**Disparate Distributions of Exporting vs. Import-competing Firms
and their Implications for Trade Policy Openness**

Megan Roosevelt
University of Colorado Boulder
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Abstract. Just as societal trade policy preferences are divided among winners and losers from openness, firms hold disparate preferences based on whether or not they are globally competitive. Previous research demonstrates that exporting firms lobby for openness while import-competing firms demand protectionism. New New Trade Theory holds that engaging in exporting is rare across firms, though: if the firms that want openness are vastly outnumbered by those that want protection, what explains variation in trade policy openness across countries? Using a sample of over 75,000 firms from 147 countries I find that, while the proportion of exporting firms worldwide is less than one-fifth of all firms sampled, the proportion of exporting firms within countries ranges from 0.68 to 91.41 percent. I argue that the percent of exporting firms in the market determines whether they get their preferred policies. I hypothesize a nonlinear relationship wherein protectionism is highest when there are either very few exporting firms or very many: in the first case, there are too few pro-trade voices and in the second, exporters face a collective action problem that diminishes the efficacy of their lobbying. I find support for the expected relationship using three measures of trade policy openness.

1.   **Introduction**:

Both standard trade theory and new trade theory "typically assume a representative firm, at least within each industry" (Bernard et al 2007: 108). By contrast, the later developments of new new trade theory (NNTT) posit that firms vary along such lines as productivity, skill or capital intensity, size, and innovation. Within a given industry firms engage with the global market differently based upon their disparate cost curves: firms with lower marginal costs and higher operating profits tend to be able to bear the costs of exporting, while less productively efficient firms are forced to compete with foreign imports in the domestic market (Melitz and Trefler 2012). If exporting firms are functionally distinct from import-competing ones in systematic ways, it follows that subnational attitudes on trade liberalization should vary at the level of the firm. How, then, are trade policy preferences for openness or restrictiveness distributed across firms, and how can firms affect policy outcomes to reflect their preferences?

In this paper, I incorporate heterogeneous firm preferences into a Grossman-Helpman (1994) style model of special interest group pressure on the state, which does not unilaterally lobby for protection from international economic competition. Instead, export-oriented firms lobby the government for more liberal trade policy configurations while import-competing firms take up the traditional role of lobbying for more restrictive policies. Based on Olson's (1965) taxonomy of groups and theory of collective action, I argue that such behavior by firms influences trade policy in a nonlinear fashion. Using ordinary least squares regressions, I find support for my hypothesis that barriers to free trade are highest when there are very few exporting firms in a country relative to import-competing ones, and (somewhat counterintuitively) when there are very many.

The paper is structured as follows. Following this introduction, Section Two motivates my theory of firm-level policy preferences by discussing individual, state, and systemic level determinants of trade policy. Also in this section, I assess the global validity of NNTT's tenet that exporting is a rare activity among firms, the vast majority of which are not competitive enough to bear the costs of engaging in international trade. Section Three presents a theory of collective action among exporting firms, providing directional hypotheses for when these relatively powerful firms should and should not see their preferences translated into actual trade policy outcomes. Section Four describes the data and methodology, and tests the basic hypothesis of a nonlinear relationship between percent of exporting firms and trade policy in

several different ways. Section Five details robustness checks to the statistical analysis and suggests further work to be done in the way of process tracing to ascertain whether the theorized causal mechanism—heterogeneous firm-level lobbying—truly explains the relationship between my dependent and independent variables. Section Six concludes.

2. Motivation

An extensive body of work in political economy has examined the distributional effects of international trade, unambiguously finding winners and losers from engagement in the global market. Stemming from these consequences of trade, previous work has focused heavily on the determinants of trade policy preferences at the level of the individual, the state, and the international system. Only within the past few decades, though, has trade policy scholarship moved into the arena of firm-level preferences and the influence corporations can exert over policy outcomes. In reviewing the trajectory of trade policy literature, I build a case for more intensive focus on the firm as an independent political actor, and on the implications of firm heterogeneity with respect to policy preferences and subsequent lobbying behavior.

Standard trade theory provides two classic models of support for international trade, Ricardo-Viner and Heckscher-Ohlin. Stemming from 19th century economic thought, the Ricardian model of comparative advantage demonstrates the logic of countries engaging in international trade. Viner's subsequent developments upon this model posit that labor is mobile but other factors of production are specific to a particular industry, and that individuals form preferences on trade policy openness based upon their industry of employment, thus producing a sectoral cleavage in attitudes toward free trade. The Heckscher-Ohlin model, an alternative standard trade theoretical approach developed in the early 20th century, argues instead that factors are relatively mobile but that countries vary in their factor endowments, and that benefits from international trade accrue to the owners of a country's abundant factor as it is used intensively in production. Thus trade liberalization harms owners of scarce factors while protection disadvantages the owners of relatively abundant ones. Such a model implies that, contrary to the predictions of the Ricardo-Viner model, cleavages in trade policy preferences will form between various factors of production (i.e. capital vs. labor).

Empirical works spanning the past several decades have attempted to test the implications of standard trade theory models, often pitting Ricardo-Viner and Heckscher-Ohlin against one another using individual-level survey data on trade policy options. Studies of declining industries

assuming a Ricardo-Viner framework find moderate support for its implications (Hillman 1982; Van Long and Vousden 1991), while Rogowski's (1987) work on political cleavages generally upholds the Stolper-Samuelson theorem, a derivation of Heckscher-Ohlin. As more recent studies have employed surveys to test which of the two models performs better in explaining individual attitudes toward free trade, the evidence continues to be mixed. While Beaulieu (2002: 99) suggests that the data support the notion of "partial factor mobility" – essentially, that either both models or neither are applicable – Scheve and Slaughter (2001) and Mayda and Rodrik (2005) unequivocally find stronger support for the Heckscher-Ohlin factor endowments model than for the specific factors of Ricardo-Viner.

Despite fairly consistent support for Hecksher-Ohlin, scholars have found fault with the model both methodologically and theoretically, calling its validity into question and spurring subsequent refinements in the study of trade policy preferences. Empirically, educational attainment often proxies for the factoral divide specified in the Stolper-Samuelson theorem, and so a robust relationship between education and support for freer trade is frequently interpreted as support for the Heckscher-Ohlin model. Multiple studies find fault with this conclusion, arguing instead that the variable instead reflects exposure to ideals of economic liberalization often espoused in institutions of higher education, or to other cultures, thereby lessening the out-group anxiety and xenophobia that may intensify isolationist or protectionist attitudes (Hainmueller and Hiscox 2006; Mansfield and Mutz 2009).

In light of the widely varying interpretation of the data and its support for standard trade theory models, it is perhaps a welcome new finding that individual-level attitudes could be seen as negligible in the study of trade policy formation. Even in political contexts in which individuals vote on policy propositions or for representatives who espouse them, the salience of trade policy is relatively low in terms of individuals' stated importance, knowledge of candidate's positions, and effect on individuals' propensity to vote for the incumbent (Guisinger 2009). As such findings must give us pause with regard to the applicability of individual-level voter driven models of trade policy, more recent iterations of trade theories have opened up new avenues for explaining variation in trade policy openness cross-nationally.

In one of the broadest explanations of global trade regimes, Krasner (1976) argues that the configuration of states in the international system influences the relative openness of the global market. This study examines possible state interests regarding a more open or closed

global market based on size and potential economic power, suggesting that a system with many small and highly-developed states should yield a relatively liberal international trading system, while one with a few large states at unequal levels of development should remain more closed. He posits ultimately that systemic openness to trade should be the most likely to occur in the presence of a global hegemon, and tests these three presumptions with an analysis of five distinct historical periods spanning 150 years. While patterns in global market liberalization track fairly well with Krasner's hegemony argument, systemic explanations of the overall character of international trade over time are particularly vulnerable to the critique that they cannot offer insight into cross-national trade policy variation within time periods.

On a level between systemic and individual explanations, Hansen and Park (1995) pit a state-centric model of trade policy formation against a pluralist one, examining investigations conducted on behalf of US industries within the International Trade Administration (ITA). While pluralist expectations focus on the ability of industry interest groups to demand protection based on their size, concentration, and geographic leverage over committee members, statist arguments hinge on US policymakers retaliating against countries with higher tariff rates to protect the national interest. The study ultimately finds that the ITA's trade policy rulings are more readily explained by statist macroeconomic variables than by the pluralist ones centered on representation and influence. In a similar vein, an analysis of the United States' Reciprocal Trade Agreements Act of 1934 characterizes trade policy liberalization as a function of the domestic political institutions of the time more so than of interest group pressure or partisan conflict (Bailey, Goldstein, and Weingast 1997).

As state-level variables such as macroeconomic factors and political institutions begin to sharpen our picture of the constraints upon the process of trade policy formation, we must return to the issue of subnational conflict on policy alternatives, rooted in the tension between the winners and losers from free trade. In the 1980s, scholars singled out standard trade theory's assumption of constant returns to scale and proposed the alternative of new trade theory, focusing on increasing returns to scale (Krugman 1980). The incorporation of economies of scale into trade theory allows for actors to gain from larger markets as production costs decrease per unit produced. While not yet developing assumptions about how different cost curves facilitate different trading behavior, new trade theory does offer insight into the previously unexplained phenomena of intra-industry trade and horizontal integration, given that the same industry can

generate innumerable variations upon the same product that complement or compete with one another.

Supported quantitatively by trade data from US firms, NNTT provides insight into the heterogeneous processes through which firms produce for and engage with the market. An overwhelming majority firms are small and not productive enough to bear the costs of exporting to an international consumer base. As such, the special interest channel through which firms lobby the state for their desired trade policy configurations should look almost uniformly pro-protectionism. However, for this to be the case, we must be sure that NNTT's precept of exporting activity falling under the domain of a small subset of large, productive firms holds true in a global sample.

Conducted with upper-level personnel from 100 to 1000 firms in a country-year, the World Bank's Enterprise Surveys report firm-level data on regulations, crime and corruption, demographics, infrastructure, financing and investment, innovation, trade, and production, in addition to country-specific batteries of questions[1]. Each country-year in which a survey was conducted has its own dataset, with each firm comprising a unique observation. I compile these datasets into one master dataset, standardizing variables where needed and indicating the country and year of each observation. This creates a dataset with both spatial and temporal components, but which does not lend itself to time series analysis due to the inconsistency with which countries are surveyed and re-surveyed. The data span 147 countries, with the earliest observations in 2002 and the most recent in 2014. The modal survey year—in which approximately one-fifth of the surveys were conducted—is 2009.

That export operations are rare among firms is one of the most important elements of NNTT. Bernard et al's (2007) four percent is based on one country, but for NNTT to continue as a useful framework for analyzing trade policy preferences and outcomes, exporting firms must be the clear minority in a global sample as well. Descriptively, the data from the World Bank Enterprise Surveys bear this out. To assess this, I create a dichotomous variable indicating exporting behavior from a variable asking firms what percent of their sales are obtained through direct exports; if firms report zero percent of their sales from direct exports, they are coded as import-competing (0), and if they report anything greater than zero percent they are coded as exporters (1). Figure 1 below demonstrates that approximately 18 percent of firms worldwide

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[1] E.g. a series of questions about firms' losses in productivity due to HIV/AIDS in Sub-Saharan African countries.

engage in export operations. While markedly higher than the US' mere four percent, a roughly 80/20 breakdown of import-competing to exporting firms in a global sample of upwards of 75,000 firms supports the notion that exporting is a relatively rare activity.

Fig. 1: Distribution of exporting and import-competing firms worldwide
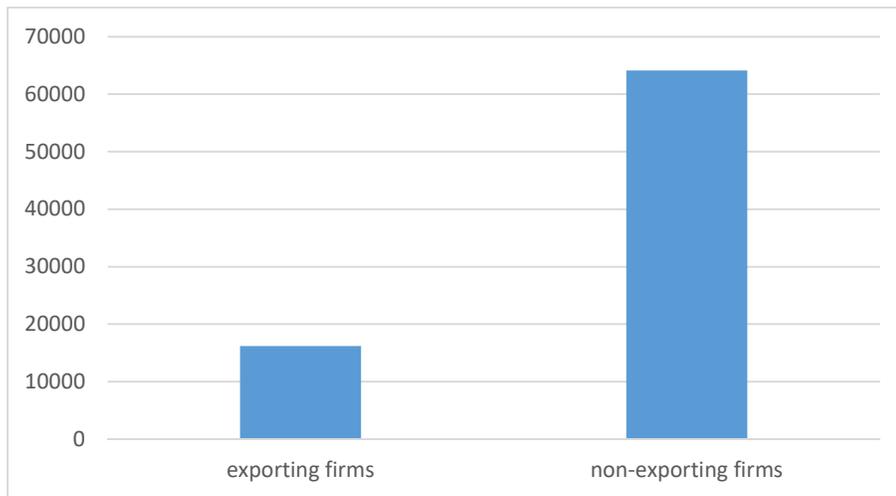
These data suggest that the political arena should be dominated by small, uncompetitive firms seeking protectionist policies, yet in practice we see an array of liberal trade policy configurations worldwide. Do policymakers ignore firm preferences when making these decisions? Below, I develop a theory through which firms actually exert a strong impact on trade policy formation, but in which exporters and import-competing firms cannot uniformly have their preferences affect the decision.

3. **Theory**:

In the traditional Grossman-Helpman (1994), there are two channels by which subnational actors exert pressure on the state to enact their preferred policies: individuals use voting as a channel through which they can demand more liberal economic policy in a quest for cheaper goods, while firms operate through a special interest group channel to lobby for protection from outside competition. This seminal model assumes that the special interest channel universally seeks protectionism, contravening voter pressures for a more open market (Grossman and Helpman 1994; Gawande and Hoekman 2006).

Subsequent work carries this framework over to less democratic states (i.e. ones in which the voter channel should not be present or should be disregarded by government), finding similar results to Grossman and Helpman's original test. In Turkey under a dictatorship and a

democratic regime, for example, the government accords primacy to maximizing social welfare over maximizing special interest contributions, although slightly moreso under democracy (Mitra et al 2002). These findings are interesting because they illustrate a similar process through which the state aggregates subnational trade policy preferences regardless of regime type, yet they minimize political influence for the special interest channel, and specifically firm lobbying.

While the Grossman-Helpman (1994) and Mitra et al (2002) models suggest that the state is ultimately beholden to the preferences of individual consumers, this is counterintuitive in nondemocracies and too strong an assumption in democracies. If the findings from Turkey are generalizable, dictatorships must be assumed both benevolent and well-informed on policy configurations that maximize social welfare. In democracies, on the other hand, the assumption of being well-informed on "good" policy configurations falls on the voters, an ideal that is not upheld by empirics (e.g. Guisinger 2009). Thus across the board, citizens fail to hold their government officials accountable for enacting economic policy that does not align with their ideology, due either to a lack of voice in government or to a lack of political knowledge or interest. If either channel of the Grossman-Helpman model is to exert significant power on the state and its policy formation, it must be the special interest channel almost exclusively.

If special interest lobbying from domestic firms provides the primary source of subnational pressure on trade policy formation, the above models imply that we should observe highly restrictive policies anywhere that firms lobby the government. However, NNTT's insights into firm heterogeneity support the notion that firms should not all lobby for more restrictive trade policies, nor should they universally favor protectionism. Firms should espouse different views on policy restrictiveness depending on their own characteristics; specifically, firms that engage in exporting possess the production profiles that should be consistent with more liberal views of trade policy, while import-competing firms are more likely to favor protectionism, as demonstrated formally and quantitatively in the aforementioned studies.

Toward the end of identifying firm pressures *against* policy restrictiveness, there is some empirical confirmation that lobbying behavior by firms can in fact support trade policy liberalization. Milner's (1988a, 1988b) work paved the way for viewing firms as trade liberalizing engines, demonstrating that American firms with multinational operations developed anti-protectionist sentiments in the wake of increasingly global intra-firm trade, and that American trade policy turned away from protectionism in response. Since then, scholars have

elaborated on the process through which anti-protectionist firms can affect trade policy. The literature has looked not only at campaign contributions made by firms (e.g. Brasher and Lowery 2006) but at ways businesses can actively lobby the government for non-protectionist policies (Plouffe 2011, 2012; Drope and Hansen 2006). Works such as these have established a trend in which firms engaging more internationally prefer more open trade policy, and petition the government to enact it, while the smaller and less productive import-competing firms seek protection against cheaper foreign goods.

Theory and preliminary evidence thus suggest that exporting firms should be in support of trade policy openness. Yet NNTT reveals that the number of exporters is dwarfed worldwide by the number of import-competing firms – how, then, do we account for an overall liberalizing trend in trade policy configurations, or any variation in trade policy at all? Underlying firm lobbying behavior and success via the special interest channel is a complex interplay of resources and numbers, through which only certain alignments of exporters or import-competers may make their voices heard.

Melitz and Trefler (2012), Bernard et al (2007), and others at the forefront of research on heterogeneous firms state that exporting is rare, and is the purview of a few large, highly productive firms. In the theoretical models and the case of the United States, this is undoubtedly true. However, that threshold for what makes a firm large *enough* or productive *enough* to export varies widely from country to country, based on innumerable institutional factors including market entry costs or hiring procedures, as well as geographic ones such as square mileage, number of land borders, or island status. Slovenia, for instance—one of Europe's smallest countries bordered by four large economies—regularly sees over 50 percent of sampled firms exporting, more than 2.5 standard deviations above the mean; likewise in the sample from Micronesia, a tiny island in Oceania, over 80 percent of firms engage in exporting, more than four standard deviations above the mean level of export activity. Slovenia and Micronesia do not have more firms favoring a liberal trade policy because they are filled with huge, efficient firms. Instead, exporting is less rare, less exclusive to only a few of the top competitors.

While all states apparently face firms' preferences through a special interest channel, we can see that the composition of these preferences—those in favor of protection versus those in favor of liberalization—must vary widely according to how many exporting firms there are in the ring, relative to import-competing ones. This is further complicated by the disproportionate

amount of resources wielded by exporting firms, who have more financial clout than import-competing firms due to higher profit margins, and presumably more political sway based purely on size.

I argue that the composition of this special interest arena should be a strong determinant of the restrictiveness or openness of a country's trade policy, but that the relationship between a country's percent of exporting firms and its trade policy openness should not be linear. In countries where the percentage of exporting firms is very low—within the single digits—trade policy should be relatively protectionist, as the import-competers are practically the only voice in the arena. Yet, given their superior resources, it may not take many exporting firms to outweigh a large flock of protectionist import-competers; in countries where exporting is the domain of a small percentage of large and highly productive firms, this group should be able to capture the state's ear and garner more flexible trade policy to suit their own interests. A few large and powerful firms may then successfully lobby for what they perceive to be a public good, either in an atomistic or oligopolistic fashion (Olson 1965).

These dynamics point toward exporters being able to dominate the policy arena at a very low threshold. However, I posit that there should not be a secular trend toward more openness as more exporters dominate the arena, due fundamentally to a collective action problem. As a group becomes larger, it becomes more difficult for that group to secure its collective good – here, fewer restrictions governing international economic activity (Olson 1965). In countries where more than half the sampled firms export, organizational costs to creating coherent pro-trade-liberalization special interest pressure soar. Where the bar for exporting is not so high, individual exporters have neither the incentive nor the resources to try to provide the group with a collective good. Per Olson's terminology, exporters in a country where exporting is not rare form either an intermediate or a latent group, unlikely to organize effectively to achieve their policy objectives.

As exporters and import-competing firms make up different proportions of the special interest channel, the state will thus face more or less pressure (and more or less cohesive pressure) for trade policy liberalization. With a dearth of exporters, nearly all the pressure a state faces from firms should be for protectionism. When a few powerful and organized exporters enter the lobbying arena, trade policy should shift to suit their demands for more liberal policies governing the entry of intermediate inputs and outflows of exports. As a greater percentage of a country's firms engage in exporting, thus filling the lobbying arena with liberal but hard-to-

organize interests, import-competing firms once again have the chance for their preferences to dominate policy formation, as they can present a cohesive front against the discordant voices of hundreds of small exporters. This leads to my basic hypothesis:

> **H1**: *A nonlinear relationship should exist between the number of export-oriented firms within a country and the openness or restrictiveness of its trade policy.*

4. **Data and methods**:

Over decades of trade policy scholarship, scholars have created dozens of measurements of trade policy openness or restrictiveness, with little consensus as to which is the "right" one (David 2007). We routinely observe campaign contributions from firms to their representatives that aim to alter tariff rates, subsidies, trade agreements, etc. To conduct a thorough test of my proposed relationship, I employ three measures of trade policy openness as dependent variables: 1) weighted average tariff rates, from the World Bank World Development Indicators, 2) non-tariff barriers (NTBs) and 3) an overall trade freedom index, both from the Heritage Foundation's Index of Economic Freedom.

My key independent variable is the percent of exporters in a given country-year. From the World Bank Enterprise Surveys, which solicit responses from a few hundred to 1,000 firms in 145 countries, I construct a country-year variable that measures the percent of a country's reporting firms that engage in exporting. This ranges from 0.68 to 82.5 percent, with a mean value of 20.5 percent. To assess the relationship specified in H1, I regress this term and its squared value on the three indicators of trade policy openness mentioned above. Figure 2, below, indicates the distribution within my sample of countries' percentages of exporting firms. Some countries are surveyed in multiple years and others only once, which I attempt to control for in my statistical analysis.

Fig. 2. Histogram of country-year percentage of exporting firms, 289 country-years.
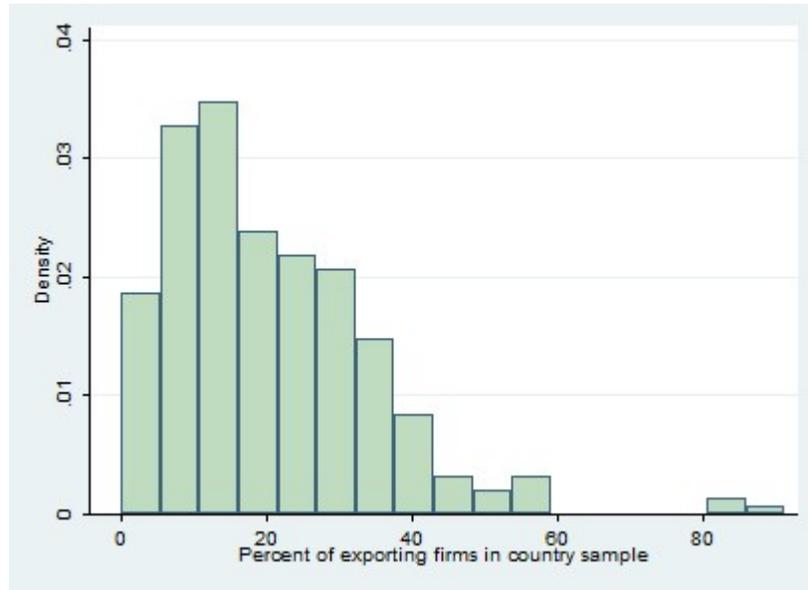
If the expected relationship holds, then average weighted tariff rates and NTBs should be highest at the ends of the spectrum (i.e. very few and very many exporting firms), and overall trade freedom scores should be lowest at those points. The models include various controls as well. The Polity IV scale measures political regime type, addressing the concern that trade policy is not determined in the same ways across different governments. I acknowledge economic factors incentivizing freer trade policy by including GDP per capita and logged GDP in constant 2005 US dollars. I make no hypotheses about the relationship between percent of exporting firms and my control variables, but expect the following relationships—which I term Hypotheses 1a-c—to be present in my models:

Table 1. Expected sign of coefficient; Hypotheses 1a-c.

	H1a	H1b	H1c
	Tariff rate	NTB	Trade freedom
Percent of exporting firms	(-)	(-)	(+)
Percent of exporting firms, squared	(+)	(+)	(-)

These expected relationships suggest U-shaped relationships between percent of exporting firms and indicators of trade protection, such as tariffs and non-tariff barriers, and an inverse-U-shaped relationship between percent of exporting firms and my composite measure of

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trade policy openness. The models in Table 2, below, show results from Ordinary Least Squares regression with robust standard errors.

Table 2. Determinants of trade policy openness

	Model 1 *DV: weighted average tariff rate*	Model 2 *DV: Non-tariff barrier penalty*	Model 3 *DV: Trade freedom index*
Percent of exporting firms	-0.157(0.055)***	-0.248(0.063)***	0.288(0.2298)
Percent of exporting firms, squared	0.0025(0.001)***	0.0044(0.0012)***	-0.0069(0.0028)**
Polity	-0.053(0.042)	-0.034(0.025)	0.171(0.129)
GDP, logged	-0.289(0.19)	0.711(0.187)***	-0.453(0.535)
GDP per capita	-.0002(0.00005)***	-0.0002(0.00005)***	0.0011(0.0003)***
Constant	15.579(4.412)***	-1.38(4.298)	76.765(12.868)***
N	206	138	158
R^2	.272	.278	0.259

Note: *$p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Overall, Models 1-3 provide support for Hypotheses 1a-c, respectively. Statistical significance on the exporters squared term is weakest in Model 3, assessing its relationship with overall trade freedom scores. Figures 3-5, below, show fitted values for each of my three measures of trade policy openness across the range of a country's percent of exporting firms. In Figures 3 and 4 the expected U-shape is clearly visible, although a bit more skewed for tariff rates. Likewise, Figure 5 demonstrates the expected inverted-U indicating that we should expect trade freedom to peak when a small cohesive group of exporting firms dominates the lobbying arena. In all three models, observations are fairly clustered around the mean, resulting in wider confidence intervals farther along the x-axis.

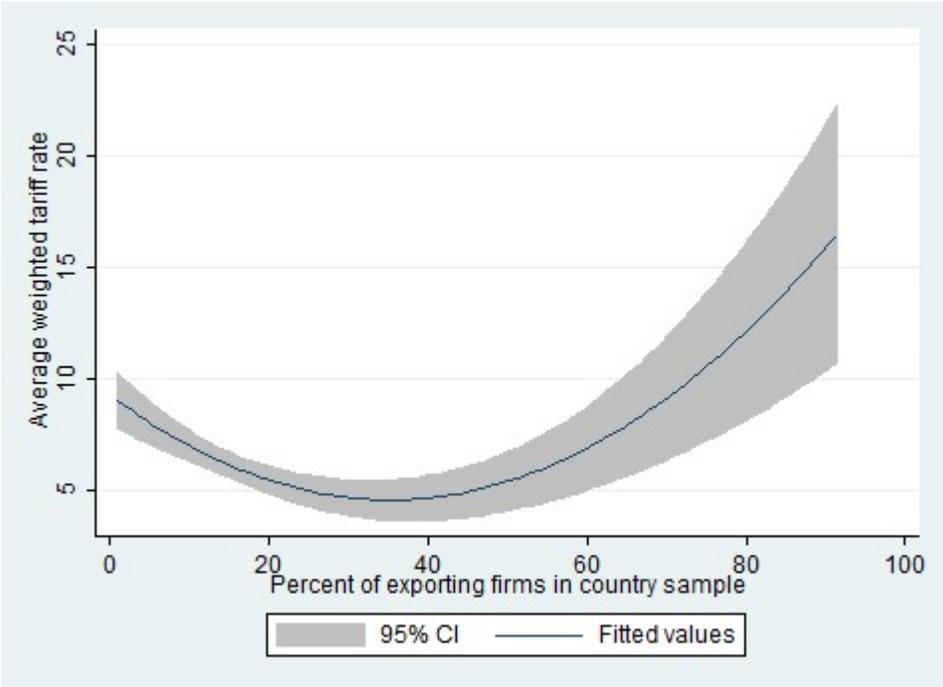**Figure 3. Fitted values, weighted average tariff rate.**

Figure 4. Fitted values, NTB penalty assessed.
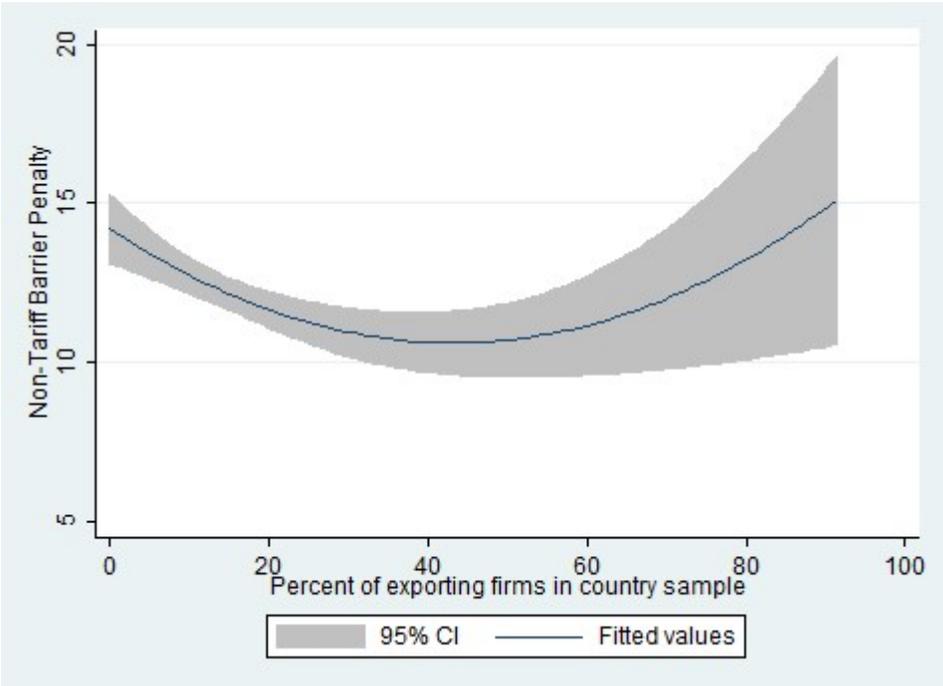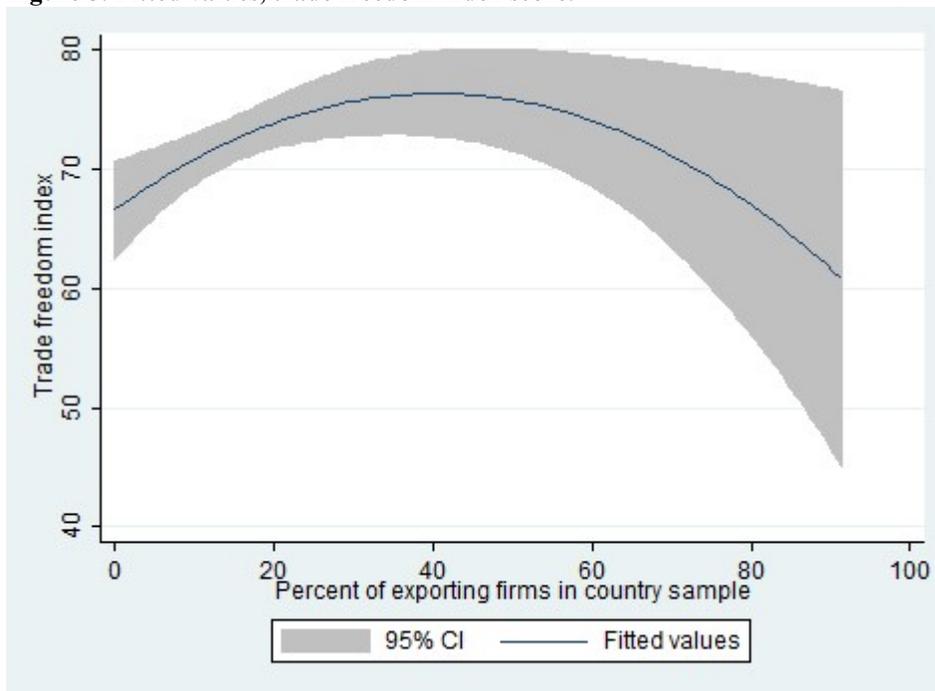
Figure 5. Fitted values, trade freedom index score.

5. Robustness checks

My baseline models lack the degrees of freedom to specify them using country fixed effects, which could strengthen the support for my hypotheses by controlling for unmeasurable country-level characteristics that affect the formation of trade policy. Lacking this option, I use the leave-one-out method of cross-validation; this produces over 100 separate regressions, each of which fits the model on all but one of the countries in the sample, which can then be used to assess the model fit based on the known values of the dropped observations. Both statistical significance and coefficients on the key independent variables remain consistent throughout this process.

In addition to the cross-validation exercise, I run several specifications of the model with different operationalizations of the control variables. While the Polity IV index has considerable missingness across small island countries and a few others—comprising approximately eight percent of my sample—the dichotomous Democracy and Dictatorship measure formulated by Boix, Miller, and Rosato (2014) covers nearly all of the countries in my dataset. Where observations were missing a dichotomous democracy score due to their data ending in 2010 or the country being excluded, I hand-coded these values based on information gathered from the CIA World Factbook. Both operationalizations of regime type yield similar results and leave the

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key findings unchanged. Alternative models run the baseline models without robust standard errors, and with year fixed effects. Lastly, I use an ordered logit model to verify the results from the NTB models, since in practice the only scores for this outcome are ranked 10, 15, and 20 point penalties; the only model that loses statistical significance (p=.195) on the squared exporters term is the trade freedom model employing both year fixed effects and robust standard errors.

While empirical analysis backs up the hypothesized relationship between a country's percent of exporting firms and its trade policy openness, this paper has not truly tested the theorized causal process. An ideal next step would be to analyze firm-level lobbying data from countries at various points along the range of percent of exporting firms. Since Eastern European and Central Asian countries in the sample are surveyed in multiple years, my preference would be to gather archival information on trade policy formation as the composition of exporting and import-competing firms changes over time within the same country.

6. Conclusion

New New Trade Theory (NNTT) has forced a reconsideration of our extant scholarship on trade policy formation by introducing heterogeneity at the level of the firm, rather than assuming a representative firm that forms its policy preferences based on its utilization of scarce or abundant factors. Based on US trade data, NNTT posits that exporting is a rare activity among firms, the costs of which only the largest and most productive firms can bear. This paper has first verified that this relationship is true globally, and then sought an answer to the puzzle of variation in trade policy openness given the overwhelming abundance of import-competing firm seeking protection.

Rooted in Olson's (1965) theory of collective action, I have identified various configurations of import-competing and exporting firms that might engage in lobbying for particular trade policies, and developed a theory of when exporters favoring trade liberalization should win out over import-competing firms. I hypothesized a nonlinear relationship between trade policy openness and the percent of exporters in a given country and tested it quantitatively, finding strong support for the idea that protectionism is highest when there are very few exporters in the arena, and when there are too many to form a cohesive group to effectively lobby for openness.

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Moving forward, I hope to use a few detailed country case studies—or preferably the same country over time—to trace the theorized causal process. If the ratio of exporting to import-competing firms does in fact alter trade policy through lobbying, then the policies through which firms enter the market and grow become extremely relevant to determining whether a country will face more pressure for an open market or for trade protection. Stemming from this paper, I aim in future work to analyze the institutional factors that help determine a country's composition of exporting versus import-competing firms. If political institutions permit easy entry into the market, the lobbying arena should be awash with small, uncompetitive firms seeking protectionist trade policies. Conversely, if it is hard to enter the market but easy to grow upon bearing the costs of entry, trade policy lobbying may be dominated by a handful of large, productive firms that comprise a small enough group to maintain a cohesive front for collective action. Where the threshold for exporting is very low, though, exporters run the ironic risk of having *too many* pro-free-trade voices to effectively demand liberal trade policies.

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