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Vanguards of globalization: Organization and political action among America's pro-trade firms

Abstract: This paper identifies recurrent patterns in the political activity of American corporations that support trade. These firms have made public coalitions a central element of their pro-trade activities, and their collective efforts vastly outstrip those of trade's corporate opponents. This superiority in organization is paired with dramatically greater volumes of lobbying and campaign contributions. I explain these striking divergences by integrating collective action theory into a firm-centred model of trade politics: the heavy concentration of gains from trade among a small number of firms makes both individual and collective political action easier for pro-trade firms than for producers opposed to trade. This explanation is supported in panel analysis of firms' participation in pro-trade coalitions, which shows that size, multinationality, and heterogeneity in global networks of production and sales drive participation in pro-trade groups. Globally engaged firms have supported trade by matching pro-trade preferences with highly organized political action.

Keywords: trade politics, firms, collective action, corporate lobbying, trade policy, multinational corporations

doi:10.1017/bap.2019.31

This paper comprehensively examines public support for trade and globalization among US firms over the past twenty-five years, describing several patterns in public political activity that recur across major trade policies. Most strikingly, pro-trade firms have successfully organized coalitions of firms and associations to support trade liberalization across virtually every major trade issue of the past three decades. Many of these fifty-plus coalitions are issue-specific ad hoc groups, while others are longer lasting. These public collective efforts have not been matched by antitrade firms, which have formed only four public coalitions to

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† The author wishes to thank Kristi Begonja, Timm Betz, Ryan Brutger, Jeffry Frieden, Julia Gray, Robert Gulotty, Tobias Hofmann, In Song Kim, Cara Laskowski, Ed Mansfield, Heather Elko McKibben, Helen Milner, Krzysztof Pelc, Ken Shepsle, Beth Simmons, Dustin Tingley, Stefanie Walter, and Stephen Weymouth.

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oppose trade. As a result, I count over 4,300 unique firms that have publicly supported trade issues ranging from the Fast Track vote in 1991 to the Trans-Pacific Partnership (TPP), but only 301 firms that have publicly opposed trade.

Using the data on coalition memberships, I construct a panel of public support for trade among US firms matched to data on firm size, revenues, employees, trade, and foreign subsidiaries by country. These data describe the characteristics of firms that have organized themselves to publicly advocate for global economic integration. Larger firms and multinationals are much more likely to support trade, even holding constant key characteristics of their industries; trade's opponents are smaller and less globally integrated. The specific contours of firms' global networks drive firm support for trade agreements with particular countries. For example, the often small number of firms that own a subsidiary in a particular foreign market are dramatically more likely to support liberalization with that market.

I also connect trade coalition memberships to data on lobbying and contributions to show the key role of publicly pro-trade firms in other forms of political action. Strikingly, 88 percent of all lobbying on trade by corporations from 1998–2016 was undertaken by firms that have joined public efforts to support international trade. Firms that have publicly supported trade account for 56 percent of all PAC contributions in federal elections by corporations, while firms that have publicly opposed trade account for less than 1 percent. This reveals both the high level of political activity among trade's proponents, but also why politicians might be inclined to listen to their public campaigns.

These patterns occur at different levels and across different domains, but I argue that they share common origins in a firm-centered model of trade preferences, which builds on recent advances in the literature.¹ The benefits of global economic integration are exceptionally concentrated. Very large firms—which dominate exporting, importing, and offshoring—are therefore supporters of trade.² This concentration of trade's benefits is compounded by differences among firms in the construction of global networks of production and sales.³ Large firms in the same industry may have very different relationships across the world, as firms specialize in selling their products to different corners of the globe and supply chains differ markedly across producers. “Global” firms should support liberalization only with particular countries.

This model of trade's distributive consequences at the level of the firm explains not only the characteristics of firms that have publicly supported trade but their edge in campaign contributions, lobbying, and organization. As individuals,

1 See, for example, Jensen et al. (2015); Kim (2017); Osgood (2016).

2 See Plouffe (2017); Osgood et al. (2017).

3 Blanchard and Matschke (2015); Jensen et al. (2015); Manger (2012); Chase (2003, 2009).

their size, intense preferences, and vast financial resources make paying the fixed costs of political engagement both possible and profitable. As a group, their small numbers and strong pro-trade attitudes make collective action easier than for trade's opponents, who are many and have much weaker preferences on any given trade agreement. Concentrated benefits from trade, therefore, lead to sharp asymmetries in political interest, ability, and action, explaining why the activities of the pro-trade coalitions on which I focus have not been matched by comparable antitrade coalitions among producers.

This argument builds on recent work in trade politics examining: firm-centered lobbying across industries⁴; firm-level determinants of lobbying⁵; industry-based drivers of firms' political activities⁶; surveys of firms' preferences⁷; and work on producers' role in defending global integration.⁸ The main contribution of this work is therefore *not* that firm-level factors shape trade preferences, which is now well-established. Instead, my theoretical insight is to join firm-centered models of trade politics to the theory of collective action, advancing the literature by explaining how firm heterogeneity shapes efforts to build stable and influential coalitions around trade. In particular, the argument that firm heterogeneity in models of trade leads to unique advantages in collective action for trade's proponents is original to this paper. I match this theoretical contribution with original stylized facts on trade coalitions and the characteristics of firms which join these coalitions, in line with this argument.⁹

Given the highly recurrent patterns of public campaigns on trade, my findings describe a model of the political activities of US firms that support globalization. Public collective organization in support of trade matched with dominance of formal lobbying are key political goals of pro-trade firms and associations. While not examined in this paper, the activities of firms amidst President Trump's trade war reflect these patterns. Republican plans for a border adjustment tax early in the

4 Bombardini (2008); Bombardini and Trebbi (2012); Madeira (2016); Osgood (2017b).

5 Kim (2017); Weymouth (2012).

6 Brutger (2015); Betz and Kerner (2016).

7 Kuno and Naoi (2015); Plouffe (2017); Kim et al. (2018). See also Walter (2017) and Dancygier and Walter (2015) for related work on the firm-level drivers of the preferences of workers.

8 Milner (1988), Manger (2009), and Dür (2010).

9 I have examined these data on public position-taking by firms and associations in previous work. This paper adds to these by collecting data on firms' public position-taking on twelve additional trade issues from 1990–present and eleven issues from 1979–89. I also examine firm-level covariates and use firms as the unit of analysis for the first time. Matching firms to Orbis and Compustat ID codes by hand; matching firms to data on lobbying and campaign contributions by hand; and downloading and cleaning data from these sources represent the primary effort in collecting these data.

114th Congress sparked a major coalition of retailers to oppose the idea. Threatened withdrawal from NAFTA led five coalitions of firms to oppose that move, with no corresponding effort by antitrade firms. A coalition of auto and auto parts manufacturers has formed to fight proposed auto tariffs. American firms have been exceptionally active in opposing the Section 301 tariffs on China in USTR hearings and have used an array of coalitions to publicly express this position.¹⁰ Examining more systematically how the firms I examine here have adapted their tactics and strategic objectives to confront the Trump Administration's protectionism is a key next step for scholars of modern American trade politics.

Explaining firm participation in trade politics

Preferences: size, multinationality, and global networks

Which firms get organized to support trade publicly, and why? Following recent developments in the literature on trade and trade politics, my explanation begins with the observation that firms differ enormously in their level of engagement with international markets. Only a minority of firms actually export their products or directly import inputs in almost all industries; ownership of foreign subsidiaries is even more rare.¹¹ Firms in an industry therefore fundamentally differ from one another: some extensively source and sell abroad, while others cannot avail themselves of such opportunities.¹² Even among firms that do export or import, a much smaller minority of "superstar" firms account for the vast majority of export sales and import purchases. In the United States, the largest 1 percent of all exporting goods-producers—that is, 1,673 firms—accounted for 80.9 percent of all goods exports in 2000; 77.6 percent of imports were bought by the top 1 percent of importing firms.¹³

10 These coalitions include: Americans for Farmers and Families; Americans for Free Trade; a letter from concerned US businesses' letter to the Ways and Means committee; Farmers for Free Trade; a coalition of footwear companies; a coalition of retail companies; a letter from over 660 firms and associations under the banner of "Tariffs Hurt the Heartland"; and the US Global Value Chain Coalition.

11 Bernard et al. (2012) reviews the extensive empirical literature on firm heterogeneity.

12 Bernard, Jensen, and Schott (2009) find that 14.7 percent of US goods-producing firms exported in 2000. 7.3 percent themselves directly imported, and 3.7 percent had multinational production facilities. The corresponding numbers (1.0 percent, 0.6 percent, and 0.2 percent, respectively) are even lower in services. Similar patterns have been found in the EU, Japan, and many other countries. See Tomiura (2007) and Mayer and Ottaviano (2008).

13 The top 10 percent of exporters and importers account for 96.3 percent and 95.0 percent of these activities, respectively. Bernard, Jensen, and Schott (2009).

The firms that dominate export, import, and foreign production are very large.¹⁴ This nexus between size and global engagement arises because exporting and importing are costly, requiring significant new investments to engage foreign markets. Such costs can only be borne by firms that are sufficiently productive (that is, with low enough costs relative to prices) so these costs can be absorbed into higher markups on a larger volume of sales.¹⁵

This intra-industry heterogeneity in global engagement leads to a third view of the distributive consequences of trade liberalization, which contrasts with the prevailing industrial (Ricardo-Viner) and factoral (Stolper-Samuelson) models of trade politics. Because firms in an industry differ in their ability to engage global markets, policy changes that facilitate trade or foreign investment have redistributive consequences within industries.¹⁶ For example, firms that export can increase their profits when foreign markets reduce their barriers to trade. Firms that don't export make no such gains and lose profits if liberalization is reciprocal and increases competition in the home market. Similarly, firms that are productive enough to source intermediates or final goods from abroad—whether through a foreign subsidiary or arm's length contracting with foreign-owned firms—will benefit from reduced barriers to trade in their home market. Domestic firms, which can't take advantage of these opportunities, see no such gains and face heightened competition as their domestic competitors are able to sell more cheaply using foreign-made inputs.

In models of firm heterogeneity and trade, firms that are more productive are expected to be both more engaged with global markets but also larger in terms of domestic revenues and profits. For this reason, a core prediction of the firm-centered model of trade is that larger firms should hold preferences in favor of trade, while smaller firms should be opposed to liberalization. Moreover, the small numbers of larger pro-trade firms are expected to take most of the gains from trade liberalization, while the costs of liberalization are spread across a much greater number of smaller firms, which can't benefit from exporting, importing, or offshoring.

Recent work in the literature on firms and trade emphasizes another facet of heterogeneity, which further concentrates the gains from trade: even similarly-sized firms in the same industry can differ markedly in the sets of countries in

¹⁴ Bernard and Jensen (1999), for example, find that exporting firms in the United States are roughly twice as large in terms of sales and employment as non-exporting firms. Tomiura (2007) finds that Japanese importers and multinationals are 224.8 percent and 70.5 percent larger, respectively.

¹⁵ Bernard et al. (2003); Tomiura (2007).

¹⁶ Melitz (2003).

which they actually undertake exporting or importing.¹⁷ For example, a large US food company may specialize in selling to the countries of the Middle East; or an auto company may extensively source parts from Mexico even as its competitor sources from South Korea and China. For this reason, the distributive consequences of a proposed trade agreement with a particular country may differ markedly even among “globally competitive” firms. This observation suggests that for any given trade agreement with a specific trade partner, a subset of very large firms reap highly concentrated benefits of liberalization.

The firm-centered approach to trade has scope conditions. The literature on firm heterogeneity and exporting emphasizes product differentiation: where consumers have a taste for varieties of a product, a country may both export and import varieties of that good. Amidst this intra-industry trade, a firms’ attitudes towards trade are driven by whether or not they export.¹⁸ In industries producing an undifferentiated commodity, trade flows in only one direction which determines whether firms favor or oppose trade. The literature on firm heterogeneity in importing and foreign production holds that opportunities for the profitable extension of the global supply chain must exist to activate firm size as a driver of support for trade.¹⁹ The rise of global supply chains enables importing and multinational firms to knit together low-cost and efficient global production networks to produce and deliver goods for a higher profit. In this way, two characteristic features of modern international trade—*intra-industry trade* and *globalization of the supply chain*—drive firm-centered trade politics.²⁰

Political activity around trade, collective and individual

So far I have described only the distributive implications and underlying preferences of firms that arise in a firm-centered approach to trade. Larger firms are

¹⁷ See, for example, Eaton, Kortum, and Kramarz (2011); Manova and Zhang (2012).

¹⁸ Osgood (2016); Kim (2017).

¹⁹ Manger (2012); Jensen et al. (2015); Blanchard and Matschke (2015).

²⁰ Firms that support trade liberalization in the context of reciprocal negotiations may still seek commercial advantages from protection in unilateral settings. Boeing, for example, has regularly supported U.S. trade agreements and other liberalization efforts. It has also sought protection in the form of subsidies that have provoked a long-running WTO dispute with the EU and others, and sought relief from the US International Trade Commission over subsidies and dumping by a foreign manufacturer of commercial aircraft. Recent scholarship also emphasizes that large firms and MNCs also seek out alternative forms of protection in regulatory barriers (Gulotty, 2014). Thus, the bilateral negotiations, multilateral institutions, and restrictions on resort to trade remedies often supported by pro-globalization firms also play a key contextual role in limiting those same firms’ (and their peers’) temptation toward unilateral protection.

more likely to support trade liberalization because they export, import, and invest abroad; small and medium-size firms are more likely to oppose trade. Heterogeneity in firms' posture towards foreign markets reinforces the high concentration of liberalization's benefits among a subset of very large firms. A core argument of this paper is that these distributive consequences influence not only preferences but also have critical implications for the relative costs and benefits that pro- and antitrade firms encounter when they undertake both *collective* and *individual* forms of political engagement. These arguments complete the theory of when firms engage in public political action around trade.

Collective political engagement

Collective political action around trade by firms has centered around two forms of engagement: firms have joined "peak associations"²¹ and permanent coalitions like the Business Roundtable and the National Foreign Trade Council; and firms have also joined ad hoc or issue-specific coalitions like the American Business Coalition for Doha and the Coalition for US-Russia Trade. For firms whose interests align with these coalitions, the coalitions' efforts represent a public good. All firms that will benefit from an agreement entering into force, for example, gain those benefits regardless of whether they have contributed to the political campaign on behalf of that agreement or not. The same holds for firms opposed to the agreement. Political efforts both for and against trade agreements are therefore subject to a collective action problem, where some firms may attempt to free ride on the political efforts of others.²²

The larger firms that support trade are more likely to overcome this collective action problem and form successful coalitions than the smaller firms that oppose trade. This is so for two reasons. First, the supporters of any given trade issue are relatively few in number, while the opponents are many in number. The collective action problem is generally worse with greater numbers because any individual contribution is less efficacious; monitoring and use of "social incentives" are harder; more of the public goods' benefits are externalities; and, the share of group members that must contribute to secure the public good is often higher.²³ Second, the firms that support trade have relatively intense preferences because the gains from trade are highly concentrated in their hands, especially for trade

²¹ I use the term "peak association" to refer to permanent organizations representing a broad array of firms and industries, whereas a 'trade association' represents one or a few industries only. The US Chamber of Commerce and American Farm Bureau Federation are prime examples of peak associations.

²² Alt and Gilligan (1994).

²³ Olson (1965); Palfrey and Rosenthal (1984).

agreements with particular countries. In contrast, the costs of liberalization are generally spread across a much larger set of opponents (as well as across firms that benefit from trade on net). For this reason, the opponents of trade are likely to have weaker preferences. This exaggerates the challenges associated with convincing antitrade firms to make contributions to effective collective efforts to resist liberalization.

These arguments then suggest that collective political action is more likely for pro-trade firms. That is, we expect pro-trade firms to have more success organizing both temporary and permanent groups to lobby on behalf of trade than will anti-trade firms organizing to oppose trade.

Individual political engagement

Individual political activity includes lobbying and making campaign contributions as a firm. Larger firms are likely to find it more worthwhile to undertake these activities for three reasons. First, to the extent that lobbying and (effectively targeted) contributions on any given issue entail a fixed *per issue* investment, only firms that face large policy impacts from liberalization will find it profitable to pay this fixed cost to influence the policy outcome.²⁴ Since a few large firms reap most of the gains from a given trade proposal, they are willing to pay such a cost. Smaller firms harmed by trade face a smaller cost from trade in absolute terms, both because they are small and because there are many of them, as described above. They are less likely to find paying the fixed costs of political influence to be profitable. Second, pro-trade firms are likelier to have paid the long run start-up costs of political influence, which last *across issues* owing to their size.²⁵ Larger firms account for most lobbying in general, but also specifically in the area of trade.²⁶ This willingness to pay start-up costs is also driven by the broader set of issues confronting big firms and their greater available capital to invest in long-run political influence.²⁷ Finally, larger firms are likely to find that their voice is louder when they undertake individual action because they employ many more workers and have a much larger economic profile. Politicians are apt to listen to firms that employ many workers and generate a lot of revenue.²⁸ For this

²⁴ Kerr, Lincoln, and Mishra (2011); Borscheid and Coen (2003).

²⁵ Such costs include: searching for representation from lobby shops; developing (and hiring for) a government relations or policy unit in public relations; researching policy positions and developing strategies for how to achieve them; and setting up a political action committee and cultivating contributions.

²⁶ Drope and Hansen (2006); Kim (2017).

²⁷ Epstein (1969); Drope and Hansen (2006).

²⁸ Hillman, Keim, and Schuler (2004), 839.

reason, the marginal benefits of individual action are greater for a large firm than a small firm.

Each of these arguments suggests that larger, pro-trade firms are more likely to engage in individual forms of political action around trade than smaller, antitrade firms. The most relevant form of individual trade-focused activity for firms is likely to be lobbying. Extant work has established that larger firms are more likely to lobby on trade,²⁹ so I focus below on the extent to which publicly pro-trade firms and antitrade firms account for lobbying expenditures on trade issues. I also extend this analysis to the domain of campaign contributions, with the important caveat that campaign contributions cannot be tied to specific issues.

Empirical implications and alternative explanations

The argument outlined above on firms' trade policy preferences, organization, and political activities leads to a set of observable implications. I summarize these as four tendencies that we ought to see in patterns of firms' engagement in American trade politics. The first of these is that the collective organizational efforts of pro-trade firms—forming temporary ad hoc coalitions and longer-run groups—are likely to be far superior to those of antitrade firms. In particular, pro-trade firms ought to form larger coalitions with greater consistency than antitrade firms. Second, the firms that join these pro-trade coalitions (or otherwise publicly express support for trade liberalization) are expected to be larger and more global than firms that have not been publicly active on trade and firms that have opposed trade.³⁰ Third, firms ought to be more likely to support a trade agreement with a particular partner if that firm has significant opportunities to engage in exporting, importing, or foreign investment in that particular marketplace.³¹ Examining this implication is important to show that support for trade is selective and concentrated due to firm-level heterogeneity in global activity. Finally, I expect that firms that have supported trade are likely to account for a significant share of lobbying on trade and are likely to have a large profile in campaign giving. This prediction complements the collective activity examined in the first three implications with forms of political action often but, not exclusively, undertaken by individual firms.

If these empirical implications hold, they suggest that large, globally engaged, pro-trade firms dominate antitrade firms in the exercise of two key forms of

²⁹ Kim (2017).

³⁰ Note that similar claims have been tested with surveyed preferences of firms outside the United States (Plouffe, 2017; Osgood et al., 2017).

³¹ Jensen et al. (2015) and Blanchard and Marschke (2015) show that trade policies respond to the features of firms' global supply chains.

political power: collective organization and lobbying. In my telling, this occurs because pro-trade firms confront a more forgiving cost-benefit analysis when they consider individual political action and they find it easier to overcome the collective action problem to collectively organize due to their small numbers and intense preferences. Two alternative explanations may occur to the reader, however, and are worth addressing.

First, could it be that pro-trade firms are so politically active not because of any advantages in individual or collective political action but because they need to fight against protectionist interests *among producers* who operate through different channels (particularly trade remedies)? A flaw in this explanation is that it does not explain why protectionist firms neglect political tools—collective organization and lobbying—that pro-trade firms find useful. Antitrade interests have suffered significant defeats, so why not get organized or lobby more? The use of trade remedies has also historically been concentrated in a few industries, and trade opponents have not succeeded in retaining protection from competition across much of the industrial spectrum.³²

Looking beyond producers, pro-trade firms do face some powerful opponents from outside of industry, which provide a compelling explanation for the need for pro-trade firms to get organized. There is strong opposition to trade agreements from labor unions and workers concerned about displacement from foreign imports and offshoring.³³ Many other progressive and left-wing groups have organized to oppose U.S. trade agreements on environmental, human rights, labor rights, and developmental grounds. Voters are also susceptible to populist rhetoric on trade;³⁴ by extension, so are their political representatives in Congress and the executive branch. Debates on trade during the presidential campaigns of 1992, 2008, and 2016 illustrate the potency of this force. Finally, pro-trade producers must still fight for the resources of politicians—time, attention, and political capital—to see trade liberalization placed on the agenda and pushed over the finish line.

Second, could a Ricardo-Viner model supplemented with two assumptions (larger firms are more politically active and larger firms are located mainly in export-competitive industries) provide an alternative to my firm-centered approach? Such a model would be consistent with the four empirical implications described above, but makes another prediction that differs: that pro-trade activity should

32 83.1 percent of HS tariff codes listed in Bown's (2012) Temporary Trade Barriers Database" in anti-dumping cases are in "Base metals and articles of metal"; 84.8 percent are in those industries for counter-vailing duties. Only 3.9 percent of 8 or 10 digit HS codes reported by the US government are covered in any AD or CVD action at any point over the period 1990–2015.

33 Owen (2015, 2017); Rommel and Walter (2018); Mansfield and Mutz (2013).

34 Mansfield and Mutz (2009); Naoi and Kume (2011). See Baker (2005) and Naoi and Kume (2015) on the countervailing force of consumerism.

mainly be located in net-exporting industries. I show below that pro-trade activity by firms is widespread across much of manufacturing.³⁵ A key premise of this alternative explanation also does not seem to hold, that larger firms are mainly concentrated in export-competitive industries. US industries that are net-exporters to the world have roughly the same number of large firms as net-importing industries.³⁶

I conclude that neither a modified Ricardo-Viner model nor antitrade firms' exploitation of trade remedies explain the patterns described in this paper. Instead, I establish a set of empirical patterns that jointly suggest that firm-level attributes are among the key drivers of preferences, organization, and political action that surrounded trade policy in the United States over the past twenty-five years.

Collective action around trade: data and stylized facts

This section describes the ad hoc coalitions that have formed to support and oppose twenty-five trade issues from 1989 to 2016. As the theory outlined above predicts, I find a sharp divergence wherein pro-trade firms are significantly more organized and publicly active than antitrade firms. I refer to these firms, which have supported trade, as America's *pro-trade coalition* and describe this dynamic yet durable coalition's features in detail.³⁷ My findings on the preponderance of pro-trade activity then motivates the remainder of the empirical investigation on the microlevel characteristics of publicly pro-trade firms and their outsized role in formal lobbying on trade, which follow in succeeding sections.

Ad hoc campaigns on trade

Firms' public campaigns around trade were extensive in the United States over the past twenty-five years. To show this, I examine public expressions of support and opposition to twenty-five of the most important trade-related issues, including all thirteen ratified US trade agreements from NAFTA to KORUS; two failed trade

³⁵ This paper does not focus on establishing in which industries the Ricardo-Viner approach is more or less suitable than the firm heterogeneity approach, an issue which is covered in the extant literature. See Madeira (2016); Osgood (2016, 2017c); Kim (2017).

³⁶ In my data, industries that are net-exporting to the world are 0.51 percent Very large firms, while net-importing industries are 0.60 percent Very large firms. Net exporting industries are 1.83 percent large firms, while net-importing are 2.12 percent large firms.

³⁷ The term "pro-trade coalition" masks some underlying nuance, because firms that regularly public support trade may still pursue protection in other forms, particularly trade remedies or regulatory barriers. These are generally not pursued through collective efforts.

agreements (the Free Trade Agreement of the Americas and the TPP); four extensions of Permanent Normal Trade Relations (to China, Russia, Ukraine, and Vietnam); three extensions of Fast Track or Trade Promotion Authority (from 1991, 2002, and 2015); the African Growth and Opportunity Act (AGOA); and two WTO negotiating rounds.³⁸

A striking and recurrent feature of American trade politics is firms, trade associations, broader peak associations, and other interested parties publicly stating their position on important trade issues. In its most extensive and organized form, this public position-taking occurs through ad hoc coalitions. Ad hoc coalitions are issue-specific coalitions of firms, industry associations, and other organizations that form to push for some policy aim. Unlike industry associations, they cover only one issue, span many industries, and are often temporary. These coalitions may be institutionally thin (agriculture and food industries have often supported trade agreements through coalitions that only engage in letter-writing to Congress) or much more developed (the US Coalition for TPP built an elaborate website with supporting materials, undertook a major social media campaign, wrote letters to state Congressional delegations, and lobbied or testified in a variety of fora). Some of these coalitions have a broad remit (e.g., business development of all kinds between the United States and a partner country), while others are narrowly focused on the passage of a particular trade agreement.

In [table 1](#), I present a complete list of all ad hoc coalitions that have supported the twenty-five trade issues. I count forty-two unique pro-trade ad hoc coalitions. The efforts of these issue-specific coalitions are complemented by ten permanent or multi-issue coalitions that supported at least one of these trade issues.³⁹ These ad hoc and permanent coalitions have worked hand-in-hand with broader peak associations that have supported many of the trade issues, including: the American Farm Bureau; American Free Trade Association; Business Roundtable; Consuming Industries Trade Action Coalition; the Emergency Committee for American Trade; the National Association of Manufacturers; National Foreign Trade Council; United States Council for International Business; the US Business Alliance for Customs Modernization; and the US Chamber of Commerce.⁴⁰

38 On PTAs, see also Slapin and Gray (2014); Baccini and Dür (2012); Mansfield and Milner (2012); Dür and Lechner (2015); Gray and Slapin (2012); Lechner (2016).

39 These are: the US-ASEAN Business Council; Entertainment Coalition for Free Trade; High Tech Trade Coalition/High Tech Industry Coalition; Coalition of Service Industries; California Council for International Trade; International Intellectual Property Association; Comprehensive Market Access Coalition; Council of the Americas; Caribbean-Central American Action; and the Partnership for New York City.

40 I have not included a wide array of state-based peak associations, often of farmers or manufacturers.

Table 1: Ad hoc coalitions that have supported trade in the United States, 1991–2016.**Ad hoc coalitions that supported trade liberalization:****Fast Track (1991)**

Companies' letter to committee chairs

Uruguay Round

MTN Coalition/Alliance for GATT Now

NAFTA

USA*NAFTA

AG for NAFTA

China

Business coalition letter to House leaders

US-China Business Council

Ag. coalition letter to Rep. Combest

US Alliance for Int. Trade Expansion

Africa Growth and Opportunity Act

AGOA Action Committee

USA for Africa

Corporate Council on Africa

Jordan FTA

None

Trade Promotion Authority (2002)

USTrade

US Agriculture Coalition for TPA

Food and ag. orgs. letter to Senators

Australia FTA

Australia-US FTA Business Group

America Australia FTA Coalition

Chile FTA

US-Chile Free Trade Coalition

Singapore FTA

US-Singapore Business Coalition

CAFTA-DR

Food and ag. orgs. letter to President Bush

Business Coal. for US-Cent. America Trade

Free Trade Agreement of the Americas

Business Coalition on the FTAA

Vietnam PNTR

Ag. coalition letter to members of Congress

Food and ag. orgs. letter to Congress

US-Vietnam WTO Coalition

Bahrain

US-Bahrain Business Council

US-Middle East Free Trade Council

Morocco

US-Middle East Free Trade Council

Oman

US-Middle East Free Trade Council

US-Oman Business Council

Ukraine PNTR

Jackson-Vanik Graduation Council

US-Ukraine Business Council

US-Ukraine Foundation

Doha Round

American Business Coalition for Doha

Peru TPA

Agricultural Coalition for U.S.-Peru Trade

US-Peru Trade Coalition

Panama

Latin America Trade Coalition

Undersigned orgs. letter to Senate Chair

Letter from food and beverage mnfrs.

Colombia FTA

Latin America Trade Coalition

Undersigned orgs. letter to Senate Chair

Letter from food and beverage mnfrs.

South Korea FTA

Undersigned orgs. letter to Senate Chair

Letter from food and beverage mnfrs.

US-Korea FTA Business Coalition

Letter from U.S. farmers to Congress

US-Korea Business Council

Russia PNTR

Coalition for US-Russia Trade

Trade Promotion Authority (2015)

Trade Benefits America

Trans-Pacific Partnership

TPP Apparel Coalition

US Coalition for TPP

By way of comparison, American producers opposed to trade have formed only four significant ad hoc or permanent coalitions compared with pro-trade producers' fifty-two. These are the Coalition for a Prosperous America (which opposed

KORUS and the TPP); an anti-TPP agriculture coalition; and two others focused on trade remedies and exchange rate manipulation (the Committee to Support US Trade Law and the Fair Currency Coalition/China Currency Coalition). These coalitions have been joined by seven permanent peak associations, none of which have the name recognition or resources of the large peak associations that have supported trade.⁴¹ It is worth noting that this organizational gap has been partly filled by coalitions of nonproducer groups—labor unions, churches, human rights groups, progressive groups, and environmental NGOs—that formed coalitions to oppose trade agreements throughout the 2000s and 2010s.

Surveying this evidence, it is clear that pro-trade producers have been significantly more active in organizing ad hoc and permanent coalitions than anti-trade producers over the preceding twenty-five years. This is a core empirical implication of the firm-centered approach to trade attitudes and organization that I have described above.

Describing America's pro-trade coalition

The data on the memberships of coalitions that supported or opposed trade agreements or other trade policies form the core of my data on the public positions of US firms and associations. Ad hoc coalitions are not the only forum available to producers to take public positions, however. They may also testify in Congress; submit comments to the US trade representative through notice and comment; appear in other government reports; and express positions in other idiosyncratic venues (e.g., through corporate press releases). For this reason, I include the first three of these sources in my data collection in order to provide the most comprehensive account of “public position-taking” possible. Incorporating hearings, notice and comment, and other public documents reveals two striking patterns: the number of codings from these noncoalition sources are relatively small compared to the large size of the coalition memberships; and many of the firms and associations that submitted comments or testified were also members of coalitions. As such, these sources often reaffirm public positions already evident from coalitional memberships. The reader should therefore interpret firms' public positions on trade as being revealed primarily through membership in coalitions, with only secondary contributions from other public fora.⁴²

⁴¹ These are: the National Family Farm Coalition; National Farmers Union; National Farmers Organization; US Business and Industry Council; Manufacturers for Fair Trade; Alliance for American Manufacturing; and Western Organization of Resource Councils.

⁴² It is important to note that Congressional hearings and government reports may systematically exclude certain types of firms, for example, anti-trade firms or smaller firms for reasons that are

To provide a concrete example, I describe the data collected on the US-Australia Free Trade Agreement. The primary source for codings on firms supporting the agreement was the “America Australia Free Trade Agreement Coalition,” which accounted for just over 90 percent of the firms that supported the agreement publicly. I also uncovered public expressions of support in a smaller coalition (“The Australia United States Free Trade Agreement Business Group”), Congressional testimony, CRS reports, and USITC reports, but in every one of these instances save for one the firm was already identified as a supporter from the main coalition described above. The California Council for International Trade, Entertainment Industry Coalition for Trade, and the Coalition of Service Industries also publicly supported the agreement and supplied 22, 16, and 21 codings, respectively. No coalition opposed to the US-Australia FTA arose, however, opposition to the agreement was expressed by a number of trade associations in Congressional hearings.

With this complete set of data, I can then describe whether a given firm publicly supported one of the twenty-five trade issues I examine by joining a coalition or publicly declaiming a position in another venue. Note that I count a firm as “publicly supporting” an issue whether it did so in only one way (e.g., by joining one coalition) or in multiple ways (e.g., by joining several coalitions and submitting public comments to the USTR). Several further caveats are in order. First, public positions are not the same as private positions, and I have no way of describing the set of all firms that privately supported or opposed some trade policy issue. Indeed, the question of who is able and willing to publicly express an opinion is integral to my theoretical development, but it bears repeating. Second, I have not collected idiosyncratic sources of public expressions, like press releases on corporate websites or statements to the media.

I now provide descriptive detail on the firms that have supported and opposed trade. [Table 2](#) introduces the firms that have publicly supported the largest number of trade issues in the United States. Proctor and Gamble, the most regular supporter of trade among US firms, publicly supported twenty-four out of the twenty-five trade issues introduced above. Many of the top trade-supporting firms are familiar as major corporations, but also for their pro-trade activities. Boeing has been a stalwart defender of the Export-Import Bank due to its reliance on exports. Caterpillar is one of the most vocal pro-trade firms in the United States: its leadership organized some of the ad hoc coalitions described above. CitiGroup

unrelated to collective action (Lee and Osgood, 2019). This is not likely to significantly affect the findings here because these sources generate only a small fraction of new positional codings (which mainly come from coalitional memberships), and because the focus in the regression analysis is on pro-trade firms only.

Table 2: Most frequent public supporters of trade among firms in the United States, 1991–2016.

Goods-producing firms:			
Procter and Gamble	24	Ford Motor	Campbell Soup Co.
Boeing	23	Honeywell	Case New Holland
Caterpillar		Qualcomm	ConocoPhillips
Cargill	21	EDS	13 Cummins
IBM		Amway	12 Gap
United Technologies		Fluor	Guardian Industries
ExxonMobil	20	Liz Claiborne	Ingersoll-Rand
General Electric		Xerox	Mattel
Hewlett Packard		ADM	11 Nike
Merck		Cisco Systems	Nortel Networks
Microsoft		Emerson	Occidental Petroleum
DaimlerChrysler	19	Philip Morris	Air Products and Chems. 8
3M	18	Raytheon	Applied Materials
Coca-Cola		Texas Instruments	ConAgra
Intel		Abbott Laboratories	10 Dell
Johnson and Johnson		BP Amoco	Diageo North America
Eli Lilly	17	Brown-Forman	Eastman Chemical
Motorola		Bunge	FMC
PepsiCo		Dupont	General Mills
Chevron	16	International Paper	Hormel Foods
Deere and Co.		Kraft Foods	Levi's
Dow Chemical		Mars	Medtronic
Lockheed Martin		Monsanto	Textron
General Motors	15	Rockwell Automation	Warnaco
Halliburton		Goodyear	Whirlpool
Pfizer		ABB	9
Eastman Kodak	14	Avon Products	
Services firms:			
CitiGroup	23	Oracle	Fluor Corp
UPS	22	AFLAC	14 Gap
AIG	21	American Express	Marriott International
IBM		New York Life	Phil. Int. Medicine
AT&T	20	Verizon	Unisys
General Electric		Liberty Mutual	13 Wilmer Cutler etc.
Federal Express	19	Amway	12 BechTel Group 8
Microsoft		McGraw-Hill	C & M Int.
Visa Inc		Morgan Stanley	Cisco Systems
Walmart Stores		Time Warner	Counselors' Inc.
White and Case		Cleary Gottlieb etc.	11 Discovery Comms.
Deloitte and Touche	18	Principal Financial	HealthGrades Inc
JP Morgan		Accenture	10 Hemisphere

(Table 2: Continued)

Services firms:			
ACE group	17	ADM	Household International
Chubb		Bank of America	Mastercard
Metlife		King and Spalding	News Corp
Motorola		State Street	Pricewaterhouse Coopers
EDS	16	Akin Gump Etc.	9 Prudential Financial Inc
Halliburton	15	AOL Time Warner	West Eng. Services

Note: Number of expressions of support out of twenty-five issues. Abbreviated or unofficial corporate names used to preserve space. Firms that supported seven or fewer issues are not represented.

and UPS are long-time members of the Coalition of Service Industries, which has consistently supported liberalization.

Figure 1 shows variation in the number of firms publicly supporting trade across the twenty-five trade issues. It is apparent that support for trade has been highly consistent across the issues, though with clear spikes in activity around major issues like NAFTA, Chinese entry into the WTO, CAFTA-DR, and the TPP. This reinforces a point also evident in table 1: large numbers of firms getting organized to publicly support liberalization is a recurrent and indeed highly predictable feature of American trade politics.

Table 3 illustrates variation in rates of position-taking by supporting firms across subsectors. To illustrate, fifty-one unique firms in crop production (column 3) publicly supported a trade issue. Some of those firms supported multiple issues; for example, Lyke Brothers Inc.—a large Florida-based firm involved in citrus, cattle, and other agricultural industries—publicly supported two US trade agreements. Column 4 therefore provides a count of expressions of support across the twenty-five trade issues. The fifty-one crop-production firms expressed support for trade issues eighty-three times, so pro-trade crop-producing firms supported 1.62 issues on average. This illustrates a general feature of the data: the median firm in the data supports one issue out of twenty-five, and the average number of issues supported per firm is 1.81 and 1.71 in goods and services, respectively. Thus, the pro-trade coalition is composed of a large number of firms that support only one agreement and a smaller group of firms (as in table 2) with a much richer and more sustained engagement.

Table 3 illustrates two further points. First, support for trade is widespread across industries and not simply concentrated in the most competitive sectors. For example, a large number of firms in relatively uncompetitive US industries (metals, furniture, textiles) have supported trade. This point is reinforced in columns 5 and 6, which provide the percentage of medium or large firms, and of very large firms, that

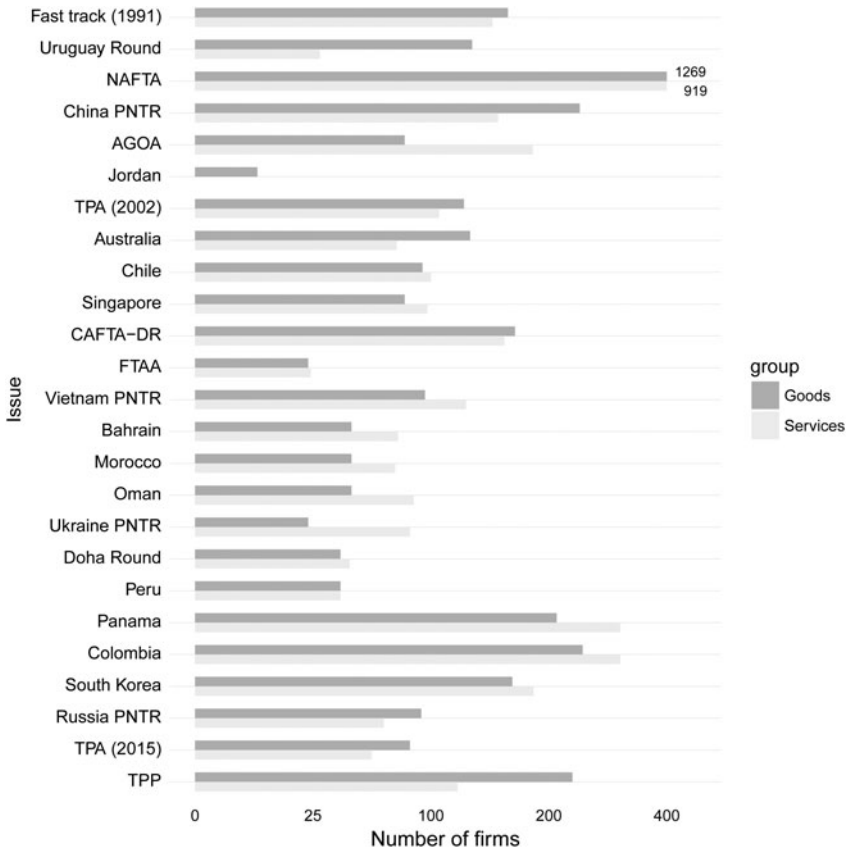


Figure 1: Public support for trade is widespread across issues.

have supported at least one trade issue. These figures are surprisingly similar across the industries, especially within goods. Second, [table 3](#) provides information on firms that have opposed trade and shows, in a different way, how much weaker their efforts to publicly oppose trade have been. Two thousand two hundred twenty-two unique goods-producing firms have publicly supported trade, but only 221 goods firms have opposed trade. Two thousand one hundred forty-five services have supported trade while only 80 publicly have opposed it.

Characteristics of firms joining pro-trade coalitions

So far I have demonstrated that pro-trade firms are highly organized in supporting trade liberalization, and that this is consistent over time and across industries.

Table 3: Public support for trade is widespread across industries.

		Total # Firms	# Express. of Support	%-age of M/L firms	%-age of VL firms
Goods-producing firms that supported trade:					
111	Crop production	51	83	.26	6.1
112	Animal production	22	35	.12	6.5
211-2	Mining	50	158	.10	4.5
311-2	Food and beverages	167	416	.19	6.7
313-6	Textiles and apparel	192	296	.54	15.0
321-3	Wood and paper	119	163	.15	6.3
324-5	Oil products and chemicals	209	526	.48	5.6
326-7	Plastics and mineral products	119	166	.28	4.3
331-2	Metals and metal products	242	320	.33	5.1
333	Machinery	363	566	.55	8.2
334-5	Computers and electronics	239	631	.25	4.1
336	Transportation equipment	107	243	.30	8.4
337-9	Furniture and misc.	152	201	.23	5.1
	Unknown or other	187	212	—	—
	All goods	2222	4023	.31	5.8
Goods-producing firms that opposed trade:					
	All goods	221	244	.04	0.3
Services firms that supported trade:					
22	Utilities	21	34	.01	1.0
23	Construction	54	60	.01	0.2
42	Wholesale trade	169	205	.03	0.1
44-5	Retail trade	110	195	.01	1.1
48-9	Transport and warehousing	123	242	.04	1.1
51	Information	118	335	.03	2.9
52	Finance and insurance	224	609	.05	0.4
53	Real estate	43	60	.01	0.2
54	Professional services	652	1146	.09	2.7
55-6	Management and admin.	72	99	.02	0.1
61	Education	21	26	.02	0.1
62	Health care	25	39	.01	0.1
71	Arts and entertainment	12	18	.00	0.3
72	Accommodation and food	24	43	.01	0.4
81	Misc. services	23	30	.01	0.2
	Unknown and other	447	525	—	—
	All services	2145	3677	.03	0.6
Services firms that opposed trade:					
	All services	80	87	.00	.00

Note: “Total # Firms” refers to the total number of unique firms in a subsector that publicly supported trade on any issue. “# Expressions of Support” refers to the total number of issues supported summed across those firms. Dividing the latter by the former provides the average number of trade issues supported among firms that supported any issue in a given subsector. Firms with unknown industries could not be matched to a specific NAICS industry. Size classifications and distribution of firm sizes come from Orbis, and are described below.

This is particularly so in comparison with antitrade firms, which have been markedly less organized in publicly opposing trade. These differences in organizational outcomes are consistent with an argument that stresses advantages in collective action for pro-trade firms because they are 1) larger and 2) have interests in particular countries, which give them strongly held preferences for integration with those countries. The next step in the argument requires showing that these two conditions hold.

To do so, I match by hand firms that have publicly supported trade by joining the pro-trade coalitions described above with firm-level data. This data comes from Orbis, a database covering both public and private corporations worldwide, which is produced by Bureau Van Dijk.⁴³ It contains information on firms' revenues, employees, assets, and other key financials, although generally only rough estimates of these figures are provided for private firms. Orbis also covers firms' legal status; industries of operation; ownership structures; mergers and acquisitions; stock data for public firms; and information on branches and subsidiaries. The Orbis data has several key attributes. Many firms that publicly support trade are private and Orbis has the most comprehensive data on private firms. Orbis is also relatively strong at classifying firms into coarsely defined size categories and industries. Orbis' information on revenues and employees are highly reliable for publicly traded firms but not usually available for private firms; I therefore re-test all claims about firm size using revenue to measure size among public firms.⁴⁴ Finally, Orbis is unique in providing detailed information on the number and location of foreign subsidiaries of firms.

To build a comparison set of nonsupporting firms, I conduct a stratified random sample of 100,000 US firms that Orbis categorizes as small, and 100,000 firms categorized as medium, large, or very large, among both goods and services. Thus, 400,000 firms are randomly sampled overall, though firms that supported trade issues are removed from the random sample of nonsupporters. Sampling weights are constructed using the complete Orbis population of firms by size. All regression models weight the sampled nonsupporting firms using the true population size distribution; supporting firms are given a weight of 1 because I have the population of such firms.⁴⁵

These firm-level data are matched with publicly available trade data from the US Census Bureau's "NAICS Related Party Database" aggregated to the four-digit

⁴³ See <https://www.bvdinfo.com/en-us/our-products/data/international/orbis>.

⁴⁴ Appendix A validates Orbis against other firm-level sources.

⁴⁵ This strategy of reweighting to eliminate sample selection bias is discussed in King and Zeng (2001). A key feature of the data that makes this feasible is that we know the size of the population of U.S. firms contained in Orbis *in toto* and broken down by strata.

NAICS level. I select the years 2005–14 to give a long snapshot of an industry's trade relationship with a particular partner. I only consider agreements for which there is a defined set of foreign trade partners when examining trade data in the main text. I match public support for the two GATT/WTO rounds and three votes on trade promotion authority to trade data with the entire world in the online appendix. I use the following trade flows which are always specific to the four-digit NAICS industry and the partner(s) in some agreement: US exports; US imports not arising from related parties; related-party imports (as a proxy for the activities of US multinationals at the industry level); and a measure of imported intermediate inputs constructed using BEA input-output tables in Osgood (2017a).

Empirical strategy

We wish to examine how firm-level and firm-partner features are related to participation in public pro-trade activity, mainly joining coalitions. The unit of analysis is therefore the firm-partner (or firm-issue). I represent a generic firm with the subscript f and partner/issue with the subscript p . The main outcome is notated Support_{fp} and is dichotomous. It equals 1 when a particular firm joined a coalition supporting some trade issue, or otherwise publicly expressed support. All firms are part of a single (four-digit NAICS) industry, which is represented by the subscript i .

In attempting to establish that some firm or industry characteristic contributes to public and collective action in support of trade, a recurring set of potentially confounding factors arise. First, particular industries may differ in their characteristics in ways that confound the links between firm-level variables and outcomes. I therefore use industry fixed effects (μ_i).⁴⁶ Second, more firms support some agreements than others, which may generate an unwarranted link between partner-industry characteristics and support. For example, more firms may have supported NAFTA for idiosyncratic reasons relating to the construction of the main ad hoc group. I therefore employ partner/issue fixed effects (μ_p). Third, it is essential to show that links between firm size and support hold conditional on import and export flows between the United States and its trade partners. I control for the Exports, Imports, Related party imports, and Inputs of the United States and the trade agreement partners. Finally, where firm features differ across agreements, it is possible to control for arbitrary, unmeasured firm-level features that may explain support for trade using firm-fixed effects (μ_f). For example, suppose that larger and more productive firms are more likely to support trade, in general, and more likely to have subsidiaries in various countries. I provide models with

⁴⁶ Fixed effects are at the four-digit level for goods, and at the three-digit level for services industries.

and without fixed effects, to show that the findings are robust across alternative specifications.

To examine the role of firm size and multinationality, which are firm-level features, I employ subsets of the following model:

$$\begin{aligned} \text{Support}_{fp} = & \beta_{1-4} \cdot \text{Size}_f + \beta_5 \cdot \text{Foreign subsidiary}_f + \\ & \gamma_1 \cdot \ln \text{Exports}_{ip} + \gamma_2 \cdot \ln \text{Imports}_{ip} + \gamma_3 \cdot \ln \text{RP Imports}_{ip} + \\ & \gamma_4 \cdot \ln \text{Inputs}_{ip} + \mu_i + \mu_p + \varepsilon_{fp}. \end{aligned}$$

In the sample of public firms, the size variable is replaced with the natural logarithm of the firm's *Revenue*. The *Foreign subsidiary* variable equals 1 if a firm has any foreign subsidiary.

To examine whether firms' decisions on supporting trade agreements with particular countries are related to firms' specific interests in those countries, I use the following model:

$$\begin{aligned} \text{Support}_{fp} = & \beta_1 \cdot \ln \text{Exports}_{ip} + \beta_2 \cdot \text{Very large}_f + \beta_3 \cdot \ln \text{Exports}_{ip} \cdot \text{Very large}_f + \\ & \beta_4 \cdot \text{Subsidiary}_{fp} + \beta_5 \cdot \text{Foreign subsidiary}_f + \gamma_1 \cdot \ln \text{Imports}_{ip} + \\ & \gamma_2 \cdot \ln \text{RP Imports}_{ip} + \gamma_3 \cdot \ln \text{Inputs}_{ip} + \mu_i + \mu_p + \varepsilon_{fp}. \end{aligned}$$

Subsidiary_{fp} refers to whether a firm has a subsidiary in the partner(s) for a given trade agreement; I include the variable *Foreign subsidiary_f* in models without firm-fixed effects. Note that I use the variable *Very large_f* which equals 1 if firms are coded as very large by Orbis (and zero otherwise) in order to economize on space. I also examine models with firm-fixed effects, for which I drop all firm-level variables and their interactions.

Large firms and multinationals drive pro-trade campaigns

I first illustrate the stark relationships between firm size, multinationalism, and the decision to join public efforts to support trade. These results are in [table 4](#). The first column shows the otherwise unconditional link between firm size, multinationalism, and support across all trade issues. All coefficients reported can be interpreted as changes in the percentage chance that a firm supports a given trade issue.

The baseline percentage chance that a given small goods-producing American firm with no foreign subsidiaries supports a particular trade issue is tiny: 0.0008 percent. An otherwise identical large firm has a 0.035 percent chance of supporting

Table 4: Firm size, multinationality, and public support for trade issues and trade agreements.

	All firms		Public firms	
	1	2	3	4
Goods-producing firms:				
Intercept	0.00** (0.00)	−0.02** (0.01)	−2.67*** (0.46)	−4.54 ⁺ (2.50)
Medium	0.01*** (0.00)	0.01*** (0.00)		
Large	0.03*** (0.01)	0.05*** (0.00)		
Very large	0.58*** (0.07)	0.61*** (0.01)		
ln Revenues			0.92*** (0.14)	1.01*** (0.04)
Foreign sub.	0.81*** (0.11)	0.86*** (0.01)	1.33*** (0.30)	1.39*** (0.16)
N	5036875	3544000	41250	31460
Services firms:				
Intercept	0.00* (0.00)	−0.00 (0.00)	−3.10*** (0.76)	2.86 (5.00)
Medium	0.00*** (0.00)	0.00* (0.00)		
Large	0.00*** (0.00)	0.00** (0.00)		
Very large	0.06*** (0.01)	0.05*** (0.00)		
ln Revenues			0.66*** (0.16)	0.68*** (0.07)
Foreign sub.	0.26*** (0.06)	0.21*** (0.00)	0.65** (0.21)	0.26 (0.19)
N	5017000	3954200	12675	10140
Partner FE	No	Yes	No	Yes
Industry FE	No	Yes	No	Yes
Partner controls	No	Yes/No	No	Yes/No
Sample	All	Agrmts.	All	Agrmts.

Note: Outcome variable is $Support_{fp}$ measuring whether a firm f support a given trade issue p . All models are weighted least squares (WLS). Models 1 and 3 use WLS SEs clustered at the four-digit NAICS level; models 2 and 4 use WLS SEs. Models 2 and 4 drop trade issues without clear partners in order to include trade variables.

any given trade issue in the data, while a very large firm has a 0.58 percent chance. These figures make clear that support by a given firm for any given agreement is quite rare, but also that increasing firm size vastly increases the likelihood of

support. Moving a firm (with no subsidiary) from small to large increases the relative chance of support by a factor of 43; moving a firm from small to very large increases the chances of support by a factor of 750. Among goods-producing firms, the ownership of a foreign subsidiary also dramatically increases the likelihood of supporting a given trade issue. Ownership of a foreign subsidiary increases the percentage chance of supporting a given trade issue by at least 0.81 percentage points, which is a very large increase in relative terms.

These patterns are quite robust to the inclusion of partner and industry fixed effects, and measures of the exports to and imports from a trade partner at the industry level.⁴⁷ This latter point is key: firm size is doing critical work to explain firms' public attitudes over and above the features of an industry's trade relationship with some country. For example, the association between firm size and support for trade is not just a result of large firms clustering in export-competitive industries.

Similar patterns hold among publicly traded corporations. Increasing revenue by 100 percent increases the chance a publicly traded firm supports a given agreement by around 1 percent; ownership of a foreign subsidiary again has a positive and significant relationship with publicly supporting a trade issue. The lower half of [table 4](#) provides corresponding results for firms located in services industries. Note that the absolute size of the effects are smaller, because public activity around trade is exceptionally rare by firms in the services industries. The relative effects of size and multinationality are very great, however. Moving from small to very large (absent ownership of a foreign subsidiary) increases the likelihood of supporting a trade issue publicly by a factor of 830.

So far we have compared firms that have joined public efforts to support trade to firms that have not. This choice is motivated by the fact that public opposition to trade by firms occurs only irregularly, and the numbers of opposing firms are quite small. Nonetheless, comparing the firms that have supported trade with the few firms that have publicly opposed trade also reveal similarly stark disparities in size and ownership of foreign subsidiaries. These are explored in Appendix B.

Global firms' orientations shape pro-trade action

Firms that join public coalitions in support of trade are larger and have multinational operations, but are they motivated by the particular features of trade partners in choosing which agreements to publicly support? The stakes associated with these tests are high. First, if larger firms are more likely to support *any* trade

⁴⁷ I provide much more descriptive detail on the size distribution and the multinational activities of firms' that have supported and opposed trade in the appendix.

agreement, then that might be evidence for the impact of firm heterogeneity in global engagement on pro-trade activity, but it also has other plausible interpretations. Second, firms ought to be selective about which agreements to support based on the attributes of the trade partners and their own engagement with those countries. If that is the case, then the supporters of a given agreement are likely to have deeply felt preferences driven by the concentrated benefits of trade agreements with particular partners, as argued above.

Export opportunities

I start by examining whether a firm's size and its industry's exports interact to generate support for trade in the top half of [table 5](#). In the models without firm-fixed effects, there is a significant interaction between firm size and the exporting patterns of its industry. For example, moving a firm's size from not Very large to Very large, is predicted to increase the chance of support for an agreement by 0.31 when exports are held at their 25th percentile. At their 75th percentile, the increase is 0.63. A similar interaction effect is seen among public firms. When exports are limited, increasing revenues from their 25th to their 75th percentile increases the chances of support by 1.83. When exports are significant, the chance of support grows by 3.18. The findings are similar in models including industry and partner fixed effects, and trade controls.

The sample, model, and interpretation are different for the models contained in columns 3 and 6, which include firm-fixed effects. These models only include firms that have supported at least one trade issue and exclude firm-level variables. The results reveal that, among firms that have supported trade, industry exports meaningfully shape whether or not to support trade with that country. This holds both among all firms and among public firms only. Among all firms, an increase in exports of 100 percent with some partner is expected to increase the percentage change of publicly supporting a trade agreement with that country by 2.21 percent. For publicly traded firms, the equivalent estimate is 3.71 percent. Collectively, these results suggest that firms' decisions about whether to join in collective efforts to support a trade agreement is not simply a function of their size but of the scope of opportunities for exporting that are likely to be generated by that agreement.

Subsidiary locations and support for trade

Support for trade agreements is likely to be driven not only by opportunities for export, but also by opportunities to invest in partner countries. Firms with a subsidiary in a particular country should be more likely to have supported a trade

Table 5: Exports, foreign subsidiaries, and support for trade across trade agreements.

	All firms			Public firms		
	1	2	3	4	5	6
Goods-producing firms:						
Exports	0.00*** (0.00)	0.00 (0.00)	2.21*** (0.35)	-0.89*** (0.21)	-0.61** (0.20)	3.71** (1.31)
Very large	0.16 ⁺ (0.08)	0.17*** (0.01)				
Very large · Exports	0.19*** (0.05)	0.19*** (0.01)				
Revenue				0.32** (0.10)	0.45*** (0.06)	
Revenue · Exports				0.24*** (0.07)	0.18*** (0.03)	
Subsidiary	5.06*** (0.69)	5.06*** (0.03)	4.37*** (0.69)	8.34*** (1.41)	8.87*** (0.28)	6.95*** (1.46)
Any foreign sub.	0.36*** (0.06)	0.36*** (0.01)		0.05 (0.20)	0.09 (0.16)	
N	3551060	3547140	37660	31460	31460	5040
Services firms:						
Very large	0.05*** (0.01)	0.05*** (0.00)				
Revenue				0.45*** (0.13)	0.54*** (0.07)	
Subsidiary	1.18*** (0.28)	1.18*** (0.02)	4.97*** (1.04)	2.16** (0.69)	2.21*** (0.29)	6.38** (1.93)
Any foreign sub.	0.13*** (0.03)	0.13*** (0.01)		0.18 (0.11)	0.02 (0.17)	
N	4020420	4020420	38660	9400	9400	2680
Partner FE	No	Yes	Yes	No	Yes	Yes
Industry FE	No	Yes	Yes	No	Yes	Yes
Firm FE	No	No	Yes	No	No	Yes
Partner controls	No	Yes/No	Yes/No	No	Yes/No	Yes/No
Sample	Agrmts.	Agrmts.	Agrmts.	Agrmts.	Agrmts.	Agrmts.

Note: Outcome variable is $Support_{fp}$ measuring whether a firm f support a given trade issue p . All models are weighted least squares (WLS). Models 1 and 4 use WLS SEs clustered at the four-digit NAICS level; models 2, 3, 5, and 6 use unclustered WLS SEs. Industry FE are implicit with Firm FE in models 3 and 6.

agreement with that country. According to model 1 in the top half of [table 5](#), moving from not having to having a subsidiary in a trade partner increases the chance of supporting a deal with that partner by 5.04.⁴⁸ This is an increase from 0.80 to 5.84. Given the overall rarity of public firm support and the noise associated with any public political activities, the size of this effect is remarkable.

When firm-fixed effects are included, the estimate only covers the subpopulation of firms that have supported some agreement, and so the ratio of the effects is much smaller—but the absolute size of the effect is quite similar and so remains remarkably large. The right hand side of [table 5](#) re-examines all of the results from above among public firms only. Given the larger size of publicly traded firms, the estimated effects are unsurprisingly bigger. They are, however, substantively similar to the results among all firms. Results in services are shown in the lower half of [table 5](#), where the effect of owning a subsidiary in the trade agreement partner is small in absolute terms but huge in relative terms. Owning a subsidiary in a given country increases the percentage chance of supporting an agreement with that country by 1.18 percent. Note that all of these estimates are entirely robust to country, industry, and firm-fixed effects.

Summing up the regression results, it is clear that firms that have joined coalitions in support of trade are: larger; more multinational; and have specific export and foreign investment interests in partner countries. These patterns are consistent with a firm-centered model of trade's distributive consequences focusing on firm heterogeneity. They also help to explain why pro-trade firms might have advantages in collective action: they are small in number, larger in size, and with intense preferences driven by country-specific relationships.

Individual political engagement of pro-trade firms

I conclude my investigation of the political activities of pro-trade firms by expanding the analysis into different domains of political activity that reflect the intensive engagement of firms as individuals (rather than in the coalitions analyzed up to now). I show that firms that have publicly supported trade are vastly more engaged in trade-related lobbying and campaign contributions than both publicly antitrade firms (who are few) and firms that are publicly indifferent over trade (who are many). This is consistent with the argument that pro-trade firms have advantages in the individual arts of political influence owing to their size.

America's pro-trade firms have an exceptionally large profile in lobbying on trade, as shown in [table 6](#). I count lobbying on trade as any lobbying in the issue

⁴⁸ This is for a very large firm, which is assumed to have some foreign subsidiaries, whose exports are set at the median in the data.

Table 6: Lobby spending on trade by publicly pro-trade firms, 1998–2016.

	Goods	Services	All
Pro-trade firms among all firms:			
Total (\$100 Million)	68.0	19.5	87.7
% Share of lobby spending	89.5	81.4	87.8
Pro-trade firms and assoc. among all firms, assoc. and unions:			
Total (\$100 Million)	96.3	38.8	123.4
% Share of lobby spending	87.8	75.0	86.6

Note: Data from Center for Responsive Politics. Trade-related lobbying includes any report that employs “Trade (Domestic or Foreign)” or “Miscellaneous Tariff Bills” issue codes. Expenditures are not available per issue; reports may cover multiple issue areas.

Table 7: PAC contributions by publicly pro-trade firms in federal elections, 1994–2016.

	Goods			Services			All
	House	Senate	Pres.	House	Senate	Pres.	
Pro-trade firms among all firms:							
Total (\$10 Million)	32.1	14.9	0.7	37.2	16.7	0.8	104.1
% Share of PAC contributions	69.1	67.5	64.5	47.2	41.7	37.9	55.9
Pro-trade firms and assoc. among all firm, assoc. and union PACs:							
Total (\$10 Million)	38.0	17.7	0.8	51.0	21.9	1.0	133.2
% Share of PAC contributions	55.9	59.1	39.0	30.3	30.3	8.8	35.8
Pro-trade firms and assoc. among all non-party PACs:							
% Share of PAC contributions	11.5	7.3	0.7	14.3	8.3	0.7	17.2

Note: Contributions data from Center for Responsive Politics are matched to pro-trade firms. Candidate PACs omitted from final row.

categories of “Trade (Domestic or Foreign)” or “Miscellaneous Tariff Bills.” Firms in America’s pro-trade coalition account for 87.8 percent of all lobbying expenditures by firms recorded on lobby reports that mention trade. That number only falls to 86.6 percent when all other types of lobbying groups are included. What about firms that have publicly opposed trade in the United States? In goods, they account for 1.7 percent of corporate lobbying on trade, compared to supporting firms’ 89.5 percent. In services, public opponents of trade are less than 0.02 percent of lobby spending, compared to supporting firms’ 81.4 percent. Appendix B provides further detail confirming these broad patterns.

Table 7 shows PAC giving by firms in America’s pro-trade coalition. It is important to note that, unlike lobby expenditures, PAC contributions cannot be directly tied to any specific issue. These patterns are therefore consistent with my argument about the political advantages of pro-trade firms, though the origins of the

contributions cannot be decisively linked to trade (or any other issue) using this approach. So while this is not a test of whether trade drives contributions, this analysis does explain why politicians might be inclined to listen to pro-trade firms' public positions. They also reinforce the point that pro-trade firms hold individual advantages in political action.

Firms that have publicly supported trade gave around \$1.04 billion dollars in PAC contributions to candidates for the House, Senate, and presidency from 1994 to 2016. When trade associations that have publicly supported trade are included, this total rises to \$1.33 billion dollars. This is 17.2 percent of PAC contributions, excluding candidate and party PACs. These figures are even more striking within narrower classes of actors. Among corporations only, firms that have publicly supported trade account for 55.9 percent of PAC contributions. The contributions of pro-trade firms and associations account for 35.8 percent of all PAC contributions given by producers and unions. Comparing publicly pro-trade firms with publicly anti-trade firms makes for a startling contrast. Pro-trade firms give 68.5 percent of all corporate PAC contributions by goods firms; publicly anti-trade firms give 2.0 percent.⁴⁹ Pro-trade firms are 45.3 percent of giving in services; anti-trade firms are 0.1 percent.

American trade politics: past, present, and future

Until recently, the prevailing model of American trade politics in the postwar era had two features. First, trade pits export-competitive industries against import-competing industries.⁵⁰ Second, protection-seeking special interests were deemed especially influential, and it was argued that their influence must be countered with special institutional innovations, whether domestic or international. I argue and present evidence consistent with an alternative model. Firm-level characteristics that are not simply a function of industry-level features are important drivers of trade policy activity. Moreover, pro-trade firms are vastly more politically engaged and organized in the areas of collective organization and lobbying than trade's opponents among producers.

Indeed, the developments of US trade policy over the time period I examine may reflect the organization and influence of the pro-trade firms examined here. Over the past few decades the United States has: contributed to the creation of a robust WTO; welcomed China and many others into an expanded GATT/WTO

⁴⁹ The gap when contributions from industry associations are also included are 56.5 percent and 4.1 percent.

⁵⁰ Hiscox (2001).

system; signed over a dozen preferential trade agreements; and concluded many more international agreements governing global investment and commerce. At the same time, it is also important to acknowledge that many significant barriers to trade remain, especially in key sectors, and that trade's losers have at times made effective use of administered trade protection. So pro-trade firms' efforts in coalition-building and lobbying have secured key gains in the area of liberalization, but not comprehensive free trade. Future work ought to systematically examine whether and how the extraordinary organization of pro-trade firms I document here contributed to global economic integration, and the significant defeats suffered by trade opponents among producers, progressives, and the public up to 2016.

If my argument is correct, why has opposition to trade from producers been so effective in the past? The literature on firm-centered models of trade emphasizes several scope conditions, which are each subject to change over time.⁵¹ First, industrial concentration ensures the existence of very large firms to dominate trade. Concentration has grown substantially over the past few decades.⁵² Second, firm size drives preferences over "ordinary" exporting and import competition only where products are differentiated.⁵³ Primary commodities declined dramatically as a share of world trade over the twentieth century, to be replaced by more differentiated manufactures and, increasingly, services. Third, declining shipping costs and improvements in logistics—along with changes in trade policy—facilitated the flourishing of global production networks in the late twentieth century. Thus, the antecedents of firm-driven preferences over trade converged to generate the patterns I describe at the end of the twentieth century and the beginning of the twenty-first.

How then would my emphasis on the political advantages of pro-trade firms explain the dramatic shift in the United States' posture towards globalization during the Trump Administration? The fundamentals of the pro-trade coalition's

51 In the online appendix, I contrast patterns of trade politics in the 1980s with the patterns examined here from 1991–2016. I find significant continuities across the two periods, with similar actors involved and similarly superior organization among pro-trade firms. However, the second half of the 1980s looks more like the post-1990 period than does the first: the pro-trade firms I examine here may have been spurred to organize by the last-ditch efforts of uncompetitive US manufacturers to defend against imports through trade remedies (Irwin, 2017, chapt. 12). While the use of trade remedies grew dramatically after 1979, efforts to further expand their scope were mainly defeated in the late 1980s and many protections were rolled back in the 1990s (Destler, 2005, chapt. 6).

52 Grullon, Larkin, and Michaely (2017). Council of Economic Advisors (2016) reviews subsectoral studies.

53 Madeira (2016); Osgood (2016).

superior individual and collective engagement on trade have not changed, nor has their apparent influence in the Congress and much of the Republican Party. For example, pro-trade firms and associations have mobilized several coalitions to fight for NAFTA, including the Produce Coalition for NAFTA; Trade Benefits America; the Texas-Mexico Trade Coalition; the US Global Leadership Coalition; and Driving American Jobs. The Republican caucus is fighting against Trump Administration actions on trade remedies and NAFTA.⁵⁴

What *has* changed, of course, are the policy preferences of the president. The US Congress has vested enormous discretion in the executive branch over the years on the assumption that the President would support trade and a US-led world order. Scholars interested in special interest groups will therefore be watching closely to see if pro-trade interests figure out how to influence an unsympathetic executive branch, and if the Congress moves to claw back authority over trade policy. Scholars of public opinion on trade will correctly note that the 2016 election highlights the importance of mass preferences and elections. Indeed these two forces may be linked: resurgent populist opposition to globalization in both parties may partly reflect the success of the pro-trade coalition's agenda over the past decades. The fact that globalization's gains are concentrated among a small number of firms explains the organized political force of America's pro-trade firms. These same concentrated gains may also explain why many ordinary citizens feel left out of globalization's benefits, and so voted to move away from global order. America's pro-trade firms are currently engaged in a remarkable fight to preserve the pro-trade policies they have steadfastly supported over the past decades.

Supplementary material

To view supplementary material for this article, please visit <https://doi.org/10.1017/bap.2019.31>.

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