease their exports to that country. The effect is sizeable – a one standard deviation decline in our political relations index is associated with a 10 percent reduction in exports.

Second, to test our "political risk portfolio" theory, we explore whether this response to shifting political relations varies as a function of the market's contribution to the firm's overall

[4] In a robustness check we also use an alternative measure of political relations: the difference in state dynamic preferences based on Ideal Points (Bailey, Strezhnev, and Voeten, 2017).

political risk portfolio. To do so, we calculate a *firm-country* pair "political β," which captures the extent to which a destination country's political relationship with Russia tends to comove with Russian relations with other destination countries to which a given firm exports. More precisely, we define political β in a manner that parallels that of classical portfolio theory, as the regression coefficient of political relations for a given export destination with the (weighted) average political relations of all export destinations for a given firm. As with the traditional β used in the Capital Asset Pricing Model (CAPM), our measure captures how much a given "holding" (in our case an export market) adds to the firm's total systematic/non-diversifiable risk (Sharpe, 1964; Lintner, 1965).[5]

Consistent with our model, we find that shifts in political relations with a given market lead to significantly smaller changes in exporting to low political β destinations, since these markets provide a political hedging benefit for the firm's export portfolio. This result highlights the importance of the interaction of country-level political risk in a given firm's (political) portfolio.[6] Notably, as in standard portfolio theory, we find that it is *not* the volatility of political relations with a given country, per se (political σ), that has an effect on firm's exporting behavior, but rather the non-diversifiable (at the firm-level) component of that country risk, i.e., political β. That is, idiosyncratic/diversifiable (at the given firm-level) political risk does not matter.[7]

Finally, we present results based on an aggregated version of our trade data to demonstrate that the political risk management and diversification patterns that we uncover from our firm-by-destination-level analysis cannot be detected using more aggregated trade data (e.g., product-level exports to different destination markets). The intuition behind this need for firm-level data is that destination-specific political risk cannot readily be traded among firms within the same country.[8]

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[5] As described in Section 4.2 below, the overall political portfolio is specific to a given firm since different firms export to different sets of destinations (and/or export different shares of total exports to the same destinations). As a result, political β is thus specific to a given country-by-firm pair. A country that serves as a hedge destination (i.e., with low or negative political β) for one exporter might be a high political β market for other exporters.

[6] For example, suppose a firm predominantly exports to Britain and the U.S., while also sending a lesser share of its exports to China. Because Russia's relations with the U.S. and Britain tend to be highly correlated, each of these destinations will have a high β, relative to the China market β. In this case, the same change in political relations would have a higher impact on exports to the U.S. and Britain (high β destinations for this firm) than on exports to China. China, representing a low, or even negative, β destination for this firm, acts as a political risk hedge for the firm. Ceteris paribus, the firm would therefore respond less to contemporaneous fluctuations in political relations with China since it values the hedging potential of the Chinese market.

[7] We would like to thank John Cochrane for highlighting this point.

[8] In theory, investors might diversify this risk in aggregate. This is impractical in our setting, since very few of the firms in our sample are publicly traded, a fact that holds, albeit to a lesser degree, in the U.S. and other Western economies.

As such, the risk characteristics of a given market derived from country-level data are unlikely to reflect the (differential) assessment of that risk by individual firms.

Our work builds on concepts from portfolio theory to bring new insights and evidence to the study of both political economy and international trade. Most directly, we contribute to the literature on how firms navigate non-tradable risks, in particular global political risks. To our knowledge, we are the first to model these risks as representing an interconnected portfolio of (non-tradable) exposures, rather than seeing political risk as reflected in average exposure (e.g., Desai, Foley, and Hines, 2008 on leverage; Hoberg and Moon, 2017 on currency risk; and Hassan et al, 2019 who develop a linguistic-based work based on a measure of firm-level political risk). A related literature in management and strategy looks at overlapping questions related to multinational investment decisions and the political environment(see, e.g., Henisz, 2000 for an early and influential contribution). We expand this literature by showing that there is a potentially important interaction between a country's risks and a firm's overall portfolio. Moreover, we provide a conceptual underpinning for this addition. In doing so, we provide a bridge from the canonical contributions in portfolio theory (Sharpe, 1964; Lintner, 1965; and Merton, 1973) to the modeling of firms' non-tradeable risks.

Finally, we contribute to the body of work that examines the impact of political frictions on economic relations. Recent contributions include Michaels and Zhi (2010), who examine substitution away from French inputs following a worsening in political relations between the US and France in 2003; Fisman, Hamao, and Wang (2014), who measure the adverse impact on stock returns of Chinese (Japanese) firms involved in operations in Japan (China), respectively; Fouka and Voth (2016), who document the decrease in demand for German products in Greece during the 2010-2014 Greek debt crisis and find that the effect is more pronounced in the areas that suffered more at the hands of the Nazis during the Second World War.[9] Our paper highlights that individual firm responses to these political shocks depend on firms' overall export portfolios, and that this consideration is essential for a fuller examination of how political risk is managed by individual firms.[10]

[9] The similar patterns in the context of international trade and investment are documented by, e.g., Gupta and Yu (2009), Massoud and Magee (2013), Belin and Hanousek (2020), Davis, Fuchs and Johnson (2019), Fuchs and Klann (2013), Pandya and Venkatesan (2016).

[10] In work that is concurrent with our own, Esposito (2022) looks at risk diversification that also accounts for country-level covariance. Critically, however, in that study a country's risk is assumed to be common across firms which, as we argue below, is unrealistic given firms' different risk exposures. Moreover, assuming fixed country-level risk is

The rest of the paper is structured as follows. The second section provides the motivation and theoretical underpinnings of the paper. The third section describes the data used in our analysis. The fourth section details our results. The fifth section considers important extensions. The sixth section provides robustness checks, and the seventh section concludes.

2. A Model of the Management of Political Risk

We present a model of political risk based on export decisions to multiple destinations by a firm that produces in a single country, as this description fits our empirical setting. Our model may straightforwardly be applied to political risk in the sourcing of inputs, as well as other types of non-tradable systematic risk exposure that cannot readily be hedged by financial markets.

2.1 Setup of a Russian Exporter's Problem

Consider an exporting company that "lives" for two periods. For simplicity, we abstract from the choice of destinations and assume that the firm exports to some fixed set of N countries/markets, indexed by m.[11] Denote A_t^m as the level of political relations between the firm's home country (for concreteness and in line with our data, we refer to Russia as the home country throughout this section) and country/market m in period $t = 1,2$. Without loss of generality, assume that higher values of A^m reflect better political relations.

The firm's information set is structured as follows. The level of current (period $t = 1$) political relations with all markets A_1^m is known, but political relations in the second period are not revealed until $t = 2$. The firm decides how much to export to country j in any given period after observing the contemporaneous level of political relations, $\{A_1^j\}_{j=1}^N$. Denote the firm's exports in period $t = 1$ into country/market m as Q_1^m, while profits received from market m in period $t = 1,2$ are denoted as π_t^m.

Finally, we assume that the firm makes an investment in relationship-specific capital in the first period that affects the firm's profitability in the second period. We posit that such investment is plausibly related to first period exports into a given market. For example, higher exports at $t =$

problematic from an identification standpoint, as it is impossible to disentangle it from other (potentially unobservable) country-level factors affecting trade. In our case, identification comes from the same country representing differential risk exposure for different exporting firms, as a function of their other export markets.

[11] The set of countries to which a given firm exports is pretty stable at the firm level. Conditional on trading in the current period, a given firm-country pair has a greater than 85 percent probability of trading in the next period.

1 could lead to better brand recognition, better relations with retailers, and so forth, which increases the demand (and/or reduces selling costs) in the second period. For simplicity, we represent this investment and first-period exports Q_1^m by the same variable. Thus, second period profits π_2^m depend on both second period political relations A_2^m and first period exports Q_1^m. We assume that current investment in relationship-specific capital enters multiplicatively in the second period profit function:[12]

$$\pi_2^m = \phi(Q_1^m)\pi_2(A_2^m) \quad (1)$$

Profits in the first period depend on exports in the first period Q_1^m and first period political relations A_1^m:

$$\pi_1^m = \pi_1(A_1^m, Q_1^m) \quad (2)$$

Under our chosen normalization, higher A_t^m means better political relations such that $\frac{\partial^2 \pi_1}{\partial A_1^m \partial Q_1^m} > 0, \frac{\partial \pi_2}{\partial A_2^m} > 0$; i.e., better political relations increase the marginal profit of exporting into the given market.[13]

The exporting firm is risk averse and maximizes the sum of the current profits it receives from all markets m plus the expected value of (the sum of) future profits minus the variance of future profits in all markets.[14] Put formally, the exporter maximizes the following objective:

[12] For example, this could result under demand with constant (but potentially varying across markets) price elasticity – a commonly made assumption in trade literature – and an investment in relationship-specific capital that affects either the marginal cost of selling in the market or the demand for the product without changing this elasticity.

[13] The effect of political relations on a firm's profits from a given market π_t^m could come from the demand and/or cost side. First, a worsening in political relations might reduce the demand from consumers and producers of country m for Russian products, reducing the marginal revenue of exporting into that country (e.g., as in Michaels and Zhi (2010), Fouka and Voth (2016)). Second, country m's government might impose sanctions or tariffs on imports from Russia (or on certain Russian exporting companies) effectively increasing the marginal cost of serving that market as in Glick and Taylor (2010), Handley (2014), or Amiti, Redding and Weinstein (2019). Finally, the Russian government itself might intervenes to makes it more difficult for Russian firms to serve certain markets, which is also likely to increase the marginal cost of exporting to such markets. For the purposes of our analysis, however, it does not matter whether the effect of political relations on profits comes from the demand or cost side (or some combination of the two). We only require that political relations be exogenous to a given firm's activities, i.e., we assume that a given Russian exporter takes political relations with all markets as given, because it lacks sufficient political and economic clout to affect foreign policy. (We discuss ways to deal with the potential endogeneity of political relations A^m to firm's exporting behavior Q^m in Section 6.1 below.)

[14] One can think of our two-period problem as a short cut for the multi-period model, in which there is no uncertainty about contemporaneous profits, but there is a stochastic component in future profitability due to the uncertainty in political relations. That is why in our formulation first period profit explicitly depends on first period exports Q_1, while we do not explicitly model second period exports Q_2 assuming that the profit function π_2 is calculated at the optimal level of second period exports.

$$\Pi = \sum_m \pi_1\ (A_1^m, Q_1^m)\ + \theta \sum_m \phi(Q_1^m)\, E_1[\pi_2(A_2^m)] - \frac{\rho}{2} Var_1 \left[\sum_m \phi(Q_1^m)\pi_2(A_2^m)\right] \quad (3)$$

The second and third terms are analogous to the standard utility function of an investor in the portfolio theory literature, who cares only about the mean and variance of returns: $U(\mu, \sigma^2) = \theta\mu - \frac{\rho}{2}\ \sigma^2$ (see, e.g., Sharpe, 1964).

We argue that risk aversion at the firm level may be a reasonable assumption because, as noted earlier, the vast majority of the firms in our sample are not traded on the stock market. As a result, each firm's owner likely holds a large portion of his/her wealth in one enterprise (or at most a small number of enterprises). Investors' own risk aversion would then naturally feed into risk aversion at the firm level.

2.2 Solution of the Exporter's Problem: Political Risk Diversification

The first order conditions for a firm's choice of exports into a particular market m can be written as:

$$\frac{\partial \pi_1}{\partial\ Q_1^m} + \phi'(Q_1^m)\left\{\theta\ E_1[\pi_2(A_2^m)] - \rho\ cov_1\left[\pi_2(A_2^m), \sum_l \phi\left(Q_1^l\right)\pi_2\left(A_2^l\right)\right]\right\} = 0. \quad (4)$$

The intuitive interpretation of these conditions is the following: exporting an additional unit of product Q_1^m in some market m in period $t = 1$ produces two types of benefits. First, it affects contemporaneous marginal profits (CMP_m) from this market (the first part of equation (4) above)

$$CMP_m = \frac{\partial \pi_1}{\partial\ Q_1^m} \quad (5)$$

Second, it changes the future marginal benefit (FMB_m) of selling to country m as follows:

$$FMB_m = \phi'(Q_1^m)\left\{\theta\ E_1[\pi_2(A_2^m)] - \rho\ cov_1\left[\pi_2(A_2^m), \sum_l \phi\left(Q_1^l\right)\pi_2\left(A_2^l\right)\right]\right\} \quad (6)$$

At the optimum, the exporter equates to zero the sum of contemporaneous marginal profit CMP_m and the future marginal benefit FMB_m from the investment in country m's relationship-specific capital.

The future marginal benefit term FMB_m is, in turn, comprised of two components:

$$FMB_m = EP_m - COV_m \quad (7)$$

The first term relates to the impact of current exports, Q_1^m, on future expected profits in market m:

$$EP_m = \theta\phi'(Q_1^m)E[\pi_2(A_2^m)] \quad (8)$$

The second term (with a negative sign) reflects the impact of current exports into m, Q_1^m, on the variance of future profits from *all* markets/countries:

$$COV_m = \rho\phi'(Q_1^m)\, cov\left[\pi_2(A_2^m), \sum_l \phi\left(Q_1^l\right)\pi_2\left(A_2^l\right)\right] \quad (9)$$

We note that this latter term, COV_m, depends on the covariance of political relations between Russia and country m with the weighted average of political relations between Russia and all export destinations of a given exporting firm. It is not the (future) variance of political relations with country m that matters for the behavior of exporter f, but rather this country's contribution to the overall (political) risk faced by the exporter. A market m that has a higher covariance with the overall political "portfolio" of current export destinations of the firm (i.e., countries that tend to move *together* with other export destinations of the firm) tends to have a *lower* future marginal benefit FMB_m (as measured at $t = 1$) for the firm. By contrast, markets that tend to comove less with (or even move against) the firm's other export markets will have (ceteris paribus) a higher future marginal benefit FMB_m for the firm.

This result is akin to the diversification argument from portfolio theory. In assessing the benefits of holding a particular financial asset, an investor cares about non-diversifiable risk contained in that asset, which is measured by the asset's comovement with the market portfolio: the market β of the asset matters to the investor rather than the total risk (variance) of this asset in isolation. It is important to note that in our context, there is no common political market portfolio, since political risk is not traded. As a result, all country covariances (and resulting political βs) are firm- and country-specific.[15, 16] An interesting consequence of this construct is that the same export market might be perceived as lower (systematic) risk by some exporters and high (systematic) risk by others, depending on their overall political "portfolios" of destination countries for different exporting firms.

[15] One can easily transform this covariance into the time-series regression coefficient ("political β") by dividing the covariance COV_m in (9) by the variance of the overall political relations portfolio, $\sum_l \phi(Q_1^l)\pi_2(A_2^l)$. In the analysis below, we always include firm-specific fixed effects to control for differences in political portfolios "held" by different exporters. For robustness, we also show results using covariances instead of βs. Results are very similar qualitatively.

[16] In our empirical analyses, we calculate political βs using a rolling time window over past periods (to approximate moments conditional on the time t information set, as, in principle, all moments in first order conditions (4) are time $t = 1$, specific). Political βs, therefore, are firm-country-time-period specific. In this regard, a firm's assessment of country risk (as it contributes to the firm's own political portfolio) is allowed to adjust over time to the major shifts in the structure of political relations (e.g., the formation of new political alliances, changes in leadership, and so forth). Time-varying weights of a firm's political portfolio also allow us to account for shifts in the importance of individual destinations for a given firm. This approach is standard in the portfolio theory (see, e.g., Fama and French, 1992).

In this regard, our model highlights that even in the case when risk cannot be traded (diversified) across firms, individual exporting firms *could* diversify such risk by adjusting their trade flows. Below we describe testable empirical predictions of such diversification at the firm-level that we later take to the data.

2.3 Primary Empirical Predictions

Our model provides several testable empirical predictions. We focus on explaining the logic that delivers these predictions in the main text and relegate detailed proofs and derivations to Appendix A1.

Consider an exporter whose behavior is described by the model in Sections 2.1-2.2. Assume that political relations with one of the firm's export destinations deteriorate. We are interested in studying the effect on firm exports into this market, and the heterogeneity in this response as a function of the firm's broader portfolio of export markets.

Our first prediction is that, on average, a worsening of political relations with destination country m leads to a reduction in exports to m.[17] That is, if export market m experiences an adverse political shock, companies will reduce exports into m since the contemporaneous marginal profit of exporting is lower.[18] One can think of this decline as demand-driven, with local consumers and businesses substituting away from Russian products when political relations with Russia worsen, as in Michaels and Zhi (2010) or Canayaz and Darendeli (2019). Alternatively, the decline in political relations might increase effective production costs due to trade restrictions, sanctions, or tariffs initiated by the government (either the Russian government or country m's government). In either case, current period marginal profits CMP_m of exporting to country m decline, therefore the firm reduces its exports to country m.

The intuition for this result is very straightforward, and, indeed, is a natural result in a simpler model that ignores the firm's risk portfolio. We now turn to the more nuanced prediction of the model, which accounts for the diversification across the fuller set of risks faced by the exporter:

[17] For the technical derivation, see Theorem 1 in Appendix A1.

[18] Mathematically, under the assumed normalization (higher A_1^m means better political relations), contemporaneous marginal profits $CMP_m = \frac{\partial \pi_1}{\partial Q_1^m}$ decrease when A_1^m decreases, thus resulting in decreased exports into country m, Q_1^m.

***Political risk diversification across destination markets**:[19] The negative response of exports to a deterioration of political relations is greater in magnitude (i.e., more negative) for destinations whose political relations comove more with the political relations of an exporter's other markets, and smaller in magnitude (i.e., less negative) for destinations whose political relations comove less with (or even move against) the political relations of an exporter's other export destinations.*

This prediction follows from the exporter's first order conditions in equation (4) in Section 2.2, which capture the tradeoff between the current marginal profits (in equation (5) from exporting to a given market m, CMP_m), and the future marginal benefits (in equation (6) from exporting as a result of the firm's investment in market m , FMB_m).

As the expression for FMB_m demonstrates, export markets that have a *higher* degree of comovement in political relations with other export destinations of a firm (i.e., a higher value for the COV_m term in equation (9)) provide *smaller* future marginal benefits to the firm, FMB_m (see equations (6), (7)). By the same argument, future marginal benefits from exporting today tend to be *higher* (all else equal) in the case of countries that comove *less* with (or even move against) the political relations of other export destinations with the home country. As such, the response to a change in contemporaneous political relations, A_1^m, with market m will be *smaller* for countries that comove *less* with (or move against) other export destinations of the firm.[20]

In summary, a destination market that comoves less with (or moves against) other export destinations of a given firm serves as a hedge against future political risk for the firm. The exporter thus responds less to a worsening in current political relations, tolerating a decrease in current profits because of the market's hedging potential against future political risks.

A given export market m therefore may serve as a hedge or be a source of undiversifiable political risk, depending on a firm's other exposures. We assume that political risk is not tradable (as least not *easily* tradable). As a result, different agents cannot share or trade this risk to create a common "total" political market portfolio pooling the political risks of all countries, as is the case in traditional portfolio theory, where the overall market portfolio serves as a common yardstick

[19] For the technical derivation see Theorem 2 in Appendix A1.

[20] Note that the volatility of political relations of Russia with a given export market itself does not enter into the firm's calculation. Only the systematic/undiversifiable component of the volatility results in a differential response. Diversifiable risk (i.e., the risk offset by variation in political relations with other export destinations) does not elicit a differential response.

against which to measure an individual asset's contribution to systematic risk. Rather, a firm's assessment of a country's contribution to systematic/undiversifiable risk is measured by the country's comovement with the set of export destination countries for that particular firm.

3. Data

3.1 Company-Level Exports

Our dataset contains exports of goods by all companies located in Russia to more than 180 countries. The data are derived from a database of individual customs forms for export transactions submitted to the Russian Customs Services over the years 2001 – 2011. Firms with operations in Russia must complete these customs forms every time a transaction occurs involving a product (in our case, an export) that (legally) crosses the Russian border.[21] Russian customs forms provide the following information about each transaction: 1) a description of the shipment (type, value, and weight of the goods), 2) identifying information for the Russian exporting firm (firm name, address, taxpayer number), and 3) information about the foreign (non-Russian) counterpart of the export transaction (i.e., the importer).

We use company identification numbers to identify individual exporters in our sample and aggregate all (values and weights of) exports to a particular country by a given Russian exporter within each year. This aggregation leads to our sample of 346,819 firm-by-destination country-year level observations with positive exports over 2001-2011 period. Our sample comprises approximately 50,000 unique firms with 180 destination markets.

3.2 Political Relations

In our paper we consider two proxies for the quality of bilateral political relations. Our preferred measure for political relations between Russia and an individual export destination is the "Affinity of Nations Index" (Gartzke, 2010), which aims to quantify the similarity of countries' preferences based on relative voting positions of country pairs in the UN General Assembly (UNGA) since

[21] These datasets are available for purchase from several online vendors in Russia: see e.g., www.russbd.com. Aggregated versions of these statistics are available from the Russian Customs Service as well. These data were initially made public when it was leaked from the Federal Customs Service of Russia. Similarly obtained datasets have already been used in prior research on the Russian economy. Though the Russian government does not publicly admit that the data were ever leaked, it is willing to support and use research utilizing such data to aid in the design of its policy. See, e.g., Braguinsky, Mityakov, and Liscovich (2014), Mironov and Zhuravskaya (2016), Fisman, Hardy, and Mityakov (2021), Chernykh and Mityakov (2017, 2022).

1946. As detailed below, this is also the most common approach to measuring political relations in the political science literature.

Records for United Nations General Assembly voting include entries equal to one of the following for each issue/year: "yes", "no", "abstain", "absent" or "nonmember." The Affinity of Nations Index for bilateral pairs of countries (i.e., Russia and each exporting nation) adopted in this paper utilizes the first three possible answers and quantifies it as follows: 1 = "yes"; 2 = "abstain"; 3 = "no". Our measure of political relations is calculated using the numerical representation of the response as denoted above in the following equation:

$$AF = 1 - 2\frac{d}{d_{max}} \tag{10}$$

where *d* is the sum of metric distances between votes by bilateral pairs in a given year and d_{max} is the largest possible metric distance for those votes. The resulting index, which lies between -1 and 1, follows the "*S*" score as in Signorino and Ritter (1999). Positive (Negative) values of the index correspond to (dis)similarity in UN voting for the two countries in the bilateral pair. Unlike other indexes based on alliance portfolios, indexes based on UN voting provide significant time-series variation in political distance. Following Dreher and Sturm (2012) and the majority of the literature, we focus on all votes (that is, both key and non-key votes).[22] This UNGA vote similarity approach is by far the most popular method of measuring bilateral political relations in the political science literature.[23] Thus, we use Gartzke's Affinity Index as our main measure of political relations throughout the paper.

Before we turn to our results, it is useful to examine how the Affinity Index relates to well-documented and discrete changes in political relations and describe how its (within-country) variation might provide some context for interpreting the magnitude of the effects we document

[22] We also note that the UNGA convenes toward the end of the year, in September. As a result, the Affinity Index in year t (AF_t) reflects political relations near the end of the year t. For this reason, in most of our analysis of trade in year t, we use $AF_{t-1}$the value of the Affinity Index measured in September of the preceding year.

[23] Gartzke's Affinity Index, as employed in our study based on dyadic similarity in UNGA voting, has become one of the most popular ways to measure the alignment (or lack thereof) in political relations between any two countries. See, for example, Gartzke (1998, 2000), Stone (2004), Knill, Lee, and Mauck (2012), Johan, Knill, and Mauck, (2013), Mityakov, Tang, and Tsui (2013), and Bertrand, Betwchinger, and Settles (2016) for a range of applications. In a robustness check, we confirm that our findings hold using an alternative approach to gauge the state of political relations based on the difference in countries' "Ideal Points" (Bailey, Strezhnev, and Voeten, 2017), which reflects, "[dynamic] state positions toward the US-led liberal order." See Appendix A8.

below. Figure 1 plots the Affinity Index over 2001-2011 for Russia's relations with several key neighbors and global powers. The Affinity Index shows that conflicting UN votes between Russia and Ukraine increase sharply after the 2005 Orange Revolution, as reflected by a drop of the Affinity Index by about 0.2. Frictions with Georgia are similarly reflected in the Affinity Index, which declines by 0.1 in 2007, and drops again in 2008, the year Russia officially recognized the calls for independence by two Georgian regions. The index bounces back with the normalization of Russian-Georgian relations in 2011 (e.g., citizens of each country were again allowed to visit the other without a visa by 2012).

We now turn to examine how Russia's relations with major world powers are reflected in the Affinity Index. Looking first at Germany, we observe a gradual but persistent decline in political relations (by 0.15) between Russia and Germany after 2005. This was the year when Angela Merkel, who took a tough stance on Russia, became the German Chancellor. The increase in disagreement between Russia and the United States (US) during the presidency of George W. Bush (2001-2008) was even more dramatic: the Affinity Index fell by 0.25, while a "reset" in political relations between the US and Russia in 2008-2009 under President Obama led to an increase in the Affinity Index of 0.2. We may contrast these rather tumultuous relationships with the Chinese-Russian Affinity Index, also shown in Figure 1, which was remarkably stable throughout the period we study.

To illustrate the distinct variation in Russia's relations with other countries, as captured by the affinity index, we show the correlation matrix of Affinity Indices for the top 10 export trade destinations of Russia in our sample, by total volume of exports by all companies in all years 2001-2011) (see Appendix A2 Table A2.1). We make several observations from these correlations. First, while most countries are positively correlated, we also see a number of interesting counter-examples. Most notably, China's votes are negatively related to all other top trading partners, apart from Belarus, which makes it a valuable "hedging" market. By contrast, Western Europe largely votes as a bloc. The remaining nations exhibit some greater independence, and each has a range of pairwise correlations with other top export destinations. For example, Belarus is almost uncorrelated with the votes of most European nations, though negatively correlated with both Italy and the U.S. The U.S. index is largely uncorrelated with those of Western European countries, and negatively related to the indexes of Kazakhstan, Belarus, and China. Overall, the table illustrates

that there is wide variation in comovement across country pairs, emphasizing that the hedging value of a given export destination depends on an exporter's overall portfolio of export markets.

Table 1 contains summary statistics for all variables used in our analysis.

4. Main Results

4.1 Baseline Impact of Political Relations on International Trade

We begin by examining the relationship between a country's political relations with Russia and Russian firms' exports to that destination.

To this end, we employ the gravity equation. In its classical form, the gravity equation links the amount of trade between countries to the product of their economic sizes and the inverse of the distance between the two, where "distance" could mean not only geographical distance between the countries, but also other factors that might be impediments to international trade (Tinbergen, 1962). In the multiplicative constant elasticity form, the gravity equation can be written as:

$$Q_{f,m,t} = \frac{\left(Y_t^{(m)}\right)^{\gamma_1}\left(Y_t^{Russia}\right)^{\gamma_2}}{\left(D_t^{(m)}\right)^{\delta}} e^{\alpha+\eta_{f,m,t}} \tag{11}$$

where $Q_{f,m,t}$ are total exports of Russian firm f into country m in year t. $Y_t^{(m)}$ and Y_t^{Russia} denote the GDP of country m and Russia in year t, respectively. $D_t^{(m)}$ is the "distance" between Russia and country m.

In our paper, we focus on political relations as a factor affecting trade between Russia and some other country, using the Affinity Index, $AF_{m,Russia,t}$, as a measure of the "distance" between Russia and country m in year t. As is standard in international trade literature, we consider the following log-linearized version of the gravity equation:

$$\ln Q_{f,m,t} = \alpha + \delta AF_{m,t-1} + \gamma \ln Y_{m,t} + \rho X_{f,t} + a_{f,(t)} + \psi_m + \phi_t + \eta_{fmt} \tag{12}$$

$Q_{f,m,t}$ is the total exports[24] by firm f into country m in year t. $A_{m,t-1}$ is the measure of political relations between Russia and country m in year $t-1$ proxied by the Affinity Index, as described

[24] In all of our analyses, we consider trade flows as measured in US dollars. By Russian law, every good crossing the border is reported not only in the currency of the contract, but also according to its "statistical value," which is equal to the current dollar value of goods crossing the border. Time fixed-effects included in all regressions account for US inflation and other time-varying aggregate shocks affecting trade.

in Section 3.2 above.[25] Since we look exclusively at Russian exporters, we omit the subscript *Russia* from the Affinity Index for simplicity.

We include destination country fixed effects, ψ_m, in our specifications to control for time-invariant country-level heterogeneity that might affect trade (notably geographical distance is absorbed by these fixed effects). Thus, the general political alignment between Russian and a given country m is absorbed. Our identification comes from within-country variation in the Affinity Index[26], which captures the changes in political relations between Russia and a given country m. Therefore, the coefficient on the Affinity Index, δ, should be interpreted as the change in the overall level of exports associated with a *change* in political relations with a particular country. Positive δ indicates higher (lower) trade when political relations improve (deteriorate).

As is standard in gravity models, we include the log of a country's GDP and population. We also control for the size of the Russian exporting company by including the log of its assets. Year fixed effects, ϕ_t, are included to account for various aggregate time shocks (notably, these fixed effects absorb the log of Russian GDP). We also control for firm-level heterogeneity by including firm fixed effects, a_f. In some specifications, we additionally control for more flexible firm-year fixed effects $a_{f,t}$, which account for potential productivity shocks (and hence the ability to export) at the firm-level (as well as firm size in the gravity equation framework). We use two-way clustered standard errors, clustering on firm and export destination, for all of our analyses.

The preceding specification captures the intensive margin of exports that derives most directly from our gravity trade model. Modern trade literature also emphasizes the importance of the extensive margin, i.e., the firm-level decision to trade or not (see Head and Mayer, 2014). Hence, we additionally show results in which the outcome is an indicator variable capturing whether or not firm f exports to country m in year t. For these specifications, we use a linear probability model.[27] Finally, we also combine the intensive and extensive margins in a specification that uses $ln(\$2{,}000 + Q_{f,m,t})$, where \$2,000 is chosen such that the gap between

[25] As noted earlier, the Affinity Index is constructed from votes in the United National General Assembly, which occur in September each year. The Affinity Index in any given year $A_{m,t}$ thus measures the state of political relations towards the end of that year. By using $A_{m,t-1}$ in equation (12), we, thus, use political relations from September of the previous year $t-1$ as a determinant of subsequent trade flows in the current year t.

[26] i.e. within variation in the Affinity Index between Russia and country m.

[27] Because of the preponderance of firm-country pairs that have zero trade throughout our sample period (the median firm exports to a total of 4 countries during 2001-2011), we restrict our sample in the extensive margin analysis to firm-country pairs that have non-zero trade in at least one year during our time period.

the median value of the dependent variable and 25th percentile is approximately the same as the gap between the median and 75th percentile.[28]

Regression results that capture the intensive margin of trade in equation (12) are presented in Panel A of Table 2. Across all specifications, our results indicate that as political relations between Russia and a given export destination worsen, Russian companies significantly reduce their exports into that country. In most specifications, the point estimate on Affinity Index is significant at the 5 percent level or stronger, and the coefficients imply economically large effects. As one measure of its magnitude, the within-country standard deviation in the Affinity Index is 0.26, implying that a one standard deviation decline in its value is associated with a decrease in exports into that country of around 10 percent (=0.38*0.26).

In columns (2) - (3), we include both second order lags and contemporaneous values of the Affinity Index. We find that the two-year lag has some explanatory power, though its coefficient is less than half that of the one-year lag, while the contemporaneous Affinity Index is never significant. In the remainder of our analysis, we focus on the one-year lagged Affinity Index. We add firm-year fixed effects in columns (4) – (6) and find that our results are invariant to the addition of these controls.

In Panel B of Table 2, we show results for the extensive margin of trade. The patterns are broadly similar to those in Panel A, implying both intensive and extensive margins of adjustment. For completeness, we include a specification that captures both intensive and extensive margins in Panel C, employing $\log(\$2{,}000 + Q_{f,m,t})$ as the dependent variable, which generates results that are qualitatively similar to those in Panels A and B.

Figure 2 documents the relationship between political frictions and exports across the full distribution of the Affinity Index using a binned scatterplot after 'partialling out' the main controls employed in Table 2 (i.e., firm, year, and country fixed effects, as well as controls for firm assets and country GDP and population). The graph shows an overall positive relationship across the full distribution of the (one-year lagged) Affinity Index.

The relationship we document in Table 2 and Figure 2 is in line with findings from prior studies that find a positive relationship between political relations and bilateral trade and

[28] This approach is used to address the problem of the choice in trade flow units of measurement for a fixed additive constant. In results available from the authors, we show that the patterns we describe do not depend on the choice of constant within a broad range of values.

investment (see e.g., Michaels and Zhi, 2010; Fisman, Hamao, and Wang, 2014; Fouka and Voth, 2016).[29]

4.2 Diversification of Political Risk

The main prediction of our model in Section 2 is that due to the diversification of political risk across all of a firm's destination markets, what matters to the firm is not the overall volatility/variance of political relations with an individual country, but rather the covariance/comovement of those relations with the firm's other export destination. We now turn to examining this prediction in the data.

A market that comoves less with or even moves against (in terms of political relations) other destination markets is more valuable to the firm since such a market can provide a political risk hedge for the firm (i.e., political relations with this market will remain relatively stable – or even improve – when political relations with other export markets in its "political portfolio" deteriorate). This provides a political hedging benefit for the firm (FMB_m in equation (7) is higher since COV_m in equation (9) is lower or negative). As a result, the response to a contemporaneous worsening in political relations for such a market will be attenuated relative to other export destinations.

4.2.1 Measuring a Country's Contribution to Company-Level Risk: Political β

Following the portfolio theory literature, we measure a country's contribution to the overall political risk facing an exporting firm using the regression coefficient of political relations for a given country on the weighted average of political relations over all of its export destination countries.

$$\beta_{m,f} = \frac{cov\left(AF_{m,t}, WAF_{f,t}\right)}{var\left(WAF_{f,t}\right)} \tag{13}$$

[29] The findings in Table 2 may be subject to concerns of endogeneity of political relations. For example, a desire to increase bilateral trade may encourage politicians to improve political relations. Our main interest, however, is in evaluating the more subtle prediction of our model, which emphasizes the differential response of trade to political relations as a function of a trading partner's diversification value to a firm's overall export portfolio. The specifications that are our main focus (presented in the following section) are not subject to the same endogeneity critique, since they include country-year (and also firm-year) fixed effects that account for the pairwise convergence or divergence of countries' interests. We are able to do so because our main focus is understanding how firms with distinct market portfolios respond to shocks to political relations with the same export market.

Here $AF_{m,t}$ is the Affinity Index between Russia and country m in year t and $WAF_{f,t}$ is the (weighted) average of AF for a given exporting firm f in year t, where averaging is taken over all countries with which the firm trades.

We wish to assess whether there is a differential response to changes in political relations, $AF_{m,t}$, based on the contribution of country m to the firm's overall political risk, which is proxied by $\beta_{m,f}$, a firm-specific political β. In particular, we need to estimate the following specification:

$$\ln Q_{f,m,t} = \gamma_0 AF_{m,t-1} + \gamma_1 \beta_{m,f} + \gamma_2 \beta_{m,f} AF_{m,t-1} + \delta_1 \ln Y_{m,t} + \delta_2 X_{f,t} + a_f + (\psi_m) + \phi_t + \eta_{f,m,t} \quad (14)$$

Unfortunately, we cannot calculate political β in exact accordance with equation (13), and then estimate the regression in (14). The problem, standard in asset pricing models more generally, is that in our model, $WAF_{f,t}$ is a weighted average of political relations, with weights reflecting the amount of exports $Q_{f,m,t}$ that firm i sends to destination market m. However, $Q_{f,m,t}$ is also the dependent variable in equation (14).

To deal with this simultaneity problem, we use a rolling pre-ranking approach akin to that commonly employed in portfolio theory.[30] More precisely, consider a given firm f. We construct political βs for firm f in year t by using information on both political relations and firm exports prior to year t as follows. First, we use the exports of firm f into all countries from time $t-5$ to $t-1$ and define weights for the firm's overall political portfolio as:[31]

$$w_{m,f}^{EW}(t) = \frac{1}{N_f(t)} \text{ or } w_{m,f}^{VW}(t) = \frac{\sum_{\tau=t-5}^{t-1} Q_{f,m,\tau}}{\sum_{m'} \left(\sum_{\tau=t-5}^{t-1} Q_{f,m',\tau}\right)} \quad (15)$$

Here $N_f(t)$ is the number of countries with which firm f traded during the years $t-5$ to $t-1$. $w_{m,f}^{EW}(t)$ assigns equal weights to all countries with which firm f has traded in the previous 5 years, thus, giving us an analogue to the equally-weighted portfolio in the portfolio theory. $w_{m,f}^{VW}(t)$ is equal to the share of exports by firm f to country m over the 5 years preceding year t in the total amount of firm f exports over the same period. $w_{m,f}^{VW}(t)$ thus, giving us the analogue to the value-

[30] See, e.g., Black, Jensen, and Scholes (1972), or Fama and French (1992) for classical expositions.

[31] Note that since we use a five-year lag and because our export data are available for 2001-2011, we may calculate these weights for $t = 2006, \ldots, 2011$.

weighted portfolio in portfolio theory. We then use these weights to define the equally-weighed (EW) and value weighted (VW) political portfolios of company *f* in year $\tau < t$ as:

$$WAF_{f,\tau}^{K} = \sum_{j} w_{j,f}^{K}(t) AF_{j,\tau}\,, K \in \{EQ, VW\} \tag{16}$$

As such, $WAF_{f,\tau}^{K}$ is defined as a proxy for the total amount of political risk the given exporting firm f faces in year $\tau < t$.

Finally, for each year $t = 2006, \ldots, 2011,$ we use information on the political relations for country m ($AF_{m,\tau}$) and firm f's political portfolio ($WAF_{f,\tau}^{K}$) over $\tau = \{t-14, \ldots, t-2\}$ to calculate the (equally-weighted and value-weighted) political $\beta(t)$s as:[32]

$$\beta_{m,f}^{K}(t) = \frac{cov_{t-14,t-2}\left(AF_{m,\tau}, WAF_{f,\tau}^{K}\right)}{var_{t-14,t-2}\left(WAF_{f,\tau}^{K}\right)}, K \in \{EW, VW\} \tag{17}$$

where $cov_{t-14,t-2}$ and $var_{t-14,t-2}$ denote sample covariance and variance over $t-14$ to $t-2$.

Defined in this way, $\beta_{m,f}^{K}(t)$ describes the degree of comovement between political relations for a given country with Russia, $AF_{m,\tau}$, with the overall political risk exporter *f* faced, $WAF_{f,\tau}^{K}$, over the periods *preceding* t, thus, avoiding the simultaneity problem outlined above.

We note that our approach results in time-varying political βs, since we use a different/rolling 13-year windows to calculate βs for each t: $t = 2006 - 2011$. We thus allow for the firms to (gradually) change their assessment of a country's risk contribution to their political portfolios depending on new information about political relations between that country and Russia.

We further emphasize that $\beta_{m,f}^{K}(t)$ is specific *not* only to a given country m, but *also* to exporting firm f. The same market m might have different political βs for different firms,

[32] Since in our regressions we use the Affinity Index lagged by one year (AF_{t-1}), we only use information on $AF_{m,\tau}$ from $t-14$ to $t-2$ in calculating $\beta(t)$ to avoid overlap in our calculation for each year t. Inasmuch as political relations for Russia only became available in 1992 due to the collapse of the Soviet Union (i.e., in 1991), we use the $t-14$ time frame to measure $\beta(t=2006)$ for the first year in our estimation period. We thus use the firm's exports over a 5-year trailing window to calculate portfolio weights $w_{m,f}^{K}(t)$, but use information about political relations over a longer period prior to year $t-1$ to run time-series regressions of political relations of country m, $AF_{m,\tau}$, on firm's political portfolio, $WAF_{f,t}^{K}$. We use a larger time window for political relations as we feel that using only 5 years to run a time-series regression might produce very noisy estimates of regression coefficients β. At the same time, we hope that using only 5 years of exports might be sufficiently long to evaluate firm's "dependence" on a given country in its portfolio.

depending on other countries (and the amount of exports into those countries) with which firm f trades. To illustrate the specificity of $\beta^{K}_{m,f}(t)$ to a particular firm, consider the βs for two firms that export to both Belarus and Finland. Russia's political relations with Belarus tend to move against those of Western European nations, while relations with Finland tend to be positively correlated with those of other European countries. Consider Firm 1, which in addition to exporting to Belarus and Finland also exports to other countries in Western Europe. In Firm 1's portfolio, Belarus would have a negative β, while Finland's β would be positive. Now consider Firm 2, which exports to Kazakhstan and Uzbekistan in addition to Belarus and Finland. Since these two countries' relations with Russia are positively correlated with those of Belarus and negatively correlated with those of Finland, the hedging benefits of Belarus and Finland are reversed, relative to Firm 1. That is, Belarus provides a hedging benefit for Firm 1 and is a source of non-diversified political risk for Firm 2, while Finland is a political hedge for Firm 2 and a source of non-diversified risk for Firm 1. The main prediction of our model is that Firm 1 will respond less to the changes in political relations with Belarus than Finland, while Firm 2 will respond less to changes in relations with Finland than Belarus.

4.2.2 Evidence of Political Risk Diversification: Heterogeneity with respect to Political β

We now test the main prediction of our model using the following empirical specification over the period $t = 2006 - 2011$ using $\beta_{f,m}(t)$ calculated above:

$$\begin{aligned} \ln Q_{f,m,t} = \gamma_0\, AF_{m,t-1} + \gamma_1 \beta_{f,m}(t) + \gamma_2 \beta_{f,m}(t) AF_{m,t-1} + \\ + \delta_1 \ln Y_{m,t} + \delta_2 X_{f,t} + a_{f,(t)} + \psi_{m,(t)} + \phi_t + \eta_{fmt} \end{aligned} \quad (18)$$

The main coefficient of interest in this model is γ_2, which captures the differential impact of Russian political relations with country m, depending on m's comovement (or lack thereof) with the overall political risk faced by firm *f*. The political risk diversification logic outlined above suggests that γ_2 should be positive, so that the main positive effect of the Affinity Index, γ_0, is attenuated for lower-β destinations.

As before, we include firm fixed effects, a_f, and year fixed effects, $\phi_{t,}$ to absorb firm-specific fixed heterogeneity and aggregate time shocks. We also include country fixed effects, ψ_m, to exploit within-country shocks to political relations as identifying variation. In some specifications, we include more flexible country X year fixed effects, $\psi_{m,t}$, to absorb country-year

specific shocks, such as demand fluctuations related to real business cycles shocks, exchange rate shocks, and so forth. Finally, in some specifications we further include firm X year fixed effects, $a_{f,t}$, to account for potential firm-level shocks hitting Russian exporters in a given year. As noted above, we use two-way clustering on firms and destinations. Since the betas are generated regressors we use bootstrap with 500 repetitions to calculate standard errors.

Table 3 contains estimation results of equation (18) for progressively more demanding specifications, using value-weighted political betas, $\beta_{f,m}^{VW}(t)$. We present results based on equally-weighted betas, $\beta_{f,m}^{EW}(t)$, in Table 4. Panel A reports results for the intensive margin of trade exactly as shown in (18), while Panels B and C provide the extensive and combined margin (log ($2000 + Q)) results, respectively. Across all specifications in all panels, we find that $\gamma_2 > 0$, significant at the 1 percent level of significance, implying both intensive and extensive margin effects. Within each panel, the point estimates are quite similar in all specifications, including those with country and firm fixed effects only (Column 1), country X year and firm fixed effects (Column 2), country and firm X year fixed effects (Column 3), and finally those that include both country X year and firm X year fixed effects (Column 4).[33] Thus, our results indicate that an exporter responds less to the changes in political relations for destinations that have higher hedging potential for the particular exporter, i.e., destinations that comove less with (or even move against) other destination countries with which the firm trades.

The estimated coefficients imply an effect of considerable magnitude. Focusing first on the intensive margin, the coefficient, γ_0, indicates that political relations, $AF_{m,t-1}$, for a country that has no comovement with the other countries in an exporter's political portfolio ($\beta = 0$) is approximately 0.35, implying that for a (within-country) one standard deviation decrease in political relations, exports to that country will decrease by around 9 percent (=0.35*0.26). For a destination with a large hedging value, e.g., $\beta = -2$ (roughly 2 standard deviations less than the mean value of $\beta\sim$ 0.6), political relations would decline to 0.07 (=0.35-2*0.14), implying a negligible 1 percent change in trade for a one standard deviation change in the Affinity Index. By

[33] The inclusion of progressively more saturated fixed effects specifications helps us to emphasize the robustness of our findings, and also allows us to rule out various concerns of confounding factors and reverse causality. For example, the inclusion of firm X year fixed effects effectively controls for fluctuations in the price of the product exported by a particular firm (for single-product firms), while country X year fixed effects account for all time-varying unobservables at the country level (by construction, it would also account for all *bilateral* Russia X foreign country factors). In this case, the identifying variation comes from the same country having a low β for some firms and a high β for others, at a given point in time.

contrast, for high systematic political risk destinations with, e.g., $\beta = 2$ (which is roughly 1.5 standard deviations greater than the mean value of β), the marginal impact would be 0.63 (=0.35+2*0.14), implying a 16 percent change in trade for a one standard deviation change in the Affinity Index.[34]

Figure 3 presents binned scatterplots to show the (intensive margin) relationship between political relations and trade for firm-destination observations that are above versus below $\beta = 0.6$, the sample mean. The scatterplots are based on residualized data to control for the same set of fixed effects and controls as in Table 3. The two scatterplots show sharply contrasting relationships: for high-β destinations, the correlation between political relations and trade is positive (Panel A), whereas the relationship is much attenuated for low-β destinations (Panel B).

In summary, we argue that political β seems to capture some salient aspects of how exporting firms manage political risk. Our results can be seen as capturing the same diversification logic that drives standard portfolio choice models, in which investors' valuation of assets varies as a function of their contribution to the investor's overall systematic risk. In our case, we show that exporters put greater value on destinations with higher hedging potential (i.e., those with lower or negative β), as evidenced by the smaller decrease in exports in response to a deterioration in political relations between Russia and low β markets. By contrast, exporters are more willing to contract their operations in response to similarly adverse shocks to political relations for destinations that do not have such hedging potential (i.e., high β ones).

5. Extensions

5.1 Overall vs Systematic Risk: Political β versus Political σ

In Section 4, we documented that exporters have a differential response to changes in political relations between Russia and a given export destination depending on the comovement of that country's political relations with those of all export markets, i.e., the overall political risk faced by the exporter. One may argue, however, that higher β countries might also have political relations that are simply more volatile. Put differently, our finding that exporters tend to respond more to

[34] We also compared estimation results for the period when Vladimir Putin was Russian President (pre-2008) versus the period that followed, under President Dmitry Medvedev. Notably, during Medvedev's presidential tenure, Putin (then a Prime Minister) explicitly focused on domestic affairs and distanced himself, at least publicly, from international politics. We find evidence of political risk diversification in both periods (see Tables A5.1, A5.2 in Appendix A5 for these results). If anything, the latter period results are stronger.

the changes in political relations with high β countries might be driven by exporters' responsiveness to markets with higher volatility of political relations.[35]

Before exploring the role of political risk volatility directly, we begin by pointing out that this alternative explanation cannot account for our findings on political β in the most stringent specifications – destination volatility is a country-year variable that is absorbed by county X year fixed effects in Tables 3 and 4. Nonetheless, we explore the potential role of volatility in explaining export patterns that might be correlated with political risk diversification. To this end, we calculate the standard deviation of political relations, σ_m, for each country m, and analyze the heterogeneity of the response to political β while also including interactions with "political σ." As in the case of political β, we use the rolling pre-ranking approach for political σ, i.e., we use the $\tau = t - 14$ to $t - 2$ time window in calculating $\sigma_m(t)$, defined as the standard deviation of political relations, $AF_{m,\tau}$. Political $\sigma_m(t)$ is thus time-varying and country m specific, but it is common across all firms in a given year. We then estimate the following empirical specification for $t = 2006\text{-}2011$:[36]

$$\ln Q_{f,m,t} = \gamma_0 AF_{m,t-1} + \gamma_1 \sigma_m(t) + \gamma_2 \sigma_m(t) AF_{m,t} + \gamma_3 \beta_{f,m}(\mathrm{t}) + \gamma_4 \beta_{f,m}(\mathrm{t}) AF_{m,t-1} + \\ + \delta \ln Y_{m,t} + \delta X_{f,t} + a_f + \psi_{m,(t)} + \phi_t + \eta_{f,m,t} \quad (19)$$

We present estimation results for equation (19) at the intensive margin in Table 5. In the first two columns we omit political β and its interaction term and look only at the heterogeneity of the effect of political relations, $AF_{m,t-1}$, depending on the variance of a country's political relations (calculated over preceding years as described above): political σ. We find some evidence that firms tend to respond more to the changes in political relations with higher political σ countries in specifications that do not include political β. The coefficients, γ_2, on interactions between the Affinity Index, $AF_{m,t-1}$, and political σ are positive and significant, both in statistical and economic senses.

Once we include political βs and their interactions with the Affinity Index, the implied effect of political σ declines considerably, becoming small in magnitude and statistically

[35] It is impossible for a country to have higher β without having sufficiently high variance of political relations. The converse is not true, however. High variance countries might have lower (or even negative) β, which makes it even more important to disentangle the contributions of these two channels.

[36] We consider specifications with country and firm fixed effects, ψ_m and a_f. We also include firmXyear fixed effects in some specifications. We cannot include countryXyear fixed effects since political σ is countryXyear specific.

insignificant, implying that there is no heterogeneous response to political relations depending on political σ once political β is considered (at least at the intensive margin). In more flexible specifications that include firm X year fixed effects (Column 4 and Column 6), γ_2 even flips sign. At the same time, political βs and their interactions, both from the value-weighted approach and from the equally-weighted approach, are positive and have the same magnitudes as in Tables 3 and 4. In Appendix Tables A4.1 and A4.2, we present the extensive and combined margins of our analyses of country volatility effects. In both cases, the coefficient on the $AF * \sigma$ interaction declines substantially in magnitude with the inclusion of our β interaction. Though it remains somewhat large in some specifications, it is never statistically significant. Of greater relevance for our paper is the interaction term, $AF * \beta$, which is virtually unchanged implying that, to the extent that volatility explains firms' export choices, it is independent of the idea of risk portfolio management that is at the heart of our paper.

Overall, the results in this subsection likewise echo the diversification logic from the portfolio theory: it is not the overall risk of an asset that investors care about (variance of an asset's return), but rather the systematic risk this asset contributes to an investor's portfolio (covariance of that asset return with a market portfolio). In our case, since political risk is not traded, there is no common market portfolio but rather each firm has its own political portfolio. Still, the diversification logic remains. Exporting firms respond differentially to political relations with high vs low *systematic* political risk countries (proxied by high versus low political β) rather than total political risk (proxied by high versus low political σ).

5.2 Aggregate Data Analysis

In both our theoretical model and its empirical implementation, we have emphasized that the construction of political β is specific to a given exporting firm. As a result, having firm-by-country level data is essential to our analysis. Given that firm-by-country trade data are less readily available than aggregated data, we consider whether the patterns we observe can plausibly be detected via comparable analyses on data at the country-level.

To conduct this more aggregated analysis, we define a country's m political $\beta_m(t)$ based on equation (17), though in this case there is no firm-level subscript f, as the β is defined over aggregate exports. We present these results in Table 6. In contrast to our firm-specific analyses, we find that while there remains a positive *direct* relationship between political relations and trade,

there is no discernable heterogeneous response with respect to the political βs calculated using aggregated data. This highlights both the novelty and importance of our approach.

We argue that this lack of explanatory power of an aggregate political β is intuitive since the management of political risk, which is not easily tradable, most plausibly takes place at the firm level. Each firm is exposed to a *distinct* set of destination markets and adjusts its "political portfolio" according to its markets' contribution to the firm's *own* overall political risk. Trade flows and political βs measured from the aggregated data would miss the political risk diversification patterns undertaken at the individual firm level. These results highlight that a proper analysis of political risk management necessarily requires data at the firm-destination level, i.e., the level of disaggregation at which political risk management is likely to take place.

To highlight the distinction between aggregated versus firm-level data analysis, we also plot the firm-by-country political βs (used in our main analysis above) over country political βs obtained from the country-level Russian exports that we obtained by aggregating our firm-level export data. This is documented in Figure 4, which shows no clear relationship between political βs measured using firm-level data, and βs constructed from aggregate trade flows.

Finally, to further emphasize the importance of our approach of measuring political risk at the firm-level (or to put it differently, the inappropriateness of political βs measured from the data aggregated to a destination-country level), we estimate our main political risk diversification empirical specification (18) using political βs calculated from aggregated trade flows.[37] Since such βs are country-specific, we cannot include country X year fixed effects as we did in some specifications in Tables 3 and 4 in the main text. Estimation results are presented in Table 7. We find no evidence that exporters assess destination markets differently when we employ political βs calculated from aggregated data.

6. Robustness and Further Discussion

6.1 Endogeneity of Political Relations

One concern with the political risk diversification results we present in Section 4.2 is the potential endogeneity of political relations and trade. For example, one may make a case for reverse causality, to the extent that trade shocks in Russia lead to political frictions (e.g., oil-dependent

[37] As a reminder, in our analysis the exporting country is fixed: Russia; in bilateral trade flows data this would correspond to using bilateral country pairs trade flows data.

countries may be particularly friendly with Russia when demand for oil is high). However, our specifications that include country X year fixed effects effectively control for all country-year level unobservables that might drive such endogeneity between *aggregate* trade flows and political relations.[38] The identifying variation in those regressions comes from the differential contribution of the same country to systematic political risk for different Russian exporting firms. Yet in these specifications we find heterogeneity with respect to political β that is similar – in sign as well as magnitude – to what we observe in other specifications.

Even with the inclusion of firm X year or country X year fixed effects, one might still be concerned about reverse causality, with some Russian exporters exerting political influence over destination markets they deem important. A related concern could arise due to lobbying efforts of exporters aimed at the Russian government, for example in order to obtain better terms for exporting to particular destination markets, which might in turn be reflected in political relations with those countries.[39] As we discussed above, the inclusion of firm X year and country X year fixed effects is likely to account for some endogeneity concerns, but they cannot account for factors at the firm X country level that vary over time.

We argue that the concern of exporters driving political relations through their impact on domestic/Russian government or foreign governments plausibly affects only a small subset of firms, and furthermore that these would likely involve natural resource exporters, in particular oil and gas. We thus present our main results excluding natural resource producers and oil and natural gas traders from the sample in Appendix A6 Table A6.1; the results are very similar to our full sample estimates in Table 3. Alternatively, one could argue that such influence is limited to very large and/or state-owned companies. In Table A6.2 we repeat our estimation dropping larger Russian firms (those with values of total assets above $120M). Furthermore, in Table A6.3 we restrict our attention to *private* small Russian companies that are not in extractive industries and do not export oil or natural gas. In all cases the results are the same as our full sample estimates. Thus, while we cannot rule out this type of reverse causation completely, we argue that it is

[38] Note that country X year fixed effects also absorb variation in country demand for imports depending on real-business-cycles shocks, exchange rate fluctuations, etc. We also explicitly included exchange rates in our specifications without country X year fixed effects and the same patterns emerge.

[39] For example, Gerhard Schroder, who was a Germany's chancellor during 1998-2005, later became Chairman of the Board at Nord Stream AG and of Rosneft, two firms involved in the Russian oil and gas industry. We would like to thank an anonymous referee for bringing our attention to this issue.

unlikely to account for the political risk diversification patterns that we documented earlier in the paper.

6.2 Does the Affinity Index Proxy for Economic Shocks?

In the main text above we explored exporters' response to variation in the Affinity Index and showed that exporters' behavior is consistent with the diversification of risk embedded in the Affinity Index; we interpreted this as evidence of *political* risk management through operational hedging. While the Affinity Index, by definition, measures political relations, it is possible that other related factors are correlated with it, and thus may be capturing the effects of other (non-political) risks. One important possibility is demand shocks in destination countries. Our analysis above already accounts for country-level demand shocks via either an explicit control for destination country (log) GDP, or via country-year fixed effects which absorb all country-level varying shocks. Still, it is possible that firms manage country-level demand shocks in the same portfolio diversification framework and, if so, we are interested in whether the political risk management patterns we documented above are in fact a manifestation of the risk management of such demand shocks.

We proxy economic shocks to destination market size by log GDP of the importing country, $\ln Y_{m,t}$. Similar to the Affinity Index β,[40] we calculate β for destination market demand risk. $\beta^{Y}_{f,m}(t)$, as measured by the comovement of a given importing country's (log) GDP with the log GDP of the firm's destination markets overall. We then consider a "horse race" between the Affinity Index political β used in the main text versus *GDP*-risk β. That is, we consider the following empirical specification:

$$\ln Q_{f,m,t} = \gamma_1^P \beta^P_{f,m}(t) + \gamma_2^P \beta^P_{f,m}(t) AF_{m,t-1} + \gamma_1^Y \beta^Y_{f,m}(t) + \gamma_2^Y \beta^Y_{f,m}(t) \ln Y_{m,t} + \\ + \delta_1 \ln Y_{m,t} + \delta_2 X_{f,t} + a_{f,(t)} + \psi_{m,(t)} + \phi_t + \eta_{fmt} \qquad (20)$$

Coefficient γ_2^Y shows whether exporters respond to (within-country) variation in country-level economic shocks (proxied by the log of the importing country's GDP) differentially depending on the non-diversifiable component of country m's Y-risk in firm f's portfolio, which is measured by $\beta^Y_{f,m}(t)$. As before, γ_2^P reflects a firm's diversification responses to political risk. If the Affinity

[40] This is what we call political β in the rest of the paper, but we are more precise here to distinguish the Affinity Index from other sources of risk.

Index were simply proxying for country-level demand shocks, then we would expect γ_2^P to be attenuated and the main heterogeneity in response to country risk to work through γ_2^Y.

We present our estimation results in Appendix A7. We find some evidence of GDP/market size risk management through operational hedging (Tables A7.1-A7.3). Estimates of γ_2^Y are positive and statistically significant in the value-weighted approach, suggesting that exporters respond more to variation in (log) GDP with destinations that tend to comove with other markets in their portfolio. More importantly however, the γ_2^P coefficients remain the same in magnitude (and statistical significance) as in the main text. This indicates that the risk embedded in the Affinity Index is a distinct risk factor from that of destination countries' GDP fluctuations, and that our main results on political risk diversification are distinct from country-level demand shocks.

6.3 Robustness Checks for Political β

In the main text we have defined political β as the time-series regression coefficient of political relations between Russia and a given destination country m, $AF_{m,t}$, on firm f's overall "political portfolio" comprising all destination markets to which this firm exports, $WAF_{f,t}$. As we mentioned above, this approach is akin to CAPM time-series regressions in portfolio theory. However, in portfolio theory the variables used in those regressions (both the dependent and the explanatory) are returns. Since these are based on price information, returns would likely account not only for current performance, but also capture expectations about future payoffs and other expected future time-series variation (e.g., persistence, mean reversion, etc.).

In contrast, the affinity indices we employ measure the state of *current* political relations. This raises the concern that the 'present-focus' of political β may not properly reflect a conditional expectations β, which takes into account *all* available information at a given point in time (i.e., all moments in our theoretical model in Section 2 are conditional on period 1 information).

In the main text, we use a rolling time window in the estimation of political beta, which allows for the (gradual) update of political β over time with the arrival of new information. But any practical estimation approach could result in only an approximation to the underlying (full information) political β.[41]

[41] Note that we do account for time-series autocorrelation in error terms in the calculation of t-statistics by using two-way clustered standard errors at the country and firm level.

To probe whether our pre-ranking approach leads to mismeasurement of political β and, furthermore, biases our results, we considered a subsample of observations for which political βs were stable, i.e., where the firm-level assessment of country risk was little changed over our sample period. Intuitively, the issues described above should be of lesser concern in this subsample. Estimation results presented in Table A3.1 of Appendix A3 are qualitatively similar to those in the main text, though the implied magnitudes are considerably larger than in the main text.

We performed several additional robustness checks related to our measurement of political β. Instead of political β (a time-series regression coefficient, which is a more standard approach in the literature to measure systematic risk) we use the covariance of political relations between a country and the firm's political portfolio as the measure of systematic political risk, which is more in line with our particular theoretical model. The results in Appendix A3 Table A3.2 are again similar to those in the main text. To ensure that our results are not driven by extreme outliers in β values, we restrict our sample to observations with absolute value of β less than 5. We further considered only observations with positive β out of concerns that negative β countries for different firms might actually be the same pariah countries that always demonstratively go against international community in their UNGA voting and, as a result, political relations with them might have a smaller impact on international trade. In all cases we observe patterns that are similar to those described in the main text. These results may be found in Appendix A3 Tables A3.3 and A3.4. Next, to ensure that our findings do not result from the specifics of our rolling pre-ranking approach, we instead, took the political βs calculated in 2006 and used them throughout the 2006-2011 period. The results are presented in Table A3.5 of Appendix A3 and are both qualitatively and quantitatively similar to those in the main text. Finally, as an alternative measure of political relations, we used the difference in state dynamic preferences based on Ideal Points (Bailey, Strezhnev, and Voeten, 2017). The results are again indicative of political risk diversification. (See Appendix A8).

7. Conclusion

In this paper we propose and test a model of firm management of non-tradable political risk through operational hedging in the context of international trade. The main message of our model is that one can use insights from portfolio theory to develop a framework for analyzing firms'

response to risk. In particular, we show that a firm's valuation of a given export destination depends on its comovement (or lack of it) with other markets in a firm's "political portfolio".

Using a novel dataset on Russian firms' exports into different destination markets, we find patterns consistent with our model. First, we show that a worsening political relation between Russia and some export destination country reduces exports of Russian firms into that country.

Second, and perhaps more importantly, we find a notable heterogeneity in exporters' response to changes in political relations with their home nation (i.e., Russia) and their export destination markets that is indicative of a diversification of political risk. Namely, a given exporter responds less to the changes in political relations with "hedge" markets, i.e., those that move against other markets in the firm's "political portfolio" and, thus, have the potential to protect this exporter from future fluctuations in political relations. This result is analogous to a well-known diversification logic embedded in standard asset pricing models, where an investor cares only about the systematic risk a given asset contributes to his/her overall portfolio. Highlighting the distinction between the management of tradable and non-tradable risks, we show that no such patterns are observed in the management of foreign exchange risk.

Finally, we demonstrate that the political risk diversification patterns we describe cannot be easily detected in the country-level aggregate data, which highlights both the novelty and importance of our findings. We do see some evidence of risk diversification at the industry-level but the result are more muted compared to our firm-level results. This "non-result" is quite intuitive in the sense that the optimization and risk management decisions happen at the firm-level. Thus, measures of a given market's political risk calculated from aggregated data cannot reveal the systematic risk this market presents to a given firm.

While our focus has been on firm responses to global political risk, our approach may be applied to risk mitigation strategies more generally. For example, one might think about product diversification strategies as a function of relative comovement in demand. Moving beyond analysis of firm behavior, our approach may be suited to understanding individual or household "portfolio choice," which also involves non-tradeable risk management. There exists a deep literature on household risk-sharing and risk-mitigation in underdeveloped economies[42] that incorporate considerations of correlation of risks within and across households, and our framework may be

[42] See, e.g., Rosenzweig and Stark (1989), and Townsend (1994) for classic contributions.

helpful as a bridge from this literature to portfolio choice. We leave this and other applications for further work.

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Tables

Table 1: Summary statistics.

Variable	Obs	Mean	Std. Dev.	Min	Max
Panel A: Zero trade observations excluded					
Log exports	346,819	11.399	2.293	4.611	24.944
Affinity Index (t-1)	332,283	0.572	0.263	-0.548	1.000
Log firm assets	346,819	18.614	2.749	6.370	29.051
Log country GDP	346,819	12.216	2.115	2.985	16.559
Log country population	346,819	2.685	1.909	-4.477	7.221
Year	346,819	2006	2.944	2001	2011
The following variables are defined only over 2006-2011					
Value-weighted political β	135,161	0.570	1.180	-23.802	43.613
Equally-weighted political β	135,161	0.829	1.498	-14.517	20.644
Value-weighted political β (country excl)	132,336	0.305	1.210	-14.843	43.613
Equally-weighted political β (country excl)	132,336	0.441	1.536	-14.517	20.644
Political σ	145,607	0.092	0.047	0.017	0.263
Panel B: Zero trade included					
1(exports>0)	819,171	0.425	0.494	0.000	1.000
Log ($2,000+exports)	819,171	9.259	2.382	7.601	24.944
Affinity Index (t-1)	774,897	0.559	0.267	-0.548	1.000
Log firm assets	819,171	18.851	2.658	6.370	29.051
Log country GDP	819,171	12.097	2.208	2.985	16.559
Log country population	819,171	2.532	1.991	-4.477	7.221
Year	819,171	2006	2.998	2001	2011
The following variables are defined only over 2006-2011					
Value-weighted political β	403,470	0.481	1.215	-23.802	43.613
Equally-weighted political β	403,470	0.803	1.519	-33.540	21.729
Value-weighted political β (country excl)	382,629	0.269	1.247	-23.388	57.501
Equally-weighted political β (country excl)	382,629	0.396	1.580	-33.540	29.084
Political σ	442,360	0.095	0.049	0.017	0.272

Notes: The sample in Panel A includes all Russian exporting firm-by-country observations over 2001-2011 with value of exports greater than $100. The sample in Panel B is a balanced panel of all exporting firm-by-country observations over 2001-2011 with at least one positive value of exports. Affinity Index is Affinity of Nations Index of a given country with Russia from Gartzke (2010). Ideal points absolute difference is from Bailey, Strezhnev, and Voeten (2017). Log firm assets are obtained from the SPARK-Interfax database. Log country GDP (chained real GDP) and log country population are from Penn World Tables. Political βs and σs are constructed for the 2006-2011 period as described in the main text Section 4.2 and 5.1, respectively.

Table 2: Baseline effect of political relations on exports

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Intensive margin: Dependent variable: log exports						
Affinity Index(t-1)	0.382**	0.271	0.297**	0.405**	0.261	0.295**
	(0.184)	(0.172)	(0.150)	(0.187)	(0.162)	(0.138)
Affinity Index (t-2)		0.114	0.135		0.125	0.147
		(0.117)	(0.106)		(0.138)	(0.130)
Affinity Index (t)			-0.136			-0.145
			(0.189)			(0.177)
Observations	316,812	314,254	314,254	251,817	249,260	249,260
R-squared	0.516	0.516	0.516	0.557	0.558	0.558
Panel B: Extensive margin: Dependent variable: 1 (exports>0)						
Affinity Index (t-1)	0.268***	0.177*	0.179**	0.279***	0.181*	0.186**
	(0.100)	(0.097)	(0.081)	(0.097)	(0.094)	(0.076)
Affinity Index (t-2)		0.184***	0.186**		0.190***	0.193***
		(0.069)	(0.073)		(0.065)	(0.069)
Affinity Index (t)			-0.008			-0.020
			(0.114)			(0.110)
Observations	760,988	753,214	753,214	734,608	726,583	726,583
R-squared	0.170	0.171	0.171	0.231	0.232	0.232
Panel C: Intensive & Extensive margins: Dependent variable log ($2000+export)						
Affinity Index (t-1)	1.133**	0.740	0.769**	1.159**	0.730*	0.781**
	(0.477)	(0.452)	(0.371)	(0.459)	(0.430)	(0.342)
Affinity Index (t-2)		0.786**	0.804**		0.823**	0.852**
		(0.349)	(0.357)		(0.334)	(0.345)
Affinity Index (t)			-0.124			-0.202
			(0.522)			(0.502)
Observations	760,988	753,214	753,214	734,608	726,583	726,583
R-squared	0.225	0.226	0.226	0.270	0.270	0.270
Add'l firm/country ctrls.	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm X Year FE	No	No	No	Yes	Yes	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia from 2001-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. "Affinity Index" is Gartzke's (2010) Affinity of National Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from PennWorld Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 4-6 include firmXyear fixed effects. Two-way clustered robust standard errors at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table 3: Diversification: Heterogeneity with respect to political β: Value-weighted approach

	(1)	(2)	(3)	(4)
Panel A: Intensive margin				
Affinity Index(t-1) X political β	0.117***	0.122***	0.131***	0.138***
	(0.012)	(0.013)	(0.014)	(0.014)
Affinity Index(t-1)	0.347***		0.408***	
	(0.111)		(0.124)	
Political β	0.174***	0.179***	0.178***	0.183***
	(0.008)	(0.008)	(0.008)	(0.009)
Observations	134,657	134,582	133,903	133,819
R-squared	0.505	0.510	0.560	0.565
Panel B: Extensive margin				
Affinity Index(t-1) X political β	0.019***	0.020***	0.021***	0.022***
	(0.002)	(0.002)	(0.002)	(0.002)
Affinity Index(t-1)	0.179***		0.191***	
	(0.016)		(0.017)	
Political β	0.024***	0.025***	0.024***	0.025***
	(0.001)	(0.001)	(0.001)	(0.001)
Observations	398,842	398,801	390,632	390,591
R-squared	0.183	0.205	0.225	0.247
Panel C: Extensive & intensive margins				
Affinity Index(t-1) X political β	0.141***	0.143***	0.156***	0.158***
	(0.008)	(0.008)	(0.010)	(0.009)
Affinity Index(t-1)	0.810***		0.880***	
	(0.075)		(0.077)	
Political β	0.154***	0.160***	0.153***	0.159***
	(0.005)	(0.005)	(0.006)	(0.005)
Observations	398,842	398,801	390,632	390,591
R-squared	0.246	0.265	0.271	0.290
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking value-weighted approach as described in the main text. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors (bootstrapped with 500 reps and 2-way clustered at the exporting firm and at the importing country levels) are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table 4: Diversification: Heterogeneity with respect to political β: Equally-weighted approach

	(1)	(2)	(3)	(4)
	Panel A: Intensive margin			
Affinity Index(t-1) X political β	0.045***	0.051***	0.049***	0.055***
	(0.010)	(0.011)	(0.012)	(0.012)
Affinity Index(t-1)	0.355***		0.405***	
	(0.111)		(0.125)	
Political β	0.063***	0.066***	0.064***	0.067***
	(0.007)	(0.007)	(0.007)	(0.007)
Observations	134,657	134,582	133,903	133,819
R-squared	0.496	0.500	0.551	0.555
	Panel B: Extensive margin			
Affinity Index(t-1) X political β	0.010***	0.013***	0.010***	0.012***
	(0.001)	(0.001)	(0.001)	(0.001)
Affinity Index(t-1)	0.184***		0.197***	
	(0.016)		(0.017)	
Political β	0.006***	0.007***	0.007***	0.008***
	(0.001)	(0.001)	(0.001)	(0.001)
Observations	398,842	398,801	390,632	390,591
R-squared	0.179	0.201	0.220	0.242
	Panel C: Extensive & intensive margins			
Affinity Index(t-1) X political β	0.068***	0.079***	0.068***	0.079***
	(0.007)	(0.007)	(0.008)	(0.008)
Affinity Index(t-1)	0.849***		0.922***	
	(0.075)		(0.075)	
Political β	0.049***	0.054***	0.049***	0.054***
	(0.004)	(0.004)	(0.005)	(0.004)
Observations	398,842	398,801	390,632	390,591
R-squared	0.239	0.257	0.263	0.281
Add'l firm/country ctrls.	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking equally-weighted approach as described in the main text. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors (bootstrapped with 500 reps and 2-way clustered at the exporting firm and at the importing country levels) are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table 5: Diversification: Political β vs. political σ. Intensive margin only.

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent variable: log exports					
Affinity Index(t-1) X country political σ	2.095**	2.413**	0.661	0.743	1.051	1.220
	(0.900)	(1.065)	(1.114)	(1.325)	(1.131)	(1.301)
Affinity Index(t-1) X country political β			0.117***	0.131***	0.045***	0.048***
			(0.041)	(0.037)	(0.012)	(0.011)
Affinity Index(t-1)	0.165	0.177	0.274	0.324	0.232	0.264
	(0.165)	(0.177)	(0.196)	(0.223)	(0.187)	(0.203)
Country political σ	0.234	-0.076	-0.990	-1.391	-0.561	-0.872
	(0.695)	(0.712)	(0.853)	(0.902)	(0.874)	(0.884)
Country political β			0.175***	0.179***	0.063***	0.064***
			(0.024)	(0.022)	(0.007)	(0.007)
Observations	144,940	144,043	134,657	133,903	134,657	133,903
R-squared	0.498	0.554	0.505	0.560	0.496	0.551
Measurement of political β	NA	NA	*Value-weighted*		*Equally-weighted*	
Add'l firm/country ctrls.	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm X year FE	No	Yes	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2006-2011. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is the log of the total amount of exports (in current USD) being sent by a given firm into a given destination country. Affinity Index is Gartzke (2010) Affinity of Nations Index calculated on the basis of similarity of a country's votes in the UNGA with Russia in a given year. Country political β is calculated by a rolling pre-ranking value-weighted (equally-weighted) approach, as described in the main text. Country political σ is the rolling past 12 years' variance of Affinity Index for a given country. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. In addition, specifications 2, 4 and 6 include firm X year fixed effects. Standard errors (in parentheses) are calculated by bootstrap with 500 repetitions (with two-way clustering at the firm and country levels). ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table 6: Aggregate data evidence: Value-weighted approach

	(1)	(2)	(3)	(4)	(5)	(6)
			Panel A: Value-weighted β			
Political β X Affinity Index	0.081	-0.040	-0.122	-0.470	-0.075	-0.491
	(0.268)	(0.034)	(0.212)	(0.389)	(0.049)	(0.304)
Affinity Index	1.416	-0.085	1.569**	2.326**	-0.071	2.089***
	(0.885)	(0.107)	(0.665)	(0.922)	(0.111)	(0.690)
Political β	-0.291	0.009	-0.189	-0.027	0.020	-0.019
	(0.179)	(0.023)	(0.143)	(0.251)	(0.032)	(0.200)
Observations	810	851	851	802	843	843
R-squared	0.927	0.558	0.947	0.928	0.559	0.947
			Panel B: Equally-weighted β			
Political β X Affinity Index	0.163	0.029	0.266	0.583	0.002	0.529
	(0.271)	(0.034)	(0.216)	(0.422)	(0.052)	(0.330)
Affinity Index	1.525*	-0.093	1.646**	1.324	-0.069	1.397*
	(0.898)	(0.107)	(0.672)	(0.975)	(0.119)	(0.747)
Political β	-0.101	-0.005	-0.152	-0.221	0.004	-0.248
	(0.168)	(0.021)	(0.133)	(0.258)	(0.032)	(0.202)
Observations	810	851	851	803	844	844
R-squared	0.926	0.559	0.946	0.925	0.560	0.945
Margin	Intensive	Extensive	Both	Intensive	Extensive	Both
Sample	All	All	All	$\lvert\beta\rvert < 4$	$\lvert\beta\rvert < 4$	$\lvert\beta\rvert < 4$
Destination & origin countries (log) GDP, pop-n	Yes	Yes	Yes	Yes	Yes	Yes
Importing country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Data is a balanced panel of country-level exports from Russia over 2006-2011 with zeros imputed for missing trade observations. Dependent variable in specifications 1 and 4 is log of total Russian exports into a given country. Dependent variable in specifications 2 and 5 is a dummy for positive Russian exports into a given country. Dependent variable in specifications 3 and 6 is log of $175,000+ total Russian exports into a given country. Sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. Affinity Index is Gartzke (2010) Affinity of Nations Index calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking (equally-weighted/value-weighted) approach as described in the main text. Additional controls included in all specifications are log destination country GDP (chained real GDP) and log of destination country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects and time fixed effects are included in all regressions but not reported. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

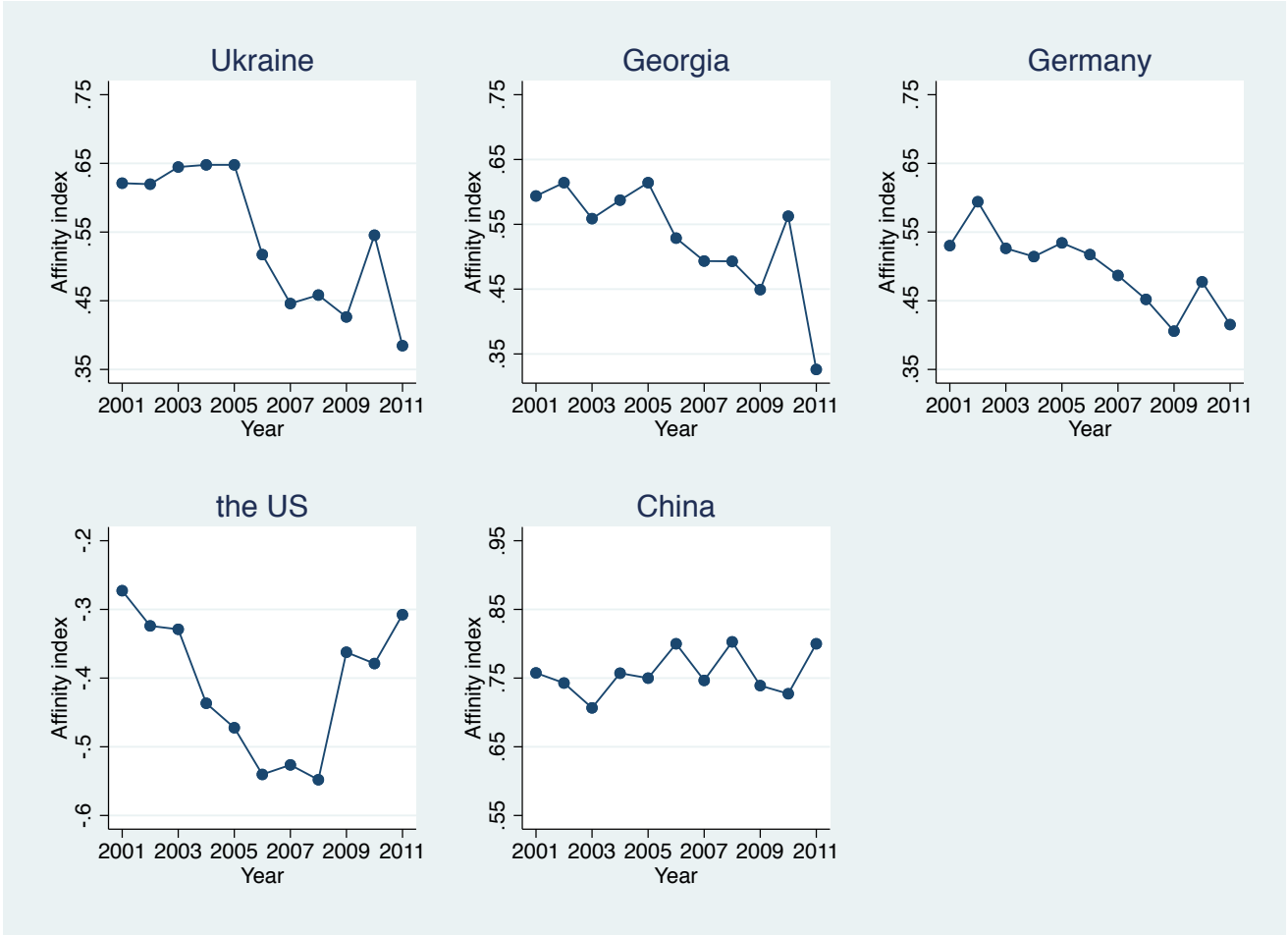
Table 7: Firm-level exports vs aggregated data political β.

	(1)	(2)	(3)	(4)
Panel A: Intensive margin				
Affinity Index(t-1) X political country-level β	-0.062	-0.040	0.104	0.095
	(0.044)	(0.034)	(0.077)	(0.072)
Affinity Index(t-1)	0.415***	0.464***	0.421**	0.482**
	(0.158)	(0.150)	(0.197)	(0.186)
Political country-level β	0.007	0.005	-0.030	-0.032
	(0.020)	(0.017)	(0.040)	(0.038)
Observations	144,940	144,043	144,940	144,043
R-squared	0.498	0.554	0.498	0.554
Panel B: Extensive margin				
Affinity Index(t-1) X political country-level β	-0.004	-0.005	0.010	0.016
	(0.015)	(0.014)	(0.016)	(0.015)
Affinity Index(t-1)	0.164	0.187	0.172	0.198
	(0.155)	(0.153)	(0.165)	(0.163)
Political country-level β	-0.033***	-0.033***	-0.002	-0.006
	(0.013)	(0.011)	(0.009)	(0.008)
Observations	430,333	416,539	430,333	416,539
R-squared	0.193	0.230	0.192	0.230
Panel C: Extensive & intensive margins				
Affinity Index(t-1) X political country-level β	-0.018	-0.016	0.074	0.096
	(0.070)	(0.065)	(0.076)	(0.077)
Affinity Index(t-1)	0.786	0.897	0.814	0.937
	(0.717)	(0.709)	(0.764)	(0.761)
Political β	-0.144***	-0.150***	-0.014	-0.026
	(0.053)	(0.047)	(0.040)	(0.041)
Observations	430,333	416,539	430,333	416,539
R-squared	0.246	0.268	0.245	0.268
β calculation	*Value-weighted*		*Equally-weighted*	
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia from 2006-2011. Panel A contains observations for positive exports only (export observations with less than a $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy that takes on a value of one for positive levels of exports and zero otherwise in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of the similarity of a country's votes with Russia in a given year. Political country-level β is calculated using a rolling pre-ranking (value-weighted in Columns 1 and 2/equally-weighted in Columns 3 and 4) approach using aggregated Russian exports into a given country. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but the coefficients are not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

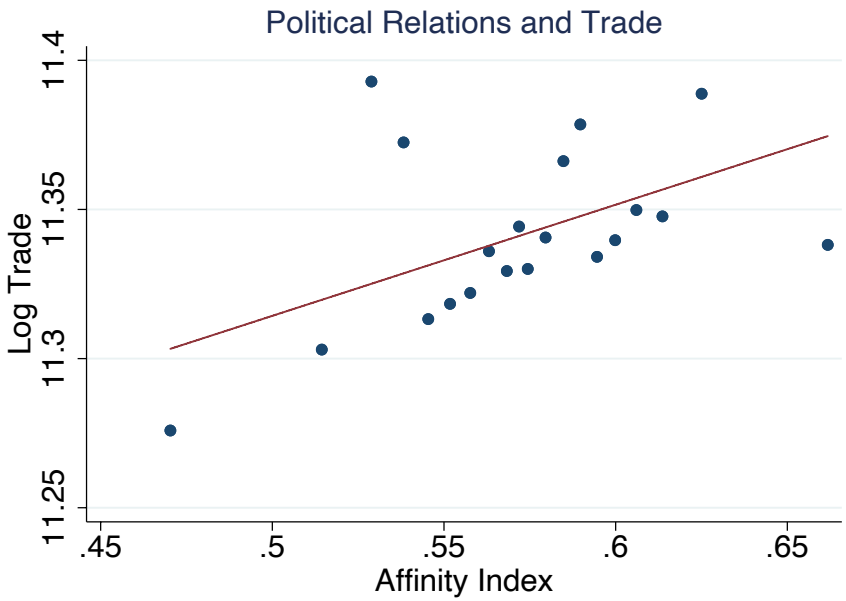
Figures

Figure 1: Russian political relations over time



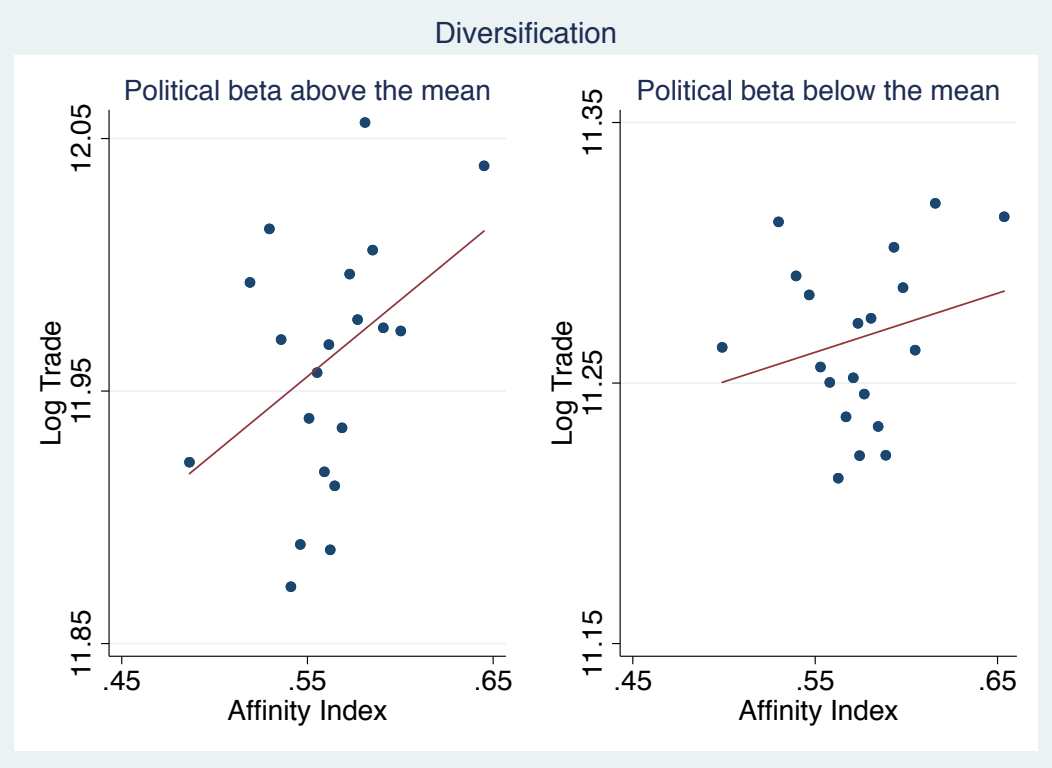
Notes: These figures show the evolution of the Gartzke (2010) Affinity Index over time between Russia and a particular country over 2001-2011.

Figure 2: Baseline effect



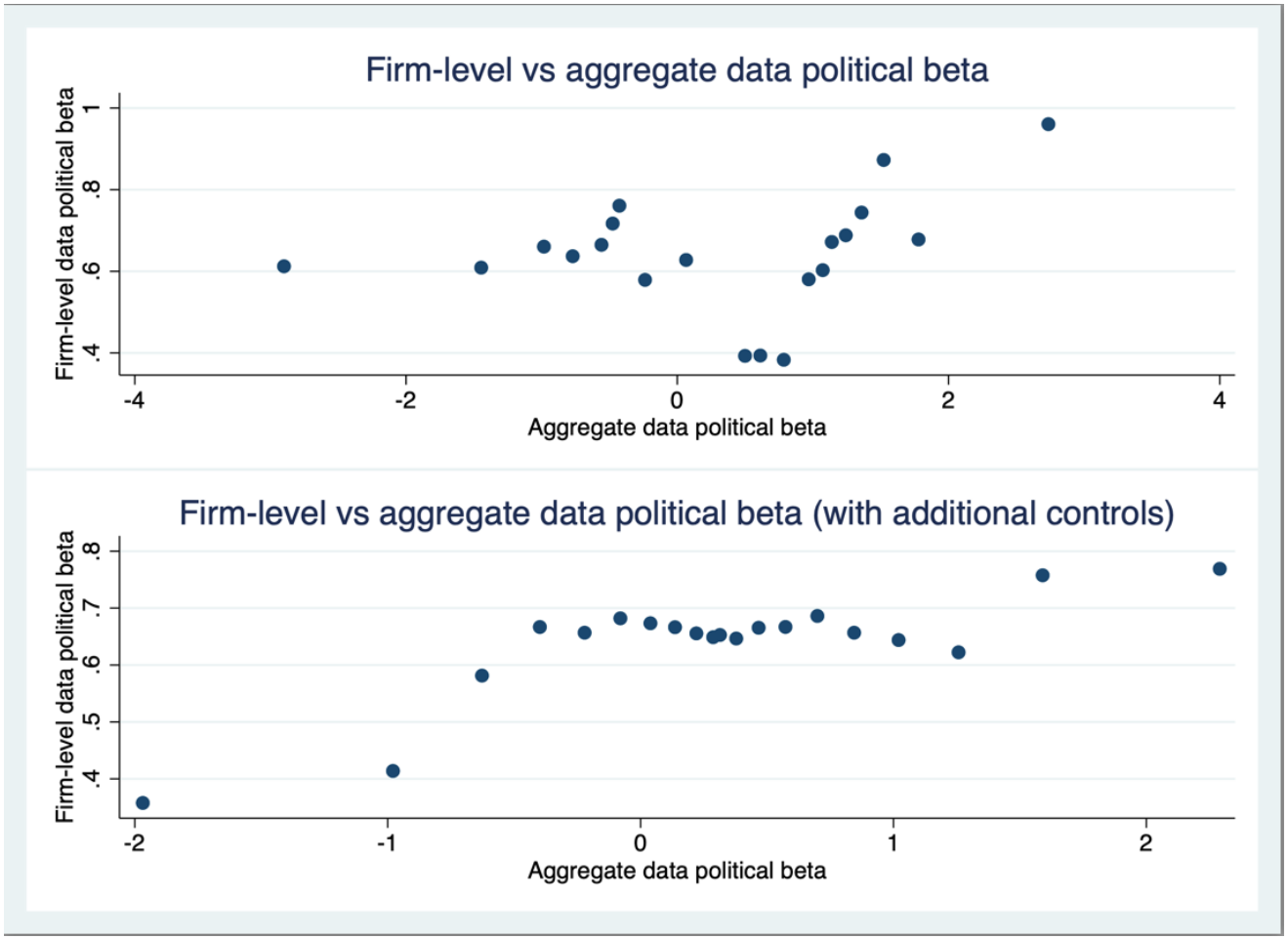
Notes: This figure shows the bin scattered relation between Affinity Index for Russia and a given country and Russian firms' exports into that country. Affinity Index is Gartzke's (2010) measure of similarity of votes in the UN General Assembly. Higher numbers mean better political relations. Country fixed effects, exporting company fixed effects, year fixed effects, firm's log of assets, and country's log of GDP are partialled out.

Figure 3. Political β effect



Notes: These figures show the relation between the Affinity Index for Russia and a given country and Russian firms' exports into that country. The heterogeneity here is by the degree of similarity of a given country to other countries in a firm's political portfolio of countries. We restrict observations to countries with at least 3 trading partners. Affinity Index is Gartzke measure of similarity of votes in the UN General Assembly. Higher values mean better political relations. Country fixed effects, exporting company fixed effects, year fixed effects, firm's log of assets, and country's log of GDP are partialled out.

Figure 4: Political βs from aggregated vs firm-level data



Notes: This graph shows scattered bin-plots of firm-level political β over respective aggregated data political βs. The top graph does not include any additional controls, while the bottom graph controls for exporting firm fixed effects, country's log GDP per capita and log population.

Internet Appendices

Appendix A1: Derivations of empirical predictions

Prediction 1: *Deteriorating political relations between Russia and a given country results in fewer exports into that country by Russian exporters.*

This prediction follows from the proposition below:

Theorem 1: *Consider an exporter selling in N markets in periods 1 and 2. Assume that contemporaneous ($t = 1$) political relations with one of the markets changes by dA_1^m. Then the response, dQ_1^m, in the given export market m while keeping the exports to other markets, $Q_1^l, l \neq m$, constant, would be the same in sign as $\frac{\partial^2 \pi_1^m}{\partial A_1^m \partial Q_1^m} > 0$.*

Proof: The result follows by totally differentiating the first order condition to the exporter's problem (4), while assuming that $dQ_1^l = 0, l \neq m$:

$$\frac{dQ_1^m}{dA_1^m} = -\frac{1}{\Delta_m}\frac{\partial^2 \pi_1^m}{\partial A_1^m \partial Q_1^m} > 0 \qquad (A1.1)$$

Where Δ_m is the partial second derivative of the objective function with respect to Q_1^m, which is negative due to the respective second order conditions. **Q.E.D.**

Prediction 2: *The magnitude of the drop in exports in response to a decrease in political relations is greater in magnitude in the case of destinations whose political relations tend to comove with political relations of an exporter's other export destinations and smaller in magnitude (i.e., less negative) for destinations whose political relations tend to move less with (or even against) the political relations of an exporter's other export destinations.*

This prediction comes from the following intuitive idea. In our multiperiod setup, exports into a given market today produce two types of benefits for a given exporting firm: (i) contemporaneous – through the impact on current profits of this firm and (ii) future benefits accrued from higher current exports increasing demand for the product of this firm in the future.

Denote $\pi(Q, A) = R(Q) - c(A)Q$ current profits of selling the good. Here we assume that political relations A work through the cost side: i.e., affect the marginal cost of the product in the market, $c(A)$. Due to our normalization (higher A mean better political relations), we have $c'(A) < 0$. Denote $\alpha B(Q)$ future benefits where α represent the scaling factor for future benefits.

Maximization of profits yield the following first order condition:

$$\max \; R(Q) - c(A)Q + \alpha B(Q) \tag{A1.2}$$

$$R'(Q) + \alpha B'(Q) = c(A) \tag{A1.3}$$

Totally differentiating this first order condition, we get:

$$\frac{dQ}{dA} = \frac{c'(A)}{R''(Q) + \alpha B''(Q)} > 0^{a} \tag{A1.4}$$

When the benefits accrued in the future are smaller (when α is smaller), the effect of any shocks to demand today would become larger in magnitude as decisions regarding exports would be determined primarily by current profits, i.e., keeping other things equal $\frac{dQ}{dA}$ (which is positive) would be larger when α is smaller. Or, equivalently, when the future benefits are more important (weight α is larger) then the optimal level of Q in (A1.3) would be primarily determined by the future benefits term. Thus, Q would not respond much to the changes in contemporaneous political relations A, i.e., the positive $\frac{dQ}{dA}$ would be smaller.

$$\frac{\partial}{\partial \alpha}\left(\frac{dQ}{dA}\right) \leq 0 \tag{A1.5}$$

In the theorem below we show that the value of future benefits is lower in the case of markets that tend to comove with other markets in the firm's political portfolio (i.e., markets that expose the given exporter to higher systematic political risk).

Theorem 2: *Consider an exporter selling in N markets in periods 1 and 2. Assume that contemporaneous ($t = 1$) political relations with one of the markets changes by dA_1^m. Assume that investment in relationship-specific investment exhibit decreasing returns to scale: $\phi''(Q_1^m) < 0$. The response, dQ_1^m, in the given export market m, while keeping the exports to other markets, $Q_1^l, l \neq m$, constant would be **lower** in the case of markets that tend to comove **less** (in terms of political relations) with other export destination countries of the firm.*

Proof: As before, totally differentiating the First Order Conditions to the exporter's problem (4), we have:

$$\frac{dQ_1^m}{dA_1^m} = -\frac{1}{\Delta_j}\frac{\partial^2 \pi_1}{\partial Q_1^m \partial A_1^m} > 0 \tag{A1.6}$$

where Δ_m is the term corresponding to a given market in the Second Order Conditions. In turn, this term is equal to the second derivative of the objective functions w.r.t. Q_1^m.

[a] Denominator is negative due to the respective second order conditions.

$$\Delta_m \equiv \frac{\partial^2 \pi_1}{(\partial Q_1^m)^2} + \frac{\partial}{\partial Q_1^m}\left(\phi'(Q_1^m)\left[\theta\, E[\pi_2\,(A_2^m)] - \rho\; cov\left(\pi_2(A_2^m), \sum_l \phi\left(Q_1^l\right)\pi_2\left(A_2^l\right)\right)\right]\right) \quad \text{(A1.7)}$$

One can rewrite Δ_m as:

$$\Delta_m = \frac{\partial^2 \pi_1}{(\partial Q_1^m)^2} + \phi''(Q_1^m)\{\theta E[\pi_2\,(A_2^m)] - \delta^2\, CV_m\}$$
$$-\rho\,[\phi'^2(Q_1^m) - \phi''(Q_1^m)\phi(Q_1^m)]\sigma^2(\pi_2(A_2^m)) \qquad (A1.8)$$

where

$$CV_m = cov\left(\pi_2(A_2^m), \sum_{l\neq m} \phi\left(Q_1^l\right)\pi_2\left(A_2^l\right)\right) \qquad (A1.9)$$

reflects the degree of comovement of market m with other markets in the exporter's portfolio of countries.

Due to second order conditions, $\Delta_m < 0$. At the same time, an increase in CV_m increases Δ_m in algebraic sense (since $\phi'' < 0$), making it smaller in absolute value. Thus, keeping other things equal.

$$\frac{\partial}{\partial CV_m}\left(\frac{dQ_1^m}{dA_1^m}\right) \geq 0 \qquad (A1.10)$$

That is, the response to political relations is larger for countries that tend to comove more with other countries in the exporter's portfolio. Similarly, the response is smaller for countries that tend to comove less, or even move against other countries the firm exports to. **Q.E.D.**

Appendix A2:

Table A2.1. Correlation matrix of Affinity Index for top 10 (+US) trade destinations.

	Switzerland	Cyprus	Germany	UK	Austria	Ukraine	China	Kazakhstan	Belarus	Italy	USA
Switzerland	1.000										
Cyprus	0.938	1.000									
Germany	0.974	0.869	1.000								
UK	0.891	0.792	0.900	1.000							
Austria	0.977	0.956	0.956	0.857	1.000						
Ukraine	0.835	0.851	0.827	0.749	0.897	1.000					
China	-0.341	-0.519	-0.320	-0.163	-0.372	-0.516	1.000				
Kazakhstan	0.663	0.616	0.644	0.703	0.676	0.752	-0.205	1.000			
Belarus	0.163	0.136	0.175	0.302	0.204	0.290	0.168	0.715	1.000		
Italy	0.937	0.944	0.916	0.872	0.950	0.932	-0.523	0.736	0.294	1.000	
USA	0.020	0.177	-0.024	-0.086	0.051	0.104	-0.459	-0.401	-0.673	0.086	1.000

Notes: This table shows the pairwise correlations between top 10 (+ USA) export destinations for Russia (by total value of exports over 2001-2011).

Appendix A3: Additional robustness checks for political β (for online publication only)

Table A3.1: Diversification: Political β. Stable βs sample: Value-weighted portfolio.

		(1)	(2)	(3)	(4)
		Panel A: Intensive margin			
Affinity Index(t-1) X political β	0.229***	0.234***	0.237***	0.245***	
	(0.060)	(0.061)	(0.060)	(0.063)	
Affinity Index(t-1)	0.276	0.000	0.396*	0.000	
	(0.244)	(0.000)	(0.228)	(0.000)	
Political β	0.349***	0.355***	0.370***	0.378***	
	(0.029)	(0.031)	(0.032)	(0.034)	
Observations	109,857	109,777	92,693	92,597	
R-squared	0.554	0.560	0.593	0.598	
		Panel B: Extensive margin			
Affinity Index(t-1) X political β	0.046***	0.048***	0.047***	0.049***	
	(0.009)	(0.009)	(0.009)	(0.009)	
Affinity Index(t-1)	0.288	0.000	0.294	0.000	
	(0.216)	(0.000)	(0.208)	(0.000)	
Political β	0.049***	0.048***	0.050***	0.050***	
	(0.006)	(0.006)	(0.007)	(0.006)	
Observations	282,968	282,915	272,329	272,276	
R-squared	0.209	0.232	0.256	0.278	
		Panel C: Extensive & intensive margins			
Affinity Index(t-1) X political β	0.303***	0.313***	0.310***	0.321***	
	(0.063)	(0.064)	(0.066)	(0.067)	
Affinity Index(t-1)	1.248	0.000	1.321	0.000	
	(0.991)	(0.000)	(0.988)	(0.000)	
Political β	0.314***	0.314***	0.326***	0.326***	
	(0.041)	(0.040)	(0.044)	(0.042)	
Observations	282,968	282,915	272,329	272,276	
R-squared	0.279	0.297	0.303	0.322	
Year FE	Yes	Yes	Yes	Yes	
Firm FE	Yes	Yes	Yes	Yes	
Country FE	Yes	Yes	Yes	Yes	
Firm X year FE	No	No	Yes	Yes	
Country X year FE	No	Yes	No	Yes	

Notes: The sample consists of a company-by-destination country export observations in Russia from 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking value-weighted approach as described in the main text. Additional controls are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A3.2: Diversification: Political covariance instead of β.

	(1)	(2)	(3)	(4)
	Panel A: Intensive margin			
Affinity Index(t-1) X political COV	22.952***	26.338***	27.877***	31.101***
	(6.521)	(7.047)	(7.163)	(7.768)
Affinity Index(t-1)	0.274*		0.353**	
	(0.163)		(0.165)	
Political COV	55.311***	57.141***	58.077***	59.786***
	(4.496)	(4.778)	(4.322)	(4.576)
Observations	134,657	134,582	133,903	133,819
R-squared	0.509	0.514	0.564	0.568
	Panel B: Extensive margin			
Affinity Index(t-1) X political COV	3.665***	4.384***	4.303***	4.862***
	(0.825)	(0.901)	(0.904)	(1.063)
Affinity Index(t-1)	0.182		0.194	
	(0.168)		(0.165)	
Political COV	7.158***	7.368***	7.488***	7.638***
	(0.660)	(0.668)	(0.694)	(0.702)
Observations	398,842	398,801	390,632	390,591
R-squared	0.185	0.207	0.227	0.249
	Panel C: Extensive & intensive margins			
Affinity Index(t-1) X political COV	25.691***	29.471***	29.901***	32.802***
	(6.177)	(6.650)	(6.834)	(7.593)
Affinity Index(t-1)	0.827		0.897	
	(0.769)		(0.763)	
Political COV	49.132***	50.423***	51.261***	52.202***
	(4.555)	(4.610)	(4.692)	(4.739)
Observations	398,842	398,801	390,632	390,591
R-squared	0.250	0.269	0.275	0.294
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia from 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political covariance is calculated by a rolling pre-ranking value-weighted approach with country exclusion as described in the main text. Additional controls are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A3.3. Subsamples analysis w.r.t. political β: $|\beta| < 5$, Value-weighted portfolio

		(1)	(2)	(3)	(4)
		Panel A: Intensive margin			
Affinity Index(t-1) X political β		0.120**	0.126**	0.135***	0.142***
		(0.047)	(0.048)	(0.041)	(0.044)
Affinity Index(t-1)		0.325*		0.388**	
		(0.166)		(0.167)	
Political β		0.190***	0.194***	0.193***	0.198***
		(0.027)	(0.028)	(0.025)	(0.026)
Observations		134,239	134,164	133,475	133,391
R-squared		0.120**	0.126**	0.135***	0.142***
		Panel B: Extensive margin			
Affinity Index(t-1) X political β		0.020***	0.021***	0.022***	0.023***
		(0.006)	(0.006)	(0.005)	(0.005)
Affinity Index(t-1)		0.184		0.197	
		(0.172)		(0.169)	
Political β		0.025***	0.027***	0.026***	0.027***
		(0.004)	(0.004)	(0.004)	(0.004)
Observations		397,493	397,452	389,283	389,242
R-squared		0.184	0.206	0.225	0.248
		Panel C: Extensive & intensive margins			
Affinity Index(t-1) X political β		0.151***	0.153***	0.165***	0.167***
		(0.041)	(0.041)	(0.037)	(0.037)
Affinity Index(t-1)		0.832		0.905	
		(0.788)		(0.783)	
Political β		0.164***	0.171***	0.165***	0.172***
		(0.026)	(0.026)	(0.026)	(0.026)
Observations		397,493	397,452	389,283	389,242
R-squared		0.247	0.266	0.272	0.291
Year FE		Yes	Yes	Yes	Yes
Firm FE		Yes	Yes	Yes	Yes
Country FE		Yes	Yes	Yes	Yes
Firm X year FE		No	No	Yes	Yes
Country X year FE		No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia from 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking equally-weighted approach as described in the main text. Additional controls are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A3.4. Subsamples analysis w.r.t. political β: $\beta > 0$, Value-weighted portfolio

		(1)	(2)	(3)	(4)
		Panel A: Intensive margin			
Affinity Index(t-1) X political β	0.269***	0.333***	0.314***	0.421***	
	(0.073)	(0.079)	(0.073)	(0.074)	
Affinity Index(t-1)	0.176		0.346		
	(0.231)		(0.283)		
Political β	0.145***	0.174***	0.169***	0.226***	
	(0.044)	(0.053)	(0.043)	(0.057)	
Observations	96,233	96,157	92,046	91,964	
R-squared	0.530	0.537	0.591	0.598	
		Panel B: Extensive margin			
Affinity Index(t-1) X political β	0.039***	0.048***	0.044***	0.060***	
	(0.014)	(0.012)	(0.013)	(0.012)	
Affinity Index(t-1)	0.146		0.118		
	(0.196)		(0.178)		
Political β	0.031***	0.030***	0.034***	0.036***	
	(0.009)	(0.008)	(0.008)	(0.008)	
Observations	275,378	275,328	263,528	263,478	
R-squared	0.218	0.243	0.267	0.293	
		Panel C: Extensive & intensive margins			
Affinity Index(t-1) X political β	0.288***	0.349***	0.337***	0.447***	
	(0.093)	(0.089)	(0.089)	(0.087)	
Affinity Index(t-1)	0.615		0.567		
	(0.968)		(0.943)		
Political β	0.190***	0.192***	0.221***	0.250***	
	(0.058)	(0.061)	(0.055)	(0.059)	
Observations	275,378	275,328	263,528	263,478	
R-squared	0.283	0.304	0.312	0.334	
Year FE	Yes	Yes	Yes	Yes	
Firm FE	Yes	Yes	Yes	Yes	
Country FE	Yes	Yes	Yes	Yes	
Firm X year FE	No	No	Yes	Yes	
Country X year FE	No	Yes	No	Yes	

Notes: The sample consists of a company-by-destination country export observations in Russia from 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking equally-weighted approach as described in the main text. Additional controls are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A3.5: Diversification: Political β. Fixed 2006 pre-ranking : Value-weighted portfolio.

	(1)	(2)	(3)	(4)
	Panel A: Intensive margin			
Affinity Index(t-1) X political β	0.091***	0.092***	0.090***	0.091***
	(0.032)	(0.033)	(0.032)	(0.032)
Affinity Index(t-1)	0.388**		0.414**	
	(0.157)		(0.171)	
Political β	0.131***	0.132***	0.134***	0.135***
	(0.020)	(0.021)	(0.020)	(0.020)
Observations	111,691	111,613	111,056	110,968
R-squared	0.501	0.505	0.556	0.560
	Panel B: Extensive margin			
Affinity Index(t-1) X political β	0.014***	0.014***	0.014***	0.014***
	(0.004)	(0.004)	(0.004)	(0.004)
Affinity Index(t-1)	0.154		0.166	
	(0.153)		(0.153)	
Political β	0.016***	0.016***	0.016***	0.016***
	(0.003)	(0.003)	(0.003)	(0.003)
Observations	344,265	344,225	339,095	339,055
R-squared	0.168	0.186	0.210	0.229
	Panel C: Extensive & intensive margins			
Affinity Index(t-1) X political β	0.101***	0.102***	0.099***	0.101***
	(0.027)	(0.027)	(0.026)	(0.026)
Affinity Index(t-1)	0.736		0.808	
	(0.714)		(0.721)	
Political β	0.103***	0.103***	0.104***	0.103***
	(0.019)	(0.019)	(0.019)	(0.019)
Observations	344,265	344,225	339,095	339,055
R-squared	0.229	0.244	0.256	0.272
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia from 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2006-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking equally-weighted approach as described in the main text. Additional controls are the log of firm assets (from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Appendix A4: Extensive margin results for political σ (for online publication only)

Table A4.1: Diversification: Political β vs. political σ. Extensive margin only

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent variable: 1 (exports>0)					
Affinity Index(t-1) X country political σ	0.708	0.679	0.495	0.476	0.548	0.548
	(0.627)	(0.570)	(0.647)	(0.601)	(0.647)	(0.599)
Affinity Index(t-1) X country political β			0.019***	0.021***	0.010***	0.009***
			(0.005)	(0.005)	(0.002)	(0.002)
Affinity Index(t-1)	0.081	0.104	0.115	0.131	0.114	0.128
	(0.184)	(0.179)	(0.189)	(0.185)	(0.187)	(0.183)
Country political σ	0.257	0.302	0.098	0.139	0.151	0.200
	(0.365)	(0.388)	(0.375)	(0.389)	(0.378)	(0.395)
Country political β			0.024***	0.023***	0.006***	0.006***
			(0.003)	(0.003)	(0.001)	(0.001)
Observations	430,352	416,558	398,842	390,632	398,842	390,632
R-squared	0.192	0.230	0.183	0.225	0.179	0.220
Measurement country political β	NA	NA	*Value-weighted*		*Equally-weighted*	
Add'l firm/country ctrls.	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm X year FE	No	Yes	No	Yes	No	Yes

Notes: The sample consists of a balanced panel of company-by-destination country export observations in Russia from 2006-2011. The panel includes all country-by-destination country pairs with at least one positive trade observation over 2001-2011, zero trade observations are imputed. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is a dummy for positive values of exports (in current USD) being sent by a given firm into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index calculated on the basis of similarity of a country's votes in the UNGA with Russia in a given year. Country political β is calculated by a rolling pre-ranking value-weighted (equally-weighted) approach, as described in the main text. Country political σ is the past 12 years' variance of Affinity Index for a given country. Additional controls are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. In addition, specifications 2, 4 and 6 include firm X year fixed effects. Standard errors (in parentheses) are calculated by bootstrap with 500 repetitions (with two-way clustering at the firm and country levels). ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A4.2: Diversification: Political β vs. political σ. Intensive & extensive margins

	(1)	(2)	(3)	(4)	(5)	(6)
	Dependent variable: log ($2,000+exports)					
Affinity Index(t-1) X country political σ	4.571*	4.450*	3.118	2.923	3.469	3.377
	(2.670)	(2.473)	(2.794)	(2.683)	(2.788)	(2.672)
Affinity Index(t-1) X country political β			0.140***	0.154***	0.066***	0.066***
			(0.037)	(0.034)	(0.012)	(0.011)
Affinity Index(t-1)	0.232	0.349	0.411	0.507	0.404	0.492
	(0.812)	(0.802)	(0.845)	(0.841)	(0.838)	(0.833)
Country political σ	1.007	1.213	0.040	0.207	0.335	0.549
	(1.417)	(1.548)	(1.441)	(1.559)	(1.451)	(1.576)
Country political β			0.153***	0.152***	0.048***	0.047***
			(0.023)	(0.023)	(0.007)	(0.007)
Observations	430,352	416,558	398,842	390,632	398,842	390,632
R-squared	0.245	0.268	0.247	0.271	0.239	0.263
Measurement country political β	NA	NA	*Value-weighted*		*Equally-weighted*	
Add'l firm/country ctrls.	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm X year FE	No	Yes	No	Yes	No	Yes

Notes: The sample consists of a balanced panel of company-by-destination country export observations in Russia from 2006-2011. The panel includes all country-by-destination country pairs with at least one positive trade observation over 2001-2011, zero trade observations are imputed. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is the log of ($2,000 + amount of exports) in current USD being sent by a given firm into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index calculated on the basis of similarity of a country's votes in the UNGA with Russia in a given year. Country political β is calculated by a rolling pre-ranking value-weighted (equally-weighted) approach, as described in the main text. Country political σ is a past 12 years' variance of Affinity Index for a given country. Additional controls are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. In addition, specifications 2, 4 and 6 include firm X year fixed effects. Standard errors (in parentheses) are calculated by bootstrap with 500 repetitions (with two-way clustering at the firm and country levels). ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Appendix A5: Heterogeneity over time

Table A5.1: Diversification: Heterogeneity with respect to political β: Value-weighted approach pre-2008

	(1)	(2)	(3)	(4)
Panel A: Intensive margin				
Affinity Index(t-1) X political β	0.116***	0.118***	0.118***	0.121***
	(0.039)	(0.040)	(0.037)	(0.038)
Affinity Index(t-1)	-0.035		0.048	
	(0.267)		(0.303)	
Political β	0.168***	0.170***	0.174***	0.176***
	(0.025)	(0.025)	(0.023)	(0.023)
Observations	48,061	48,025	47,881	47,844
R-squared	0.524	0.527	0.558	0.560
Panel B: Extensive margin				
Affinity Index(t-1) X political β	0.017***	0.018***	0.019***	0.019***
	(0.005)	(0.005)	(0.005)	(0.005)
Affinity Index(t-1)	0.130***		0.135***	
	(0.043)		(0.044)	
Political β	0.023***	0.023***	0.023***	0.023***
	(0.003)	(0.003)	(0.003)	(0.003)
Observations	138,492	138,454	136,843	136,805
R-squared	0.199	0.202	0.223	0.226
Panel C: Extensive & intensive margins				
Affinity Index(t-1) X political β	0.127***	0.128***	0.136***	0.137***
	(0.034)	(0.034)	(0.034)	(0.034)
Affinity Index(t-1)	0.365**		0.404**	
	(0.177)		(0.178)	
Political β	0.149***	0.150***	0.148***	0.149***
	(0.024)	(0.024)	(0.023)	(0.023)
Observations	138,492	138,454	136,843	136,805
R-squared	0.261	0.263	0.272	0.274
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2006-2008. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2008, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking value-weighted approach as described in the main text. Additional controls included in all specifications are the log of firm assets, the log of country GDP and the log of country population. All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors (2-way clustered at the exporting firm and at the importing country levels) are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A5.2: Diversification: Heterogeneity with respect to political β:Value-weighted approach post-2008

	(1)	(2)	(3)	(4)
	Panel A: Intensive margin			
Affinity Index(t-1) X political β	0.170**	0.177**	0.178**	0.184**
	(0.074)	(0.076)	(0.073)	(0.075)
Affinity Index(t-1)	0.444		0.418	
	(0.391)		(0.370)	
Political β	0.192***	0.191***	0.191***	0.192***
	(0.030)	(0.030)	(0.031)	(0.032)
Observations	42,970	42,944	42,754	42,726
R-squared	0.515	0.518	0.549	0.552
	Panel B: Extensive margin			
Affinity Index(t-1) X political β	0.019**	0.022**	0.021**	0.023**
	(0.009)	(0.009)	(0.009)	(0.009)
Affinity Index(t-1)	0.197		0.203	
	(0.176)	(0.000)	(0.183)	(0.000)
Political β	0.029***	0.029***	0.029***	0.029***
	(0.004)	(0.004)	(0.004)	(0.004)
Observations	126,419	126,382	125,117	125,080
R-squared	0.201	0.225	0.229	0.253
	Panel C: Extensive & intensive margins			
Affinity Index(t-1) X political β	0.174**	0.187***	0.184***	0.195***
	(0.068)	(0.068)	(0.067)	(0.067)
Affinity Index(t-1)	0.980		0.988	
	(0.876)	(0.000)	(0.910)	(0.000)
Political β	0.182***	0.182***	0.182***	0.182***
	(0.028)	(0.028)	(0.029)	(0.029)
Observations	126,419	126,382	125,117	125,080
R-squared	0.258	0.277	0.273	0.293
Add'l firm/country ctrls.	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2009-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2008, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking value-weighted approach as described in the main text. Additional controls included in all specifications are the log of firm assets, the log of country GDP and the log of country population. All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors (2-way clustered at the exporting firm and at the importing country levels) are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Appendix A6: Results for subsamples of exporters

Table A6.1: Diversification: Heterogeneity with respect to political β. No exporters of mineral resources.

	(1)	(2)	(3)	(4)
Panel A: Intensive margin				
Affinity Index(t-1) X political β	0.112***	0.118***	0.126***	0.133***
	(0.040)	(0.042)	(0.037)	(0.039)
Affinity Index(t-1)	0.345**		0.414**	
	(0.157)		(0.160)	
Political β	0.178***	0.182***	0.181***	0.186***
	(0.023)	(0.024)	(0.022)	(0.022)
Observations	124,772	124,697	124,089	124,006
R-squared	0.484	0.489	0.541	0.546
Panel B: Extensive margin				
Affinity Index(t-1) X political β	0.020***	0.020***	0.021***	0.022***
	(0.005)	(0.005)	(0.005)	(0.005)
Affinity Index(t-1)	0.175		0.185	
	(0.171)		(0.167)	
Political β	0.023***	0.025***	0.023***	0.025***
	(0.003)	(0.003)	(0.003)	(0.003)
Observations	369,152	369,100	361,453	361,401
R-squared	0.185	0.207	0.226	0.249
Panel C: Extensive & intensive margins				
Affinity Index(t-1) X political β	0.138***	0.141***	0.151***	0.154***
	(0.037)	(0.037)	(0.035)	(0.035)
Affinity Index(t-1)	0.797		0.857	
	(0.778)		(0.770)	
Political β	0.153***	0.159***	0.153***	0.159***
	(0.023)	(0.024)	(0.023)	(0.024)
Observations	369,152	369,100	361,453	361,401
R-squared	0.247	0.266	0.270	0.290
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking value-weighted approach as described in the main text. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A6.2: Diversification: Heterogeneity with respect to political β. Small companies: Total assets <$120M.

	(1)	(2)	(3)	(4)
Panel A: Intensive margin				
Affinity Index(t-1) X political β	0.114***	0.120***	0.128***	0.135***
	(0.035)	(0.037)	(0.032)	(0.034)
Affinity Index(t-1)	0.365**		0.398***	
	(0.146)		(0.141)	
Political β	0.168***	0.173***	0.173***	0.178***
	(0.023)	(0.024)	(0.021)	(0.022)
Observations	111,728	111,648	111,047	110,957
R-squared	0.480	0.486	0.542	0.547
Panel B: Extensive margin				
Affinity Index(t-1) X political β	0.021***	0.022***	0.023***	0.024***
	(0.005)	(0.005)	(0.005)	(0.005)
Affinity Index(t-1)	0.184		0.195	
	(0.183)		(0.179)	
Political β	0.025***	0.026***	0.025***	0.026***
	(0.004)	(0.004)	(0.004)	(0.004)
Observations	338,915	338,870	330,798	330,753
R-squared	0.190	0.213	0.229	0.253
Panel C: Extensive & intensive margins				
Affinity Index(t-1) X political β	0.140***	0.143***	0.155***	0.158***
	(0.034)	(0.034)	(0.031)	(0.032)
Affinity Index(t-1)	0.792		0.852	
	(0.796)		(0.781)	
Political β	0.152***	0.157***	0.152***	0.157***
	(0.025)	(0.025)	(0.025)	(0.025)
Observations	338,915	338,870	330,798	330,753
R-squared	0.258	0.279	0.275	0.297
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking value-weighted approach as described in the main text. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A6.3: Diversification: Heterogeneity with respect to political β. Private exporters. Large and mineral resource producers are excluded.

	(1)	(2)	(3)	(4)
Panel A: Intensive margin				
Affinity Index(t-1) X political β	0.108***	0.114***	0.120***	0.127***
	(0.035)	(0.037)	(0.033)	(0.035)
Affinity Index(t-1)	0.432***		0.508***	
	(0.163)		(0.152)	
Political β	0.163***	0.168***	0.168***	0.174***
	(0.023)	(0.024)	(0.021)	(0.022)
Observations	83,474	83,392	82,973	82,882
R-squared	0.474	0.482	0.536	0.543
Panel B: Extensive margin				
Affinity Index(t-1) X political β	0.022***	0.022***	0.024***	0.024***
	(0.005)	(0.005)	(0.005)	(0.005)
Affinity Index(t-1)	0.186		0.197	
	(0.191)		(0.186)	
Political β	0.023***	0.025***	0.024***	0.025***
	(0.004)	(0.004)	(0.004)	(0.004)
Observations	250,904	250,840	244,774	244,710
R-squared	0.193	0.218	0.231	0.257
Panel C: Extensive & intensive margins				
Affinity Index(t-1) X political β	0.137***	0.140***	0.150***	0.153***
	(0.033)	(0.034)	(0.032)	(0.033)
Affinity Index(t-1)	0.763		0.842	
	(0.832)		(0.812)	
Political β	0.146***	0.152***	0.147***	0.153***
	(0.025)	(0.025)	(0.025)	(0.025)
Observations	250,904	250,840	244,774	244,710
R-squared	0.261	0.284	0.278	0.302
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political β is calculated by a rolling pre-ranking value-weighted approach as described in the main text. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Appendix A7: Accounting for country-level Economic shocks

Table A7.1: GDP β vs political β: Intensive margin results.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dependent variable: Log trade							
	Value-weighted approach				*Equally-weighted approach*			
Affinity Index (t-1) X political β	0.128***	0.138***	0.142***	0.155***	0.045***	0.052***	0.049***	0.057***
	(0.042)	(0.045)	(0.039)	(0.042)	(0.011)	(0.012)	(0.011)	(0.012)
Affinity index (t-1) X Log GDP β	0.053**	0.068**	0.061**	0.079***	-0.010	0.014	-0.008	0.019
	(0.027)	(0.030)	(0.026)	(0.029)	(0.019)	(0.020)	(0.020)	(0.022)
Affinity index (t-1)	0.178		0.228		0.241		0.331	
	(0.267)		(0.216)		(0.270)		(0.231)	
Log GDP	0.337**		0.387**		0.359**		0.407***	
	(0.152)		(0.160)		(0.154)		(0.145)	
Political β	0.166***	0.168***	0.169***	0.170***	0.063***	0.065***	0.064***	0.067***
	(0.022)	(0.022)	(0.020)	(0.020)	(0.007)	(0.007)	(0.007)	(0.007)
Log GDP β	-0.435	-0.592*	-0.511	-0.700**	0.187	-0.067	0.161	-0.125
	(0.322)	(0.355)	(0.317)	(0.352)	(0.229)	(0.232)	(0.237)	(0.251)
Observations	134,633	134,558	133,883	133,799	134,633	134,558	133,883	133,799
R-squared	0.507	0.512	0.562	0.567	0.496	0.501	0.551	0.555
Add'l firm/country ctrls.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2006-2011 with positive exports (export observations less than $100 value are dropped). The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political and GDP βs are calculated by rolling pre-ranking approach as described in the main text. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A7.2: GDP β vs political β: Extensive margin results.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dependent variable: Log trade							
	Value-weighted approach				*Equally-weighted approach*			
Affinity Index (t-1) X political β	0.021***	0.023***	0.023***	0.025***	0.011***	0.014***	0.010***	0.013***
	(0.006)	(0.006)	(0.005)	(0.005)	(0.002)	(0.002)	(0.002)	(0.002)
Affinity index (t-1) X Log GDP β	0.008	0.012***	0.009	0.014***	0.004	0.011***	0.003	0.011***
	(0.005)	(0.004)	(0.005)	(0.004)	(0.005)	(0.003)	(0.006)	(0.003)
Affinity index (t-1)	-0.130		-0.139		-0.131		-0.130	
	(0.198)		(0.186)		(0.198)		(0.185)	
Log GDP	0.181		0.193		0.188		0.201	
	(0.167)		(0.163)		(0.168)		(0.165)	
Political β	0.023***	0.023***	0.023***	0.023***	0.006***	0.007***	0.006***	0.007***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.001)	(0.001)	(0.001)	(0.001)
Log GDP β	-0.064	-0.110**	-0.072	-0.122**	-0.025	-0.105***	-0.021	-0.104***
	(0.057)	(0.047)	(0.058)	(0.051)	(0.062)	(0.037)	(0.064)	(0.040)
Observations	398,766	398,725	390,576	390,535	398,766	398,725	390,576	390,535
R-squared	0.184	0.207	0.226	0.248	0.179	0.201	0.220	0.243
Add'l firm/country ctrls.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2006-2011. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is the dummy for positive exports. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political and GDP βs are calculated by rolling pre-ranking approach as described in the main text. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A7.3: GDP β vs political β: Intensive+Extensive margins results.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Dependent variable: Log trade							
	Value-weighted approach				*Equally-weighted approach*			
Affinity Index (t-1) X political β	0.152***	0.161***	0.166***	0.176***	0.068***	0.082***	0.068***	0.081***
	(0.040)	(0.041)	(0.037)	(0.039)	(0.012)	(0.013)	(0.011)	(0.013)
Affinity index (t-1) X Log GDP β	0.044	0.069**	0.050	0.077**	0.004	0.041**	0.001	0.042*
	(0.030)	(0.029)	(0.032)	(0.031)	(0.028)	(0.020)	(0.030)	(0.022)
Affinity index (t-1)	-0.555		-0.577		-0.510		-0.475	
	(0.971)		(0.912)		(0.959)		(0.894)	
Log GDP	0.819		0.888		0.859		0.928	
	(0.761)		(0.751)		(0.779)		(0.773)	
Political β	0.148***	0.150***	0.147***	0.150***	0.049***	0.052***	0.049***	0.053***
	(0.023)	(0.022)	(0.023)	(0.022)	(0.008)	(0.008)	(0.008)	(0.008)
Log GDP β	-0.367	-0.612*	-0.428	-0.691**	0.017	-0.370	0.022	-0.384
	(0.340)	(0.324)	(0.352)	(0.347)	(0.337)	(0.233)	(0.348)	(0.250)
Observations	398,766	398,725	390,576	390,535	398,766	398,725	390,576	390,535
R-squared	0.247	0.267	0.272	0.292	0.239	0.257	0.263	0.282
Add'l firm/country ctrls.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia from 2006-2011. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is the log($2000+value of exports). Exports (in current USD) are being sent by a given firm from Russia into a given destination country. Affinity Index is Gartzke's (2010) Affinity of Nations Index, calculated on the basis of similarity of a country's votes with Russia in a given year. Country political and GDP βs are calculated by a rolling pre-ranking approach as described in the main text. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Appendix A8: Alternative measure of political relations

In the main text we use Gartzke's (2010) Affinity Index to proxy for political relations between Russia and a given trading partner. In this section, we show that our results are robust to using a recently introduced alternative from Bailey, Strezhnev, and Voeten (2017), based on a country's (dynamic) preference towards a particular political dimension (termed a country's "Ideal Point"). The measure uses the absolute difference in Ideal Points between a country pair to assess their disagreement on that particular political dimension. Specifically, Bailey, Strezhnev, and Voeten (2017) have calculated Ideal Points with respect to the "US-led liberal order."

To ensure that our results are not due to our choice in political distance proxy, we rerun our analysis using the absolute difference in Ideal Points between Russia and a given country in place of the Affinity Index. Specifically, we define political β_{IP} on the basis of ideal points and estimate the regressions similar to (18). Estimation results are presented in Tables A8.1 and A8.2 below for value-weighted and equally-weighted approaches to measure β_{IP}.

The results on the basis of Ideal Point absolute difference are similar to those based on the Affinity Index. Note that by construction a higher absolute difference in Ideal Points means *worse* political relations while a higher value of Affinity Index means *better* political relations. Thus, (consistent with our findings for the Affinity Index) the baseline effect of an increase in Ideal Point absolute difference is negative. We also find evidence of political risk diversification. A negative response to a deterioration in political relations is larger in magnitude for destinations that comove more with others in a given firm's portfolio (those having positive ideals points based political β_{IP}) and is muted for lower/negative β_{IP}, i.e., "hedge" destinations, that comove less/move against other destinations in the firm's overall "political" portfolio.

Overall, we argue that our results are robust to this alternative approach to measuring of political relations.

Table A8.1: Diversification: Heterogeneity with respect to political β. Distance in ideal points instead of affinity index. Value-weighted approach

	(1)	(2)	(3)	(4)
Panel A: Intensive margin				
Distance in ideal points(t-1) X	-0.034***	-0.035***	-0.025**	-0.029**
political β (for ideal points)	(0.010)	(0.010)	(0.012)	(0.013)
Distance in ideal points (t-1)	-0.087**		-0.082**	
	(0.034)		(0.039)	
Political β (for ideal points)	0.256***	0.264***	0.262***	0.274***
	(0.011)	(0.011)	(0.012)	(0.013)
Observations	133,630	133,553	132,906	132,816
R-squared	0.502	0.507	0.557	0.561
Panel B: Extensive margin				
Distance in ideal points (t-1) X	-0.011***	-0.007***	-0.010***	-0.005***
political β (for ideal points)	(0.001)	(0.001)	(0.002)	(0.002)
Distance in ideal points (t-1)	-0.090***		-0.096***	
	(0.005)		(0.006)	
Political β (for ideal points)	0.044***	0.042***	0.045***	0.042***
	(0.002)	(0.002)	(0.002)	(0.002)
Observations	390,219	390,176	382,412	382,369
R-squared	0.185	0.206	0.226	0.248
Panel C: Extensive & intensive margins				
Distance in ideal points (t-1) X	-0.067***	-0.047***	-0.065***	-0.040***
political β (for ideal points)	(0.008)	(0.008)	(0.009)	(0.010)
Distance in ideal points (t-1)	-0.393***		-0.426***	
	(0.023)		(0.025)	
Political β (for ideal points)	0.284***	0.274***	0.293***	0.279***
	(0.009)	(0.010)	(0.010)	(0.010)
Observations	390,219	390,176	382,412	382,369
R-squared	0.247	0.265	0.271	0.290
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. "Distance in ideal points" is Bailey, Strezhnev, and Voeten (2017) absolute difference between ideal points of a given country and Russia, which measures the dynamic difference between a given country's preferences and Russia in a given year. Country political (ideal point based) β is calculated by a rolling pre-ranking value-weighted approach as described in the main text. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.

Table A8.2: Diversification: Heterogeneity with respect to political β. Distance in ideal points instead of affinity index. Equally weighed approach

	(1)	(2)	(3)	(4)
Panel A: Intensive margin				
Distance in ideal points(t-1) X	-0.019**	-0.018**	-0.025**	-0.027***
political β (for ideal points)	(0.008)	(0.008)	(0.010)	(0.010)
Distance in ideal points (t-1)	-0.109***		-0.097**	
	(0.034)		(0.039)	
Political β (for ideal points)	0.089***	0.090***	0.095***	0.098***
	(0.008)	(0.008)	(0.010)	(0.010)
Observations	133,630	133,553	132,906	132,816
R-squared	0.493	0.498	0.548	0.552
Panel B: Extensive margin				
Distance in ideal points (t-1) X	-0.006***	-0.004***	-0.006***	-0.003**
political β (for ideal points)	(0.001)	(0.001)	(0.001)	(0.001)
Distance in ideal points (t-1)	-0.092***		-0.098***	
	(0.005)		(0.006)	
Political β (for ideal points)	0.026***	0.024***	0.026***	0.024***
	(0.001)	(0.001)	(0.001)	(0.001)
Observations	390,219	390,176	382,412	382,369
R-squared	0.183	0.204	0.224	0.245
Panel C: Extensive & intensive margins				
Distance in ideal points (t-1) X	-0.037***	-0.026***	-0.043***	-0.027***
political β (for ideal points)	(0.006)	(0.006)	(0.007)	(0.007)
Distance in ideal points (t-1)	-0.413***		-0.445***	
	(0.024)		(0.025)	
Political β (for ideal points)	0.149***	0.142***	0.154***	0.144***
	(0.006)	(0.006)	(0.007)	(0.007)
Observations	390,219	390,176	382,412	382,369
R-squared	0.242	0.260	0.266	0.284
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Firm X year FE	No	No	Yes	Yes
Country X year FE	No	Yes	No	Yes

Notes: The sample consists of a company-by-destination country export observations in Russia over 2006-2011. Panel A contains observations only for positive exports (export observations less than $100 value are dropped). Panels B and C contain a balanced panel for all firm-country observations that have traded at least once during 2001-2011, imputing zero trade flows for missing trade observations. The sample excludes exports into localities/affiliated territories that do not have formal representation in the UN and companies with no information about the value of assets. The dependent variable is log of total exports in Panel A, a dummy for positive level of exports in Panel B, and the log of ($2,000+total exports) in Panel C. Exports (in current USD) are being sent by a given firm from Russia into a given destination country. "Distance in ideal points" is Bailey, Strezhnev, and Voeten (2017) absolute difference between ideal points of a given country and Russia, which measures the dynamic difference between a given country's preferences and Russia in a given year. Country political (ideal point based) β is calculated by a rolling pre-ranking value-weighted approach as described in the main text. Additional controls included in all specifications are the log of firm assets (obtained from SPARK-Interfax database), the log of country GDP (chained real GDP) and the log of country population (from Penn World Tables). All specifications are estimated by OLS. Country fixed effects, firm fixed effects, and time fixed effects are included in all regressions but not reported. Additionally, specifications 3 and 4 include firm X year fixed effects, and specifications 2 and 4 include country X year fixed effects. Standard errors 2-way clustered at the exporting firm and at the importing country levels are reported in parenthesis. ***, **, * indicate statistical significance at 1%, 5%, and 10%, respectively.