Firm Lobbying, Trade Rhetoric, and the Unraveling of the U.S.-China Free Trade Consensus

Brian Leung*

Last revised: June 18, 2025

Abstract

What shapes legislators' positions on free trade? Voter-driven models emphasize electoral pressure arising from foreign import competition in promoting protectionism but overlook the role of firm lobbying and the fact that voters are often driven by non-economic concerns. I argue that some firms mobilize an anti-trade coalition through lobbying and help legislators mitigate electoral backlash by strategically framing trade issues in terms of detrimental foreign actions, thereby activating concerns such as in-group favoritism and reciprocity among voters. Empirically, I study the unraveling of U.S.-China free trade consensus from 2001 to 2022. I develop a novel approach to measuring firms' preferences, leveraging large language models and financial filings from all U.S. publicly traded companies. I construct original measures of firms' lobby-transmitted interests based on lobbying network data and develop an empirical framework to test their influence on legislative rhetoric. I present three main findings. First, firms citing policy discrimination or intellectual property violations in China promote anti-trade rhetoric among legislators they lobby. Second, firms benefiting from engagement in global value chains (GVCs)—whether in export, import, or FDI—with China are less effective in silencing anti-trade critics and fail to elicit pro-trade voices, reflecting a mobilizational asymmetry in pro- and anti-trade firms. Third, firm lobbying is a mechanism of influence distinct from electoral politics and unconfined by electoral geography. These findings challenge the assumption that voters are the primary drivers of the recent political backlash against globalization and highlight the central role of firm lobbying in this shift.

*Ph.D. Candidate, Department of Political Science, University of Washington. Email: kpleung@uw.edu. I thank Susan Whiting, Victor Menaldo, Chris Adolph, Iain Osgood, Alison Johnston, and Clara Park for insightful comments on the earlier drafts. This research is supported by the APSA Doctoral Dissertation Research Improvement Grant.

1 Introduction

U.S.-China free trade relations were one of the pillars underpinning the accelerated globalization of the post-Cold War era. This relationship culminated in Congress granting Permanent Normal Trade Relations (PNTR) to China in 2000, followed by China's entry into the World Trade Organization (WTO) the next year. Within two decades, China ascended as a manufacturing powerhouse, while engendering growing political backlash in the U.S. In recent years, a "new, bipartisan consensus" on China has emerged on Capitol Hill (Carothers and Sun 2023), reflecting a widespread belief that free trade with China should be subordinated to domestic economic and national security objectives. Yet, we lack a comprehensive account of how the free trade consensus unraveled, which led to recurrent U.S.-China trade conflicts and a broader crisis of confidence in the future of globalization.

Research on the economic determinants of legislators' trade positions largely follows two models. District-level models demonstrate economic conditions of their constituencies shape legislators' support for protectionist policies (Hiscox 2002; Baldwin and Magee 1998; Beaulieu 2002; Moore, Powell, and Reeves 2013), but remain relatively ambiguous about the primary causal agent. Voter-driven models explicitly put voters—whose interests may be adversely impacted by globalization in general, or by China's import competition in particular—as the main driver of legislators' positions on trade and cultural issues (Feigenbaum and Hall 2015; Kuk, Seligsohn, and Zhang 2018; Campello and Urdinez 2021; Meyerrose and Watson 2024).

These models find support in recent studies that offer causal evidence linking the China shock to heightened economic nationalism and authoritarian values among individuals (Colantone and Stanig 2018a, 2018b; Ballard-Rosa et al. 2021; Ballard-Rosa, Jensen, and Scheve 2022). However, other studies contradict the voter-driven models, showing that trade issues have low salience among voters, who rarely hold politicians accountable for deviations and whose views on trade are primarily driven by non-economic concerns (Guisinger 2009; Mansfield and Mutz 2009; Mutz and Kim 2017; Chilton, Milner, and Tingley 2020). In short, while trade-induced protectionism appears among both voters and legislators, current evidence does not support a clear causal link from the former to the latter.

This article argues for a third model focusing on firm lobbying (Milner 1988; Osgood 2016;

Kim 2017; Kim and Osgood 2019). I examine how firm lobbying shapes legislators' rhetoric on U.S.-China trade relations from 2001 to 2022 (107th–117th Congress). I argue that some U.S.-based firms are able to politicize trade with China by citing Chinese actions detrimental to their business interests. These firms, in turn, lobby legislators to publicly signal discontent toward China, partly to influence the agenda of the Executive Branch's trade negotiations with their Chinese counterparts. Legislators are particularly receptive to anti-trade rhetoric involving Chinese entities (whether the Chinese government or firms) because it triggers concerns about reciprocity and in-group favoritism among voters (Mutz and Kim 2017; Chilton, Milner, and Tingley 2020), thereby reducing the likelihood of electoral backlash. In contrast, firms benefiting from trade with China are less effective at silencing anti-trade critics or mobilizing pro-trade advocates in Congress. This mobilizational asymmetry in firm lobbying plays a critical role in explaining the unraveling of U.S.-China free trade consensus over the past two decades.

To test these arguments, I introduce a novel empirical approach to measuring firm-level interests in China and assessing their lobbying influence. I compile 58,960 financial filings submitted to the U.S. Securities and Exchange Commission (SEC) from 2001 to 2022 by 11,300 unique publicly traded companies that mention China. Leveraging open-source large language models (LLMs), I annotate each firm's discussion of China with key categories of firm interests—export, import, foreign direct investment (FDI), policy discrimination, and intellectual property (IP) violations—in a transparent and efficient manner. I then construct original measures of firms' *lobby-transmitted interests* to legislators based on lobbying network data (Kim 2018). Finally, I examine how these firms' interests shape legislators' rhetoric on trade with China, drawing from the Congressional Record spanning the 107th to 117th Congress using similar LLM-based techniques.

I present three main findings in this article. First, I show that firms citing policy discrimination or IP violations in China increase anti-trade rhetoric among legislators they lobby. I account for numerous alternative explanations, showing that the relationships are not spurious results of district-level sectoral and economic characteristics, China's import shocks, politicians' military hawkishness, or past anti-trade rhetoric. Second, I show that firms benefiting

from global value chains (GVCs) engagement—whether in export, import, or FDI—with China are less effective in silencing anti-trade critics and fail to promote pro-trade voices among legislators, reflecting a mobilizational asymmetry in pro- and anti-trade firms. Third, I demonstrate that firm lobbying is a mechanism of influence distinct from electoral politics and geography: the effects of firm lobbying remain consistent across districts regardless of electoral competitiveness, and out-of-state lobbying ties are far more consequential than in-state ties.

These findings offer contributions to three strands of literature. First, while recent studies in trade politics have emphasized the role of voters adversely affected by the China shock in fueling the resurgence of economic nationalism and protectionism (Feigenbaum and Hall 2015; Kuk, Seligsohn, and Zhang 2018; Campello and Urdinez 2021; Meyerrose and Watson 2024; Colantone and Stanig 2018a, 2018b; Ballard-Rosa et al. 2021; Ballard-Rosa, Jensen, and Scheve 2022), this article shows that firm lobbying adversely impacted by the shock also played a role in the unraveling of the free trade consensus.

Second, it offers fresh empirical evidence to the ongoing debate in the lobbying literature. Results show that lobbying can work at both the intensive margin—as a legislative subsidy to supportive allies in Congress (Hall and Deardorff 2006)—and the extensive margin—as a strategic information communication to recruit intermediaries to persuade a majority (Schnakenberg 2017; Awad 2020). They also support the view that legislators can be lobbied ex post, who then act as lobbyists to influence the agenda and policy implementation of the Executive branch (You 2017; Ritchie 2018; Ritchie and You 2019).

Finally, this article demonstrates the usefulness of open-source LLMs for analyzing large-scale financial documents to generate novel firm-level data in a transparent, reproducible, and cost-effective manner (Spirling 2023; Laurer et al. 2024). This empirical approach should be applicable to a wide range of empirical studies of the effects of firm lobbying in not just trade politics but general domestic and foreign policymaking.

2 Literature and background

A vast literature in Comparative and International Political Economy investigates the economic determinants of legislators' preferences toward free trade. The canonical view holds that legislators' preferences at the micro level, as well as the political coalitions at the macro level, are primarily structured by sectoral cleavages within their geographical constituencies, especially given low inter-industry factor mobility (Hiscox 2002; Baldwin and Magee 1998; Beaulieu 2002; Moore, Powell, and Reeves 2013). Since export-oriented sectors benefit from free trade, they are expected to influence their representatives to support it. Conversely, import-competing sectors who lose out from free trade are expected to steer politicians toward protectionism.

This body of work focuses on adjudicating competing trade models—those based on factoral versus sectoral cleavages (Imai and Tingley 2012)—using district-level economic data. It remains relatively ambiguous about the primary causal agent, often referencing the simultaneous influence of industry-based lobbying and voters' pressure. A recent strand of the literature, however, posits explicitly the primary role of voters in driving legislators' preferences on trade. Inspired by the China shock literature in economics and exploiting an instrumental variable approach (Autor, Dorn, and Hanson 2013), a series of studies have documented how import competition from China causally increased protectionism, economic nationalism, or hostility against China among politicians (Feigenbaum and Hall 2015; Kuk, Seligsohn, and Zhang 2018; Campello and Urdinez 2021; Meyerrose and Watson 2024). Feigenbaum and Hall (2015), for instance, argue that legislators respond to import shocks "in order to fend off electoral harm" because "*citizens demand* more protectionist policy" (emphasis added). While they find that China import shocks made Members of Congress vote in a more protectionist direction, they fail to find direct evidence that electoral responses are the mechanism: incumbents in districts affected by import shocks are no more likely to face a primary challenge, receive less vote, or not being reelected (Feigenbaum and Hall 2015).

Voter-driven models of trade politics receive mixed support from individual-level analyses. Consistent with these models, import competition from China has been shown to heighten economic nationalism and authoritarian values among individuals (Colantone and Stanig 2018a,

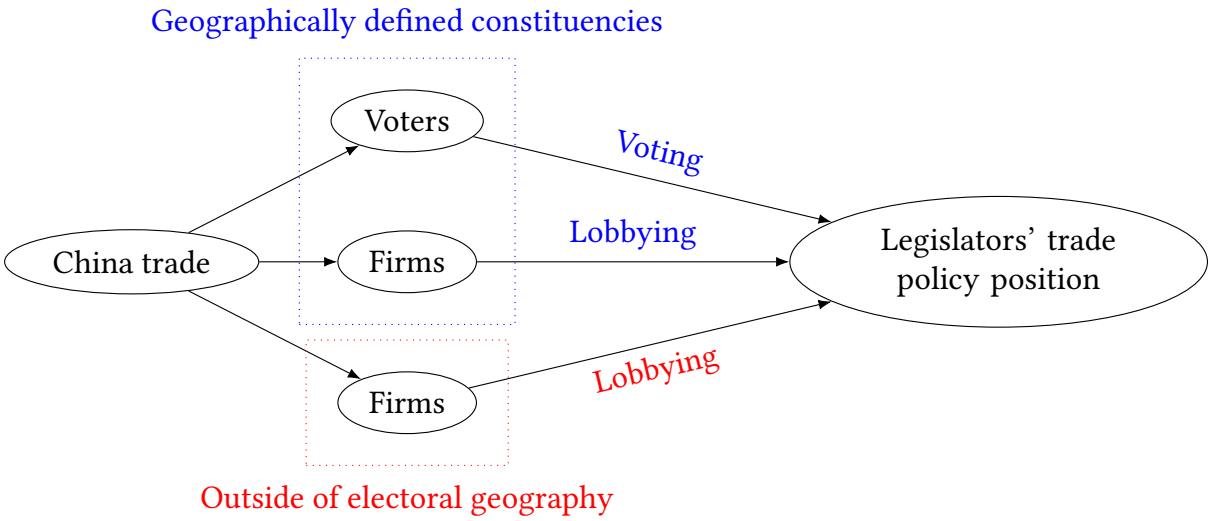

Figure 1: Summary of the causal models of legislators' trade policy position

2018b; Ballard-Rosa et al. 2021; Ballard-Rosa, Jensen, and Scheve 2022). However, voter-driven models are contradicted by the broader evidence in trade politics, showing that trade is a low-salience issue among voters who rarely hold politicians accountable for deviations (Guisinger 2009; Mansfield and Mutz 2009). Instead of following narrowly defined economic self-interests, voters' views on trade are primarily driven by non-economic concerns, such as in-group favoritism and reciprocity and fairness (Mutz and Kim 2017; Chilton, Milner, and Tingley 2020). This tension is also noted by Milner and Tingley (2011), who asked: "Why would legislators form preferences around the economic effects of trade on their constituents if the constituents themselves do not?"

One answer to this puzzle is to put firm lobbying back at the center of the current debates over the backlash against globalization, consistent with the earlier literature that emphasizes industry-based lobbying (Schattschneider 1935) and further expanded by the firm-centric models of trade politics (Milner 1988; De Figueiredo and Richter 2014; Osgood 2016; Kim 2017). Import shocks, after all, affect not only voters but also firms. Both voter- and firm-driven models produce the observationally equivalent association between trading with China and legislators' trade policy position, but the causal agents (voters versus firms) and mechanisms (electoral pressure versus lobbying) are decisively different, as illustrated in Figure 1. Furthermore, firms can gain access to and influence politicians even if they fall outside of geographically defined constituencies—lobbying represents a channel of influence not neces-

sarily constrained by electoral geography. A firm-lobbying centric perspective overcomes the common problem found in district-level and voter-driven models, which focus on geographically defined constituencies and largely ignore non-geographical mechanisms of influence (Fordham and McKeown 2003).[1]

Firms' preferences on free trade are heterogeneous, primarily shaped by the varying degree to which firms engage in foreign trade and their position in the global value chains (GVCs). Within industries, there is tremendous variation in firms' participation in export, import, and foreign direct investment (FDI), which shapes their ability to benefit from free trade and hence their pro-trade preferences (Kim and Osgood 2019; Kim et al. 2019). I build on this literature by emphasizing the heterogeneity of firms in their GVC engagement with China and, consequently, their divergent policy preferences toward U.S.-China trade relations and their lobbying strategies.

The literature of lobbying provides further insight into the strategic behaviors of firms. One particular perspective models lobbying as an economic exchange, essentially involving politicians selling protectionist policy for financial support from businesses (Grossman and Helpman 1994). However, in the context of U.S.-China trade politics, because Congress granted PNTR to China in 2000, it lost its leverage to influence the bilateral relations through the annual congressional debate and vote on renewing China's Most Favored Nation (MFN) status. Since then, very few pieces of legislation have successfully passed Congress that fundamentally restructured the overarching trade relations. A vote-buying model of lobbying thus has little explanatory power in this context.

However, firm lobbying in Congress remains highly relevant in shaping U.S.-China trade relations. Alternative models suggest that lobbying can function as a subsidy to allied legislators who are already supportive of one's cause (Hall and Deardorff 2006); it can also be a form of strategic information communication to recruit intermediaries who, in turn, help per-

1. One important exception is the strand of literature that focuses on campaign contributions. Studies have shown that campaign contributions from businesses increased legislators' support for the North American Free Trade Agreement (Baldwin and Magee 1998; Box-Steffensmeier, Arnold, and Zorn 1997; Steagall and Jennings 1996), the General Agreement on Tariffs and Trade (Baldwin and Magee 1998), and a host of free trade bills (Milner and Tingley 2011). However, this broad aggregation of individual firms and interest groups into "businesses" (versus "labor") ignores variations not only across sectors (as emphasized by the sectoral cleavages literature) but also *within* sectors. It also assumes away the collective action problem inherent in organizing firms along sectoral lines and influencing policymaking.

suade a majority to build consensus and a winning coalition (Schnakenberg 2017; Awad 2020). The goal of firms and legislators, apart from directly passing legislation, is to shape the policy implementation or agenda of the Executive branch (You 2017; Ritchie and You 2019; Ritchie 2018). From this perspective, introducing a bill or a resolution—even if it does not pass—or initiating and cosigning a joint letter to the Executive enables legislators to publicly signal their preference intensity, mobilize intermediaries to build a broad coalition, and exert pressure on the Executive.

One illustrative example is the issue of currency manipulation, or misalignment. Since the mid-2000s, U.S. legislators have long accused China of artificially undervaluing the Renminbi (RMB) to boost Chinese export competitiveness, unfairly harm American manufacturers, and exacerbate the U.S. trade deficit. During the 109th Congress (2005-2006), Senators Charles Schumer (D-NY) and Lindsey Graham (R-SC) introduced a bill (S.295) that called for a 27.5% tariff on Chinese goods if China failed to address RMB undervaluation. They strategically delayed a vote on their bill twice: first in June 2005, after securing reassurances from then–Federal Reserve Chair Alan Greenspan and Treasury Secretary John Snow that "China would change its policies and the Bush administration would press harder on the issue"; and again in March 2006, after the two senators traveled to China and met with officials, hoping that the Chinese side would make concessions during Chinese President Hu Jintao's upcoming visit to the White House in April. Shortly after the visit, the Bush administration chose not to designate China as a currency manipulator. Schumer and Graham formally requested a vote on their bill on September 14, the same day that then–Treasury Secretary Hank Paulson embarked on his first visit to China.

While the Schumer-Graham bill eventually died in the Senate Finance Committee, this episode demonstrates how legislators can act as "lobbyists" (Ritchie and You 2019) to exert pressure on the Executive and shape the agenda of the bilateral trade negotiations. This dynamic can also be observed during the Obama administration's annual U.S.–China Strategic and Economic Dialogue. In 2010, 130 members of Congress signed a joint letter, urging the Commerce and Treasury Departments to address China's currency manipulation[2]; the Sen-

2. The joint letter campaign received endorsement from interest groups such as the United Steelworkers (United Steelworkers 2010).

ate passed the Currency Exchange Rate Oversight Reform Act the next year, to which China expressed strong condemnation and opposition. Under congressional pressure, the Obama administration continued to raise the issue with its Chinese counterpart and, during the 2013 Dialogue, concluded that "significant advances" had been made over the preceding four years, noting that "the RMB exchange rate has appreciated" (Burns 2013).

3 Hypotheses

I propose three hypotheses in line with the firm-centered literature, predicting how firms' engagement and position in GVCs shape their interests in China and, correspondingly, the legislators they lobby. First, firms that depend on China as an export market for their products are likely to be pro-free trade, as their revenue directly depends on the openness and stability of the free trade regime. These firms are, therefore, likely to lobby legislators to transmit their preferences and steer their voting behavior and rhetoric in a pro-trade direction. Thus, I hypothesize:

Hypothesis 1 *If firms export more to China, the politicians they lobby are more likely to support free trade with China.*

Second, modern GVCs involve constellations of firms interlocked in a complex network of input-output relations. Many firms not only export products but also source intermediate inputs from abroad or directly import finished goods. These firms have an interest in maintaining a free trade regime, as trade policy instruments such as tariffs can increase production costs and thereby reduce revenue. Thus, I hypothesize:

Hypothesis 2 *If firms import more from China, the politicians they lobby are more likely to support free trade with China.*

Furthermore, firms may engage in foreign direct investment (FDI) in China as part of their production strategy. On the one hand, they may undertake horizontal FDI by establishing overseas affiliates to sell products directly to the Chinese market and expand market access. On the other hand, they may engage in vertical FDI by establishing production facilities abroad

to take advantage of cost efficiencies. These multinational firms, on average, have a stronger interest in maintaining a stable U.S.-China trade and investment regime to protect their investment abroad and continue benefiting from market access or reducing production costs. Thus, I hypothesize:

Hypothesis 3 *If firms have more FDI in China, the politicians they lobby are more likely to support free trade with China.*

Since free trade has distributional consequences and creates winners and losers, firms that face increasing competition from China have incentives to lobby legislators to curtail trade. I argue that firms' lobbying is particularly effective at mobilizing legislators when it highlights Chinese actors whose action is perceived as detrimental to U.S. business interests. The imagery of a purposeful agent such as the Chinese government actively "manipulating" the currency or a Chinese firm "stealing" foreign technologies—as opposed to the amorphous, impersonal market dynamics—is more likely to trigger concerns related to in-group favoritism, reciprocity and fairness (or the lack thereof) among voters. These non-economic considerations shape public attitudes toward free trade (Mutz and Kim 2017; Chilton, Milner, and Tingley 2020) and may allow legislators to embrace protectionist positions without incurring electoral penalties. Therefore, I hypothesize:

Hypothesis 4 *If firms cite more policy discrimination from the Chinese government, the politicians they lobby are more likely to criticize free trade with China.*

Hypothesis 5 *If firms cite more intellectual property infringement by Chinese entities, the politicians they lobby are more likely to criticize free trade with China.*

If firm lobbying operates independently of electoral politics and geography, then its effects should not vary by district competitiveness. Therefore, I expect the influence of firm lobbying on legislative rhetoric to remain consistent regardless of whether a legislator represents an electorally competitive district. Similarly, if firm lobbying is not constrained by geographically defined constituencies, then firms need not be physically located in the same state or district as the legislator. In fact, for any given legislator, there are potentially many more out-of-state

firms than in-state firms. I therefore expect lobbying from out-of-state firms to exert a greater influence. Thus, I hypothesize:

Hypothesis 6 *The effect of firm lobbying on legislative rhetoric does not depend on the electoral competitiveness of a legislator's district.*

Hypothesis 7 *Firm lobbying by out-of-state firms has a stronger effect on legislative rhetoric than lobbying by in-state firms.*

4 Data and descriptive statistics

I propose a novel text-as-data approach to measure firm-year level interests about trade with China. The key assumption is that the intensity of a firm's particular type of interest is proportional to the frequency with which it is discussed in the company's financial documents. I compile all publicly traded firms' financial filings to the U.S. Securities and Exchange Commission (SEC) as the corpus. These filings contain rich textual information in their mandated sections such as *Business Overview*, *Risk Factors*, and, more importantly, *Management's Discussion and Analysis* ("MD&A"), allowing companies to "tell its story in its own words" and discuss factors affecting their business performance (SEC 2011). Existing literature in finance and accounting has long used SEC filings for quantitative textual analyses (Loughran and Mcdonald 2016), but most studies tend to employ a bag-of-words approach or develop manual dictionaries to measure tone or sentiment, failing to capture the ambiguity and complexity of natural languages. I leverage open-source large language models (LLMs) to efficiently annotate text and generate relevant labels for a given firm-year observation in a transparent and reproducible manner, as detailed below.

For the study period 2001–2022, I compile all annual reports (Form 10-K) to the SEC, using cleaned data from McDonald (2024).[3] I focus on reports that mention any China-related keywords (China, Chinese, Beijing, CCP, or PRC), resulting in a total of 58,960 filings submitted

3. I rely on McDonald (2024)'s "Stage One Parse" data which removed all the original markup language tags (HTML, XBRL, XML) from the raw text files. Procedures like removing stop words or stemming are not required for this study because large language models perform better on the full context of natural language.

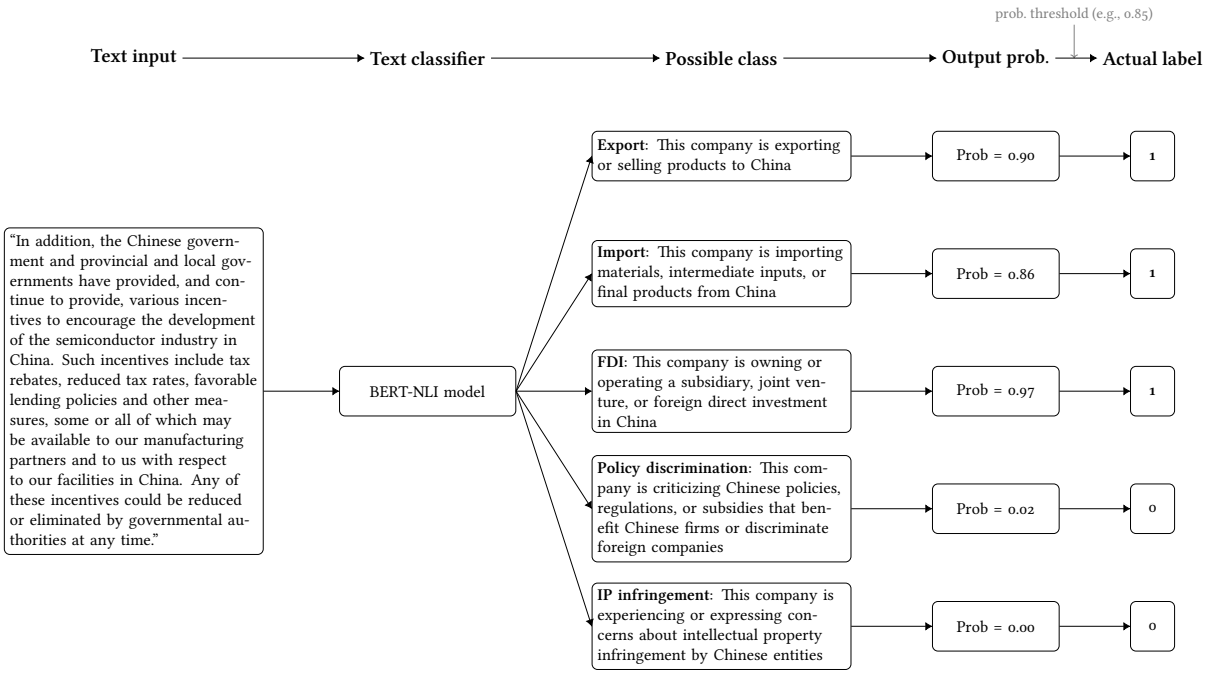

Figure 2: Annotation procedure of a sample text using a BERT-NLI classifier. The sample text is taken from the 10-K filing in 2016 by Monolithic Power Systems, Inc., a semiconductor company. The sample text illustrates the complexity in annotating financial statements: a U.S.-based company can benefit from tax rebates and favorable policies provided by the Chinese government. The full context of the sentence is needed to conclude that the firm is not criticizing such policy instruments as discriminatory. The BERT-NLI model correctly assigns a very low probability to the policy discrimination label.

by 11,300 unique companies. I segment each report into sentences, subset sentences that mention China, and augment each sentence with the two preceding and following sentences to enhance contextual understanding for downstream annotation. This procedure yields 1,063,126 China-relevant sentences, augmented with appropriate context, with a median word count of 149. These sentences constitute the input for the annotation procedure to generate labels for firm-year observations.

To efficiently annotate and generate labels for downstream analyses from this large amount of text, I employ a class of BERT-NLI models[4] that are increasingly popular in political science for text annotation (Laurer et al. 2024; Burnham 2024). These open-source models of-

4. BERT-NLI refers to a class of transformer-based models pre-trained for Natural Language Inference (NLI). In NLI, the task is to determine whether a human reading of the text T would infer that the hypothesis H is most likely true; in other words, whether T *entails* H (Dagan, Glickman, and Magnini 2006). Text annotation can be formulated as a NLI task. For example, given the text "Too many American jobs were shipped to China," the model would probably infer that the hypothesis "The author of this text supports *less* trade with China" is most likely true. We can turn the output probability into an actual label (e.g., supporting less trade with China) by applying a probability threshold.

fer performance comparable to their proprietary counterparts in classification tasks, while mitigating concerns for reproducibility and transparency in LLM-powered research (Spirling 2023). Moreover, given the large volume of text involved, these models substantively reduce inference costs by orders of magnitude compared to proprietary alternatives, enabling more efficient replication and robustness checks of model results.[5]

Figure 2 illustrates the annotation pipeline. Each sentence is fed into the BERT-NLI classifier and evaluated against five non-mutually exclusive labels. The model outputs a probability for each label, representing the likelihood that the label applies to the sentence. Actual labels can then be assigned to each sentence by applying a predefined probability threshold (e.g., 0.85). I fed all China-relevant sentences to the BERT-NLI model, which generated predicted probabilities for five business interests labels related to China.

To validate the annotation results, I first randomly sampled 200 texts and manually coded the 1,000 labels[6]. Using these manual annotations as the benchmark, I compare them to the machine generated labels and compute standard performance metrics. At a conservative probability threshold of 0.85, the BERT-NLI model achieves a balanced accuracy of 0.82, a micro-F1 score of 0.67, and a macro-F1 score is 0.69, on par with the performance in the literature (Laurer et al. 2024). The main analyses will use labels based on this probability cutoff but will also present results using alternative thresholds for robustness checks.

Figure 3 shows how frequently five types of business interests were mentioned in publicly traded firms' annual filings from 2001 to 2022. For an average firm in a given year, the most frequently discussed interest is related to FDI (5.5 times). Discussions of FDI increased following China's accession to the WTO in 2012 but began to decline after 2012. A similar pattern is observed for export interests, which were mentioned an average of 2.3 times per firm-year and also peaked in 2012 before declining. Import interests were mentioned less frequently

5. Throughout this paper, I use the `MoritzLaurer/deberta-v3-large-zeroshot-v2.0`, a 435-million parameter model publicly available on Hugging Face at https://huggingface.co/MoritzLaurer/deberta-v3-large-zeroshot-v2.0. The inference was performed locally on a consumer-grade graphics processing unit (GPU; Nvidia RTX 4090), with a total inference time of approximately 7 hours (around 150 sentences per second). Training conducted on cloud computing services like Google Colab would cost less than $10. However, using proprietary models from OpenAI via API, for example, would cost anywhere from $500 to $4,500 for a single run, potentially discouraging researchers from replicating or verifying the robustness of model results.

6. The coding exercise was conducted by an undergraduate research assistant. The detailed coding instruction can be found in the Appendix B.

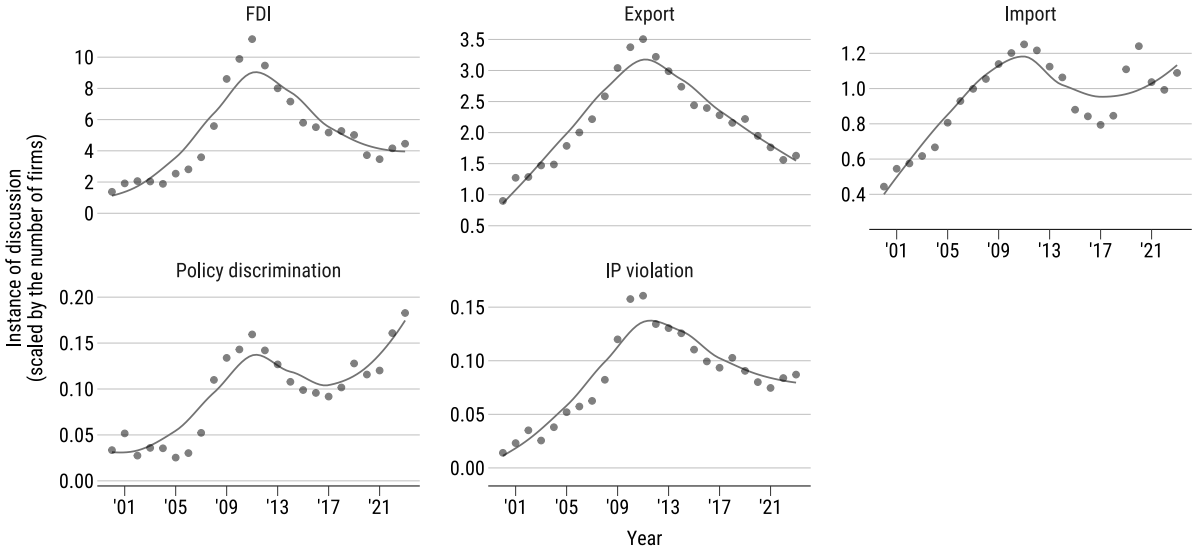

Figure 3: Frequency of discussion of business interests in China (scaled by the number of firms that discussed China in each year)

(1.0 time per firm-year) but unlike FDI and export interests, their frequency bounced back after 2017 after the initial decline since 2012. These patterns suggest the declining intensity of U.S.-based firms' export and FDI interests in China after 2012, while the importance of import from China has persisted in recent years.[7]

Discussions of detrimental actions by China were less frequent but exhibited notable trends. Both policy discrimination and IP violation were cited an average of 0.1 time per firm-year (or one in every ten firms' filings). Mentions of both issues increased after 2001 and peaked in 2012. While there has been a resurgence of referencing policy discrimination by China since 2021, IP violation has exhibited a moderate decline in recent years.

To further validate whether the annotation of financial filings meaningfully captures firms' interests in China, I follow Kim et al. (2019), who develop a framework for classifying firms based on their degree of involvement in GVCs. They distinguish domestic firms from three categories, listed in an ascending order of their GVC involvement: (1)*autonomous exporters*,

7. While multiple factors may explain the inflection point around 2012 and further investigation is warranted, these patterns are consistent with China's efforts to promote domestic consumption and promote industry upgrading, as outlined in the 12th Five-Year Plan (2011-2015). This policy pivot was accelerated by the 2008 financial crisis, which exposed the vulnerabilities of an export-driven, foreign-demand led growth model. Evidence from global input-output data also suggests that China's reliance on imported manufacturing intermediates peaked in 2005 and has declined sharply since then (Baldwin, Freeman, and Theodorakopoulos 2023). By the 2010s, China has become the least dependent on foreign suppliers among the world's four largest manufacturing economies (the U.S., Germany, Japan, and China), indicating success in import substitution industrialization.

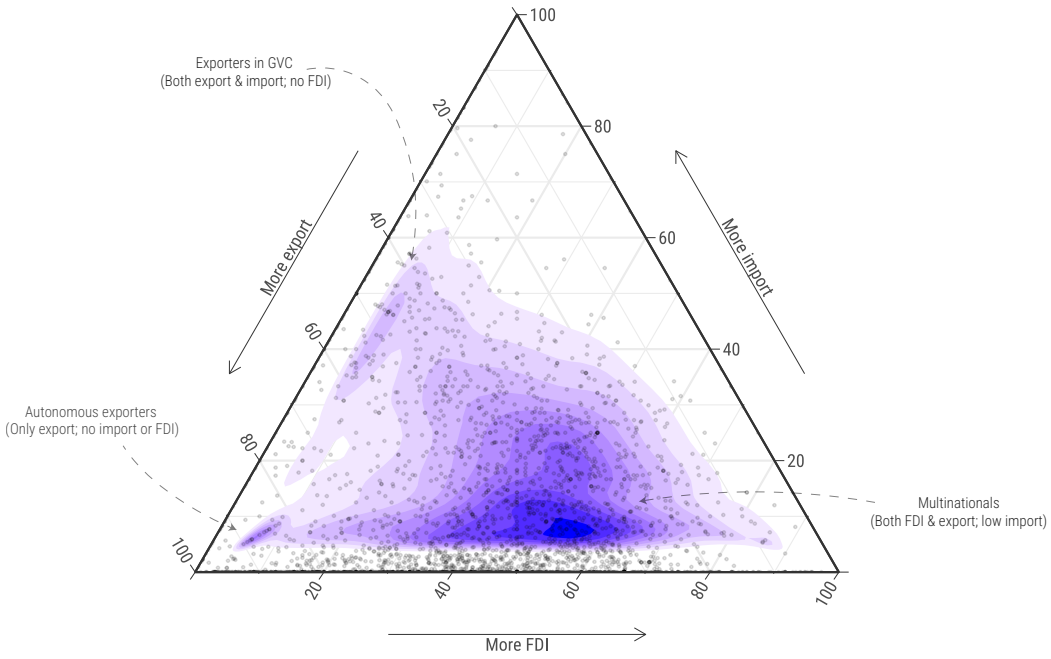

Figure 4: Ternary plot of firms' global value chain (GVC) engagement in China. Each point represents a firm's composition of interests in terms of export, import, and foreign direct investment (FDI) vis-a-vis China.

which only engage in export; (2) *exporters in GVCs*, which both import intermediate goods from abroad and export their own goods for further processing; and (3) *multinationals*, which engage in foreign direct investment and own at least one foreign subsidiary.

The data reflect firms' strategies described in this theoretical framework. I construct the compositional measures of firms' interests in export, import, and FDI by summing all mentions of these three categories and computing the proportions for each interest. These compositional measures capture the extent to which firms' portfolios are weighted toward each mode of engagement with China. While a majority of firms (53.7%, or 6023) in the dataset that mentioned China were purely domestic and did not engage in any GVC activity with it, the remaining firms pursued a variety of strategies.

Figure 4 presents these firms' strategies in a ternary plot. Near the export (bottom-left) corner, we observe a cluster of autonomous exporters (7.6% of all firms) that exclusively engaged in export with China but had no import or FDI activity. Moving closer to the import (top) corner, another cluster emerges: it consists of firms with a balanced portfolio between

export and import but without any FDI in China, corresponding to the category of exporters in GVCs (4.7%). However, by far the most dominant category of firms are multinationals (33.9%), which had a mix of FDI, export, and, to a much lesser extent, import in their GVC portfolios. The alignment between the observed patterns of firms' GVC strategies—based on labels generated from firms' financial filings— and the theoretical framework proposed by Kim et al. (2019) provides support for the construct validity of the text annotation approach.

4.1 Measuring legislators' anti-trade rhetoric

To measure Congressional Members' policy positions on free trade with China, I adopt a text-as-data approach based on their speeches on the Congressional floor, instead of the roll call data traditionally employed by the trade politics literature. The primary reasons are data availability and variation: after the 2000 vote on granting China the Permanent Trade Relations (PNTR) in the Senate and the House, very few bills were put to a vote that aimed to significantly overhaul the U.S.-China trade relations. Furthermore, roll call data may exhibit low variation, as Members of Congress often vote strategically along party lines or in an unanimous fashion. Schwarz, Traber, and Benoit (2017) show that text-based scaling of ideal points using parliamentary speeches reveals greater intra-party variation than those estimated from roll call data. I expect that U.S. legislators expressed their discontents on the Congressional floor about U.S.-China trade relations in a way that is more revealing of intra-party differences and more responsive to the firms' lobbying influence.

I employ a text annotation approach, similar to the one I used on firms' financial filings, on the full corpus of Congressional Record. I compile the full Congressional Record from 2001 to 2022 using the `congressional-record` parser (Judd et al. 2017). I segment each speech by a Member of Congress into sentences, augment them with two preceding and following sentences for a richer context, and subset those that mentioned China-related keywords. In total, I compile 72,419 China-related sentences by 1,178 unique legislators with a median word count of 113.

My outcomes of interest are whether a Member of Congress blamed China for (1) engaging in unfair trade practices, (2) stealing American technology or intellectual property, and (3)

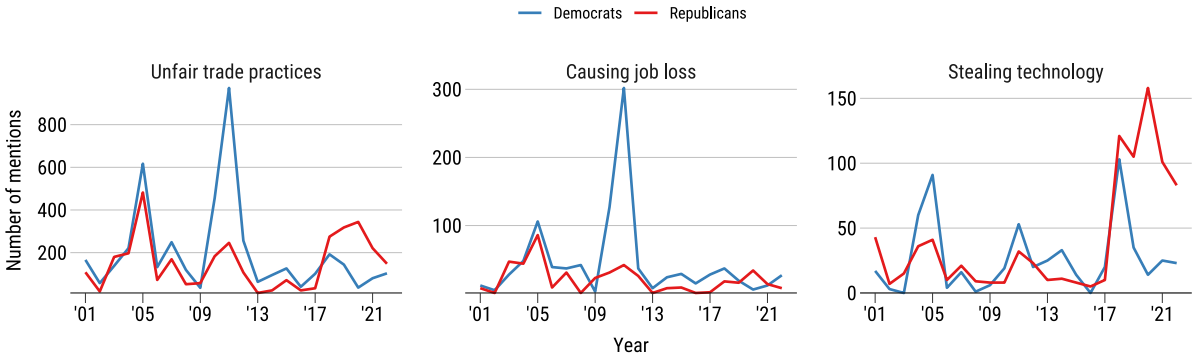

Figure 5: Congressional Members' criticism of trade with China by party, 2001 to 2022 (107th to 117th Congress).

causing job loss in America; I also include (4) anti-trade rhetoric, which is the sum of (1)-(3) as the outcomes. While these criticisms differ in their framings or focuses, they reflect a common political desire to limit free trade or alter the existing trade regime with China. I employ the same BERT-NFL model to annotate the speech and conduct a similar validation exercise with 200 randomly sampled, manually coded speeches, achieving a balanced accuracy of 0.874 and a F1 score of 0.806 at the probability threshold of 0.85.

Figure 5 presents the frequencies of these criticisms across Democrats and Republicans from 107th to 117th Congress. The first wave of criticisms of trade with China appeared in 2005 during Bush's second term, particularly on the ground of unfair trade practices. And the criticisms came from both sides of the aisle. But anti-trade rhetoric against China reached an unprecedented height in 2011 during Obama's first term. It was led by Democrats who criticized China not only on unfair trade practices but also on causing job loss in America. The rhetoric of unfair trade practices among the Republicans did not regain currency until the U.S.-China trade war under the Trump administration. During the same period, the Republicans also more frequently accused China of stealing American technology. Top critics on China include Sen. Sherrod Brown (D-OH; 225 times on trade practices in 2011 and 174 times on job loss in 2011), Sen. Rob Portman (R-OH; 86 times on trade practices in 2019 and 96 times on technology theft in 2020), Sen. Chuck Schumer (D-NY; 103 times on technology theft in 2018), and Rep. Dana Rohrabacher (R-CA; 51 times on job loss in 2009).

4.2 Linking firm concerns with legislator rhetoric

The remaining empirical challenge is to develop a framework that links firm concerns to legislators, enabling regression analyses at the politician (or politician-year) level—an approach that has yet to be established in the literature. I propose a novel measure of *lobby-transmitted firm interests* whereby the concerns of companies are relayed to politicians through their lobbying connections.

I leverage the firm-politician network data in the LobbyView dataset (Kim 2018). In the lobbying network, a tie between a firm (or any other interest group) and a Member of Congress is established when the former lobbied on a bill that was sponsored by the latter. Although it is only an indirect measure of lobbying connections, the continuous nature of the value of ties—defined as the total number of bills that meet the previous criterion—reflect "recurring instances of lobbying that involve the same interest group and sponsor on numerous bills" and "do reliably indicate a shared involvement on specific political issues" (Kim and Kunisky 2020).

Using this firm-politician level network data, I compute novel measures of lobby-transmitted firm interests through the operations below. Consider an example with 2 legislators, 2 firms, and 2 types of business interests at year t:

$$\begin{matrix} & \text{Firm 1} & \text{Firm 2} \\ \text{Legislator 1} \\ \text{Legislator 2} \end{matrix} \begin{pmatrix} w_{11,t} & w_{12,t} \\ w_{21,t} & w_{22,t} \end{pmatrix} \times \begin{matrix} & \text{Interest 1} & \text{Interest 2} \\ \text{Firm 1} \\ \text{Firm 2} \end{matrix} \begin{pmatrix} i_{11,t} & i_{12,t} \\ i_{21,t} & i_{22,t} \end{pmatrix} \tag{1}$$

$$= \begin{matrix} & \text{Interest 1} & \text{Interest 2} \\ \text{Legislator 1} \\ \text{Legislator 2} \end{matrix} \begin{pmatrix} w_{11,t} \cdot i_{11,t} + w_{12,t} \cdot i_{21,t} & w_{11,t} \cdot i_{12,t} + w_{12,t} \cdot i_{22,t} \\ w_{21,t} \cdot i_{11,t} + w_{22,t} \cdot i_{21,t} & w_{21,t} \cdot i_{12,t} + w_{22,t} \cdot i_{22,t} \end{pmatrix}$$

The first matrix is derived from LobbyView network data, where each entry represents the strength of the lobbying tie between a legislator and a firm. The second matrix comes from the annotated financial filings described earlier, where each entry represents the instance of specific firm interests appearing in a firm's annual report. Their product thus represents the

weighted sum of firm interests that are transmitted to Members of Congress, adjusted for the strength of their lobbying ties.[8]

After harmonizing multiple types of company identifiers, I identified 2,041,724 lobbying ties from LobbyView data involving firms that appear in my dataset of annotated company filings and can be matched to Members of Congress in specific years. I construct five categories firms' *lobby-transmitted interests*—export, import, FDI, policy discrimination, and IP violations in China—at the politician-year level based on the operations described above. These lobby-transmitted firm interests serve as the main explanatory variables in the regression analyses.

5 Empirical strategy

5.1 Estimation

This paper does not seek to predict the exact policy preferences of individual firms; rather, it is primarily concerned with the *aggregated* effects of firm-level interests transmitted through lobbying on politicians. I ask, for example, how legislators' policy positions are changed when they receive more lobbying from firms expressing concerns over export opportunities, while holding other lobby-transmitted concerns constant. This framework allows me to systematically assess the relative importance of different categories of firm interests in shaping politicians' policy positions.

To estimate the relationships between firms' lobby-transmitted interests and legislators' rhetoric on trade with China, I fit a series of negative binomial regression models for count data[9] with the following setup:

8. In the actual analyses, I apply a zero-preserving log transformation to both lobbying ties w and firm interests i before the matrix multiplication. This approach has two main advantages. First, it imposes diminishing returns on both lobbying ties and firm interests independently, so that the strength of the lobby-transmitted interests—the product of the two—is not disproportionately driven by either component. Second, it transforms the value 1 in both measures to 0. It means that a firm must mention a particular interest more than once *and* must lobby the politician more than once for the lobby-transmitted interests to exhibit a positive value. This conservative specification is preferred to reduce false positives. In additional analyses, I verify that alternative transformations, such as $log(w_{11} \cdot i_{11}) + log(w_{12} \cdot i_{21}) + ...$, or $log(w_{11} \cdot i_{11} + w_{12} \cdot i_{21} + ...)$, do not change the main results.

9. The outcomes–the number of instances of Members of Congress criticizing China on a particular issue–contain many zeros, as over 90% of the politician-year observations did not speak on China issues. Transformation of outcome Y using $log(Y + c)$ or the inverse hyperbolic sine (IHS) function is known to make coefficients sensitive to the arbitrary choice of parameters and the unit of measurement (Mullahy and Norton 2024).

$$\ln E[Y_{i,s,t}] = \beta' \boldsymbol{X}_{i,t} + \theta' \boldsymbol{Z}_{i,t} + \gamma_s + \delta_t + \epsilon_{it} \tag{2}$$

where i denotes a Member of Congress, s denotes the state, and t denotes the year. The dependent variable $Y_{i,s,t}$ is the number of instances in which legislator i from state s in year t criticized China for unfair trade practices (or technology theft, job loss, and their sum). The key explanatory variables are $\boldsymbol{X}_{it}$, which are the weighted sums of five categories of firm interests that are transmitted to politician i with which they share a lobbying connection in year t.

To strengthen a causal interpretation of the regression estimates from observational data, I employ the following strategies. First, I incorporate state fixed effects (γ_s) and year fixed effects (δ_t) in all models to absorb state-specific, time invariant unobservables and year-specific shocks. Second, I include a set of legislator-level control variables $\boldsymbol{Z}_{it}$ in most models, including legislators' party and left-right ideology[10] (to account for partisan and ideological differences in attracting business lobbying and in promoting anti-trade rhetoric); chamber (to account for differences in election cycles and responsiveness to special interests); total number of speeches made in year t (to account for variation in legislative activity intensity and serve as a proxy for seniority, as more active and senior members tend to receive greater floor time); and memberships in committees relevant to foreign trade (to account for difference in legislators' influence over trade or foreign policies and in exposure to business lobbying).[11]

5.2 Addressing endogeneity and assessing robustness

I further test several alternative explanations that may confound the relationships between firms' lobby-transmitted interests and legislators' anti-trade rhetoric: (1) district-level sectoral and economic characteristics, (2) districts' exposure to China's import shock, (3) politicians' military hawkishness, and (4) politicians' prior trade rhetoric.

District-level economic characteristics, particularly employment in specific sectors, may

10. Left-right ideology is measured by the first dimension of the DW-NOMINATE dataset (Lewis et al. 2025).

11. Committees most relevant to U.S.-China trade relations include House's Foreign Affairs, Ways and Means, Financial Services Committees, and Senate's Foreign Relations, Armed Services, and Finance Committees. Data are from Stewart (2021a, 2021b).

explain both business lobbying and politicians' anti-trade rhetoric. For example, districts with higher employment in manufacturing face greater import competition from Chinese manufactured goods, making the representatives more likely to be critical of trade with China. Districts with higher employment in retail trade, in contrast, rely heavily on import of Chinese goods and are more likely to see their representatives being pro-free trade. For all legislator-year observations from the House, I compile and control for congressional district (CD) level total employment in major sectors,[12] derived from County Business Patterns (CBP) from the U.S. Census using a population-weighted apportionment (Autor et al. 2020; Ferrara, Testa, and Zhou 2024).[13] Additionally, I include district-level percentage of bachelor's degree holders and unemployment rate as further controls (county-level data from Economic Research Service of the U.S. Department of Agriculture; apportioned to CD level manually).

The China shock literature offers a similar prediction: districts' exposure to China's import shocks may galvanize businesses that lose out to lobby politicians who, in turn, become more critical of free trade with China. I extend the county-congressional district level data of import exposure to China per U.S. worker (Autor et al. 2020) to cover my study period using the population-weighted apportionment described above. Apart from economic theories explaining politicians' positions on trade, I also test whether their military hawkishness toward China may confound the relationship. Firms may target hawkish legislators to publicly signal pressure on China, but these legislators may oppose trade with China not on economic but on national security grounds. I measure legislators' military hawkishness on China by the

12. The nine major sectors include Natural Resources and Mining (NASIC 2-digit code 11, 21); Construction (23); Manufacturing (31-33); Trade, Transportation, and Utilities (42, 44-45, 48-49; 22); Information (51); Financial Activities (52, 53); Professional and Business Services (54, 55, 56); Education and Health Services (61, 62); and Leisure and Hospitality (71, 72).

13. Matching county-level data (e.g., County Business Patterns from the U.S. Census) to congressional districts is a non-trivial task. The first challenge is that congressional districts are redrawn every ten years following the decennial Census, with occasional redistricting during the intermediate period in some states. The second challenge is that congressional districts are not coterminous with county boundaries, spanning or cutting across multiple counties. The most significant issue, however, is that CBP data reflect the number of employees working at establishments located in a given county, not the number of people living in that county employed in specific sectors. To address the first two issue, Ferrara, Testa, and Zhou (2024) develop crosswalk tables that map counties to congressional districts over time, using weights based on the share of a county's population residing within each district. But apportioning county-level CBP data to congressional districts based on population weights assumes that the spatial distribution of establishments is the same as that of the population – an assumption that is inaccurate but nevertheless provides a reasonable and internally consistent proxy for the sectoral characteristics at the congressional district level.

number of times they described China as a *military threat*[14] to the U.S. in a given year from the Congressional Record using the same text annotation pipeline described in Section 3.

Lastly, I consider a potential source of endogeneity arising from legislators' past rhetoric. Specifically, there is a concern about reverse causality: legislators who have historically expressed anti-trade rhetoric may be more likely to attract firm lobbying. Prior rhetoric can thus be an omitted variable that influences both the treatment (lobbying) and the outcome. To address this concern, I estimate alternative models that separately include (1) one-year lag of anti-trade rhetoric and (2) one-year lag of firms' lobby-transmitted interests as controls.

To address the issue of unobserved confoundedness, I conduct sensitivity analysis (Cinelli and Hazlett 2020) to assess the robustness of the main results to *all* remaining unobserved confounders and benchmark their minimum strength necessary to reverse the main results relative to an observed covariate (partisanship).

As robustness checks, I report results based on (1) alternative probability thresholds (0.8 and 0.9) for assigning labels when constructing firm interests and (2) OLS model specifications. In addition, I conduct placebo tests to assess if a placebo outcome—criticism China on human rights violations—is uncorrelated with the main explanatory variables, and if placebo treatments—firms' GVC interests with Vietnam and India as alternative manufacturing hubs in the Asian region—are uncorrelated with anti-trade rhetoric. These placebo outcomes and treatments should, in theory, be unrelated with firms' lobbying on China or legislative rhetoric targeting China.

The summary statistics of all the variables in the analyses are presented in Table A.1 in the Appendix. For all regression results, standard errors are clustered at the year, state, and Member of Congress levels to account for correlation in the error terms.

14. I choose the more specific concept of military threat over generic "national security" threat because there has been a growing trend of conflation of U.S. economic interests with national security. For example, Peter Navarro, Assistant to President Donald Trump during his first term and Director of the Office of Trade and Manufacturing Policy, declared "a new organizing principle for strategic policy: Economic security is national security" (Navarro 2018).

Table 1: Negative Binomial Regression Estimates of Congressional Anti-China Trade Rhetoric, 2001–2022

	Anti-trade rhetoric					
	(1)	(2)	(3)	(4)	(5)	(6)
Export	-0.006					
	(0.004)					
Import		-0.012^{+}				
		(0.006)				
FDI			-0.006^{+}			
			(0.003)			
GVC interests				-0.002^{+}		-0.006***
				(0.001)		(0.001)
Policy discrimination					0.115**	0.219***
					(0.037)	(0.027)
Observations	12,040	12,040	12,040	12,040	12,040	12,040
Controls	✓	✓	✓	✓	✓	✓
State fixed effects (50)	✓	✓	✓	✓	✓	✓
Year fixed effects (22)	✓	✓	✓	✓	✓	✓

Notes. Coefficients from negative binomial models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

6 Results

6.1 Main models

Table 1 reports the regression coefficients from negative binomial models explaining the count of anti-trade rhetoric, which include measures of firms' lobby-transmitted interests, legislator-level controls (reported in Appendix Table A.2), and fixed effects at the state and year levels. Consistent with the literature emphasizing the role of firms' GVCs engagement, legislators lobbied by firms with stronger export, import, or FDI interests were less likely to criticize trade with China (Model 1-3; although the statistical significances are weak). Likewise, the sum of all GVC-related interests also predicts less anti-trade rhetoric (Model 4). Conversely, legislators lobbied by firms citing policy discrimination from China tend to be more vocal in criticizing trade with China (Model 5).

Simultaneously accounting for both GVC interests and policy discrimination lobbying produces similar results (Model 6). To put these estimates in perspective, a one-SD increase in the

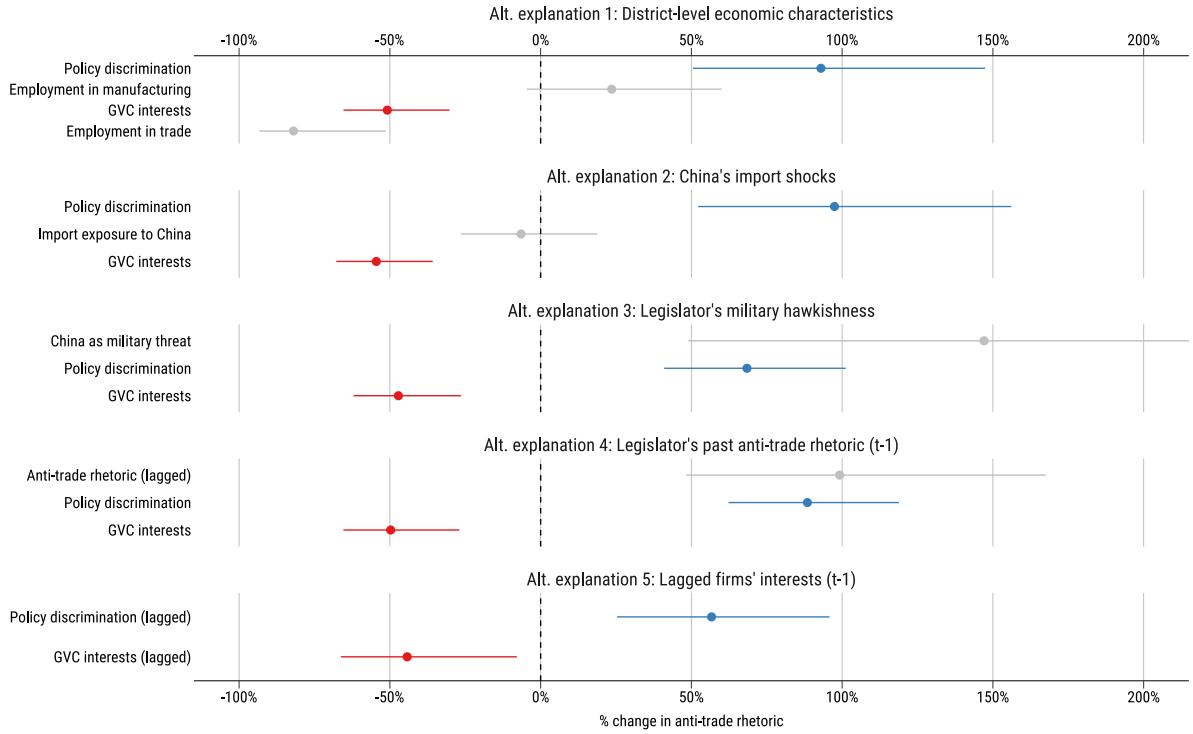

Figure 6: Accounting for Alternative Explanations of Congressional Anti-China Trade Rhetoric

lobby-transmitted GVC interests is associated with a 52.9% reduction in the number of legislators' anti-trade rhetoric, while a one-SD increase in the policy discrimination concerns is associated with a 85.4% increase in it. For comparison, being a Republican is associated with a 71.7% reduction in anti-trade rhetoric compared to Democrats—the party traditionally more skeptical toward free trade (Shoch 2001).

6.2 Alternative explanations

I account for several alternative explanations that might confound the relationships between firms' lobby-transmitted interests and legislators' anti-trade rhetoric. Figure 6 visualizes the expected changes in anti-trade rhetoric given a one-SD increase in the predictors, juxtaposing five separate models and demonstrating the stability of estimates from lobby-transmitted interests (Table A.3 in the Appendix reports the full regression results).

Model 1 focuses on district-level sectoral and economic characteristics (including logged employment in major industries, percentage of degree holders, and unemployment rate), limiting the sample to House members only. In line with the literature emphasizing sectoral

interests in trade politics, a one-SD increase in employment in the manufacturing industry within a legislator's district is associated with a 23.6% increase in anti-trade rhetoric, whereas a one-SD increase in employment in the wholesale or retail trade sectors is associated with a 82.0% decrease. The percentage of degree holders and the unemployment rate in one's district are not significantly associated with anti-trade rhetoric. However, firms' lobby-transmitted interests—whether in terms of GVC interests or reported policy discrimination—remain significantly associated with anti-trade rhetoric, and their effect sizes are similar to those reported in the main section.

Model 2 shows that districts' exposure to China's import competition does not explain anti-trade rhetoric—the estimate is close to zero and the relationship is not statistically significant. The estimates for firms' lobby-transmitted interests remain substantively unchanged in magnitude and precision. For the sake of completeness, employing an instrumental variables approach following Autor, Dorn, and Hanson (2013) yields the same null results (Table A.4 in the Appendix reports two-stage least squares results for completeness). This finding challenges a growing body of work that emphasizes the central role of the "China shock" in shaping trade politics and protectionist sentiment in the U.S. and beyond (Feigenbaum and Hall 2015; Kuk, Seligsohn, and Zhang 2018; Campello and Urdinez 2021; Milner 2021; Meyerrose and Watson 2024).

Model 3 shows that legislators' military hawkishness toward China—measured by the number of times they described China as a military threat to the U.S.—does not confound the relationship between firm lobbying and anti-trade rhetoric. While hawkish and protectionist rhetoric co-occur—a one-SD increase in military hawkishness is associated with a 147.0% increase in anti-trade rhetoric—the estimated effect of the policy discrimination variable remains substantive at 68.4%. This suggests that while military hawkishness is correlated with protectionist sentiment toward China, firm lobbying likely remains a distinct mechanism in shaping legislators' anti-trade rhetoric.

Model 4 addresses concerns about reverse causality by including lagged values of anti-trade rhetoric, while Model 5 addresses potential contemporaneous bias by incorporating lagged measures of lobby-transmitted interests. In both models, the relationships between

firms' lobby-transmitted interests and legislators' anti-trade rhetoric remains robust.

While controlling for observed covariates cannot rule out the possibility of unobserved confounders, I use sensitivity analysis to assess how severely the assumption of no unobserved confounding would need to be violated to invalidate the main findings (Cinelli and Hazlett 2020). I benchmark the strength of the unobserved confounders against the effect of partisanship (being a Republican compared to a Democrat). Under a worst-case scenario where unobserved confounders account for all residual variance in legislative rhetoric, such confounders would need to be more than 10 times as strongly associated with firm lobbying on policy discrimination (or GVC interests) as partisanship to fully explain away the observed effects (see Figure A.1 in the Appendix). Given that I have already accounted for several plausible alternative explanations that jointly influence firm lobbying and legislative rhetoric, these results suggest that unobserved confounding is unlikely to pose a serious threat to the causal interpretation of the main findings in Table 1.

6.3 Alternative measurement of Chinese actions and temporal heterogeneity

To ensure that the effects of firm lobbying on legislative rhetoric are not solely driven by China's currency manipulation as a sui generis, largely faded policy debate in the U.S.—that there is a broader pattern of attributing blame to and mobilizing around Chinese actions deemed detrimental to firms' interests—I incorporate IP violations cited by firms as an alternative measure of foreign actions and examine the temporal heterogeneity in firm lobbying. I run separate regressions across four presidencies, examining how the two lobbying concerns drive specific policy rhetoric at different times. Figure 7 visualizes the temporal dynamics (Tables A.5 and A.6 in the Appendix report the regression estimates).

The left panel of Figure 7 shows that concerns over policy discrimination cited by firms began influencing legislative rhetoric—particularly accusations against China for unfair trade practices—since the Bush administration. This effect reached its peak during the two terms of the Obama administration: a one-SD increase in firm lobbying on policy discrimination is associated with a 115.0% increase in unfair trade rhetoric. However, the influence of policy discrimination began to wane during the Trump administration and ceased to influence rhetoric

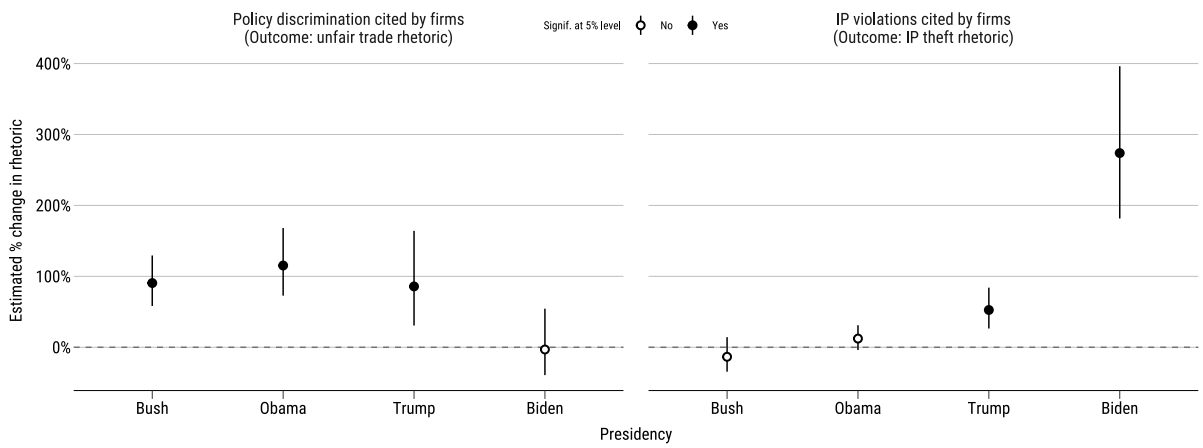

Figure 7: Temporal dynamics of Congress members' anti-trade rhetoric across presidencies

on unfair trade practices in the Biden administration. These temporary dynamics are in line with the economic literature that while the Chinese currency was substantively undervalued (at least 25%) in the early 2000s, its misalignment waned over time and ceased to be undervalued by 2011 (Rodrik 2010; Frankel 2015; Cheung, Chinn, and Nong 2017), due to a combination of market forces and U.S.-China bilateral trade talks particularly led by the Obama administration with pressure coming from Congress. Although the Trump administration succeeded in designating China as a currency manipulator in 2019, it was soon dropped in the next year before the U.S. signing the phase one trade agreement with China. This dynamic disappeared in the Biden administration.

While the importance of currency manipulation and the rhetoric on unfair trade practices subsided in the recent administrations, the right panel of Figure 7 shows that lobbying on IP violations faced by firms in China became influential and led to increased legislators' accusation against China for stealing American technologies. The effects of firm lobbying on IP issues became significant and sizable in the Trump, and particularly Biden, administrations: a one-SD increase in firms' lobbying on IP violations is associated with a 52.6% and 274.0% increase in the number of legislators' accusation of Chinese IP theft in the two administrations respectively.

The rising prominence of IP conflicts in firm lobbying and trade rhetoric corresponds to the industrial development trajectory of China. Seeking to move up the value chain and capturing high-value-added activities, China began to implement a coherent set of industrial policies

around 2010 to promote indigenous firms in "strategic emerging industries" Naughton (2021). This initiative of industrial upgrading was further solidified with the announcement of "Made in China 2025" plan in 2015. IP protection, particularly in high-tech sectors, has since become a significant source of political grievance among U.S. firms and anti-China legislative rhetoric. Notable examples include the Trump administration's export control on American semiconductor manufacturing equipment to Huawei and the Biden administration's pursuit of broader chip-related export controls and legislative measures (e.g., the CHIPS and Science Act). The finding that firms' concerns regarding IP violations in China drove legislative rhetoric during the Trump and Biden administrations thus reflects the intensified U.S.-China technological competition in high-tech industries.

6.4 Mobilization asymmetry in pro- and anti-trade forces

Identifying the contributors to anti-trade voices only provides a partial answer to the unraveling of the free trade consensus. A more complete explanation requires simultaneously addressing the inability of pro-trade forces to *counter-mobilize* in Congress. I offer evidence that there is a mobilizational asymmetry between pro-trade and anti-trade forces in two ways: 1) pro-trade firms' lobbying fails to mobilize legislators to publicly defend trade with China, and 2) anti-trade firms are more effective in making legislators to break their silence and criticize China than it is for pro-trade firms to suppress the critics.

I construct a measure of legislators' pro-trade rhetoric by counting the number of their speeches that are classified as supporting trade with China, applying the same text annotation pipeline described in Section 3. I run a regression specification similar to the main results in Table 1 with firms' lobbying-transmitted concerns as explanatory variables, except using pro-trade rhetoric as the outcome variables. Table 2 reports the null results, showing that various GVC interests—considered separately and taken together—are not significantly associated with pro-trade rhetoric. Firms benefited from GVC engagement fail to effectively mobilize pro-trade voices in Congress to counteract the anti-trade rhetoric. This likely results from the deep issue linkages of trade with China to other politically charged topics, such as military or human rights issues, which make publicly defending China politically costly.

Table 2: Negative Binomial Regression Estimates of Congressional Pro-China Trade Rhetoric, 2001–2022

	supportTrade_0.85				
	(1)	(2)	(3)	(4)	(5)
Export	-0.0009				
	(0.005)				
Import		-0.010			
		(0.011)			
FDI			-0.002		
			(0.005)		
GVC interests				-0.0008	
				(0.002)	
Policy discrimination					-0.014
					(0.084)
Observations	10,966	10,966	10,966	10,966	10,966
Controls	✓	✓	✓	✓	✓
Year fixed effects (21)	✓	✓	✓	✓	✓
State fixed effects (45)	✓	✓	✓	✓	✓

Notes. Coefficients from negative binomial models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

Another way to examine the asymmetry is to further unpack firms' lobbying patterns on the anti-trade coalitions in Congress: Do firms simply target staunch and already vocal allies to further champion their cause, or do they focus on recruiting new allies who never express criticism against China before to broaden the coalition? In other words, are anti-trade firms effective at mobilizing support not only at the intensive but also the extensive margins?

I present evidence that the mobilizational asymmetry between anti-trade and pro-trade firms manifests on not only on the intensive but also *extensive margins*, namely whether legislators remain completely silent or begin voicing any criticism. Figure 8 visualizes the probability of a legislator remaining completely silent (or being "structural zeros") given hypothetically more lobby-transmitted concerns in policy discrimination and GVC interests, estimated from a zero-inflated negative binomial model (Tables A.8 and A.7 in the Appendix report the zero inflation and count components of the model respectively). For an average member of Congress, a two-SD increase in the lobbying on policy discrimination reduces the probability of structural silence from 75.2% to 61.1%, representing a 14.0 percentage-point decrease. Conversely,

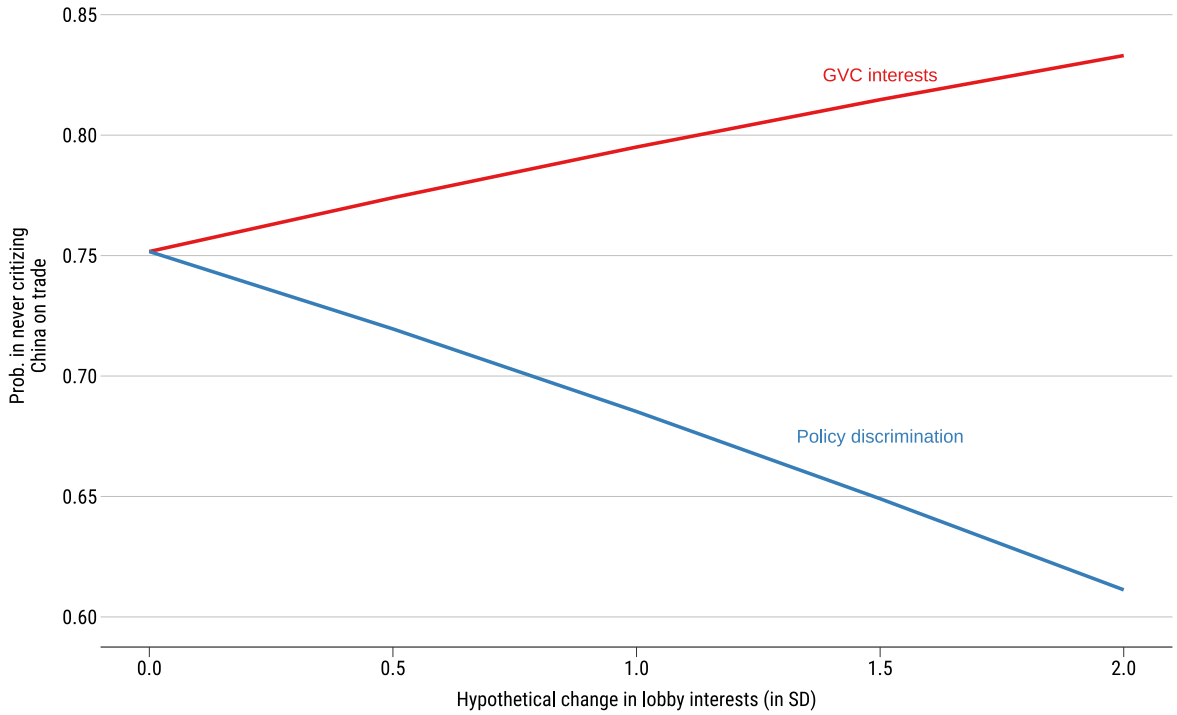

Figure 8: Mean probability of remaining completely silent given more firm lobbying on GVC interests and policy discrimination, based on in-sample simulation

a comparable increase in lobbying on GVC interests raises the probability more modestly from 75.2% to 83.3%, a 8.1 percentage-point increase. Anti-trade firms thus appear more effective at mobilizing legislators to break their silence as pro-trade firms are at suppressing potential critics.

Taken together, these results suggest a mobilization asymmetry between anti-trade and pro-trade firms. Anti-trade firms appear more effective at activating support on both the intensive and extensive margins, particularly by mobilizing potential allies to speak out and contribute to the building of a broad coalition. In contrast, pro-trade firms not only fail to prompt legislators to publicly defend trade with China, but also appear less effective at silencing trade critics.

6.5 Electoral politics or money in politics?

Is firm lobbying a mechanism of influence distinct from electoral politics in explaining legislative rhetoric? I explore the extent to which firm lobbying intersects with electoral politics through two analyses. First, I focus on House members and create two sub-samples based on

Table 3: District Electoral Competitiveness and Congressional Anti-China Trade Rhetoric, 2001 to 2022.

	Anti-trade rhetoric	
	(1)	(2)
GVC interests	-0.007***	-0.006***
	(0.002)	(0.002)
Policy discrimination	0.250***	0.229***
	(0.043)	(0.043)
Competitive district	-0.330	
	(0.249)	
GVC interests × Competitive district	0.003+	
	(0.002)	
Policy discrimination × Competitive district	-0.046	
	(0.032)	
Competitive district (lagged)		-0.100
		(0.304)
GVC interests × Competitive district (lagged)		-0.0003
		(0.002)
Policy discrimination × Competitive district (lagged)		0.027
		(0.049)
Observations	9,574	9,526
Controls	✓	✓
Year fixed effects (22)	✓	✓
State fixed effects (42)	✓	✓

Notes. Coefficients from negative binomial models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

whether their districts were competitive in the last election.[15] If electoral politics drives both firm lobbying and anti-trade rhetoric—that is, firms strategically target candidates in competitive districts, who happen to mobilize voters on a protectionist platform for other political reasons—the effect of firm lobbying should be stronger in competitive districts.

Table 3 reports the model results in which district competitiveness interacts with firm lobbying variables. Model 1 shows that legislators from districts that had close races in the last election cycle do not exhibit more anti-trade rhetoric. The negative effect of lobbying related to policy discrimination on trade rhetoric does not depend on district competitiveness. For lobbying related to GVC interests, however, we do observe that in competitive districts,

15. A district is considered competitive if the Democrat's vote share in the election is between 0.4 and 0.6, following Feigenbaum and Hall (2015).

the ameliorating effect of GVC-related lobbying on anti-trade rhetoric decreases (although the effect is only marginally significant). For robustness, I use a lagged measure of district competitiveness in Model 2 and find that the results remain largely unchanged, except the effect of the interaction term between GVC lobbying and district competitiveness disappears. On the whole, the effects of firm lobbying, especially related to the anti-trade coalitions, do not seem to depend on the competitiveness of the districts.

Second, I classify all lobbying ties between firms and legislators into two categories: (1) ties involving firms whose main business address is in the same state as the legislator (*in-state ties*) and (2) ties involving firms whose main business address is in a different state (*out-of-state ties*).[16] I construct two sets of lobby-transmitted firm concerns accordingly. If electoral politics is the main mechanism driving the observed effect, voters or interest groups within the geographically defined constituencies (states) should exercise greater influence on the policy positions and rhetoric of their co-located legislators.

Table 4 reports the estimated effects of firm lobbying through in-state versus out-of-state ties. The moderating effect on anti-trade rhetoric of GVC-related lobbying operates primarily through out-of-state ties; this effect is not observed when firms lobby legislators from their own state. Similarly, lobbying on policy discrimination—and its positive effect on anti-trade rhetoric—also operates predominantly through out-of-state ties. These findings suggest that firm lobbying on trade with China is not constrained by the geography of electoral politics. While the existing literature on the economic determinants of legislators' positions often focuses on geographically defined constituencies, such as voters or business sectors within their districts, it pays less attention to non-geographical mechanisms of influence (Fordham and McKeown 2003). Lobbying constitutes one such form of influence that transcends electoral geography, enabling firms to shape politicians' positions irrespective of their geographical location and constituency status.

16. The main business addresses of publicly traded firms are obtained from the SEC's EDGAR database.

Table 4: In-state and out-of-state lobbying and Congress Members' anti-China trade rhetoric, 2001 to 2022.

	Anti-trade rhetoric
	(1)
GVC interests (in-state)	-0.010
	(0.012)
GVC interests (out-of-state)	-0.006***
	(0.001)
Policy discrimination (in-state)	0.065
	(0.076)
Policy discrimination (out-of-state)	0.227***
	(0.029)
Observations	12,040
Controls	✓
✓	✓
✓	✓
✓	
Year fixed effects (22)	✓
State fixed effects (50)	✓

Notes. Coefficients from negative binomial models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, $^{*}\ p < 0.05$, $^{**}\ p < 0.01$, $^{***}\ p < 0.001$.

6.6 Robustness and placebo tests

The main results reported in Table 1 are robust to a host of alternative specifications. The labels used to construct the outcome variables and lobby-transmitted firm interests were assigned based on a probability threshold of 0.85 during text annotation. To show that the results are not driven by the specific value of the probability threshold, Table A.9 in the Appendix reports results from negative binomial models using labels constructed at 0.8 and 0.9 as the threshold. In addition, Table A.10 presents results from OLS models across all probability thresholds. The substantive conclusions remain consistent across these alternative specifications.

In addition, I conduct placebo tests to assess whether a placebo outcome—legislators' criticism of China on human rights violations—is uncorrelated with firms' lobbying regarding China trade policy practices. I also test whether placebo treatments—firms' GVC interests with Vietnam and India as alternative manufacturing hubs in the Asian region—are uncorrelated with anti-trade rhetoric toward China. Results show that firm lobbying on policy discrimina-

tion does not lead to legislators being more vocal in criticizing China for human rights abuses (Table A.11 in the Appendix). In other words, firm lobbying on China's trade practices does not promote generic "China bashing"; it rather promotes specific, economic-focused criticisms from legislators. More interestingly, firm lobbying related to GVC interests actually leads to less human rights criticisms from legislators. Contrary to Cutrone and Fordham (2010) who emphasize the economic motive of legislators speaking up on foreign human rights issues, this finding suggests that firms' business interests can work in the opposite direction in silencing human rights criticisms.

Meanwhile, when using GVC interests in Vietnam and India as placebo treatments, they do not significantly correlate with legislators' anti-trade rhetoric toward China (Table A.12 in the Appendix; the policy discrimination variable is dropped from the model as firms rarely reference policy discrimination in relation to these countries). These findings bolster confidence in my measurement strategy, confirming that the outcome variable specifically captures criticism of China's trade policy rather than general anti-China sentiment, and that firms' concerns explicitly pertain to China rather than broader trade interests in the Asian region.

7 Discussion and conclusion

This paper represents the first systematic attempt to empirically link firm-level interests, firm lobbying, and legislators' positions on free trade. I propose a novel measurement strategy based on LLMs and public financial filings to gather fine-grained firm-year level interests, and an original empirical framework based on lobbying network data to test the influence of firm lobbying and legislative rhetoric. I demonstrate how U.S.-based firms' interests in China have influenced U.S. legislators' anti-trade rhetoric over the past two decades. I present three sets of findings. Legislators lobbied by firms with GVC interests in China are less vocal in anti-trade criticism, while those lobbied by firms citing Chinese actions detrimental to their business, such as policy discrimination or IP infringement, are more publicly critical of trade with China. More importantly, there is a mobilizational asymmetry: pro-trade firms fail to counteract anti-trade criticism by mobilizing legislators to publicly defend trade, and are less

effective in silencing critics than anti-trade firms are in promoting new allies to speak out on trade issues. Last but not least, firm lobbying appears a distinct mechanism from electoral politics in influencing legislative behaviors.

This study has important contributions to three strands of literature or current debates. First, I challenge the Downsian assumption that voters adversely affected by free trade have been the key agents—and electoral politics has been the main mechanism—in driving the backlash against globalization, an assumption most evident in the China shock-inspired literature. This article instead highlights the role of lobbying by firms adversely impacted by free trade. One implication is that one should be skeptical when politicians use the China shock and the induced job losses to justify the ongoing trade conflicts with China (Bessent 2025), which likely have deeper roots in the political economy of firm lobbying detailed in this paper.

On the other hand, trade policy, if not well managed, can have long-term distributional and welfare consequences on workers, as well as adverse political ramifications such as exacerbating polarization and populism (Autor, Dorn, and Hanson 2013; Autor et al. 2020; Milner 2021). This article supports the view that foreign policymakers are not responsive to public opinion or labor organizations but instead most influenced by economic elite and business interests (Schattschneider 1935; Gilens and Page 2014). Moreover, the finding that firm lobbying influences U.S.-China trade relations primarily through out-of-state ties has further implications on legislators' democratic accountability, or the lack thereof, vis-à-vis their constituencies in the domain of foreign economic policymaking.

Second, I contribute to the literature on lobbying by systematically assessing the lobbying strategies and effectiveness of two sides—pro-trade and anti-trade firms and politicians—of U.S.-China trade politics. I show evidence that lobbying can work at both the intensive margin—as a legislative subsidy to supportive allies in Congress (Hall and Deardorff 2006)—and the extensive margin—as a strategic information communication to recruit intermediaries to persuade a majority (Schnakenberg 2017; Awad 2020). This article also supports the view that legislators can be lobbied ex post, who then act as lobbyists to influence the agenda and policy implementation of the Executive branch (You 2017; Ritchie 2018; Ritchie and You 2019), as evidence in the longstanding tug of war between Congress and the Executive over China's

currency manipulation. While previous research has emphasized that businesses generally prefer quiet politics (Culpepper 2011), I show that firms may engage in "loud politics"—but primarily by lobbying politicians to voice public criticism on their behalf.

Third, I propose a novel measurement strategy to gather granular data on firm preferences by leveraging LLMs in a reproducible, transparent, and efficient manner (Spirling 2023). I further propose an original empirical framework in linking and testing firm lobbying and legislative rhetoric using lobby network data (Kim and Kunisky 2020). These measurement and estimation strategies are flexible and can be readily applied to study a wide range of political-economic questions involving firm lobbying and politicians' policy positions.

References

Autor, David H., David Dorn, and Gordon H. Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States" [in en]. *American Economic Review* 103, no. 6 (October): 2121–2168.

Autor, David H., David Dorn, Gordon H. Hanson, and Kaveh Majlesi. 2020. "Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure" [in en]. *American Economic Review* 110, no. 10 (October): 3139–3183.

Awad, Emiel. 2020. "Persuasive Lobbying with Allied Legislators" [in en]. *American Journal of Political Science* 64, no. 4 (October): 938–951.

Baldwin, Richard, Rebecca Freeman, and Angelos Theodorakopoulos. 2023. "Hidden Exposure: Measuing U.S. Supply Chain Reliance." In *Brookings Papers on Economic Activity.*

Baldwin, Robert, and Christopher Magee. 1998. *Is Trade Policy for Sale? Congressional Voting on Recent Trade Bills* [in en]. Technical report w6376. Cambridge, MA: National Bureau of Economic Research, January.

Ballard-Rosa, Cameron, Amalie Jensen, and Kenneth Scheve. 2022. "Economic Decline, Social Identity, and Authoritarian Values in the United States" [in en]. *International Studies Quarterly* 66, no. 1 (February): sqab027.

Ballard-Rosa, Cameron, Mashail A. Malik, Stephanie J. Rickard, and Kenneth Scheve. 2021. "The Economic Origins of Authoritarian Values: Evidence From Local Trade Shocks in the United Kingdom" [in en]. *Comparative Political Studies* 54, no. 13 (November): 2321–2353.

Beaulieu, Eugene. 2002. "The Stolper–Samuelson Theorem Faces Congress" [in en]. *Review of International Economics* 10, no. 2 (May): 343–360.

Bessent, Scott. 2025. "Trump's Three Steps to Economic Growth." *The Wall Street Journal* (May).

Box-Steffensmeier, Janet M., Laura W. Arnold, and Christopher J. W. Zorn. 1997. "The Strategic Timing of Position Taking in Congress: A Study of the North American Free Trade Agreement" [in en]. *American Political Science Review* 91, no. 2 (June): 324–338.

Burnham, Michael. 2024. "Stance detection: a practical guide to classifying political beliefs in text." *Political Science Research and Methods* (September): 1–18.

Burns, William J. 2013. *The U.S.–China Closing Statements for U.S.–China Strategic and Economic Dialogue.* Publisher: U.S. Department of State, July.

Campello, Daniela, and Francisco Urdinez. 2021. "Voter and Legislator Responses to Localized Trade Shocks from China in Brazil" [in en]. *Comparative Political Studies* 54, no. 7 (June): 1131–1162.

Carothers, Christopher, and Taiyi Sun. 2023. "Bipartisanship on China in a polarized America." *International Relations* 0, no. 0 (September).

Cheung, Yin-Wong, Menzie Chinn, and Xin Nong. 2017. "Estimating currency misalignment using the Penn effect: It is not as simple as it looks" [in en]. Publisher: Wiley, *International Finance* 20, no. 3 (December): 222–242.

Chilton, Adam S., Helen V. Milner, and Dustin Tingley. 2020. "Reciprocity and Public Opposition to Foreign Direct Investment" [in en]. *British Journal of Political Science* 50, no. 1 (January): 129–153.

Cinelli, Carlos, and Chad Hazlett. 2020. "Making Sense of Sensitivity: Extending Omitted Variable Bias" [in en]. *Journal of the Royal Statistical Society Series B: Statistical Methodology* 82, no. 1 (February): 39–67.

Colantone, Italo, and Piero Stanig. 2018a. "Global Competition and Brexit" [in en]. *American Political Science Review* 112, no. 2 (May): 201–218.

———. 2018b. "The Trade Origins of Economic Nationalism: Import Competition and Voting Behavior in Western Europe" [in en]. *American Journal of Political Science* 62, no. 4 (October): 936–953.

Culpepper, Pepper D. 2011. *Quiet politics and business power : corporate control in Europe and Japan* [in eng]. Cambridge University Press.

Cutrone, Ellen A., and Benjamin O. Fordham. 2010. "Commerce and Imagination: The Sources of Concern about International Human Rights in the US Congress: Commerce and Imagination" [in en]. *International Studies Quarterly* 54, no. 3 (September): 633–655.

Dagan, Ido, Oren Glickman, and Bernardo Magnini. 2006. "The PASCAL Recognising Textual Entailment Challenge." In *Machine Learning Challenges. Evaluating Predictive Uncertainty, Visual Object Classification, and Recognising Tectual Entailment,* edited by Joaquin Quiñonero-Candela, Ido Dagan, Bernardo Magnini, and Florence d'Alché-Buc, 3944:177–190. Berlin, Heidelberg: Springer Berlin Heidelberg.

De Figueiredo, John M., and Brian Kelleher Richter. 2014. "Advancing the Empirical Research on Lobbying" [in en]. *Annual Review of Political Science* 17, no. 1 (May): 163–185.

Feigenbaum, James J., and Andrew B. Hall. 2015. "How Legislators Respond to Localized Economic Shocks: Evidence from Chinese Import Competition" [in en]. *The Journal of Politics* 77, no. 4 (October): 1012–1030.

Ferrara, Andreas, Patrick A. Testa, and Liyang Zhou. 2024. "New area- and population-based geographic crosswalks for U.S. counties and congressional districts, 1790–2020" [in en]. *Historical Methods: A Journal of Quantitative and Interdisciplinary History* 57, no. 2 (April): 67–79.

Fordham, Benjamin O., and Timothy J. McKeown. 2003. "Selection and Influence: Interest Groups and Congressional Voting on Trade Policy" [in en]. *International Organization* 57 (3): 519–549.

Frankel, Jeffrey. 2015. *The Plaza Accord, 30 Years Later* [in en]. Technical report w21813. Cambridge, MA: National Bureau of Economic Research, December.

Gilens, Martin, and Benjamin I. Page. 2014. "Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens" [in en]. *Perspectives on Politics* 12, no. 3 (September): 564–581.

Grossman, Gene M, and Elhanan Helpman. 1994. "Protection for Sale." *The American Economic Review* 84 (4): 833–850.

Guisinger, Alexandra. 2009. "Determining Trade Policy: Do Voters Hold Politicians Accountable?" [In en]. *International Organization* 63, no. 3 (July): 533–557.

Hall, Richard L., and Alan V. Deardorff. 2006. "Lobbying as Legislative Subsidy" [in en]. *American Political Science Review* 100, no. 1 (February): 69–84.

Hiscox, Michael J. 2002. "Commerce, Coalitions, and Factor Mobility: Evidence from Congressional Votes on Trade Legislation" [in en]. *American Political Science Review* 96, no. 3 (September): 593–608.

Imai, Kosuke, and Dustin Tingley. 2012. "A Statistical Method for Empirical Testing of Competing Theories" [in en]. *American Journal of Political Science* 56, no. 1 (January): 218–236.

Judd, Nicholas, Dan Drinkard, Jeremy Carbaugh, and Lindsay Young. 2017. *congressional-record: A parser for the Congressional Record.*

Kim, In Song. 2017. "Political Cleavages within Industry: Firm-level Lobbying for Trade Liberalization" [in en]. *American Political Science Review* 111, no. 1 (February): 1–20.

———. 2018. "LobbyView: Firm-level Lobbying & Congressional Bills Database" [in en]. *Working paper available from https://web.mit.edu/insong/www/pdf/lobbyview.pdf.*

Kim, In Song, and Dmitriy Kunisky. 2020. "Mapping Political Communities: A Statistical Analysis of Lobbying Networks in Legislative Politics" [in en]. *Political Analysis* (November): 1–20.

Kim, In Song, Helen V Milner, Thomas Bernauer, Iain Osgood, Gabriele Spilker, and Dustin Tingley. 2019. "Firms and Global Value Chains: Identifying Firms' Multidimensional Trade Preferences" [in en]. *International Studies Quarterly* 63, no. 1 (March): 153–167.

Kim, In Song, and Iain Osgood. 2019. "Firms in Trade and Trade Politics" [in en]. *Annual Review of Political Science* 22, no. 1 (May): 399–417.

Kuk, John Seungmin, Deborah Seligsohn, and Jiakun Jack Zhang. 2018. "From Tiananmen to Outsourcing: the Effect of Rising Import Competition on Congressional Voting Towards China" [in en]. *Journal of Contemporary China* 27, no. 109 (January): 103–119.

Laurer, Moritz, Wouter Van Atteveldt, Andreu Casas, and Kasper Welbers. 2024. "Less Annotating, More Classifying: Addressing the Data Scarcity Issue of Supervised Machine Learning with Deep Transfer Learning and BERT-NLI." *Political Analysis* 32, no. 1 (January): 84–100.

Lewis, Jeffrey B., Keith Poole, Howard Rosenthal, Adam Boche, Aaron Rudkin, and Luke Sonnet. 2025. *Voteview: Congressional Roll-Call Votes Database.*

Loughran, Tim, and Bill Mcdonald. 2016. "Textual Analysis in Accounting and Finance: A Survey." *Journal of Accounting Research* 54, no. 4 (September): 1187–1230.

Mansfield, Edward D., and Diana C. Mutz. 2009. "Support for Free Trade: Self-Interest, Sociotropic Politics, and Out-Group Anxiety" [in en]. *International Organization* 63, no. 3 (July): 425–457.

McDonald, Bill. 2024. *The Notre Dame Software Repository for Accounting and Finance (SRAF).*

Meyerrose, Anna M., and Sara Watson. 2024. "The Effects of Import Shocks, Electoral Institutions, and Radical Party Competition on Legislator Ideology: Evidence from France" [in en]. *British Journal of Political Science* (January): 1–26.

Milner, Helen V. 1988. *Resisting protectionism : global industries and the politics of international trade* [in eng]. Publication Title: Resisting protectionism : global industries and the politics of international trade. Princeton, N.J: Princeton University Press.

———. 2021. "Voting for Populism in Europe: Globalization, Technological Change, and the Extreme Right" [in en]. *Comparative Political Studies* 54, no. 13 (November): 2286–2320.

Milner, Helen V., and Dustin H. Tingley. 2011. "Who Supports Global Economic Engagement? The Sources of Preferences in American Foreign Economic Policy" [in en]. *International Organization* 65, no. 1 (January): 37–68.

Moore, Ryan T., Eleanor Neff Powell, and Andrew Reeves. 2013. "Driving support: workers, PACs, and congressional support of the auto industry" [in en]. *Business and Politics* 15, no. 2 (August): 137–162.

Mullahy, John, and Edward C. Norton. 2024. "Why Transform Y ? The Pitfalls of Transformed Regressions with a Mass at Zero*" [in en]. *Oxford Bulletin of Economics and Statistics* 86, no. 2 (April): 417–447.

Mutz, Diana C., and Eunji Kim. 2017. "The Impact of In-group Favoritism on Trade Preferences" [in en]. *International Organization* 71 (4): 827–850.

Naughton, Barry. 2021. *The Rise of China's Industrial Policy: 1978 to 2020.* Technical report. Universidad Nacional Autónoma de México.

Navarro, Peter. 2018. *Why Economic Security Is National Security,* December.

Osgood, Iain. 2016. "Differentiated Products, Divided Industries: Firm Preferences over Trade Liberalization" [in en]. *Economics & Politics* 28, no. 2 (July): 161–180.

Ritchie, Melinda N. 2018. "Back-Channel Representation: A Study of the Strategic Communication of Senators with the US Department of Labor" [in en]. *The Journal of Politics* 80, no. 1 (January): 240–253.

Ritchie, Melinda N., and Hye Young You. 2019. "Legislators as Lobbyists" [in en]. *Legislative Studies Quarterly* 44, no. 1 (February): 65–95.

Rodrik, Dani. 2010. "Making Room for China in the World Economy" [in en]. Publisher: American Economic Association, *American Economic Review* 100, no. 2 (May): 89–93.

Schattschneider, E. E. (Elmer Eric). 1935. *Politics, pressures and the tariff; a study of free private enterprise in pressure politics, as shown in the 1929-1930 revision of the tariff.* Place: New York Series: Prentice-Hall political science series. Prentice-Hall.

Schnakenberg, Keith E. 2017. "Informational Lobbying and Legislative Voting" [in en]. *American Journal of Political Science* 61, no. 1 (January): 129–145.

Schwarz, Daniel, Denise Traber, and Kenneth Benoit. 2017. "Estimating Intra-Party Preferences: Comparing Speeches to Votes" [in en]. *Political Science Research and Methods* 5, no. 2 (April): 379–396.

SEC. 2011. *Investor Bulletin: How to Read a 10-K,* September.

Shoch, James. 2001. *Trading Blows: Party Competition and U.S. Trade Policy in a Globalizing Era* [in eng]. New edition 1. Chapel Hill: The University of North Carolina Press.

Spirling, Arthur. 2023. "Why open-source generative AI models are an ethical way forward for science." *Nature (London)* 616 (7957): 413–413.

Steagall, Jeffrey W., and Ken Jennings. 1996. "Unions, PAC contributions, and the NAFTA vote" [in en]. *Journal of Labor Research* 17, no. 3 (September): 515–521.

Stewart, Charles. 2021a. *House Standing Committee Assignments, 103rd - 117th Congress.* Version Number: V1 Published: Harvard Dataverse.

———. 2021b. *Senate Standing Committee Assignments, 103rd - 117th Congress.* Version Number: V1 Published: Harvard Dataverse.

United Steelworkers. 2010. *Congressional Members Call on Obama Administration to Urge Action on China Currency Manipulation; U.S. Workers, Industries Adversely Hurt.* Publisher: United Steelworkers, March.

You, Hye Young. 2017. "Ex Post Lobbying" [in en]. *The Journal of Politics* 79, no. 4 (October): 1162–1176.

Appendix A Additional regressions, robustness check and summary statistics

List of Tables

Table A.1: Summary Statistics

Variable	N	Mean	Std. Dev.	Min	Pctl. 25	Pctl. 75	Max
Rhetoric: Unfair trade	12040	0.66	5	0	0	0	233
Rhetoric: Job loss	12040	0.26	2.3	0	0	0	113
Rhetoric: Technology theft	12040	0.24	2.4	0	0	0	103
Rhetoric: Anti-China Trade	12040	1.2	8.4	0	0	0	352
Rhetoric: Military hawkishness	12040	0.22	2.5	0	0	0	141
Lobby interest: Export	12040	55	52	0	2	88	241
Lobby interest: Import	12040	21	24	0	0	31	157
Lobby interest: FDI	12040	61	57	0	3.5	96	270
Lobby interest: Policy discrimination	12040	2	2.8	0	0	3.1	18
Lobby interest: IP violation	12040	0.58	1.7	0	0	0	16
Party	12040						
... Democratic	5888	49%					
... Independent	42	0%					
... Republican	6110	51%					
DW-NOMINATE Dim 1	12040	0.052	0.43	-0.78	-0.37	0.45	0.94
Chamber	12040						
... House	9778	81%					
... Senate	2262	19%					
Relevant committees	12040	0.42	0.55	0	0	1	2
N. of speech	12040	97	165	0	28	108	5681
NAICS: Resources	9612	1150	2387	0	125	1092	48483
NAICS: Construction	9612	14379	6227	0	10107	17673	65327
NAICS: Manufactur.	9612	27783	15061	0	16974	35768	120753
NAICS: Trade	9612	58586	16238	0	48184	67390	150798
NAICS: Information	9612	7532	7620	0	3404	9114	100975
NAISC: Financial	9612	18636	13570	0	10786	22616	186637
NAICS: Education/health	9612	47631	18100	0	36565	55020	211539
NAICS: Professional	9612	42317	27509	0	22276	55808	257227
NAICS: Leisure/hospitality	9612	31809	13382	0	24622	36392	177318
% degree holders	9544	0.28	0.088	0.092	0.22	0.34	0.69
Unemployment rate	9557	0.06	0.023	0.02	0.044	0.073	0.18
Import exposure per US worker	9125	5.2	8	0.005	0.4	6.6	55

Table A.2: Negative binomial regression models of Congress members' anti-China trade rhetoric, 2001 to 2022, with all control variables

	Anti-trade rhetoric					
	(1)	(2)	(3)	(4)	(5)	(6)
Export	-0.006					
	(0.004)					
Import		-0.012^{+}				
		(0.006)				
FDI			-0.006^{+}			
			(0.003)			
GVC interests				-0.002^{+}		-0.006***
				(0.001)		(0.001)
Policy discrimination					0.115**	0.219***
					(0.037)	(0.027)
partyIndependent	3.68*	3.73**	3.68*	3.68*	4.09**	3.65*
	(1.43)	(1.44)	(1.44)	(1.44)	(1.40)	(1.47)
partyRepublican	-1.40*	-1.40*	-1.38*	-1.39*	-1.30*	-1.26*
	(0.629)	(0.636)	(0.630)	(0.630)	(0.632)	(0.619)
chamberSenate	0.616*	0.636**	0.607*	0.613*	0.775**	0.620**
	(0.244)	(0.242)	(0.242)	(0.243)	(0.240)	(0.228)
nominate_dim1	2.12**	2.13**	2.08**	2.10**	2.21**	1.91**
	(0.763)	(0.775)	(0.759)	(0.763)	(0.768)	(0.738)
relevant_committees	0.489**	0.478**	0.493**	0.490**	0.446**	0.524***
	(0.178)	(0.176)	(0.180)	(0.178)	(0.170)	(0.158)
log1p(n_speech)	1.17***	1.16***	1.17***	1.17***	1.16***	1.19***
	(0.089)	(0.089)	(0.089)	(0.089)	(0.097)	(0.091)
Observations	12,040	12,040	12,040	12,040	12,040	12,040
Controls	✓	✓	✓	✓	✓	✓
State fixed effects (50)	✓	✓	✓	✓	✓	✓
Year fixed effects (22)	✓	✓	✓	✓	✓	✓

Notes. Coefficients from negative binomial models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A.3: Negative Binomial Regression Estimates of Alternative Explanations of Congressional Anti-China Trade Rhetoric.

	Anti-trade rhetoric				
	(1)	(2)	(3)	(4)	(5)
GVC interests	-0.008**	-0.009***	-0.007**	-0.007**	-0.005+
	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)
Policy discrimination	0.358***	0.371***	0.276***	0.329***	0.296***
	(0.087)	(0.091)	(0.062)	(0.063)	(0.059)
Employ. in manufact. (logged)	0.223+				
	(0.131)				
Employ. in trade (logged)	-2.04***				
	(0.562)				
Percentage of degree holders	-4.02				
	(2.90)				
Unemployment rate	-0.454				
	(8.97)				
Exposure to China's import shock		-0.009			
		(0.016)			
Chinese military threat			0.356***		
			(0.102)		
Anti-trade rhetoric (lagged)				0.078***	
				(0.017)	
GVC interests (lagged)					-0.004
					(0.003)
Policy discrimination (lagged)					0.133*
					(0.052)
# Year	22	21	22	21	21
# State	41	41	50	49	49
Observations	9,498	9,083	12,040	10,624	10,624
Chamber	House	House	Both	Both	Both
Controls	✓	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓	✓
State fixed effects	✓	✓	✓	✓	✓

Notes. Coefficients from negative binomial models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A.4: Two-stage least squares (2SLS) results with instrumenting districts' exposure to China's import shock, 2001 to 2022

Dependent Variable:	Anti-trade rhetoric
Model:	(1)
Variables	
Exposure to China's import shock	-0.0137
	(0.0127)
GVC interests	-0.0050**
	(0.0019)
Policy discrimination	0.1692***
	(0.0580)
Fixed-effects	
Year	Yes
State	Yes
Fit statistics	
F-test (1st stage), Exposure to China's import shock	25,219.6
Wald (1st stage), Exposure to China's import shock	201.04
F-test (2nd stage)	2.3895
Wald (2nd stage)	1.1692

Clustered (Year & State & Member ID) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A.5: Firm lobbying on policy discrimination and legislative rhetoric on unfair trade practices, by Presidency

	Unfair trade				
presidency2	Full sample	Bush_terms	Obama_terms	Trump	Biden
	(1)	(2)	(3)	(4)	(5)
GVC interests	-0.005***	-0.009**	-0.002	-0.007***	0.0005
	(0.001)	(0.003)	(0.002)	(0.002)	(0.003)
Policy discrimination	0.212***	0.648***	0.299***	0.149***	-0.014
	(0.036)	(0.095)	(0.044)	(0.043)	(0.102)
# Year	22	8	8	4	2
# State	50	47	48	44	42
Observations	12,040	4,246	4,306	2,108	1,018
Controls	✓	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓	✓
State fixed effects	✓	✓	✓	✓	✓

Notes. Coefficients from negative binomial models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A.6: Firm lobbying on IP violations and legislative rhetoric on IP theft, by Presidency

	Technology theft				
presidency2	Full sample	Bush_terms	Obama_terms	Trump	Biden
	(1)	(2)	(3)	(4)	(5)
GVC interests	-0.005*	-0.004	-0.007*	-0.004*	-0.010+
	(0.002)	(0.005)	(0.003)	(0.002)	(0.005)
IP violation	0.125*	-0.447	0.105	0.241***	0.334***
	(0.054)	(0.440)	(0.072)	(0.055)	(0.037)
# Year	22	8	8	4	2
# State	48	38	31	38	35
Observations	11,858	3,820	3,374	1,982	910
Controls	✓	✓	✓	✓	✓
Year fixed effects	✓	✓	✓	✓	✓
State fixed effects	✓	✓	✓	✓	✓

Notes. Coefficients from negative binomial models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A.7: Count Component of Zero-inflated Negative Binomial Model (ZINB) on Congressional Anti-China Trade Rhetoric

	Dependent variable:
	antiChinaTrade_0.85
GVCinterests_0.85	-0.003^{***}
	(0.001)
policyDiscrim_0.85	0.096^{***}
	(0.026)
partyIndependent	3.528^{***}
	(0.640)
partyRepublican	-0.211
	(0.364)
chamberSenate	0.490^{***}
	(0.142)
nominate_dim1	0.811^{*}
	(0.444)
relevant_committees	0.287^{***}
	(0.098)
log1p(n_speech)	0.366^{***}
	(0.077)
Constant	-1.381^{**}
	(0.702)
Observations	12,040
Log Likelihood	$-7,402.979$
Note:	*p<0.1; **p<0.05; ***p<0.01

Table A.8: Zero Inflation Component of Zero-inflated Negative Binomial Model (ZINB) on Congressional Anti-China Trade Rhetoric

GVCinterests_0.85	0.002^{***}
	(0.001)
policyDiscrim_0.85	-0.153^{***}
	(0.026)
partyIndependent	0.851
	(1.017)
partyRepublican	1.389^{***}
	(0.333)
chamberSenate	-0.497^{***}
	(0.142)
nominate_dim1	-1.503^{***}
	(0.408)
relevant_committees	-0.225^{**}
	(0.090)
log1p(n_speech)	-0.933^{***}
	(0.077)
Constant	4.754^{***}
	(0.697)
Observations	12,040
Log Likelihood	−7,402.979
Note:	*p<0.1; **p<0.05; ***p<0.01

Table A.9: Negative binomial regression models of Congress members' anti-China trade rhetoric, 2001 to 2022, with labels assigned under alternative probability thresholds

	Anti-trade rhetoric	
	(1)	(2)
Probability threshold	*0.8*	*0.9*
GVC interests	-0.005***	-0.007***
	(0.001)	(0.002)
Policy discrimination	0.161***	0.289***
	(0.021)	(0.046)
Observations	12,040	12,040
Controls	✓	✓
State fixed effects (50)	✓	✓
Year fixed effects (22)	✓	✓

Notes. Coefficients from negative binomial models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A.10: OLS models of Congress members' anti-China trade rhetoric, 2001 to 2022

	Anti-trade rhetoric		
	(1)	(2)	(3)
Probability threshold	*0.8*	*0.85*	*0.9*
GVC interests	-0.004***	-0.004***	-0.005***
	(0.0009)	(0.0010)	(0.0010)
Policy discrimination	0.148**	0.185***	0.227**
	(0.040)	(0.038)	(0.061)
Observations	12,040	12,040	12,040
Controls	✓	✓	✓
State fixed effects (50)	✓	✓	✓
Year fixed effects (22)	✓	✓	✓

Notes. Coefficients from OLS models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A.11: Placebo test using criticism on China's human rights violation

	Criticizing China's human rights record (1)
GVC interests	-0.004*
	(0.002)
Policy discrimination	0.003
	(0.027)
Observations	12,040
Controls	✓
✓	
Year fixed effects (22)	✓
State fixed effects (50)	✓

Notes. Coefficients from negative binomial models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table A.12: Placebo test using GVC interests with Vietnam and India as treatments

	Anti-trade rhetoric (1)
Export (Vietnam & India)	-0.143
	(0.166)
Import (Vietnam & India)	0.199
	(0.234)
FDI (Vietnam & India)	-0.066
	(0.061)
Observations	12,040
Controls	✓
✓	
Year fixed effects (22)	✓
State fixed effects (50)	✓

Notes. Coefficients from negative binomial models. Standard errors clustered by state, year, and member ID are in parentheses. $^{+}p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Figure A.1: Sensitivity analysis of policy discrimination and GVC interests with `sensemakr` in R (Cinelli and Hazlett 2020). The red ticks on the x-axis indicate bounds for confounders whose associations with the treatment is a multiple of that of partisanship (being a Republican).