



RESEARCH ARTICLE

Tariffs and corporate political activity: a survey experiment on US businesses

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Abstract

The trade war with China has cost US producers and consumers hundreds of billions of dollars since 2018. Yet relatively few US businesses took action to oppose it. This study reports the results of an elite survey experiment on business political activity toward trade policy. Researchers presented business managers with information about the input costs of the new tariffs to their bottom line—information that most subjects acknowledged that they lacked—and invited them to take political action to express support or opposition to these tariffs. The results suggest that the novel information on economic costs did not significantly increase managers' propensity to contact members of Congress, donate to political campaigns, sign petitions, or join social media groups. We also found that the firm's political culture (liberal or conservative) did not significantly influence the effectiveness of the treatment. However, descriptive analysis showed that firm political culture was strongly related to the company's support for the trade war, suggesting that these preexisting political beliefs were resistant to new information provided in our experiment even if that information could affect the company's bottom line.

Keywords: trade war; firms; trade politics; elite survey experiment; corporate political activity

Introduction

Since the Trump administration launched its trade war with China, average tariff levels between the two countries have risen from 3 to 20 percent. Economists estimate that these trade policies have cost US consumers and businesses on the scale of \$4.6 billion per month, with \$165 billion worth of trade redirected to avoid tariffs.¹ Firms have played a leading role in the global shift toward freer trade historically² and have expressed opposition to tariffs.³ However, Zhu et al. estimate that just 1.73 percent of all large firms in the United States have publicly opposed the Trump-era tariffs. The absence of broad-based political mobilization among firms to oppose the trade war is puzzling.⁴ In an interview with one author, the Director of Americans for Free Trade, a broad-based coalition of 150 industry associations to fight against tariffs, expressed his frustration that getting managers to submit public testimonials about tariff impact was “like pulling teeth.”

This broad pattern seems to contradict received wisdom in political economy regarding firms' political action to trade policy. When tariffs arise that harm firms' interests, rational firms are expected to take political action against the tariffs. The absence of political mobilization is understandable for

*Authors are listed in alphabetical order and contributed equally to this work.

¹Amiti, Redding, and Weinstein (2019)

²Milner (1999); Kim and Osgood (2019)

³Ben Casselman and Ana Swanson, “Survey shows broad opposition to Trump trade policies,” *New York Times*, September 19, 2019. <https://www.nytimes.com/2019/09/19/business/economy/trade-war-economic-concerns.html>

⁴Liu, Zhang, and Vortherms (2022)

consumers, who—while being the main losers from tariffs—are ill-informed about trade’s distributional consequences and face diffuse costs that make it challenging for them to overcome collective action problems.⁵ The real puzzle is why businesses, which are typically thought to be more active and influential in trade policy,⁶ have not opposed tariffs more forcefully or constrained escalation in the trade war.

The Trump administration actively promoted myths about tariffs—claiming that China is paying for them or that tariffs will reduce the US trade deficit.⁷ Political polarization accounts for why public support for tariffs was split along partisan lines, with 72 percent of Republicans supporting and 71 percent of Democrats opposing tariffs on products imported from China in 2019.⁸ However, we would expect firms to have concentrated interests in trade and be more politically active than consumers. Instead, we find that while 41 percent of firms in our sample engaged in some type of political action in the past five years and a majority report being harmed by tariffs, only 22 percent report taking any political action on tariffs. Could it be that businesses are also sufficiently misinformed about tariffs to act against their economic interests?

Political action is likely premised on informed beliefs about the costs of the tariffs on their business. In 2019, the authors implemented a survey-based experiment targeted at company managers that exogenously alters firms’ awareness of the costs (and benefits) of the US–China trade war and measures the company’s interest in real-world political behavior supporting or opposing the trade war. We created a novel sample of managers at US firms through social media targeting and outreach to Chambers of Commerce. Using supply tables from the Bureau of Economic Analysis, we calculated for each industry—based on the upstream industries on which it relies—the cost of the trade war, and we developed an interactive web application that allowed firms to estimate this for themselves more precisely based on their own inputs and quantities. We collected company managers’ self-assessed knowledge of the trade war and their beliefs about how it affected their companies. We then invited managers of firms to undertake several political behaviors to express either their opposition to or support for the current trade war, and we tracked their participation as the main outcomes of interest.

We tested whether providing the needed analytical capacity and informing managers about the likely impact of the trade war on their businesses increased the likelihood that they would undertake political actions such as contacting policymakers, joining collective initiatives, signing petitions, and donating to like-minded politicians. Our focus is on small and medium-sized enterprises (SMEs). SMEs have been profoundly impacted by the trade war, but they tend to be less well-informed than large multinationals. They are typically not directly engaging in importing or exporting internationally, but they are often deeply enmeshed in global value chains (GVCs), so their inputs are often strongly affected by higher tariffs. At the same time, they employ a significant share of the American workforce but are often overlooked in studies of trade politics.

In terms of average treatment effects, we find that providing plausibly novel information about the cost of tariffs produced null effects compared to the control condition of no new information. The primary pre-registered hypothesis expected that information on the costs of tariffs would cause managers to take political action given the difficulty in obtaining quality information about the effects of the trade war on many smaller US companies. When we examine pre-registered moderators of prior beliefs about the trade war, including prior political action and the partisanship of the company’s culture, we similarly find null results. In other words, our treatment was similarly ineffective for all respondents. The findings suggest that providing information about the possible benefits of ending the trade war was not sufficient to motivate firms to take political action.

Instead, in a finding that was not anticipated by the authors, exploratory analysis suggests that managers’ responses to the trade war are highly conditioned by their companies’ political culture—

⁵Rho and Tomz (2017); Mansfield and Mutz (2009)

⁶Milner and Tingley (2015)

⁷Eswar Prasad, “Five myths about tariffs” *Washington Post*, 22 March 2018. https://www.washingtonpost.com/outlook/five-myths/five-myths-about-tariffs/2018/03/22/b75b67c0-28bc-11e8-874b-d517e912f125_story.html

⁸Kafura (2019)

though we do not find the treatment to be differentially effective across political ideologies. Managers working at firms they described as politically conservative were significantly more likely to support the tariffs, and managers at progressive firms opposed the trade barriers. It appears that these ideological political preferences were resistant to the cost information provided in the treatments and drove subsequent behavior in taking political action. SME managers had political preferences toward tariffs that were much closer to those of the average consumer than to the prototypical, utility-maximizing firm in international political economy theories. While in retrospect this pattern might seem obvious given the highly politicized environment in the United States, it does not appear to have been anticipated by received wisdom in political economy theories of trade. Furthermore, a sizable share of firms in our elite survey who did not select any political action outcomes reported that they did so out of fear of political backlash, suggesting another mechanism through which polarization undermined corporate political action.

Our study helps to illuminate how average US firms behave politically in the face of protectionism. We hope that the knowledge about the political behavior of SMEs will help fill in the vast middle ground between the few “superstar” firms that support trade liberalization and the many individual consumers whose diffuse economic interests wash out in the political tide in the literature. Fewer than 1 percent of all US firms are multinational enterprises with global production networks while the remaining 99 percent are much more like the SMEs captured by our sample. These SMEs form the bulk of the membership of industry associations and many have economic interests that are harmed by tariffs—through increased input costs—even if they do not engage in foreign trade or investment directly.⁹ Our findings thus help explain why domestic political opposition to the trade war with China was minimal even though there was evidence that some firms with global production networks tried to fight back against Section 301 tariffs.¹⁰

Moreover, most studies on the trade war have focused on observed firm behaviors such as lobbying, divesting, tariff exclusion requests, etc.,¹¹ but we know that most firms oppose tariffs yet take no political actions. We have little information about the firms that do not take political action and why they do not. Our elite survey allows us to determine the distribution of firm-level attitudes toward the trade war and our elite survey experiment allows us to observe which firms are willing to undertake political action and if information causes increased opposition or support. We found that 47.4 percent of firms in our sample considered their business hurt by the trade war but that only 29 percent demonstrated interest in taking any political action. Firms did not update their interest in taking political action when provided with new information, regardless of whether that information conformed to or contradicted their prior beliefs about the impact of tariffs on their business.

Determinants of firm-level political action

In this section, we outline a simple model for how firms respond to information about tariffs, parts of which, as we discuss later, were pre-registered. Before doing so, we first establish (1) firms’ interests with respect to trade policy and (2) the relevance of individual managers as decision-makers and information-processors.

Politics of protectionism

Much existing literature on trade policy preferences explores structural economic factors like sectoral interests, industry concentration, or firm heterogeneity to explain liberalization or protectionism. This literature has shown how the dominance of exporters, particularly “superstar” multinational

⁹It should also be noted that a substantial minority of SMEs in our sample claim that tariffs helped them. We know that SMEs are less likely to participate in global production and more likely to be import competition. Therefore this percentage of SMEs in our sample that are harmed by tariffs is somewhat lower than the two-thirds of US firms that surveys by the American Chamber of Commerce indicate.

¹⁰Lee and Osgood (2021)

¹¹Lopatin et al. (2024); Cichanowicz et al. (2024); Lee and Osgood (2022); Liu, Zhang, and Vortherms (2022); Mangini (2023); Zeng, Xu, and Xie (2023); Vortherms and Zhang (2024)

corporations (MNCs), had a significant influence on the policies the United States pursued in the design and governance of the global trade regime in recent decades.¹²

When we consider what we know about the firm-level propensity for political action on trade, “much business participation is aimed not only at public goods but also at private goods.”¹³ The result is that a small number of very large firms champion trade liberalization, where the concentration of corporate power has made it essentially a private good, such as through direct lobbying or political action committees (PACs), when intra-industry trade is high.¹⁴ These trading firms represent only about 0.4 percent of total firms in the United States¹⁵ but account for over 60 percent of merchandise imports and exports. American MNCs that have verticalized foreign direct investment in China should have especially stronger incentives to engage in lobbying activities on China trade policy.¹⁶

While the literature on the politics of protectionism focuses on larger firms, we argue that the trade politics of SMEs are important to study. Numerically, they outnumber large and very large firms 50 to 1. In the aggregate, they employ roughly twice as many employees as large firms do.¹⁷ SMEs have less political clout and fewer resources to lobby in national politics, so they are frequently overlooked in studies of trade policy. But a sizeable portion of the American population either owns or works for a small business, and they may well take political action (albeit on a smaller scale) to promote their interests, such as by calling their congressperson or signing a petition.

Small firms are also inevitably impacted by disruptions to GVCs because they source from or supply larger trading firms. For example, smaller retailers who appear in our data may not source internationally themselves but rely on wholesalers that do. Many manufacturers that only have production lines in the United States still source many components from overseas suppliers. But unlike larger firms, smaller firms do not have complete information about how tariffs impact their bottom line, in part because they are impacted only indirectly.

The four rounds of tariffs imposed by the Trump administration on Chinese goods between July 2018 and May 2019 offer a unique opportunity to study the attitudes and political behavior of a wide cross-section of US firms. Earlier rounds of tariffs targeted intermediate and capital goods supported by the Made in China 2025 Initiative and prompted retaliatory tariffs, touching off a trade war that quickly expanded to include a wide array of consumer goods as well.¹⁸ These sweeping Trump-era tariffs created diffuse costs and concentrated benefits (the inverse of the dynamic that most recent IPE literature describes: concentrated benefits of reciprocal tariff reductions leading to trade liberalization). The higher cost of imports due to Section 301 tariffs was passed down the supply chain to firms that do not trade with China themselves.¹⁹

In response to these tariffs, large, highly productive firms have managed to obtain quality information and decide on political action.²⁰ These firms have overwhelmingly opposed protectionism. Lee and Osgood (2021) investigated the public comments submitted to the US Trade Representative (USTR). Only a few import-competing firms—steel giant Nucor Steel or solar panel manufacturer SolarWorld Americas, for example—favored prolonging and expanding the trade war in public hearings and testimonies. Most comments were critical of tariffs and predominantly submitted by firms with subsidiaries in China. But although those firms with public stances have overwhelmingly opposed rather than supported the trade war, 98.27 percent of firms have not taken a public stand.²¹

¹²Goldstein and Gulotty (2021); Kim and Osgood (2019); Kim, Milner, Bernauer et al. (2019)

¹³Hansen, Mitchell, and Drope (2005)

¹⁴Madeira (2016)

¹⁵Bernard, Jensen, Redding et al. (2007)

¹⁶Zeng (2021)

¹⁷See <https://www.census.gov/data/tables/2018/econ/susb/2018-susb-annual.html>. We employ the US Census definition of small enterprises as having fewer than 100 employees and medium firms at 100–2,499 employees.

¹⁸Zhang (2022); Vortherms and Zhang (2024); Zhang and Shanks (2024)

¹⁹Amiti, Redding, and Weinstein (2019)

²⁰Lee and Osgood (2022); Liu, Zhang, and Vortherms (2022); Zhu, Waddick, Feng et al. (2021)

²¹Zhu et al. (2021)

SMEs are thus just as likely to be exposed to the higher cost of tariffs even if they do less business in China than their large multinational counterparts.²² However, far less is known about their behaviors in response to the trade war or on trade policy in general. Next, we consider how SMEs' decision-making may differ from that of large firms.

Psychology of managers

In standard political economy models, firms should obtain information about new trade policies so long as the marginal cost of information is less than the expected benefit, which we will term rational Bayesian updating. Based on this process, firms (producers) are seen as more likely to take political action on trade policy than individuals (consumers) due to the concentrated interest they have, a pattern that typically results in trade protectionism.²³

However, we have reason to believe that standard political economy models face challenges in predicting managers' behavior given the highly partisan support for the trade war. Unlike traditional debates about trade policy that attract little public scrutiny, the political discourse around Section 301 tariffs is salient, as it involves national security and great power rivalry concerns. Starting during his campaign in 2016, President Donald Trump engaged in a visible and personal struggle with the Chinese government, promoting the trade action as a core part of his agenda.²⁴ The salience of this debate changes a few things.

First, firms that would normally oppose tariffs may hesitate to do so publicly, either due to sociotropic concerns or to protect their reputations in a public with these concerns. Fear of backlash from customers (as well as their own employees and managers) may have resulted in the reticence of companies to take a public position.²⁵ Firms may support the policy goals of the trade war; for example, the American Chamber of Commerce's testimony to the USTR stated that they were opposed to the means (tariffs) but supported the ends (stopping Chinese unfair trade practices).

Second, while reasoning on such a politicized issue, managers may behave more like humans than rational profit maximizers. Individual attitudes on trade are well-known to reflect psychological factors like in-group favoritism and ethnocentrism,²⁶ and these are less politicized issues than the present trade war. During the COVID-19 pandemic, partisanship was so strong as to license individuals to undertake risky behaviors.²⁷ Individuals often draw on motivated reasoning when making decisions,²⁸ and when uncertainty dominates, they rely on information that fits with partisan identities to reduce their cognitive load.²⁹ When considering a partisan issue, managers may be even more likely to filter trade preferences through cultural or identity-based lenses than they are to obtain quality information about the costs of the trade war to their firm.

We expect these two dynamics to be especially true of the SMEs we study. In addition to being at an information disadvantage about the costs of the trade war, SMEs are smaller firms in which managers have more social interactions with their employees and with their customer bases, both constituencies that may pressure a manager into a policy position that costs their business but agrees with public sensibilities about the importance of punishing China. In this way, managers of SMEs may behave more like emotional voters than like rational firms in their political behavior.

At the same time, they do so at risk to their bottom lines. Clearly, trade policy does affect a firm's profits and possibly its survival in the marketplace. The larger and more apparent these costs are, the more managers should behave rationally and seek out information in the way the Bayesian model

²²It is possible that some SMEs that are import competing may benefit from higher tariffs. Kuk, Seligsohn, and Zhang found that the negative impact of the China shock on US manufacturing generated bottom-up backlash against free trade.

²³Betz and Pond (2019)

²⁴Denmark (2020); Kim and Margalit (2021)

²⁵Zhu et al. (2021)

²⁶Kuo et al. (2015); Mutz (2021)

²⁷Constantino et al. (2022); Druckman et al. (2021); Gadarian, Goodman, and Pepinsky (2021); Gollwitzer et al. (2020)

²⁸Ruisch and Ferguson (2022); Bhadani et al. (2022); Iyengar, Sood, and Lelkes (2012)

²⁹Callaway et al. (2022)

would expect. Whether they do so is an empirical question that our study aims to answer. In the next section, we describe the information that should compel managers to behave differently, if they are rationally considering their firms' interests.

Information as treatment

The onset of US tariffs against China in 2018 led to an “extraordinary increase” in trade policy uncertainty and stock market volatility. Managers who are accustomed to decades of trade liberalization were suddenly deluged with new tariff schedules and conflicting headlines about the duration of the trade war. Even economists have struggled to estimate the costs of the trade war due to the complex global supply chains that amplify and yet conceal the effects of tariffs, presenting an empirical challenge to scholars who have sought to quantify the trade dispute's impact.³⁰

If economists have struggled to adequately model the consequences of the trade war, we expect SMEs to suffer from an even worse informational environment. Firms are differentially affected by a trade war based on their specific market focus, size, flexibility, and supply chains, and they require the analytical capacity to know this. Scholars have found that large firms that engage in offshoring and have subsidiaries in China are more likely to respond to file a tariff exclusion request in response to the trade war.³¹ However, few SMEs would fit this bill and were less likely to participate in tariff exclusions.³² Unlike large firms, SMEs do not have in-house analytical teams whose goal is to research the business environment. For SMEs to develop this capability, they would have to hire new personnel or spend money on consultants. Our survey results confirm that many SMEs expressed low knowledge about the trade war. But nevertheless, we know that even SMEs that do not import directly from China can still experience higher input costs if their suppliers pass on the cost of tariffs to them. Would providing information about the economic impact of tariffs increase the willingness for political action among SMEs?

Our theory argues that information helps firms more accurately estimate the benefits of engaging in political action. During the trade war, businesses may not have known how much the tariffs had affected their operations. While estimates of the overall effects on the US economy were large and public, they were diffusely spread across frequently purchased intermediate goods in a complex production process. Although some firms would know which shipments from China they would need to pay duties on, the vast majority would never pay these costs directly. These firms would likely underestimate the extent to which they are impacted by the tariffs their upstream industries face, leading them to systematically underestimate the benefits of ending the trade war. Providing information, then, could help them more accurately estimate the benefits of opposing tariffs, perhaps enough to push them to undertake some costs of political action.³³ However, we also expect that the effect of providing information will vary depending on a firm's prior beliefs about how they are affected by the trade war. To elaborate on the specific heterogeneity we expect, we formalize our intuitions using a simple model.

In our pre-registration,³⁴ we formalized our intuitions about the difficulties managers likely face in making rational Bayesian updates about a subject as complex as the trade war. In brief, we consider that a given firm i will choose political action P_A given a utility function $U_i(P_A) = B_i - C_i$, where B_i and C_i are objective benefits and costs. The upfront cost of P_A (time and resources spent contacting politicians,

³⁰Flaen and Pierce (2019)

³¹Lee and Osgood (2022)

³²Additionally, the tariff exclusion process provided very little relief against protectionism even for the larger firms that participated in the process. While over 53,000 tariff exclusion requests were filed, only 13 percent were granted and left the vast majority of the firms were left to absorb the cost of tariffs. Because tariff exclusions are granted at the product level, firms also face a collective action problem when filing requests because competitors could potentially benefit from tariff exclusion.

³³We recognize that some forms of political action are costlier than others. According to our theory, information would push more firms to take low-cost political action and a smaller number of firms to take higher-cost political action. But information is essential for any of this to happen; without information, firms would not recognize the benefits to them were tariffs to be removed.

³⁴The study design, hypotheses, and analysis plan were preregistered on the Open Science Framework prior to data collection (Princeton Trade Study, 2019; <https://osf.io/968qg/>).

for example) is typically clear to companies. But companies sometimes have inaccurate assessments of the benefits, which they perceive as \hat{B}_i . To learn what the benefits would be, a company must engage in substantial research at cost I to learn what the true benefits B_i are. Crucially, only those firms who expect significant benefits from opposition are likely to pay the cost. As a result, we surmised that companies are more likely to take political action after receiving an information treatment $T = 1$ when the following inequality holds:

$$Pr(B_i - C_i > 0 | \hat{B}_i, I, T_1 = 1) > Pr(B_i - C_i > 0 | \hat{B}_i, I, T_1 = 0) \quad (1)$$

In other words, the treatment's effectiveness at encouraging Bayesian updating is likely conditional on a company's prior beliefs and knowledge about the trade war. It is not easily apparent what sort of empirical relationships we should expect from this model as it depends on parameters for which we do not have measures a priori, such as the average level of expected benefits in the population of company managers. Based on intuition as well as our reading of the literature, we surmised that the information treatment would be most efficacious for companies who expect moderate benefits and have moderate amounts of information so far. Those at either end of the spectrum—those most benefited and those most harmed by the trade war—may have already paid for the information, so our treatment would have minimal effect. We expressed these intuitions in our pre-registration through the following two hypotheses:

H1. Presenting firms with information about the costs of the trade war will increase the firms' political action opposing the war.

H2: The effect of presenting firms with information about the possible rise in a firm's input costs is likely to be greatest for firms with weak prior beliefs about their exposure to tariffs.³⁵

In short, the first hypothesis reflects our expectation of the average treatment effect, that is, averaging across all businesspeople, with varying beliefs and information about the trade war. Our initial prior was that providing information about the trade war's effects on their businesses should spur political action against the trade war overall, though this hypothesis ignores variation in what managers already believe about tariffs. The second hypothesis considers the contingent or conditional effects of information based on prior beliefs about the trade war's costs. Our second hypothesis tests the core of our argument about whether companies will update rationally from prior beliefs or whether they will remain locked in partisan divides over the trade war. We note that there are other hypotheses in the pre-registration, which we discuss in the Online Appendix E.³⁶

Survey of US firms

We note that this study builds upon prior research in international political economy employing surveys and survey experiments to study how the mass public perceives trade negotiations and trade deals.³⁷ These experimental studies are very useful for knowing how trade deals will affect calculations of political actors who need to secure votes in an election, but they will necessarily obscure elite opinion, especially business managers, who by necessity comprise a small portion of the sample. By focusing on this influential yet difficult-to-sample demographic, we can pose different questions about the political ramifications of trade wars.

Specifically, we conduct an elite survey experiment between 2019 and 2020 in which firms are the unit of analysis. We construct an original sample of real firms, provide a treatment group with real (and novel) information, and measure their real political activities. To capture these micro-level beliefs and behaviors, we use a JavaScript-enabled online survey with an external R Shiny web application to deliver individualized treatment and measure outcomes. In practice, this means we field our survey to

³⁵Hypothesis is listed as hypothesis 4 in the pre-registration; we have rephrased "low" to "weak" for clarity.

³⁶The Appendix and all code and data to reproduce this paper's results are available on GitHub and in the Harvard Dataverse: <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/GWIS7G>.

³⁷Mansfield and Solodoch (2024); Brutger, Chaudoin, and Kagan (2023); Steinberg and Tan (2023); Bulman (2022)

managers and record what they do and say on behalf of their firms. Our study contributes to a growing literature that uses elite survey experiments to study processes and activities inside firms.³⁸

We present the design of the survey and the responses to the pre-treatment questions in this section, and the following section describes our experimental treatment in greater detail.

Sample

There is no obvious sample of American businesses from which to draw or contact information to use. In fact, there may be no other elite demographic that is more difficult to sample given the deluge of business-to-business marketing that managers receive on a daily basis.

In an ideal world, we could use a nationally representative sample of firms to test our hypothesis, encompassing the full range of firms from large MNCs to small start-ups. But our sampling strategy resulted in a sample of mostly small and medium businesses. As a result, we under-sampled the Fortune 500 firms that have historically been the focus of the trade politics literature.

To find a suitable sample, we employed several strategies, most of which resulted in samples of companies that were unable or unwilling to respond to our outreach. These included using web crawling to identify email addresses for a random sample of firms in Orbis, purchasing a contact list of managers from a marketing company, and aggressive phone banking by research assistants. We describe these methods and their challenges in Appendices A.1–A.3 to inform similar research designs, but here, we focus on our most successful efforts.

First, we used Facebook ad criteria to target our survey at individuals who listed themselves as managers. In the first round of data collection, only participants who affirmed that they were managers at a US company were invited to participate, and we gave each respondent a \$5 gift card. While the incentives were a helpful part of the research design given their ability to increase recruitment, the incentives also required us to perform a high level of extra diligence to validate each survey response. Using online search engines, a team of research assistants extensively vetted each of the 1,475 initial responses to ensure that it came from a manager at a legitimate US company. Research assistants validated individual responses by considering total response time, Googling the business name, following up with the respondent by email to identify their employer, and flagging multiple or suspicious IP addresses. We analyze data from 550 of these first-round responses that raised none of these concerns. Additional details on our validation procedure are available in Appendices A.5–A.6. In the second round of Facebook collection, we removed this incentive, relying on higher advertising costs to compensate and reduce post-collection validation work. We received 332 responses from this second group, and we omitted only twenty-nine respondents as not meeting the sampling criteria, mostly due to Facebook targeting errors. Finally, we removed fifty-one responses from both rounds who did not report their positions in their companies, retaining only self-identified managers.

Second, we partnered with the Chamber of Commerce of a large mid-western city to advertise our survey to their email lists and on their social media. This attracted a sample of legitimate businesses that were larger and better informed on average than the Facebook sample, although limited to one city. We incentivized these managers to participate with a lottery for a \$100 gift card. We obtained eighty-six responses this way. This sample contained some SME managers but also included some who worked for larger MNCs with international operations. Combined, the validated Facebook and Chamber of Commerce samples represent 1,279 completed responses.

We collected responses beginning in April 2019 and ending in July 2020. We note that our respondent recruitment included two exogenous events, the so-called Phase I Agreement between the Trump Administration and China and the onset of the COVID-19 pandemic. We do not believe that either event substantially changes the interpretation of our experimental design. The Phase I Agreement did not lower existing tariffs that we included in our study but rather avoided imposing even higher tariffs (which would have invalidated the treatment).³⁹ The COVID-19 pandemic was not a problem for

³⁸Findley, Nielson, and Sharman (2013); Chatterji et al. (2016); Allred, Findley, Nielson et al. (2017)

³⁹Audrey Cher, “Trump’s tariffs on China could cost the US in its fight against the coronavirus” CNBC, 13 April 2020. <https://www.cnbc.com/2020/04/13/trumps-tariffs-on-china-could-cost-us-in-its-fight-against-coronavirus.html>.

Table 1: Descriptive statistics for sample

Discrete variables		
Has government relations office	Yes (15.7%)	No (84.2%)
Business association membership	Yes (52.5%)	No (47.5%)
Respondent is a manager	Yes (75.2%)	No (24.7%)
Has taken any political action (in past 5 years)	Yes (41.2%)	No (58.8%)
Has taken political action on tariffs	Yes (21.9%)	No (78.1%)
Manufacturing sector	Yes (9%)	No (91%)
Healthcare sector	Yes (8.6%)	No (91.4%)
Retail sector	Yes (15.2%)	No (84.8%)

our subject recruitment because we utilized online methods (email and social media ads) as we describe below. Furthermore, the economic downturn of 2020 should have, if anything, heightened business sensitivity to tariffs and higher input costs.

Descriptive statistics

In Table 1, we show descriptive statistics for those firms in our validated sample. The median firm size of our sample is ten employees (the mean was 3,948), which is why we define the sample as mainly comprising SMEs even if there are some managers at large firms. Second, we note that despite what is often thought about SMEs, the firms in our sample do tend to engage in political action. 41 percent report engaging in some type of political action in the last five years, while 21.9 percent report taking action specifically related to tariffs. Only 15.7 percent report having in-house government relations but 52.5 percent belong to a business association. The modal firm in our sample is in the retail sector (15.2 percent) with manufacturing (9 percent) and health care (9.6 percent) as the other two most common sectors represented.

Our two samples, both from social media targeting and via the Chamber of Commerce, differed on a number of dimensions, as shown in Figures 1, 2, and 3. The majority of the sample were managers at SMEs, but some also worked at large firms. Unsurprisingly, the Chamber sample appears to comprise more professional and sophisticated companies than the Facebook sample. Firms in the Chamber sample are bigger, consider themselves more informed about the impact of the trade war, believe they are more harmed by the trade war, and are more likely to participate in business associations and to have a government relations team.

Research design

Information treatment

Our goal was for participants to feel that the information we provided was credible (they trusted it), novel (they couldn't find it elsewhere), and tailored to their business (not a generic assessment of costs). Existing survey experiments that provide cost information on trade tend to rely on overly general information that can be found in the public domain, resulting in fairly weak tests of the value of information.⁴⁰ Fortunately, as social scientists, we were able to sort through large datasets on intra-industry relationships and the applicability of tariffs, essentially replicating economists' efforts but with a view toward helping firms. SMEs would be highly unlikely to have this kind of technical proficiency as it involved merging and reshaping multiple datasets from government agencies and would therefore be unable to determine their exact exposure to the trade war. For example, at the time we implemented the

⁴⁰Naoi (2020)

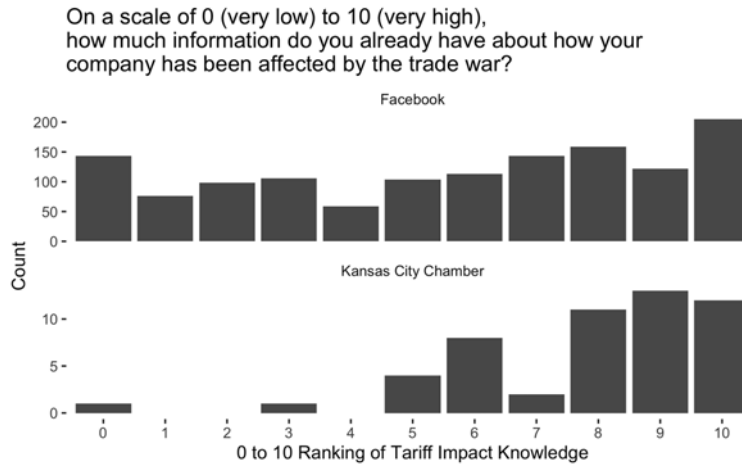


Figure 1. Comparing knowledge about trade war, by sample.

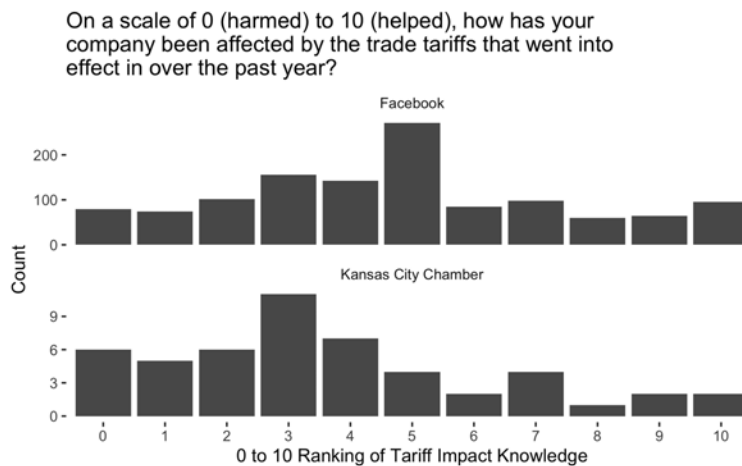


Figure 2. Comparing prior beliefs about the impact of tariffs on respondents' companies, by sample.

survey, even obtaining a list of the section 301 tariffs cost money from a private provider because the USTR did not release the tariffs in a single machine-readable source but rather spread the information across several lengthy policy documents.

To make our information credible, we developed a professional website describing the biographies of our qualified researchers and used this website to promote our study on Facebook. We also believe that one of our treatments—which used an interactive web application (described below)—made our project appear more sophisticated, at least to respondents who received this treatment. But overall, to the average SME, we presented ourselves as a knowledgeable group of experts making otherwise inaccessible data on this topic available to them.

To make our information novel, we went to great lengths to estimate the costs of the trade war by industry at a highly granular level.

First, we estimated the costs of the trade war by hundreds of industries at the North American Industry Classification System (NAICS) 3-digit level.⁴¹ We made use of input-output data from the Bureau of Economic Analysis, lists of tariffed commodities from the Petersen Institute for International

⁴¹Aggregating in this way allows us to match nearly every participant with an industry code. While we could provide somewhat more precise information using the 6-digit NAICS code, we would only be able to match a few respondents with their industry codes.

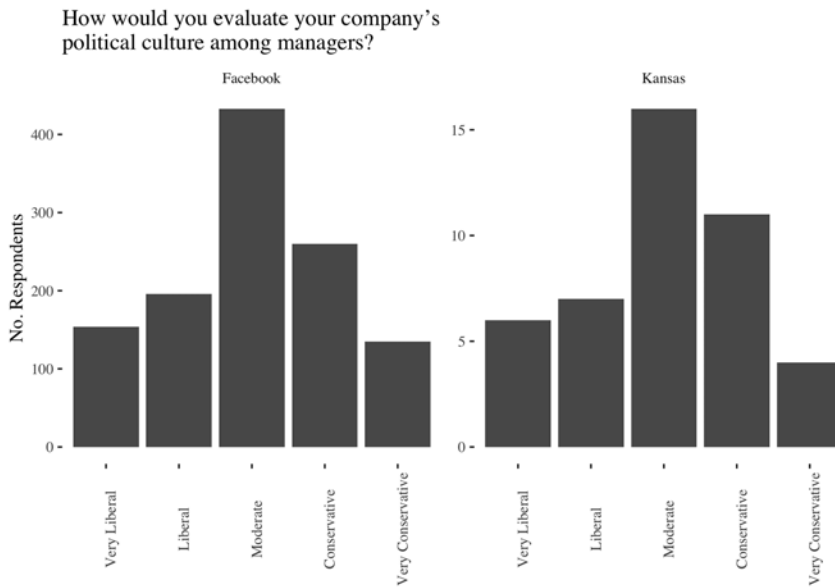


Figure 3. Comparing political culture, by sample.

Economics, and a concordance from Pierce and Schott (2009) mapping industries to commodities. We calculate how many goods used by each industry's upstream industries were subject to tariffs. We describe our estimation procedure in exact detail in Appendix C.

Using this information, we were able to provide firms with estimates of: the industries firms like them regularly buy from, the commodities used by those upstream industries, and how many of those commodities appeared on tariff lists.⁴² Firms are likely already aware of the industries they buy from, not because they have access to data but because they know their own purchases. But they are much less likely to be aware of variations in how much those upstream industries have been affected by tariffs. This would require expertise in another industry's supply chain dynamics and not just their own. By identifying the commodities they use and the appearance of those commodities on tariff lists, we were able to give a rough sense of how a firm may be impacted by tariffs. We believe this is information that was novel to them and is more informative than other generic estimates of the cost of the trade war to the economy as a whole.

To make our information tailored, we developed a platform that would show the correct estimate for a respondent based on the information they provided to us. We used an online survey and collected initial demographic questions, including a two-stage drop-down menu to help the respondent identify their firm's industry at the NAICS 2-digit level. This variable determined the information the respondent subsequently received, which was provided at a slightly higher level of aggregation (NAICS 3-digit codes).

All respondents, both treatment and control, were informed of the overall costs of the trade war to the US economy. We included this information in control to ensure that the treatments were not just priming respondents about the trade war. Specifically, we told them:

Please read the following information about the trade war and your company, and then scroll to proceed with the survey. The imposition of tariffs in 2018, recent studies show, cost US consumers and companies \$1.4 billion a month and will force companies to redirect \$165 billion per year worth of imports affected by tariffs. Furthermore, \$121 billion of companies' exports to foreign markets have been harmed by retaliatory tariffs posed by other countries.

⁴²Descriptive statistics of the number of tariffed input products that each industry faced appear in Appendix Figure A5.

(a) **We've crunched some numbers for you.** Using data from the Bureau of Economic Analysis, we have identified the most tariff-affected industries that provide important inputs to companies in your industry. These include:

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Input to Your Firm	Tariff	Average Tariff Rate (%)	Number of Products with Tariff	Proportion of Total Products with Tariff (%)
Cement and Concrete Product Manufacturing	Section 301 (China)	17.5	12	85.2
Motor Vehicle Parts Manufacturing	Section 301 (China)	17.5	147	93.6

Static Treatment

(b)

Step 1: Start By Selecting Your Firm's Industry:

Your Firm's Top-level Industry:

Your Firm's Industry Sub-group:

By our calculations, you may have spent up to \$7,360.46 due to the recent tariff actions of the U.S. government.

[What Can My Firm Do](#)

Step 3: Enter the amount your firm paid for products from these industries since July 2018.

Cement and Concrete Product Manufacturing:

Plastics Product Manufacturing:

Step 4: Download or copy and paste your data by clicking on one of the buttons below the table.

Summary of Tariff Costs

Input Name	Proportion Industry Products with a Tariff	Tariff Breakdown	Number of Products with This Tariff	Average Tariff Rate	You Spent	Tariff Cost
1 Cement and Concrete Product Manufacturing	85%	Section 301 (China)	12	18%	\$10,000.00	\$1,491.12
2 Plastics Product Manufacturing	67%	Section 301 (China)	108	18%	\$50,000.00	\$5,869.34

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Dynamic Treatment

Figure 4. Examples of treatment.

Next, we provided respondents with their tailored information. We randomized how we provided this information. Respondents in the “static” treatment were provided with the top six tariff-affected industries of their firm and how many of the commodities used by those industries appeared on tariff lists. An example appears in Figure 4a. For each input industry, we report the number of products that the industry uses that appear on tariff lists, the proportion of all of its used products that appear on tariff lists, and the average tariff rate for tariffed products. For these individuals, we introduced this list by telling them:

We've crunched some numbers for you. Using data from the Bureau of Economic Analysis, we have identified the most tariff-affected industries that provide important inputs to companies in your industry.

However, individual firms may look different from their industries. We therefore also developed a “dynamic” treatment, in which firms were invited to use an interactive Shiny application that could provide even more tailored information. An example appears in Figure 4b. Managers were invited to record the amount their firm purchased from each upstream industry. As in the static treatment, we reported the number of tariffed products, the proportion of products that were tariffed, and the average tariff rate. We also provide a back-of-the-envelope calculation of the costs they may have paid due to tariffs.⁴³ The dynamic treatment allowed for even greater granularity than we were able to provide to respondents just based on their industry code, which would in theory make the information even more tailored and novel. Firms in the dynamic treatment condition were provided with credentials to access the web application. Our introduction to this treatment condition read:

We have developed an online application to allow you to calculate precisely how much extra your firm may have paid for goods and services as a result of the tariffs. The application is available exclusively to you because of your participation in our study. You can access the application here.

In practice, few individuals clicked through to engage with our app. Once respondents were in the app, we had no control over the information they obtained for themselves. In contrast, we were sure that all respondents in our static treatment received at least some information about their industry, and we knew what that information was. We crossed these treatments in a factorial design, so some respondents received both the static and dynamic treatments, while others received no tailored information at all (control).

To simplify our main analysis, we focus on our static treatment, so we code a 1 for a respondent who has received the static treatment and a 0 otherwise. We included both treatments not knowing which mode of delivery would best communicate information, but the mode of delivery was not itself our object of study, although we report the differences between the overall effects between these two modes.

We wish to acknowledge a few imperfections of the estimates we provided respondents. While we tried our best to provide respondents with accurate information, there is only so much we can do with the data we have. We are on firmest footing with the static treatment, where we simply describe industries based on how many of their products appear on tariff lists. This information is descriptively true, and most respondents would be unable to access this information. However, some products may be used in far larger quantities than others, and we would have required a much more sophisticated econometric analysis to estimate this, let alone communicate it to respondents. Particularly in the dynamic treatment, we do have to make some strong assumptions in order to estimate the cost of tariffs. In addition to assuming equal consumption of all products, we assume that upstream industries pass on the entirety of tariff costs to downstream industries. We would have needed granular data on tariff pass-through or highly advanced econometric models in order to estimate what share of the costs respondents provided must have been attributable to tariffs. As a result, we provide only a back-of-the-envelope estimate, and we present this as an upward bound estimate with the phrase “you may have spent up to . . .” In short, we tried our best to provide accurate information that was superior to what participants would otherwise have, but we were open about the data’s limitations with our respondents.

What matters most to our study is not the information’s accuracy but whether participants felt it to be credible, novel, tailored, and most importantly, useful. We doubt that most of the managers represented in our study would critique the assumptions behind our estimates in the way that social scientists would, given that managers are perfectly aware they do not have perfect information about their firm’s economic environment. One clue that we succeeded in this is that our most “effective” treatment was the combined static/dynamic treatment, despite the fact that very few participants engaged with the dynamic platform. We believe the existence of the app enhanced our credibility, but respondents perhaps lacked the commitment or confidence to dive into the details.

⁴³We generate this estimate using the following equation: amount spent X proportion of products that have tariffs X average tariff rate = tariff cost.

Table 2: Outcome measures

Interest	Action (oppose)	Action (support)
Invite someone to participate in this study	Provides their email address	Provides their email address
Ask your Congressperson to [o] the trade war	Clicks link to Americans for Free Trade (write-in campaign)	N/A*
Donate to governors who [o/s] tariffs	Clicks link to donate to a governor	N/A*
Sign a petition [o/s] the trade war	Clicks link to sign the petition “Republicans Fighting Tariffs”	Clicks link to sign petition from American companies seeking protection
Donate to Congresspeople who [o/s] tariffs	Clicks link to donate to sponsors of the Import Tax Relief Act	Clicks link to donate to sponsors of Fair Trade with China Enforcement Act
Join Facebook groups [o/s] the trade war	Likes “Tariffs Hurt the Heartland”	Likes “American Jobs Build America”

*Note: We were unable to find a write-in campaign in support of the trade war or governors who publicly supported the trade war, so these action items are missing for tariff supporters.

Political action outcomes

Following treatment, we measure firms’ willingness to take political action. We begin by telling respondents that we will present them with a list of possible actions they can take to support or oppose the tariffs, and we ask which list they would like to see (or both).⁴⁴ This helps us distinguish their policy preference from their willingness to take political action. We then show them a list of actions they can take.⁴⁵ We phrase options generally (e.g., “Donate to Congresspeople who [oppose/support] tariffs”) and avoid providing details (e.g., specific legislators) until later. This allows us to compare this measure across opponents and supporters. Our outcome measures appear in Table A1. By measuring a variety of outcomes, we capture diverse ways managers may participate politically. We also reduce the potential for noise in any single measure to drive our result.⁴⁶

Finally, we measure political action by tracking whether they click the provided link. While it is impossible for us to know whether they donate or sign after clicking the link, at minimum, clicking the link represents the cost of the individual’s (uncompensated) time. Relying on this behavioral outcome improves the external validity of our elite survey experiment from standard surveys of policy preferences. In Table 2, we summarize the types of political actions available to respondents.

Estimation strategy

We test our hypotheses by estimating the sample average treatment effect (ATE) of providing information and by estimating local ATEs that are conditional on respondents’ prior beliefs. For our main analysis, we use logistic regression of a dummy variable indicating whether a respondent selected any action to oppose the trade war (0/1) on a dummy variable representing whether they received any treatment. We break out our analysis by the action they selected and also by the possible treatment conditions they could have received—dynamic, static, or both.⁴⁷

All of the results presented in the main paper must be interpreted as conditional on a respondent selecting to see the list of actions that oppose the trade war. Respondents could have selected instead to

⁴⁴We select actions that are sufficiently low cost that we may observe enough respondents who choose to take them. While they may not themselves be the most effective political actions, they serve as a proxy for political action on this issue.

⁴⁵Our exact text reads: “Here’s what you can do to [support/oppose] tariffs. Select any that you are interested in and we will share more detailed information with you on the next page.”

⁴⁶For instance, the petition opposing tariffs is called “Republicans Fighting Tariffs” and so may reflect party identification.

⁴⁷Because the specific information we provide depends on the manager’s industry, we do not include industry-level controls or fixed effects in our model. We do explore heterogeneity by industry in Appendix Figure A7 and how this may be interpreted.

see the list of actions in support of the trade war, or no list at all, which would eliminate their opportunity to select the political actions of interest to us. To fully model this dependency, we include a detailed two-stage model in Appendix D that estimates the effect of treatment taking each stage of our outcome variable into account. Because this model leads to the same conclusions that we report in the main text, we leave it in the appendix and present the simpler model here for ease of discussion. Appendix D also presents the results of actions taken to support the trade war.

Treatment heterogeneity

Since we succeeded in providing tailored information, we also provided heterogeneous information. Some firms were told that they were very affected, while other firms learned that they paid few costs. Had we randomized the content of the information firms received, we could have looked at the heterogeneity of these effects too. But this information was not randomly assigned—it was determined by a firm's industry, a pre-treatment covariate.

For this reason, we are careful in our main analysis to look at the overall average treatment effect of information in the sample as a whole, averaging across this treatment heterogeneity. Since we randomized which firms did and did not receive information, we can make causal interpretations here.

But this limits our analysis in two ways. First, we cannot explore treatment heterogeneity based on the content of information in any kind of causally identified way. We do conduct such an analysis in the appendix, but we assign it no causal interpretation. Second, we cannot include industry-level characteristics as part of our empirical model. Controlling for these industry-level characteristics would also incorporate into the model the content of the information we provided, threatening our ability to causally identify the effect of providing any information overall. Furthermore, attempting to estimate local average treatment effects at the industry level would involve making comparisons between very few companies given the granularity of our data that includes hundreds of 3-digit NAICS codes (see Figure A5 in the appendix).

In short, we prioritize the benefits of a (1) causally identified research design that (2) provides sufficiently tailored information to be helpful to the respondent over the costs of making our model more precise through industry controls or exploring sectoral heterogeneity.

Results

In H1, we had hypothesized that, on average, providing managers with information about their tariff exposure would increase their likelihood of taking political action. This is not what we found. In Table 3, we regress each of the political activities on whether a respondent received any of our treatment conditions. We found a significant relationship for only one outcome, but it was in the opposite direction of our hypothesis: respondents who received treatment were, if anything, less likely to contact a member of Congress to oppose tariffs. We found null results for our other measures and for a summary measure, which is a 1 if a respondent selected any anti-tariff political action and a 0 otherwise.

Next, we separate out our overall treatment effects by the format of the treatment we provided the respondent (static, dynamic, or both). As shown in Table 4, it appears that the significant finding with respect to contacting Congress was driven by respondents who received both our dynamic and static treatments together. This treatment combination may have been slightly more powerful than the others because the static treatment communicated the findings simply and the dynamic treatment enhanced our credibility and appearance of professionalism. We interpret this to mean that the strongest possible version of our treatment did not succeed in motivating anti-tariff political action and, if anything, it backfired by discouraging respondents from taking political action. Overall, we find null results.

This very straightforward interpretation of our experiment has significant real-world implications: Efforts to improve the overall level of information about the costs of the trade war will not likely change the political activities of these small and medium-sized firms. For those who wish to cultivate more resistance to tariffs from small and medium-sized firms, publicizing information about the costs of tariffs is not a promising strategy.

Table 3: Treatment effects on actions taken to oppose trade war

	Facebook	Congress	Petition	Invite	Governor	Any
(Intercept)	-1.643*** (0.151)	-1.119*** (0.130)	-26.566 (19,876.903)	-1.410*** (0.141)	-3.248*** (0.294)	-0.764*** (0.120)
Dynamic	-0.020 (0.216)	-0.283 (0.192)	0.000 (28,266.417)	-0.075 (0.202)	0.256 (0.396)	-0.132 (0.173)
Dynamic AND static	-0.130 (0.219)	-0.468** (0.197)	0.000 (28,045.041)	-0.072 (0.201)	0.291 (0.390)	-0.318* (0.175)
Static	0.049 (0.213)	-0.172 (0.188)	0.000 (28,132.139)	0.191 (0.194)	0.236 (0.396)	-0.068 (0.171)
Num.Obs.	1,279	1,279	1,279	1,279	1,279	1,279
AIC	1,126.5	1,307.1	8.0	1,280.6	479.5	1,546.6
BIC	1,147.1	1,327.7	28.6	1,301.2	500.1	1,567.2
Log.Lik.	-559.247	-649.535	0.000	-636.280	-235.743	-769.304

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

We note that the petition outcome has widely inflated standard errors due to the fact that very few respondents selected this particular form of opposition to the trade war.

Table 4: Effect of receiving any treatment on actions taken to oppose trade war

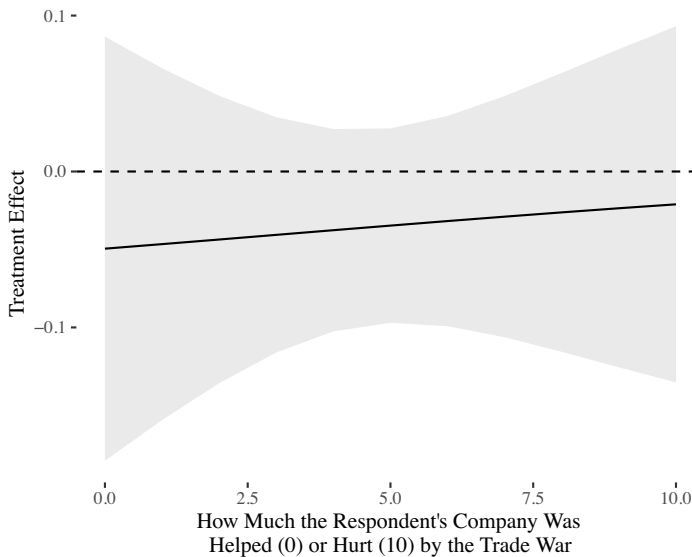
	Facebook	Congress	Petition	Invite	Governor	Any
(Intercept)	-1.643*** (0.151)	-1.119*** (0.130)	-26.566 (19,876.903)	-1.410*** (0.141)	-3.248*** (0.294)	-0.764*** (0.120)
Dynamic OR static	-0.033 (0.176)	-0.304** (0.153)	0.000 (22,966.840)	0.020 (0.162)	0.261 (0.331)	-0.171 (0.140)
Num.Obs.	1,279	1,279	1,279	1,279	1,279	1,279
AIC	1,123.2	1,305.3	4.0	1,279.0	475.5	1,544.8
BIC	1,133.5	1,315.6	14.3	1,289.3	485.8	1,555.1
Log.Lik.	-559.593	-650.643	0.000	-637.504	-235.754	-770.382

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

We note that the petition outcome has widely inflated standard errors due to the fact that very few respondents selected this particular form of opposition to the trade war.

Even our presumption that at least some firms would be encouraged to oppose tariffs (H2) proved to be faulty. In Figure 5, we present the heterogeneous effects of treatment based on respondents' prior beliefs about the impact of the trade war on their business. We had expected to see our treatment encouraging opposition among those firms with moderate beliefs about the tariffs, but not those who had strong opinions in either direction. But this is not what we found. Instead, the treatment had fairly null effects regardless of respondents' prior beliefs. Even those without strong opinions about tariffs seemed unaffected by the information we provided.

There is an important qualification to our exploration of treatment heterogeneity. Our treatment was itself heterogeneous, in ways that may co-vary with prior beliefs. Firms were provided with different information depending on their industry; firms in certain industries, such as Clothing Stores and Computer Manufacturing, were told that they had been heavily affected by the trade war, while other firms, such as those in Air Transportation and Data Processing, were informed that the trade war had not impacted them very much. A firm's industry (which determines the content of treatment), its prior



Plot shows LATEs for both the static and dynamic treatments on the second stage of the oppose trade war outcome. The treatment effects are subset by the respondents' reported beliefs about how much the trade war had helped or hurt their firm. This scale is measured from 0 (the trade war would help their firm) to 10 (the trade war would hurt their firm).

Figure 5. H2: conditional treatment effects by respondent beliefs about the positive aspects of the trade war.

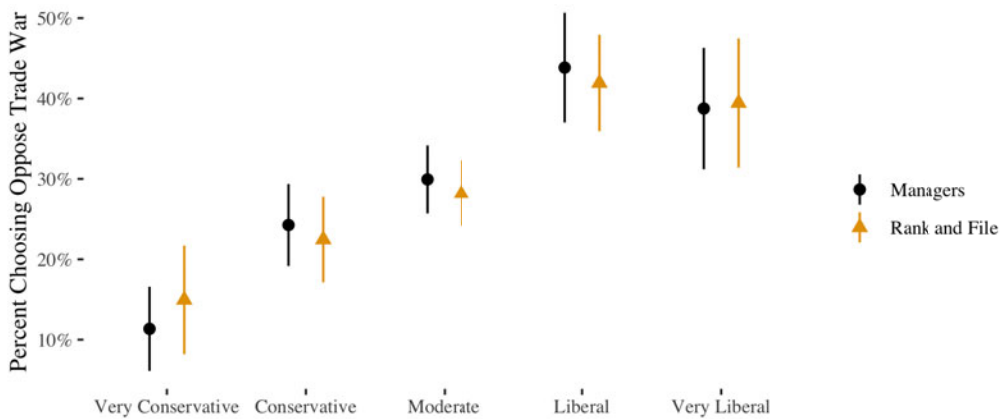
beliefs, and its knowledge about the trade war are not randomly distributed. Certain industries or types of industries may produce managers with similar prior beliefs or levels of awareness, and they will receive similar information through our treatment. But while this is an important caveat to our heterogeneity analysis, it is one that would concern us more had we found strong results in support of our hypotheses. It makes our lack of a treatment effect altogether even more surprising.

In the Appendix Figure A7, we further show our analysis of treatment heterogeneity in terms of the number of tariffs that firms were exposed to based on our own estimates of their industry's exposure. This type of treatment heterogeneity implicitly compares firms within the same industry as the number of tariffs was measured at the industry level. While a few interactive results appear significant in this pre-registered analysis, it is difficult to give them causal interpretations for reasons described above and in the appendix, and there is no emergent pattern that leads us to question our main finding of null results.

Another explanation for the lack of political action is tariff pass-through. Economists have found that there is nearly complete pass-through in the first year of the trade war,⁴⁸ meaning that Chinese exporters were not lowering prices in the short run and that US importers were absorbing the cost. It is possible that some US importers can pass on the cost of tariffs to consumers by increasing prices. If all competitors within the same industry pass on the cost of tariffs to consumers, then there would be less need for any firm to take political action. However, a recent study shows that many US retailers reduced the profit margin on their sales of tariff-affected goods rather than increasing prices.⁴⁹ If this is true then, larger firms should be better able to absorb the costs more than SMEs can because their economies of scale and market power give them wider revenue margins relative to SMEs. Thus, we should still expect SMEs exposed to tariffs to face more pressure on their bottom line and their managers should be more likely to take political action. Additionally, our randomization of treatment should be orthogonal to firm or industry dynamics and address concerns about causal inference.

⁴⁸Amiti, Redding, and Weinstein (2019)

⁴⁹Cavallo et al. (2021)



Plot shows the survey proportion selecting at least one opposition to the trade war outcome subset by the political culture of the firm reported by the respondent for both management and rank-and-file employees in the company. The dependent variable is a 1 if the respondent selected any action to oppose the trade war, 0 otherwise.

Figure 6. Role of political culture in explaining opposition to trade war.

Discussion and exploratory analysis

Our main findings suggest that small- and medium-sized firms would not behave differently if only they were better informed. Receiving industry-specific estimates of the toll taken by the trade war does not lead them to oppose tariffs, overall, or even among a subset of firms who had not already arrived at a strong belief about these issues. This surprised us since theories of political economy tend to treat firms as rational actors who update behavior based on new information.

We therefore explore a different factor that could drive the activities of small- and medium-sized firms: political ideology. Perhaps small- and medium-sized firms behave more like individual consumers than they are like the firms of our theories; they may act on a set of ideological beliefs rather than a pragmatic cost-benefit analysis. To consider this, we asked managers to characterize the “political culture” of their firms, ranging from very conservative to very liberal.

We find that political culture is an extremely strong predictor of a firm’s decision to oppose the trade war. In Figure 6, we report probabilities of opposing the trade war for each level of a firm’s political culture. Those who reported working at firms with a very conservative culture had a probability of selecting an opposition outcome of only 10 percent, while half of those who worked at liberal or very liberal companies selected an opposition outcome. While this pattern makes sense given current politics, we note that it departs sharply from historical precedent, as left-leaning companies used to support trade restrictions thought to benefit American workers and right-of-center firms fiercely defended free trade. These findings suggest that political ideology plays an important role in beliefs about the trade war.

While these findings are observational, the magnitude of these associations is strikingly large. We suspect that information acquisition and belief formation are heavily shaped by the political views held by their employees and managers. If true, this would supply an alternative explanation for Zhu *et al.* (2021)’s finding that firms in Republican districts are less likely to oppose the trade war. While they suggest this is for fear of political backlash from their consumers, it seems quite plausible that managers of those firms are more likely to lean Republican and base their assessment of costs and benefits on their partisan beliefs. Another possibility is that firms in Republican districts have been more likely to secure subsidies or tariff exemptions that insulate them from the effects of the trade war.⁵⁰ We think it unlikely this explains our findings, as very few of the firms in our study would have applied for exemptions, and for those who did, their political culture would not be observable to the USTR (only their district). The

⁵⁰Cavallo *et al.* (2021)

strong patterns we observed at the level of the firm (political culture) and not just the district (partisanship) suggest that a partisan explanation, especially in the polarized environment heightened by Donald Trump's ascendance, may explain trade politics where conventional explanations about concentrated costs and diffuse benefits fail. A firm's cost-benefit calculation is likely influenced by partisanship in the sense that they are differently incentivized to seek out different kinds of information.

Our Figure A9 in the appendix is informative in this regard as it shows the reasons why respondents did not choose any of our political actions broken out by whether they had selected to see opposition, support, or both opposition and support actions. The most popular reasons given were that the political activities would not change anything, that the firm was not affected by the trade war, and that the firm was worried about political backlash if they took a position. Relatively few companies reported that they did not take any of our actions because they had previously taken political action. On the whole, this information suggests that political polarization was an important factor in firms' decision-making whether it led to stricter adherence to the company's political culture or to avoidance of political action due to the higher possibility of backlash from consumers.

Conclusion

The trade wars initiated by the Trump administration created a classic collective action problem for firms: while the majority would benefit through political mobilization to push back against tariffs, the modal response was political inaction. We speculated that a possible cause of political inaction is the lack of information about the cost of tariffs among small and medium-sized enterprises (SMEs). The selection of products for inclusion or exclusion on the USTR tariff lists was byzantine and not very transparent. Complex global supply chains both exacerbate the economic consequences of tariffs but also complicate firms' abilities to accurately assess the costs and benefits. SMEs may not import directly from China, but they still likely face higher input costs if their suppliers pass on the cost of tariffs to them.

Our pre-registered expectation was that providing firms with information about how they are impacted by tariffs could, in theory, prompt some less informed SMEs to take political action through rational Bayesian updating. SME policy preferences matter because their managers still have the ear of the local member of Congress and make up the membership of influential industry associations, even if they may not directly retain lobbyists in Washington. We tested this claim through an original survey experiment with an elite sample. Our informational treatment was largely ineffective in the sample as a whole. We found that information alone is not sufficient to motivate political action by firms. This is true even for firms that believe themselves to be hurt by tariffs.

By exploring the heterogeneity of our treatment effects based on managers' prior beliefs, we learned that SMEs are much more similar to individual voters than firm-level theories of trade politics generally suppose. In hindsight, this makes sense because firms are ultimately run by human beings, and the same cognitive processes that drive political behavior at the individual level may then drive it at the corporate level as well. Becoming more informed about one's economic interests is necessary but not sufficient for political action. Our results suggest that managers of US firms are not always rational actors who make utility-oriented decisions. Like other voters, they inhabit political cultures that inform their beliefs about what is in the national interest, and they take political actions that reflect those cultures. We contend that political action among small- and medium-sized businesses remains an underexplored area of study that could serve as a bridge between the literature on the political economy of firms and the literature on individual trade attitudes that draws more heavily on political psychology.

Our findings also help explain why trade wars are harder to politically oppose than previously thought. The Biden administration has kept all of the Trump-era tariffs on Chinese imports in place through 2024 and implemented new tariffs on Chinese electric vehicles, batteries and solar panels. Former President Trump has floated the idea of raising tariffs on all Chinese imports to 60 percent if he returns to the White House.⁵¹ The escalating US–China trade war threatens to erode the rules-based

⁵¹Diaz, Alex. "Trump Floats Chinese Goods Tariff Exceeding 60% If Elected" Bloomberg, 4 Feb. 2024, <https://www.bloomberg.com/news/articles/2024-02-04/trump-floats-chinese-goods-tariff-of-more-than-60-if-elected?embedded-checkout=true>

international order. The inability of the World Trade Organization (WTO) to effectively resolve the ongoing US–China trade dispute cast doubt on its ability to enforce trade rules and mediate disputes between major economies. The United States has also blocked the appointment of new judges to the WTO’s Appellate Body, effectively paralyzing the dispute settlement system, to protect itself from legal backlash to its unilateral use of tariffs.

Businesses are generally thought to have more concentrated economic interests and be better informed than individual voters in trade politics. But in a world with political polarization, managers of firms may be less likely to act on those interests, or may perceive them through ideological lenses. This holds important policy implications because the traditional means of influencing trade policy may not be sufficiently responsive during a trade war. Businesses, even when presented with information about the negative economic impact of trade policies like tariffs, may not be more likely to take political action. This suggests that business associations opposed to tariffs must do more than simply providing objective economic data to encourage members to engage in the political process of contemporary trade policy. The findings about the salience of political ideology among managers invite further research and suggest that, as long as the bipartisan consensus around viewing tariffs through a national security rather than an economic lens persists, a rollback of Trump-era tariffs will remain unlikely.

Supplementary material. The supplementary material for this article can be found at <https://doi.org/10.1017/bap.2024.41>

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