The Strategic Use of Tariff Phaseouts in US Free Trade Agreements

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Abstract

What explains the institutional variation within international agreements? While research has largely explored the variation of design elements *across* international agreements, few have focused on the rich variation *within* agreement. This paper addresses this gap by examining the varied duration of tariff phaseouts in US free trade agreements (FTAs). While FTAs commit member states to free trade, importing countries retain significant flexibility on the timeline of tariff reduction for specific products. Because tariffs benefit import-competing industries, slower reduction, or longer phasing out of tariffs naturally would preserve the industry and the incumbent Executive's political support. I argue that Executives allocate longer tariff phaseouts for industries concentrated in electorally competitive constituencies to protect their electoral prospects. I test my argument using a novel dataset on product-level tariff treatment in FTAs and find industries concentrated in swing and core states receive longer phaseouts. However, I find that President George W. Bush allocated longer phaseouts during his second term rather than the first, contradicting conventional views. These findings have important implications for understanding how FTAs have been able to proliferate despite inherent domestic challenges.

Key words: tariffs, trade agreements, US politics

1 Introduction

What explains the variation in the treatment of tariffs in US free trade agreements? Reciprocal trade agreements are politically controversial; while they improve aggregate welfare and can increase the political support of the incumbent (Mansfield, Milner, and Rosendorff 2002; Mansfield and Milner 2012), the costs are unevenly distributed and the losers of trade deals tend to punish the incumbent at the polls (Margalit 2011; Jensen, Quinn, and Weymouth 2017). However, the Executive (hereafter used interchangeably with President and trade negotiators) has significant flexibility when designing trade agreements to mitigate political backlash. Within the context of free-trade agreements (FTAs), in which the US and its trade partners mutually commit to *eliminate all* of their trade barriers, the President can strategically extend the tariff reduction timeline for specific product tariffs in negotiation.[2] Existing tariffs benefit domestic import-competing

[2]Lengthening the phaseout duration of tariff reduction is not the same as reserving smaller or no tariff cut for sensitive sectors, which Goldstein and Gulotty (2014) have found to be the case with the US in earlier rounds of trade liberalization. Withholding tariff cuts in a free-trade agreement is tantamount to exclusion, or reservation, which would inch the US closer to non-compliance with GATT/WTO Article XXIV. Figures 1a and A2 demonstrate that liberalization exclusion, or exemption, is incredibly rare, therefore demonstrating the US's compliance with WTO rules on FTAs.

producers; hence, slower reduction, or longer phasing out of tariffs would postpone adverse employment effects of free trade, thereby temporarily preserving the industry as well as the political support for the incumbent.[3] Drawing theoretical expectations from Distributive Politics and Presidential Particularism literature, I argue that industries concentrated in swing states are expected to receive *longer* tariff phaseouts in FTAs to forestall the negative political effect of FTAs. Furthermore, the incentive to lengthen the tariff reduction schedule for industries in swing states should be more pronounced when the incumbent has a political horizon.

I employ a novel dataset of tariff treatment in all 13 US FTAs and map each product's phaseout duration to US counties. Using a within-county design, I find that US Executives, on average, target longer phaseouts to industries concentrated in swing and core states. This result is robust to various robustness and sensitivity checks. When examining the 11 out of 13 FTAs negotiated and signed under George W. Bush's administration, both swing and core states received longer phaseouts during his second term rather than the first — contradicting the conventional understanding of electoral incentives.

This article contributes to several strands of literature on distributive, presidential, and trade politics. First, my results speak directly to the core versus swing voter debate in the presidential and distributive politics literature (Cox and McCubbins 1986; Lindbeck and Weibull 1987; Cox 2010; Kriner and Reeves 2015*b*; Fu 2023; Ha 2023; Berry, Burden, and Howell 2010; Kang 2018). My empirical evidence supports both the swing and core voter hypotheses. I observe that swing and core constituencies, both at the county and state levels, are more likely to receive extended tariff phaseouts, although there is a slight bias toward core states. However, this tendency is heightened during a president's second term, at least for President George W. Bush, contradicting Kang's (2018) results.

While I am not the first to hypothesize the connection between political geography and trade policies and in particular the "swing state effect" (See Lowande, Jenkins, and Clarke 2018; Kriner and Reeves 2015*a*; Ma and McLaren 2018), I am the first to demonstrate variation within a free-trade agreement and how electoral politics can shape the design of international agreements.

Second, this paper underscores the significance of the temporal dimension of tariff phaseouts in potentially mitigating both the economic and subsequent political consequences of committing to free trade agreements, or at the bare minimum highlights the broad beliefs surrounding their supposed functions.[4] While the open economy politics

[3]The incumbent's political support stems from industry and labor campaign contributions and voters.

[4]I am careful about making such a claim despite finding evidence, both quantitative and qualitative,

framework typically assumes that the distributive impact of free trade is predetermined by the existing distribution of factors, industries, and firms relative to the trade partner, my findings suggest that the variable duration of import tariff reductions may, in theory, soften the up-front consequences of trade liberalization.[5] Given that the electoral consequences from trade are largely due to its negative outcomes, notably unemployment (Jensen, Quinn, and Weymouth 2017; Margalit 2011; Autor et al. 2017), and considering that the length of tariff phaseouts can influence unemployment rates, it follows that the electoral consequences can be delayed.

Third, I theoretically conceptualize tariff schedules as highly detailed levers that the Executive can prioritize in negotiation to craft politically palatable FTAs. Prior work on FTA or International Organization (IO) design has primarily focused on macro-level design features (For a seminal example, see Koremenos, Lipson, and Snidal 2001), such as escape clauses (Rosendorff and Milner 2001), which are all-encompassing.[6] In contrast, my focus on tariff treatment opens up avenues on how micro-level design features can allow for highly specific targeting of carve-outs, which enables a more detailed examination of how domestic interests permeate into FTA design.

Fourth, this paper is one of the first, to my knowledge, to empirically demonstrate how electoral horizons can influence the design of international trade agreements. Existing literature linking election with international negotiations tends to respond to Putnam's (1988) logic of how elections can increase the bargaining leverage of leaders or the probability of reaching an agreement (Rickard and Caraway 2014; Melnick and Smith 2023; Buisseret and Bernhardt 2018). Yet, so far no study has been able to empirically demonstrate how the existence of an electoral horizon (or the lack thereof) shapes the design of international agreements.[7] This paper offers new disaggregated data on trade policy, opening up new avenues to investigate how elements of international agreements can be catered to specific domestic audiences when the leader has an electoral horizon, and,

to suggest that there is a broad range of demand for tariff phaseouts. This is because despite phaseouts being relatively common in US tariff schedules, some economic research has found little to no evidence of phaseouts' ability to differentially affect import growth in a predictable manner (Besedes, Kohl, and Lake 2020; Dong and Jestrab 2022).

[5] I define the consequences of trade liberalization in employment terms. While imports may grow sooner rather than later for longer phased-out product codes (Besedes, Kohl, and Lake 2020), such products would remain relatively uncompetitive to domestic-made goods until a later point in time.

[6] By "all-encompassing," I refer to the universality of escape clauses that apply to all stakeholders of FTA, as opposed to highly specific tariff phaseouts that apply to only a few specific industries. For example, the safeguard mechanism applies to any given industry if they experience a surge of imports that threatens domestic producers. On the other hand, phaseouts can be targeted to a particular industry or producer of a product to temporarily insulate them from foreign competition.

[7] This is primarily due to the lack of disaggregated data that allows for the mapping of complex domestic interests and preferences into the design of the agreement, which this paper offers.

conversely, when there is no horizon. While the result suggests President Bush negotiated longer tariff phaseouts for industries concentrated in swing and core states during his second term is puzzling and deserves a further in-depth case study, this article and its data contribution generate implications for further studies on how institutional design can affect domestic politics and vice-versa.

Finally, this paper speaks to the growing *differentiated integration* literature (Schneider 2008; Schimmelfennig, Leuffen, and Rittberger 2015; Schimmelfennig 2016; Schimmelfennig, Leuffen, and De Vries 2023), which has broadly focused on the EU's enlargement and the phasing in of the benefits and freedoms for EU acceding countries. Similar to the argument initially made by Schneider (2008), the differentiated phasing out of products is responsive to domestic objection and is an institutional tool to boost cooperation on trade, and in the EU's case — cooperation on enlargement. The more distinct and obvious difference in this article would be the granularity of the differentiated object of investigation.

2 Theory

Executives face a dilemma when negotiating FTAs. On the one hand, improving aggregate welfare through FTAs can boost political support and electoral prospects for the incumbent (Mansfield, Milner, and Rosendorff 2002; Mansfield and Milner 2012);[8] yet, on the other hand, FTAs generate uneven and unequal distributional impact on domestic firms (Baccini, Pinto, and Weymouth 2017), which can reverberate throughout the local labor market outside of manufacturing (Autor, Dorn, and Hanson 2013; Autor et al. 2014; Autor, Dorn, and Hanson 2016). The adversely affected constituents, in turn, can turn the tide of a competitive election (Jensen, Quinn, and Weymouth 2017; Margalit 2011; Autor et al. 2017). The legal constraint leaders face when negotiating preferential trade arrangement is that they must seek to eliminate substantially all trade barriers, as mandated by the GATT Article XXIV.[9] Therefore, how do incumbent Executives minimize electoral risk from vulnerable sectors when negotiating FTAs?

Unlike multilateral trade liberalization, when maintaining the status quo to quell domestic objections was possible (Goldstein and Gulotty 2014), the rate of liberalization

[8]The institutional setting (the Reciprocal Trade Agreements Act (RTAA)) that allows the Executive to negotiate trade agreements are meant to promote free(r) trade as they are insulated from special and parochialistic interests that previously plagued American trade policies and are more concerned about the national well-being (Bailey, Goldstein, and Weingast 1997).

[9]GATT XXIV mandates GATT/WTO member states to essentially only sign free trade agreements that eliminate substantially all trade barriers in a reasonable amount of time.

exclusion or exemption is exceptionally rare in US FTAs. Across 13 FTAs, the rate of exemption in US FTAs is a measly 0.291%, as shown in Figure 1a. While countries may want to be compliant with GATT XXIV, there are bargaining dynamics that disincentivize excluding products from tariff elimination. The next section develops a simplified theory of trade negotiation and argues that the principle of reciprocity can prevent the use of product exclusion and how tariff phaseouts is a policy solution.

2.1 Domestic Politics of Trade Negotiation

Let's assume two countries are bargaining over the rules of each others' tariff schedules. Each side has two lists of priority products to *protect* at home and to *promote* liberalization abroad. Clearly the former refers to products made by import-competing producers while the latter refers to products made by exporters. The ideal policy outcome for import-competing producers (and associated actors, such as unions and workers) is to exclude products from liberalization, i.e., maintaining the status quo. Conversely, exporters' ideal policy outcome would be to have free and quick access to the partner's market.

The list and the priority for each product come from consultation with stakeholders and Congress members. The Trade Promotion Authority (TPA) or Fast Track Authority delegates negotiating power over to the Executive under tight conditions, such as negotiators must meet US objectives and fulfill notification and consultation requirements in order to qualify for an expedited procedure (Casey and Cimino-Isaacs 2024). The expedited procedure allows for FTA implementation bills to be automatically introduced and discharged from committees and to be passed with a simple majority in both chambers, as opposed to a two-thirds majority in the Senate. While negotiators are institutionally mandated to consult with stakeholders (i.e., business groups and unions), it is within the Executive's interest to fulfill demands by interest groups as well as formulate an agreement with enough votes in Congress to ratify. This is because consulting with interest groups *generates* a list, and consulting with Congress *shapes* the rank ordering of the list of products. Fulfilling domestic preferences are crucial in a two-level game to increase the likelihood for ratification (Putnam 1988).

Interest groups communicate their interests through a formal consultation mechanism set up by TPA. Because consultation is formalized, firms do not need to buy access to negotiators. Therefore, the collective action problem outlined in Kim (2017) and how producers with differentiated products may be able to overcome free-rider incentives may not matter at the negotiating stage as there is no inherent cost to advocate for producers' preferences. Since money is not needed to buy access to negotiators, the presence of

interest groups where such a barrier to entry is non-existent helps negotiators create a rather comprehensive list of products to prioritize in bargaining with their counterparts, whether it be to protect or to promote.[10]

Negotiators are constrained on time, resources, and concessions to exchange. To increase bargaining efficiency, negotiators consult with Members of Congress in order to rank the priority of each product. Members of Congress may condition their ratification vote on the protection or promotion of certain industries. Products with the highest priority, then, may be thought as being conditional on key ratification voters.

Even with a priority list for products to protect and promote, negotiators rarely exclude products because of the principle of reciprocity. Excluding products from liberalization to protect an important industry means opening the room for the trade partner to demand exclusion for products that may bar important domestic exporters' access to a foreign market. Given that exporters are empowered, both institutionally from reciprocity (Gilligan 1997) and from decades of trade liberalization as indicated by their lobbying prowess in FTA ratification (Blanga-Gubbay, Conconi, and Parenti 2023), excluding a product from liberalization diminishes the agreement's ratification prospects. In addition to the constraints from the GATT XXIV, negotiators must strike a balance between protecting vulnerable producers and maximizing ratification prospects. I argue that phasing out tariffs is the key institution within FTAs that helps countries fulfill both goals.

2.2 The Economic and Political Functions of Tariff Phaseouts

Tariff phaseouts solve the problem of reciprocity described above. Instead of materializing the *full* opportunity cost of not gaining greater market access with exclusion, exporters would only face *diminishing* opportunity costs over a negotiated period of time with tariff phaseouts. In exchange for exporters confronting opportunity costs, import-competing producers gain valuable time to adjust to rising competition from the FTA partner. In other words, tariff phaseouts can minimize objections by delaying the distributive impact of free trade from being felt by constituents. Whereas an abrupt transition to free trade can threaten industries that are not competitive in relations with those from FTA partners, slowly phasing out existing tariffs can provide domestic producers with a temporary buffer to adapt to import competition.

Tariff phaseouts have three important economic functions. First, it maintains the relatively high price of imported goods compared to domestically made goods. While

[10]This process is analogous to negotiators knowing the reservation points before entering the bargaining table.

economists have found robust evidence that differentiated phaseout duration does not necessarily generate a differentiated rise in import flow (Besedes, Kohl, and Lake 2020; Dong and Jestrab 2022), having foreign goods introduced into a market does not necessarily mean that domestic producers are less competitive. Branding and reputation of existing domestic companies may mitigate consumer flocking to imported goods, at least earlier on. Therefore, the longer the price of imported goods is maintained relatively higher than domestic-made goods, the better it is for domestic producers. This temporary "protection" can thus delay industry adjustments and resource reallocation, i.e., delaying the increase in industry unemployment.

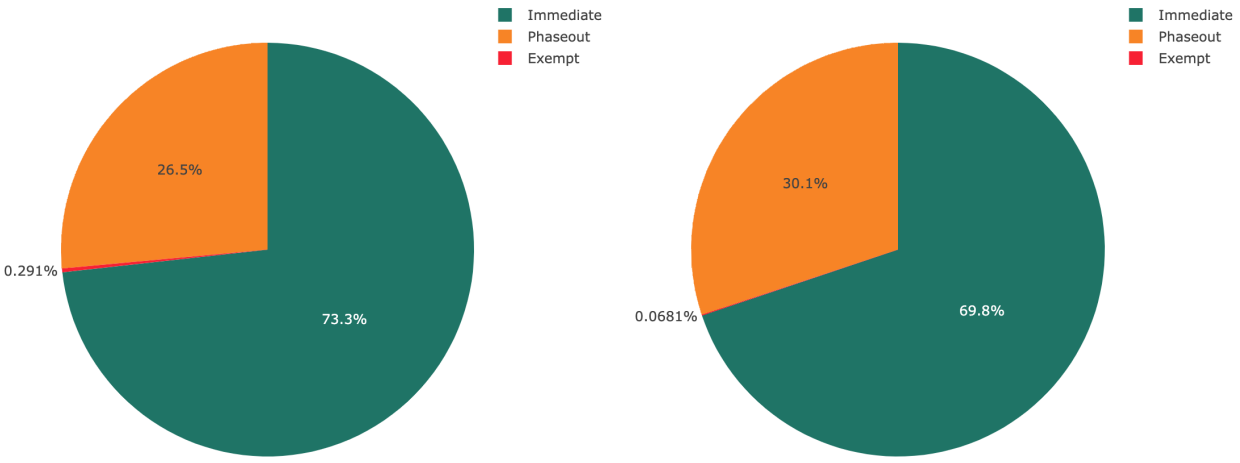
Second, the maintenance of some level of tariffs early in the phase-out period can dampen firms' incentives to offshore production to the trade partners. The intuition is simple. Firms only offshore if the cost of producing abroad is lower than the cost of domestic production; labor and transportation costs, as well as tariffs, contribute to the firm's cost calculation for offshoring. One may intuitively conclude that the longer it takes for tariffs to be reduced to a critical threshold, one that would make offshoring profitable relative to domestic production, the longer the delay on firms' decision to offshore.

Finally, the declining price of foreign goods and the certainty of when tariffs are fully eliminated can help motivate domestic producers who cannot simply offshore to innovate and differentiate their products. Where consumers prefer variety (Krugman 1980), domestic producers can adjust and remain viable if they have enough time to distinguish their offerings from foreign competitors.

Phasing out tariffs allows negotiators to craft an agreement that not only liberalizes substantially all trade, thereby maximizing the aggregate welfare but in a way that minimizes objection and maximizes ratification chances. In economic terms, import-competing producers would suffer smaller and slower income and employment decline under tariff phaseout as opposed to if product tariffs are immediately eliminated. On the other hand, domestic exporters gain increased access to foreign markets, despite doing so slowly while accruing opportunity costs, as opposed to not having access at all. The resulting agreement made possible by tariff phaseouts (1) generates welfare gains for consumers, (2) increases surplus for domestic exporters slowly over time, and (3) minimizes the immediate surplus losses for import-competing producers. As a result, (1) the *eventual* losers of the agreement may not oppose as strongly as they would under immediate tariff elimination and (2) the *eventual* winners continue lobbying for ratification, thereby increasing the chances for ratification.

A slight, but important, digression. Tariff phaseouts are not new and exclusive to FTAs,

Figure 1: Proportion of Tariff Treatment in USA Trade Agreements After Omitting Already Duty-Free Category



(a) Product Codes

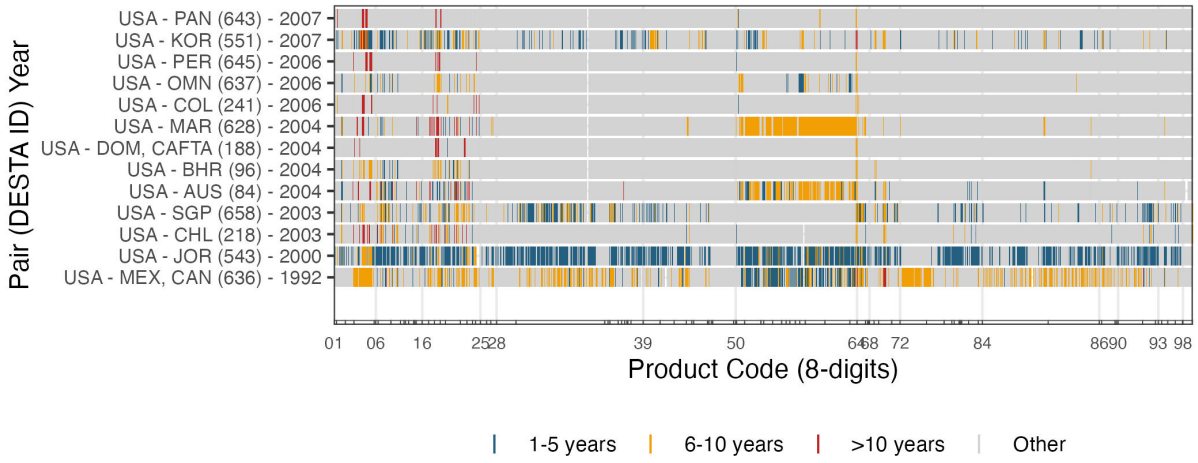
(b) Import Values

Note: Proportions are calculated by aggregating all product code lines (and 5-year rolling average import values before the agreement's signature date) across all USA free trade agreements. Created by Eric Thai on 7/10/24.

as they have long been an institution of compromise. The earliest example is the Compromise Tariff Act of 1833 in the United States that phased out products with tariff rates above 20% over nine years (Irwin 2020); this compromise was meant to diffuse objections from the South who demanded a reduction of import tariffs by threatening to not enforce tariffs and secede from the Union (See review in Irwin 2020). Other examples include the Kennedy, Tokyo, and Uruguay rounds, which all phased out products uniformly over five or eight years (Kowalczyk and Davis 1998; Winham 1986; Stewart 1999).

The main difference with FTAs is that phaseouts are more selective with a diverse set of duration. That means that 26.5% of existing tariffs are phased out with varying duration while the rest are either eliminated immediately or exempted (See Figure 1a and Figure A2). Figure 2 shows the distribution of various categories of phaseout duration from the United States toward its trade partners to provide an idea of which products are phased out and for how long. Each tick represents a product code that is phased out over (1) 1-5 years, (2) 6-10 years, or (3) over 10 years. The concentration of phaseout allocation (the presence and cluster of ticks) differs across trade partners for obvious reasons, such as each partner having a different comparative advantage and thus posing different import threats. For example, Moroccan textile products (product codes between Chapter 50 and

Figure 2: Distribution of Tariff Phaseout Duration from USA FTAs Across 8-digit Product Codes



Note: Each tick represents one product code, and product codes that were already duty-free or treated with immediate elimination or exemption are grouped as "Other" to improve visibility. Each tick on the x-axis demarcates a 2-digit chapter. Important 2-digit chapters are displayed. Refer to https://hts.usitc.gov/ on the title of HS chapters. Created by Eric Thai 7/10/24.

63) and Mexican and Canadian iron and steel (Chapter 72) are phased out between 6-10 years to mitigate import shock.[11] While the same cluster of products may be phased out for two or more separate trade partners, their duration varies across partners. For example, the US phases out imports of animal products (Chapters 1-5) very differentially across trade partners. Some receive relatively long duration (>10 years), such as Panama, Peru, and Colombia, while others are between 6-10 years, such as Mexico and Canada, Jordan, and Singapore. Among the product tariffs negotiated in the 13 US FTAs, while the phaseout of tariffs is only assigned to 26.5% of existing product tariffs, the associated import value of the phased-out products amounts to a 30.1% of all import value (Figure 1b). The decision to phase out tariffs and their duration hold economic importance, and interview evidence suggests that it takes up a significant bulk of negotiation.[12]

A recent example of how tariff phaseout helps minimize objections from domestic society is from the United Auto Worker's (UAW) endorsement of the US-Korea FTA (KORUS). Despite South Korea's comparative advantage in manufacturing automobiles, the UAW deviated from the position of other large unions such as the AFL-CIO,[13] United

[11] Figure A3 displays the four tariff treatment across US FTAs.

[12] TN-01 (Trade Negotiator - 01)

[13] https://apw-aba.org/content/afl-cio-and-other-union-statements-us-korea-free-trade-deal. Last accessed 9/19/23.

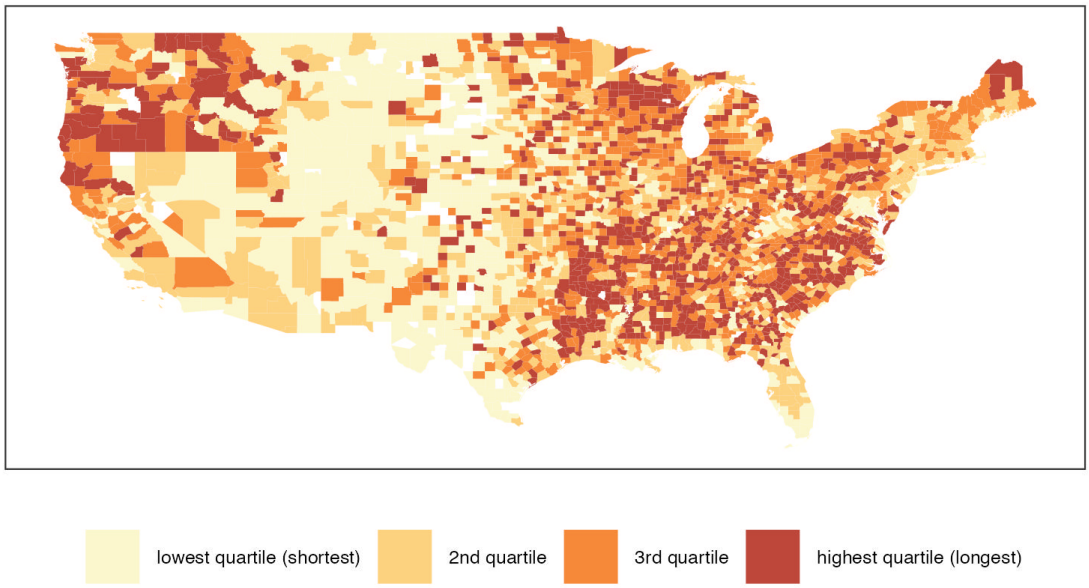
Steel Workers,[14] and the Communications Workers of America[15] that opposed on labor, investment, and environmental grounds. Instead, the UAW statement (Figure A1) cited the slow phasing out of tariffs on automobile imports and faster access to the Korean market for exporters of electric vehicles as the main reasons for its endorsement.[16] The benefit of phaseout concentrates in the manufacturing sector of the United States. Figure 3a and 3b map the concentration of tariff phaseouts at the county level for the 2007 and 2011 versions of KORUS, respectively. It is rather difficult to gauge the change because only 10 product code lines experienced changes in tariff treatment from the 2007 version of KORUS. However, this demonstrates the extent to which phasing out 10 products can alter the political attitudes of certain interest groups.

[14] https://www.usw.org/news/media-center/releases/2010/usw-opposes-passage-of-revised-us-korea-trade-agreemer Last accessed 9/19/23.

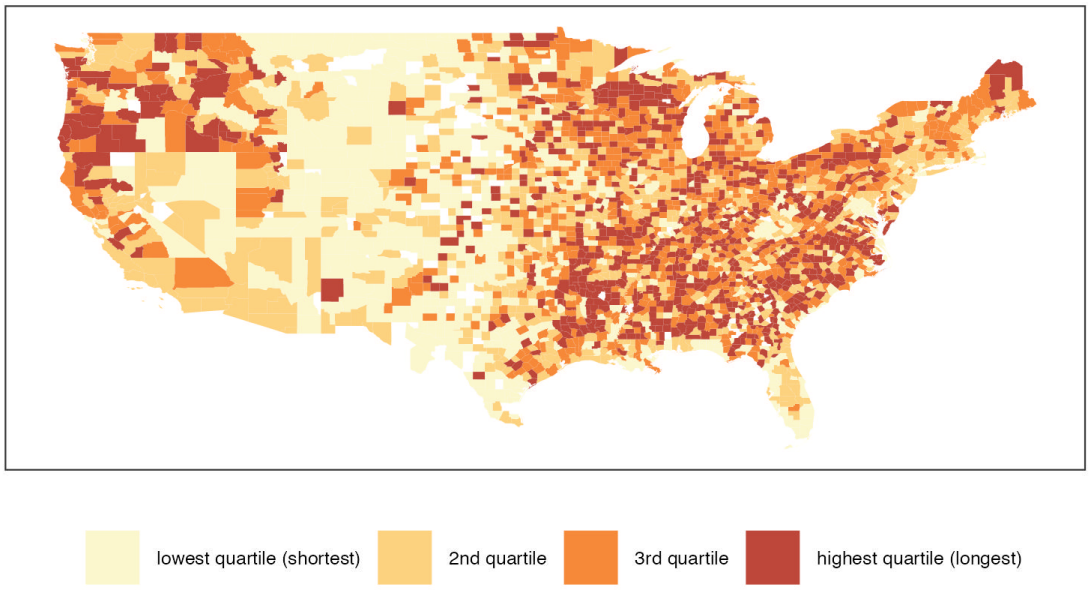
[15] https://cwa-union.org/news/entry/statement_by_the_communications_workers_of_america_on_the_proposed_korea-u. Last accessed on 9/19/23.

[16] https://ustr.gov/about-us/policy-offices/press-office/blog/2011/october/uaw-backs-korea-trade-agreement. Last accessed on 9/19/23.

Figure 3: Weighted Phaseout Year



(a) KORUS 2007



(b) KORUS 2011

Note: Quartiles of indices are calculated within-agreement. Displayed are geographic concentrations of tariff schedule phaseout duration from KORUS 2007 and 2011 across counties. *Weighted Phaseout Year* is calculated by taking the industry employment weighted sum of the phaseout duration for each county: $\text{WPOY}_{c\tau} = \sum_{k \in c} \left(\frac{E_{ck\tau}}{\sum_c E_{ck\tau}} \times \rho_{ijk} \right)$. More details are in Section 3. Data source: Lewis et al. (2013); Eckert et al. (2020). Created by Eric Thai on 7/10/24.

The KORUS example demonstrates the economic and political functions of tariff phaseouts. Despite imports exhibiting similar growth patterns across different tariff phaseout durations (Besedes, Kohl, and Lake 2020; Dong and Jestrab 2022), the fact tariff phaseouts are commonly employed and in a targeted manner suggests that there's a belief of or theoretical justification for their usefulness. Industries may demand for longer tariff phaseouts with the belief that they can get more time to fully adjust to import competition. Despite being counterproductive to maximizing aggregate welfare, Presidents may oblige and supply tariff phaseouts with the belief that phaseouts can insulate them from political backlash and maximize ratification prospects. The question of whether tariff phaseouts can *actually* dampen import competition on domestic firms or delay the political consequences for the incumbent, while important, is outside the scope of this project.

2.3 Where to Target?

Having identified the benefits of tariff phaseouts for domestic industries and incumbents, the critical question arises: where should presidents ideally target these tariff phaseouts? Of course, the Executive and negotiators would not want to phase out *every* products because tariff phaseouts, by virtue of the principle of reciprocity, is redistributive. The longer tariff phaseouts are used on more product codes to benefit the domestic import-competing sector, the longer it would take for more domestic exporters to have full access to trade partners' markets. Tariff phaseouts are bargaining chips; their usage redistributes the upfront adjustment costs the import-competing sector would face to opportunity costs for exporters.

To answer the question of targeting, I draw theoretical insights from the presidential particularism literature. This body of work shows that presidents benefit electorally from engaging in particularism, especially in the distribution of federal funds (Kriner and Reeves 2012). Furthermore, the literature that focuses on electoral incentives to allocate federal spending (Kriner and Reeves 2015*b*; Fu 2023; Stratmann and Wojnilower 2018) or trade protection (Lowande, Jenkins, and Clarke 2018; Kriner and Reeves 2015*a*; Ma and McLaren 2018) offers additional guidance on this matter.

The primary distinction of this study from previous research in presidential particularism and distributive politics lies in its focus on *free trade agreements*. Unlike prior research focused on areas like federal spending, grants, and unilateral tariff hikes, where the president has considerable autonomy to target benefits, FTAs can introduce competing interests that can dilute the Executive's particularistic tendencies. In these agreements, the president and his negotiators must consider the prospects of ratification and the compet-

ing preferences of the trade partners. For example, a trade partner might demand market access for their automobile manufacturers, which may contradict the president's inclination to prolong tariff phaseouts for domestic auto producers.[17]

The existing literature offers varied perspectives on the allocation strategies of a particularistic president. Several studies indicate that presidents may favor core voters (Larcinese, Rizzo, and Testa 2006; Dynes and Huber 2015; Fu 2023; Stratmann and Wojnilower 2018; Ha 2023) Another line of research suggests a preference for targeting voters in swing states (Kriner and Reeves 2015*b*; Lowande, Jenkins, and Clarke 2018; Ma and McLaren 2018), with the inclination to engage in particularism limited to the president's first term (Kang 2018).

Although existing research focuses primarily on tangible benefits, such as federal spending and grants, adjustment periods associated with tariff phaseouts might require a different approach. Unlike immediate tangible benefits, tariff phaseouts are about delaying the adverse economic impacts of foreign competition. By delaying the negative effects of the FTA, the president may be able to limit the connection between his trade policy and industry adjustment down the road from constituents. This strategy could be particularly crucial for first-term presidents who need to maintain or strengthen their position in competitive states. Anticipating that voters might penalize the incumbent for trade-related job losses (Margalit 2011; Jensen, Quinn, and Weymouth 2017), I hypothesize that the president will negotiate longer tariff phaseouts for vulnerable industries concentrated in competitive states, but lack such incentive when there is no electoral horizon (Kang 2018).

> **Hypothesis 1 (H1):** *On average, industries concentrated in swing states receive longer tariff phaseouts.*
>
> **Hypothesis 2 (H2):** *On average, industries concentrated in swing states receive shorter tariff phaseouts in a President's second term than in his first term in office.*

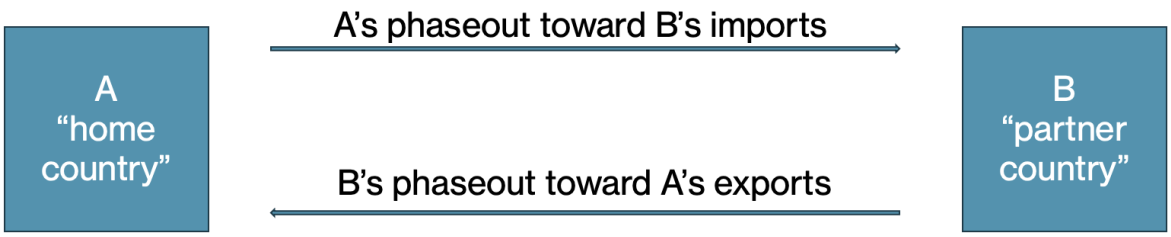
3 Data and Measurement

I make use of a novel dataset on FTA tariff treatment for all 13 ratified US free trade agreements to test my hypothesis. FTARIFF is slated to be the first comprehensive database of bilateral FTA tariff treatment at the 6-digit product level, with the aim of including more than 140 FTA and 280 direct dyadic relationships in tariff treatment. This database is a col-

[17] In such case, the tariff phaseout may reflect the relative distribution of political influence from key stakeholders, as explored in a different paper.

laborative work with Elizabeth Van Lieshout.[18] FTARIFF contains information on the tariff treatment from the United States toward imports from trade partners and also from the trade partner toward the United States exports. Figure 4 visualizes the bidirectional tariff phaseout treatment. For this paper, I will be using the United States phaseout duration toward imports from its trade partners. In order to aggregate tariff phaseout information at the product level to the county level, the unit of analysis, I rely on the County Business Pattern (CBP) data from the US Census to provide data on employment for each industry at the county level.[19]

Figure 4: Direction of Tariff Phaseouts



The main measure, *Weighted Phaseout Years (WPOY)*, estimates the employment-weighted sum of phaseout years of relevant manufacturing industries for each free trade agreement. First, ρ_{ijk} denotes the average phaseout year for all 8-digit products associated with each industry k, where ρ is the phaseout duration given by the US i to its trade partner j.[20] Products that are treated with liberalization exemption or were already duty-free prior to the agreement are not included in this aggregation process. Second, the NAICS-level phaseout duration is weighted with the share of total industry k employment that is located in county c: $\frac{E_{ck\tau}}{\sum_c E_{ck\tau}}$. This weight should help approximate the degree of industry employment that is concentrated in the county. Employment numbers $E_{ck\tau}$ are averaged over a rolling period of five years before the agreement signature year (denoted by τ). In short, the weighting places greater emphasis on industries that are more concentrated in certain counties.[21] Finally, I sum the weighted phaseout duration to the county level, as indicated by $\sum_{k \in c}$. This aggregation process can be represented by Equation 1.

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[19] I use the CBP data from Eckert et al. (2020) who imputed missing data and harmonized the two industry classifications to the NAICS, the data is accessible at http://www.fpeckert.me/cbp/.

[20] I use Liao et al. (2020)'s `concordance` for the crosswalk files to translate HS products to NAICS industry codes.

[21] Previous version of this project employed employment share over total county employment, which did

$$\text{WPOY}_{c\tau} = \sum_{k \in c} \left(\frac{E_{ck\tau}}{\sum_c E_{ck\tau}} \times \rho_{ijk} \right) \quad (1)$$

3.1 Primary Explanatory Variables

The main explanatory variables are indicators of the electoral competitiveness of states. I follow the coding rule from Kriner and Reeves (2015*b*), which splits states into three types. A state is (1) "hostile" if the average vote share of the president's party from three previous elections is less than 45%, (2) "swing" if the average is between 45% and 55%, and (3) "core" if the average is greater than 55%. State types are lagged one year due to the successor executive not taking office until January after the election year. For example, while Bill Clinton (Democrat) won the 1992 election, the competitiveness of each state for the sitting president would not update until 1993 when Bill Clinton took office. This rule helps account for the president who negotiated and signed the agreement in the event the FTA signature date lands on an election year. Data on presidential elections at the state level is from (MIT Election Data And Science Lab 2017). To ensure that my results are robust with the rather arbitrary margins used to code swing, I narrow the margins for swing states in Table A1 to 47.5% and 52.5% (version 2) and 49% and 51% (version 3).

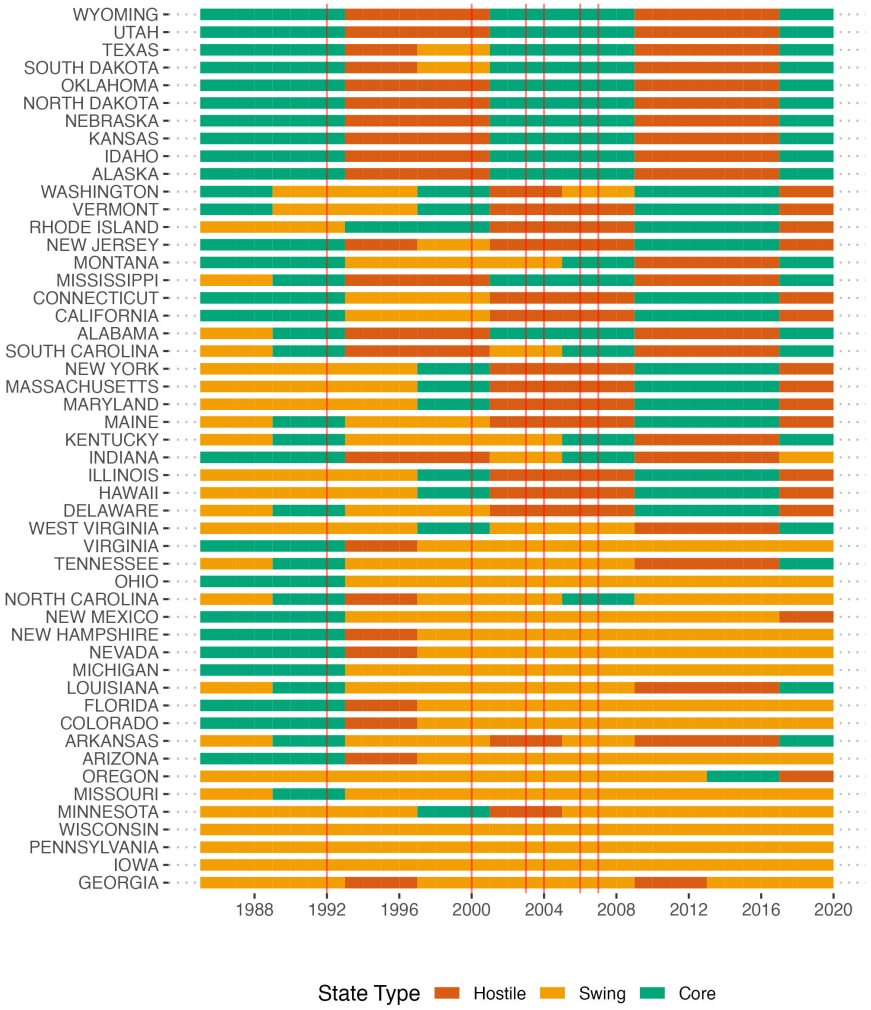
Figure 5 maps the competitiveness of each US state from 1984 to 2020 and the years in which the United States signed at least one free trade agreement. It is rank ordered based on how frequently a state is coded as "core." Among the 13 ratified US FTAs, 11 were negotiated and signed during the George W. Bush administration. NAFTA was negotiated under George H. W. Bush, and US-Jordan FTA was negotiated under Bill Clinton. As can be observed in Figure 5, the "hostile" and "core" states tend to oscillate when there is an election. The "swing" status of a state tend to be more stable, but there are instances where states' status deviates slightly, as seen for Georgia in 1993-1997 and 2009-2013.

3.1.1 Causal Identification

My ability to make a causal claim with a state changing in competitiveness over time is contingent on the degree to which trade agreements can reasonably shift election results. The current literature is divided on whether trade agreements can influence elections. On the one hand, open economy politics (OEP) scholars may theorize that voters "automati-

not allow for the possibility of multiple industries being concentrated in one locale. Using total county employment numbers inherently redistributes the weight of other industries as the employment share for one industry increases. The current version's employment weight allows for the possibility of multiple industries concentrated in one county.

Figure 5: Variation in State Competitiveness Types



Note: Each color represents the competitiveness of each state from the sitting president's perspective. Following Kriner and Reeves's 2015*b* coding rules, a state's competitiveness is coded into a trichotomous categorical variable. Kriner and Reeves (2015*b*) take the average vote share of the president's party across three previous presidential elections. A state is (1) "hostile" if the average vote share of the president's party is less than 45%, (2) "swing" if the average is between 45% and 55%, and (3) "core" if the average is greater than 55%. State types are lagged one year due to the successor executive not taking office until January after the election year. Red vertical lines indicate when a trade agreement was signed. State order is ranked by how frequently a state is coded as "core." Data source: Data and Lab (2018)

cally" know whether a free trade policy is good or bad for their pocketbook based on their class, sector, or the kind of firm they work in. Yet, the foundation of the OEP approach relies on not only trade policy salience but also voters' knowledge of their elected official's policy position, which Guisinger (2009) has called into question. Of course, while Guisinger (2009) specifically investigates the salience of CAFTA-DR, a rather unimportant trade agreement compared to NAFTA, such ex-ante expectation and the resulting

political behavior of voters may vary case-by-case, as demonstrated by the salience of the US-Korea (KORUS) agreement among Korean voters (Kim and Cha 2022).

On the other hand, many studies have shown that voters directly affected by trade and offshoring are more likely to punish incumbents (Margalit 2011; Jensen, Quinn, and Weymouth 2017; Kim and Cha 2022; Autor et al. 2017; Che et al. 2016). These "ex-post" explanations are compelling, yet, very few, if any at all investigates whether US incumbents are punished for signing free trade agreements. Additionally, the mechanism being investigated in this paper, tariff phaseouts, can theoretically delay such distributional consequences from being felt immediately, which may dampen whether changes in a state's vote share can, at large scale, be credibly affected by trade agreements immediately after signing.

Changes in states' competitiveness status based on the coding rule require that the vote share of one election must tip the three-election average over or under certain thresholds. And voting is rarely uni-dimensional, or primarily affected by economic self-interest concerns (Roemer 1998; Austen-Smith and Wallerstein 2006; Iversen and Goplerud 2018). Aside from economic concerns, voters' behavior is shaped by various factors, like incumbency status, social issues, personal characteristics of the candidate, and so on. Given the argument made above, a state's competitiveness type can be seen "as-if random" or exogenous to the phaseout duration allocated in FTAs.

3.2 Secondary Explanatory Variables

While trichotomizing states' competitiveness levels into three categories provides a simpler evaluation of the hypothesis, it sacrifices variation in vote share margins. To ensure the robustness of the results, I code two continuous measures that capture the hostile — core and the swing-ness dimensions for each state. Using Presidential Election Vote Returns from MIT Election Data And Science Lab (2017), I take the difference for each state's three-election average vote share for the winning President's party with 50% to measure the average vote share margins.[22] Higher values indicate that the state consistently votes in favor of the President's party, proxying it as a core state. Negative values would indicate that the state is "hostile" to the President's party. Second, I take the inverse absolute distance to 50% to measure how hotly contested a state was with the two-party vote share across three elections. A higher value would indicate that the state is more competitive, or more "swing." The same coding is done for county vote share.

[22]This is similar to how the primary explanatory variable is created by taking the average of two-party vote share across three previous elections (inclusive).

3.3 Control Variables

To better identify the effect of states' electoral competitiveness on the degree of tariff phaseouts being allocated to industries, I control for (1) county competitiveness types, (2) electoral college votes, (3) import threat, (4) proportion of manufacturing employment, (5) poverty rate, (6) weighted base tariff rates to be eliminated, (7) capital mobility, (8) union membership rate, (9) county population, PAC donation per member of Congress from (10) unions and (11) businesses, (12) proportion of intermediate products, and whether the county is represented by a legislator in (13) House Ways and Means committee or (14) Senate Finance committee.

Political Covariates: First, I code a county's electoral competitiveness following Kriner and Reeves (2015*b*)'s coding rule, which is the same as how states' competitiveness is created. I use county-level elections returns from MIT Election Data and Lab (2018) (which covers elections from 2000 to 2020) and from QCPress (which covers elections from 1976 to 1996).[23] Second, I hand code each state's electoral college votes using the National Archives data.[24] I expect industries concentrated in states with more electoral college votes to get longer phaseouts. Because electoral college vote counts do not vary over time, this variable is only included in models with FTA fixed effects.

Economic Covariates: Third, I control for the county's level of *Import Threat* by first taking the difference of the partner's revealed comparative advantage (RCA) for industry p with the United State's RCA for product p, and then take the employment weighted sum to the county level similar to how *WPOY* is constructed. Equation 2 summarizes the construction of *Import Threat*. Because the difference between the two RCA terms shares a common denominator, I simplify the difference to only the numerators (see Equation 3). Product-level bilateral trade data is from CEPII BACI (Gaulier and Zignago 2010). I use average bilateral trade from 2013-2017 as trade with lower trade barriers is less distorted, giving a more accurate picture of each country's "true" revealed comparative advantage. Employment numbers is averaged over a rolling period of five years τ before the agreement signature year. I expect counties with higher *Import Threat* index to get longer average weighted phaseout duration.

$$\text{IMPORT THREAT}_{c\tau} = \sum_{k} \left(\frac{E_{ck\tau}}{\sum_{c} E_{ck\tau}} \times \left(RCA_{jk\tau} - RCA_{ik\tau} \right) \right) \tag{2}$$

[23] https://library.cqpress.com/static.php?page=admin. Last accessed 4/24/24.
[24] https://www.archives.gov/electoral-college/allocation. Last accessed 5/20/24.

$$\text{IMPORT THREAT}_{c\tau} = \sum_k \left(\frac{E_{ck\tau}}{\sum_c E_{ck\tau}} \times \left(\frac{X_{jp\tau_{2013-2017}}}{\sum_p X_{jp\tau_{2013-2017}}} - \frac{X_{ip\tau_{2013-2017}}}{\sum_p X_{ip\tau_{2013-2017}}} \right) \right) \tag{3}$$

Fourth, I control for a county's manufacturing employment share. Using Eckert et al.'s (2020) version of County Business Pattern for employment data at the county-NAICS level, I classify NAICS 31, 32, and 33 as "manufacturing" according to the NAICS Association.[25] I expect counties with greater manufacturing employment share to correlate with longer phaseouts. Then, I control for poverty rate using data from the Census Small Area Income and Poverty Estimates (SAIPE) Program.[26] Next, I control for logged county population using Census's State and County Intercensal Estimates.[27]

It has been documented that products with greater base MFN tariff rates are likely to be phased out over a longer period of time (Baccini, Dür, and Elsig 2018; Anderer, Dür, and Lechner 2020; Kowalczyk and Davis 1998). I aggregate 6-digit product code base rates to the county level to create *Weighted MFN Base Rate*, which measures the weighted sum of product tariffs to be eliminated within each county.

Capital mobility is measured using Liquidation Recovery Rate for property, plant, and equipment from Kermani and Ma (2023)'s database of Asset Specificity.[28] If a firm resides within an industry with a relatively high asset specificity, i.e., higher asset immobility, it may lobby for longer tariff phaseouts to allow for its investments to depreciate. If an industry can take advantage of the labor market abroad and its liquid recovery rate for PPE is relatively high, it may lobby for faster tariff phaseout so they may offshore production and import final goods from abroad. Having high liquidation rate, or asset mobility, allows producers to benefit from moving their investment abroad to low-cost labor countries where returns are higher. Because the data is at the county level, I aggregate industry-level liquidation rate to the county level similar to other measures (i.e., *Import Threat*, *WPOY*, etc). I expect counties with a high concentration of industries with high asset mobility to correlate with shorter tariff phaseouts (i.e., a negative correlation).

I include a state-level union membership rate from Unionstats database (Hirsch, MacPherson, and Even 2024; Hirsch and Macpherson 2003; Macpherson and Hirsch 2023).[29] I

[25] https://www.naics.com/naics-code-description/?code=31-33

[26] https://www.census.gov/programs-surveys/saipe/data/datasets.html. Last accessed 5/27/24.

[27] https://www.census.gov/data/tables/time-series/demo/popest/intercensal-1990-2000-state-and-county-totals.html. Last accessed 4/10/24.

[28] Data accessible through https://assetspecificity.com/. Last accessed 8/6/24

[29] Data accessible through https://unionstats.com/. Last accessed 6/24/24.

expect states with greater union coverage to have longer tariff phaseouts. Unions are known to increase the political participation of their members (Kerrissey and Schofer 2013; Leighley and Nagler 2007), as well as diffusing trade information to workers, shaping their political attitudes (Kim and Margalit 2017). The ability of unions to politically mobilize voters presents a credible threat to the President to safeguard jobs represented by unions.

Because intermediate products have been shown to receive shorter phaseout duration than final goods (Baccini, Dür, and Elsig 2018; Anderer, Dür, and Lechner 2020), I take the proportion of products within industries within counties that are intermediate. I use Liao et al.'s 2020 `concordance` package to extract product-type for 6-digits HS, and concord between products and industries.

Campaign Contribution Covariates: Counties represented by legislator who accepts more campaign contribution from either unions or businesses may demand for phaseout duration that aligns with those interests. As discussed in the theory, unions prefer longer phaseouts while businesses prefer shorter phaseouts in order to offshore production.[30] Data on campaign contribution is from the Database on Ideology, Money in Politics, and Elections (DIME) (Bonica 2023).[31] I concord the data at the winning candidate, i.e., legislator (Congressional District) level to county using crosswalk files from the Missouri Census Data Center,[32] and take the average of all legislators' PAC donation that represent each county.[33]

Congressional Covariates: Finally, I include dummy variables indicating which county is represented by a member of Congress in the Ways and Means Committee and which state is represented by a Senator in the Finance Committee. Both committees oversee trade policies and have the institutional authority (as mandated by the Trade Promotion Authority) to consult with the Executive branch and US Trade Representative (USTR) officials before, during, and after negotiations. Having this institutionalized privilege in trade policies may increase their susceptibility to lobbying by industries in their district and state for longer tariff phaseouts. I use data from Stewart III and Woon's (2024) Congressional Committee Assignments data.[34]

[30] This is rather an oversimplification as there may be some businesses that cannot or are unwilling to relocate production abroad.

[31] https://data.stanford.edu/dime. Last accessed 8/16/24.

[32] https://mcdc.missouri.edu/applications/geocorr.html. Last accessed 8/14/24.

[33] This is because some counties are represented by multiple legislators.

[34] Accessible through Charles Stewart III's website: https://web.mit.edu/cstewart/www/data/data_page. I would like to thank Charles for providing an up-to-date version of the dataset.

3.4 Model Specifications

Equation 4 specifies the regression model to test my hypotheses. I include $SwingState_{st}$ and $CoreState_{st}$ dummy in the model, where s denotes state and t for time, as well as a vector of controls at the county-year level X_{ct}. I employ a within-county estimator in order to hone in on the effect of the difference in the state's electoral competitiveness status over time by using state fixed effects δ_s. Given the unit of observation and the dependent variable are at the county level, the extra granularity allows for a more precise analysis than a state-level unit of observation. Standard errors are clustered at the county level, although I also cluster at the state level for robustness checks. I also include FTA fixed effects γ_τ to account for differences in means of the dependent variables across 13 free trade agreements.[35]

$$Y_{c\tau} = \delta_s + \gamma_\tau + \beta_1 SwingState_{st} + \beta_2 CoreState_{st} + \beta X_{ct} + \varepsilon_{ct} \tag{4}$$

In order to avoid any false inferences, I omit non-panel counties for two-way fixed effects models. Meaning counties with less than 13 observations, either due to changes in county codes over time or missing county-code information (as was the case for election returns for Alaska, which has election districts rather than counties), are excluded from the sample. Only 81 counties are affected, and the results remain largely the same.

Equation 5 draws out an alternative estimation specification where only FTA fixed effect is used. This is to allow for cross-sectional analysis while accounting for differences within each FTA. For this specification, I cluster my standard errors by US states. Table 1 displays the summary statistics for all variables discussed above.

$$Y_{c\tau} = \gamma_\tau + \beta_1 SwingState_{st} + \beta_2 CoreState_{st} + \beta X_{ct} + \varepsilon_{ct} \tag{5}$$

4 Results

Table 2 outlines 5 models. Model 1 estimates a within-county baseline regression (Equation 4) with just control variables, while model 2 adds in state and county competitiveness types. Models 4 and 5 estimate the effect of state and county vote margins and competitiveness on WPOY (as discussed in Section 3.2). Models 3 and 5 estimate within-FTA

[35]Note that τ has a wide range of meaning in this paper. In the context of the model specification, τ indicates the FTA, as well as the year it was signed. In other words, τ is theoretically linked with year t as variables with t are matched onto FTA signature year.

Table 1: Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Max
WPOY	39,442	0.072	0.298	0.000	23.287
Swing State	39,428	0.508	0.500	0	1
Core State	39,428	0.353	0.478	0	1
Hostile State	39,428	0.139	0.346	0	1
Swing County	39,272	0.322	0.467	0	1
Core County	39,272	0.480	0.500	0	1
Hostile County	39,272	0.198	0.398	0	1
County Vote Margin	39,409	0.086	0.123	−0.382	0.431
County Competitiveness	39,409	0.378	0.087	0.069	0.500
State Vote Margin	39,442	0.047	0.069	−0.156	0.234
State Competitiveness	39,442	0.432	0.049	0.266	0.500
Electoral College Vote	39,442	13.610	10.255	3	55
Prop. Intermediate	39,442	0.097	0.091	0.000	1.000
Import Threat	39,442	0.00000	0.001	−0.005	0.068
Weighted MFN Base Rate	39,442	0.376	1.190	0.000	57.587
Union Membership pct	39,442	0.102	0.053	0.027	0.287
Poverty Pct	39,442	14.393	5.716	1.700	52.000
Capital Mobility	39,442	9.530	33.925	0.002	1,163.701
House Ways and Means	39,430	0.087	0.282	0	1
Senate Finance	39,442	0.367	0.482	0	1
Prop. Manufacturing	39,438	0.196	0.154	0.000	1.000
Union PAC (ln)	35,007	9.951	1.617	5.094	12.885
Corp PAC (ln)	35,007	12.208	0.996	5.011	14.260

model to examine the cross-sectional effect of the main and secondary explanatory variable as outlined in Equation 5.

Model 2 in Table 2 suggests that relative to states that are hostile to the President's party, industries concentrated in both swing *and* core states generally receive longer tariff phaseouts. The allocation of phaseout duration has a slight bias toward core states (and counties) as suggested by larger magnitude. This result is robust in the cross-sectional estimation within FTAs in model 3. With the secondary explanatory variables (models 4 and 5), the state vote margins term is positive and significant, indicating that states that vote for the President's party are rewarded more. Competitive states (i.e., states with average vote share being closer to 50%) are favored as well.

This result is robust to more stringent specifications of what constitute as a "swing" state. Table A1 replicates models 2 and 3 using more narrow vote share ranges for swing states. Models 1 and 2 in Table A1 show that the swing state term, when defined as providing the incumbent's party between 47.5% and 52.5% average vote share, is positive and statistically significant alongside core states. Model 3 in Table A1 shows that with a 2% margin (swing states are defined as between 49% and 51%), swing and core states are still positive and significant. However, within-FTA estimation in model 4 shows that the swing state term is not significant, while the core state term is significant only at 90% confidence level.

11 out of 13 FTAs were negotiated and signed under George W. Bush; therefore, this provides an opportunity to identify the effect of states "becoming" swing to the Republican party during Bush's administration. Model 2 (within-state estimation) in Table A2 replicates the swing state results while the core state term becomes statistically insignificant. The within-FTA estimation reveals that the swing state term is not robust. Furthermore, vote share margins and state competitive terms are not robust in model 4. Both terms indicate a negative coefficient, which suggests that states that are more "hostile" to the Republican party, i.e., states that lean Democratic, receive longer phaseout. However, as demonstrated by Table 3, this negative coefficient is isolated to just President Bush's first term.

H2 predicts industries' concentrated swing states to receive longer phaseouts during a President's first term as opposed to his second term. Results from Table 3 suggest the opposite is true for President George W. Bush. Honing in on just agreements negotiated under George W. Bush, models 1 and 2 suggests that industries concentrated in both core and swing states enjoy longer phaseouts during the President's second term. Similarly, model 4 (within-FTA estimation) suggests that states with higher vote share margins and

Table 2: Main Results

Dependent Variable:	WPOY				
	Baseline	State Competitiveness Type		Vote Share Margins	
Model:	(1)	(2)	(3)	(4)	(5)
Variables					
Swing state		0.088**	0.038**		
		(0.037)	(0.016)		
Core state		0.095***	0.041**		
		(0.034)	(0.017)		
Swing county		0.017**	0.016**		
		(0.008)	(0.007)		
Core county		0.029***	0.026**		
		(0.011)	(0.010)		
State Vote Margins				0.663***	0.341***
				(0.176)	(0.097)
State Competitiveness				0.373*	0.220***
				(0.199)	(0.081)
County Vote Margins				0.163***	0.149***
				(0.058)	(0.052)
County Competitiveness				0.054	0.066
				(0.044)	(0.045)
Prop. Intermediate	0.013**	0.010*	0.007	0.008*	0.002
	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)
Import Threat	-2.13	-2.16	-2.85	-2.01	-2.51
	(8.75)	(16.4)	(12.2)	(8.86)	(7.40)
Weighted MFN Base Rates	0.112***	0.111***	0.114***	0.110***	0.116***
	(0.016)	(0.016)	(0.016)	(0.016)	(0.016)
Union membership pct	-0.237	-0.368	0.153*	-0.261	0.256***
	(0.461)	(0.467)	(0.078)	(0.430)	(0.087)
Poverty Pct	4.16×10^{-5}	0.0007	0.0005	0.001*	0.0007
	(0.0004)	(0.0006)	(0.0004)	(0.0007)	(0.0005)
Capital Mobility	0.002***	0.002***	0.002***	0.002***	0.002***
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
House Ways & Means	-0.006	-0.004	-0.005	-0.003	-0.001
	(0.007)	(0.007)	(0.007)	(0.007)	(0.006)
Senate Finance	-0.016	-0.014	-0.006	-0.004	-0.003
	(0.011)	(0.010)	(0.005)	(0.011)	(0.005)
Prop. Manufacturing	0.049***	0.048***	0.055***	0.044***	0.050***
	(0.016)	(0.017)	(0.017)	(0.016)	(0.017)
Logged Population #	0.004**	0.005***	0.005***	0.006***	0.008***
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
Union PAC (ln)	-0.0008	0.0007	0.003**	0.0008	0.003**
	(0.0009)	(0.001)	(0.001)	(0.001)	(0.001)
Corp PAC (ln)	-0.005***	-0.004***	-0.004***	-0.004***	-0.004***
	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
Electoral College Votes			0.0002		0.0003
			(0.0004)		(0.0003)
Fixed-effects					
State	Yes	Yes		Yes	
FTA	Yes	Yes	Yes	Yes	Yes
Fit statistics					
Observations	34,355	34,233	34,866	34,337	34,981
R^2	0.52	0.53	0.52	0.53	0.52
Within R^2	0.47	0.47	0.50	0.48	0.50

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

that are more competitive receive more during George W. Bush's second term.

5 Conclusion

This paper explores domestic factors that explain variations in US tariff treatment in free trade agreements. I find that in most model specifications and robustness checks, industries concentrated in swing and core states receive significantly longer phaseouts; however, contrary to conventional understanding, President George W. Bush negotiated for longer, rather than shorter, phaseouts to industries in swing and core states during his second term.

While 11 out of 13 FTAs in this paper were negotiated and signed during George W. Bush's administration, this study may generalize to patterns in future agreements. Given trade was not at the forefront of voters' minds in the 2000s, as demonstrated by Guisinger (2009) as well as the abysmal outcome for the populist, anti-globalization candidate in 1992 and 1996, Ross Perot, the strategic nature of tariff phaseouts discovered in this paper may be even more pronounced today. The election of Donald Trump, the subsequent trade war with China, and Biden's failure to reverse protectionist policies are indicative of the salience of trade as a policy issue for voters. Under the constraints of a highly salient issue, any new free trade agreements should exhibit a greater tendency for the strategic phasing out of tariffs. In addition, the series of recent trade wars and their escalations have created conditions ripe for the application of tariff phaseouts. Future negotiation over tariff reduction may place higher emphasis on tariff phaseouts, not just on duration but also on the shape of such reduction (whether it is linear or backloaded).

Table 3: Second Term Effect

Dependent Variable:	WPOY			
	State Competitiveness Type		Vote Share Margins	
Model:	(1)	(2)	(3)	(4)
Variables				
Swing state	0.006	-0.013		
	(0.004)	(0.010)		
Core state	-0.003	-0.018*		
	(0.009)	(0.010)		
Swing state × Second Term	0.054**	0.048**		
	(0.024)	(0.019)		
Core state × Second Term	0.055**	0.049**		
	(0.022)	(0.018)		
Swing county	0.005	0.004		
	(0.003)	(0.003)		
Core county	0.008**	0.006*		
	(0.003)	(0.003)		
State Vote Margins			-0.457**	-0.102
			(0.170)	(0.065)
State Competitiveness			-0.556***	-0.048
			(0.155)	(0.070)
State Vote Margins × Second Term			0.172	0.297***
			(0.128)	(0.097)
Second Term × State Competitiveness			0.185	0.289***
			(0.140)	(0.091)
County Vote Margins			0.021	0.011
			(0.023)	(0.021)
County Competitiveness			-0.007	-0.016
			(0.026)	(0.024)
Prop. Intermediate	-0.007	-0.009*	-0.008	-0.009*
	(0.005)	(0.005)	(0.005)	(0.005)
Import Threat	4.03	1.97	1.55	0.781
	(13.1)	(9.43)	(6.54)	(5.39)
Weighted MFN Base Rates	0.116***	0.118***	0.116***	0.118***
	(0.018)	(0.018)	(0.018)	(0.018)
Union membership pct	0.269	0.060	0.246	0.063
	(0.316)	(0.053)	(0.272)	(0.061)
Poverty Pct	0.0005	0.0003	0.0005	0.0002
	(0.0004)	(0.0002)	(0.0004)	(0.0002)
Capital Mobility	0.0005	0.0005	0.0005	0.0005
	(0.0005)	(0.0005)	(0.0005)	(0.0005)
House Ways & Means	-0.004	-0.004	-0.005	-0.004
	(0.006)	(0.007)	(0.006)	(0.006)
Senate Finance	-0.003	0.0005	0.001	0.0009
	(0.006)	(0.003)	(0.009)	(0.003)
Prop. Manufacturing	0.032**	0.030*	0.033**	0.031**
	(0.014)	(0.016)	(0.014)	(0.015)
Logged Population #	0.003**	0.003**	0.003**	0.003**
	(0.001)	(0.001)	(0.001)	(0.001)
Union PAC (ln)	-0.0003	0.0001	-0.0003	0.0002
	(0.0007)	(0.0007)	(0.0008)	(0.0007)
Corp PAC (ln)	-0.003**	-0.003***	-0.003**	-0.003***
	(0.001)	(0.0007)	(0.001)	(0.0008)
Electoral College Votes		0.0003		0.0002
		(0.0002)		(0.0002)
Fixed-effects				
State	Yes		Yes	
FTA	Yes	Yes	Yes	Yes
Fit statistics				
Observations	28,997	29,501	29,099	29,614
R^2	0.55	0.54	0.55	0.54
Within R^2	0.50	0.52	0.50	0.52

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

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A.1 Appendix

Figure A1: UAW Statement

UAW backs Korea trade agreement

The full text of the op-ed by UAW President Bob King is printed below. The piece, published today, can be read online here.

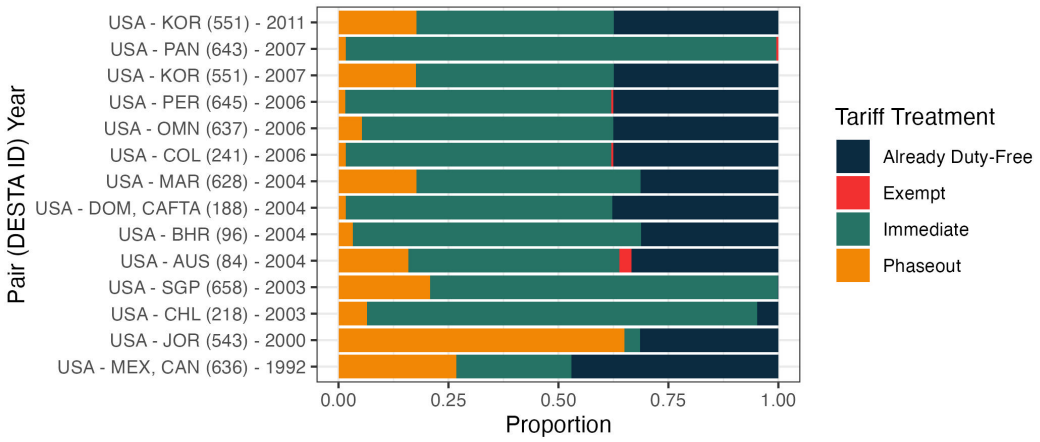
UAW backs Korea trade agreement
By Bob King

> President Barack Obama and U.S. Rep. Sander Levin, a Royal Oak Democrat, should be commended for their effective efforts to substantially revise the U.S.-Korea Free Trade Agreement, which Congress overwhelmingly approved Wednesday night. The UAW fully supports this trade agreement because the automotive provisions, which are very different from those negotiated by President George W. Bush in 2007, will create significantly greater market access for American auto exports and include strong, auto-specific safeguards to protect our domestic markets from potentially harmful surges of Korean automotive imports.
>
> Unlike the 2007 negotiations with South Korea, the labor movement, and particularly the UAW, had an opportunity to be part of the 2010 discussions on strengthening the trade deal. Working with U.S. Trade Representative Ron Kirk and other members of the Obama administration, then-Ways and Means Committee Chairman Levin and top management from the auto companies, the UAW believes the new agreement will help protect current American auto jobs, contains meaningful trade law enforcement and makes stronger labor and environmental commitments.
>
> Under the 2007 proposed agreement, almost 90% of Korea's auto exports to the U.S. would have received immediate duty-free access. Under the agreement passed this week, the 2.5% U.S. tariff on automobiles will stay in place until the fifth year after implementation of the agreement, and the 25% tariff on light trucks remains until the eighth year, when it starts to be phased out. Moreover, South Korea will immediately reduce its electric car tariffs from 8% to 4%, and will phase out the tariff by the fifth year of the agreement. The delay in tariff reductions will allow the domestic automakers time to strengthen their global competitive positions in both traditional and advanced energy efficient auto markets.

Note: Full statement can be accessed here: https://ustr.gov/about-us/policy-offices/press-office/blog/2011/october/uaw-backs-korea-trade-agreement

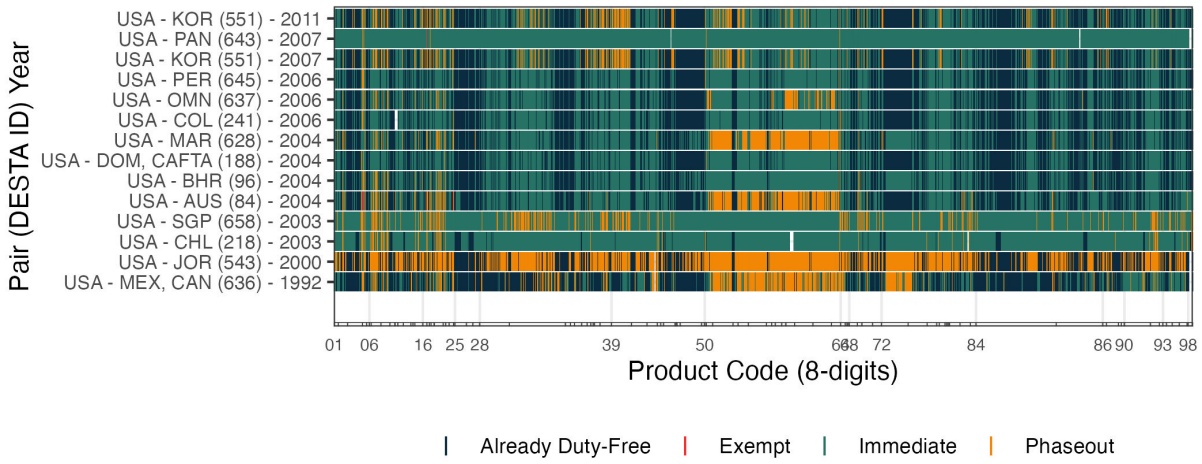
A.1.1 Descriptive Statistics

Figure A2: USA Tariff Treatment Toward Trade Partners



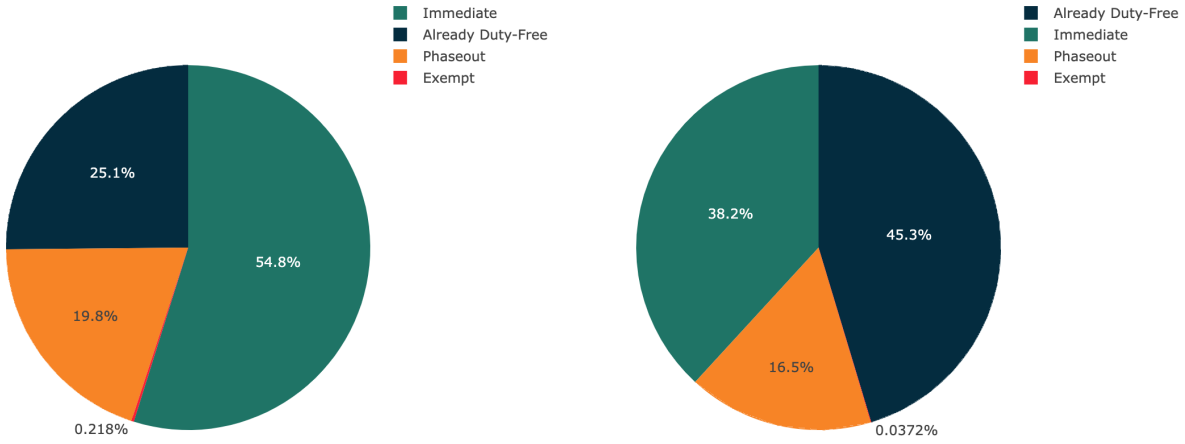
Note: Country pair is formatted as home-partner, where the home country set tariff treatment toward partner country. Created by Eric Thai 7/10/24.

Figure A3: Distribution of Tariff Treatment from USA FTAs Across 8-digit Product Codes



Note: Each tick represents one product code. Each tick on the x-axis demarcates a 2-digit chapter. Important 2-digit chapters are displayed. Refer to https://hts.usitc.gov/ on the title of HS chapters. Created by Eric Thai 7/10/24.

Figure A4: Proportion of Tariff Treatment in USA Trade Agreements



(a) Product Codes

(b) Import Values

Note: Proportions are calculated by aggregating all product code lines (and 5-year rolling average import values before the agreement's signature date) across all USA free trade agreements. Created by Eric Thai on 7/10/24.

A.1.2 Robustness Checks

Table A1: Robustness Check: Sensitivity Analysis of State Competitiveness Type Coding

Dependent Variable:	WPOY			
	State Competitiveness Type V2		State Competitiveness Type V3	
Model:	(1)	(2)	(3)	(4)
Variables				
Swing state (47.5% < v < 52.5%)	0.044**	0.028**		
	(0.018)	(0.012)		
Core state (v > 52.5%)	0.063**	0.036**		
	(0.027)	(0.017)		
Swing state (49% < v < 51%)			0.038**	0.016
			(0.016)	(0.010)
Core state (v > 51%)			0.055**	0.027*
			(0.025)	(0.015)
Swing county (47.5% < v < 52.5%)	0.009	0.009		
	(0.007)	(0.007)		
Core county (v > 52.5%)	0.022***	0.020**		
	(0.008)	(0.008)		
Swing county (49% < v < 51%)			0.014*	0.014*
			(0.008)	(0.008)
Core county (v > 51%)			0.019**	0.017**
			(0.007)	(0.007)
Prop. Intermediate	0.011**	0.006	0.010*	0.007
	(0.005)	(0.006)	(0.005)	(0.006)
Import Threat	-2.24	-2.75	-2.47	-2.94
	(16.5)	(12.3)	(16.5)	(12.2)
Weighted MFN Base Rates	0.111***	0.115***	0.111***	0.115***
	(0.016)	(0.016)	(0.016)	(0.016)
Union membership pct	-0.290	0.209**	-0.201	0.175*
	(0.505)	(0.095)	(0.466)	(0.087)
Poverty Pct	0.0006	0.0004	0.0005	0.0003
	(0.0005)	(0.0004)	(0.0005)	(0.0004)
Capital Mobility	0.002***	0.002***	0.002***	0.002***
	(0.0006)	(0.0006)	(0.0006)	(0.0006)
House Ways & Means	-0.004	-0.004	-0.004	-0.004
	(0.007)	(0.007)	(0.007)	(0.006)
Senate Finance	-0.005	-0.001	-0.003	-0.0006
	(0.009)	(0.005)	(0.008)	(0.005)
Prop. Manufacturing	0.048***	0.054***	0.048***	0.054***
	(0.017)	(0.018)	(0.017)	(0.017)
Logged Population #	0.004***	0.005***	0.004***	0.005***
	(0.001)	(0.001)	(0.001)	(0.001)
Union PAC (ln)	0.0006	0.003*	0.0004	0.002
	(0.001)	(0.001)	(0.001)	(0.001)
Corp PAC (ln)	-0.004***	-0.003***	-0.005***	-0.003***
	(0.001)	(0.0009)	(0.001)	(0.0010)
Electoral College Votes		0.0001		4.74×10^{-5}
		(0.0003)		(0.0003)
Fixed-effects				
State	Yes		Yes	
FTA	Yes	Yes	Yes	Yes
Fit statistics				
Observations	34,233	34,866	34,233	34,866
R^2	0.52	0.52	0.52	0.52
Within R^2	0.47	0.50	0.47	0.50

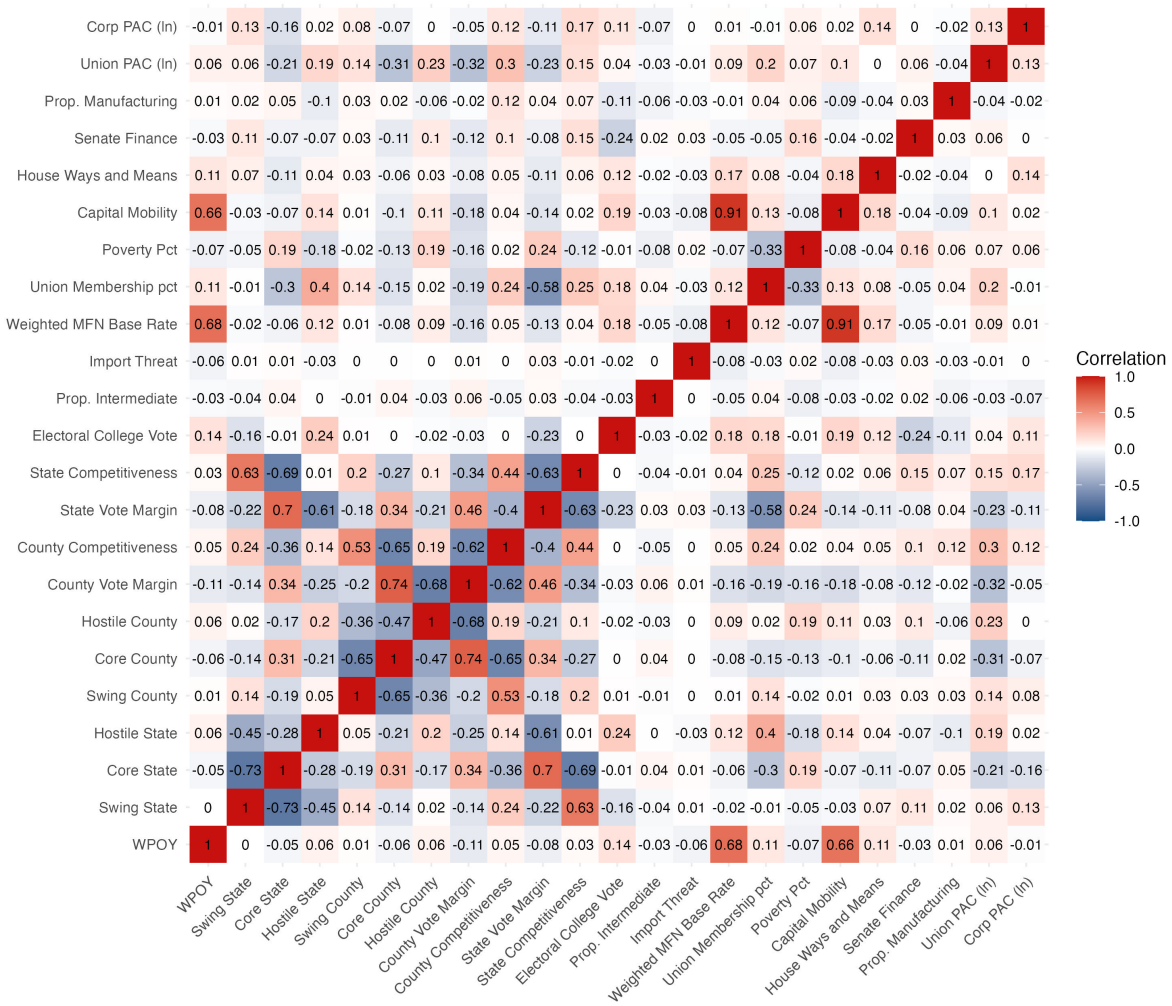
Clustered (State) standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table A2: Robustness Check: FTAs Negotiated Under George W. Bush Administration

Dependent Variable:	WPOY				
	Baseline	State Competitiveness Type		Vote Share Margins	
Model:	(1)	(2)	(3)	(4)	(5)
Variables					
Swing state		0.015***	0.001		
		(0.005)	(0.007)		
Core state		0.014	-0.002		
		(0.011)	(0.007)		
Swing county		0.006*	0.004		
		(0.003)	(0.003)		
Core county		0.008**	0.006*		
		(0.003)	(0.003)		
State Vote Margins				-0.704***	-0.022
				(0.151)	(0.055)
State Competitiveness				-0.857***	0.018
				(0.222)	(0.058)
County Vote Margins				0.022	0.013
				(0.023)	(0.021)
County Competitiveness				-0.007	-0.015
				(0.025)	(0.024)
Prop. Intermediate	-0.008	-0.008	-0.009*	-0.008	-0.009*
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Import Threat	1.51	4.04	2.03	1.57	0.862
	(6.51)	(13.0)	(9.40)	(6.54)	(5.39)
Weighted MFN Base Rates	0.116***	0.116***	0.118***	0.116***	0.118***
	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Union membership pct	0.214	0.211	0.054	0.251	0.047
	(0.271)	(0.265)	(0.051)	(0.273)	(0.058)
Poverty Pct	0.0003	0.0005	0.0003	0.0005	0.0003
	(0.0003)	(0.0004)	(0.0003)	(0.0004)	(0.0003)
Capital Mobility	0.0005	0.0005	0.0005	0.0005	0.0005
	(0.0005)	(0.0005)	(0.0005)	(0.0005)	(0.0005)
House Ways & Means	-0.005	-0.005	-0.005	-0.005	-0.004
	(0.007)	(0.007)	(0.007)	(0.006)	(0.007)
Senate Finance	-0.009	-0.009	-0.001	-7.41×10^{-5}	-0.001
	(0.006)	(0.006)	(0.004)	(0.007)	(0.004)
Prop. Manufacturing	0.033**	0.032**	0.031*	0.033**	0.032**
	(0.014)	(0.014)	(0.015)	(0.014)	(0.015)
Logged Population #	0.003**	0.003**	0.002*	0.003**	0.003**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Union PAC (ln)	-0.0008	-0.0003	5.82×10^{-5}	-0.0002	7.16×10^{-5}
	(0.0008)	(0.0007)	(0.0007)	(0.0008)	(0.0007)
Corp PAC (ln)	-0.003*	-0.003**	-0.002***	-0.003**	-0.002***
	(0.001)	(0.001)	(0.0007)	(0.001)	(0.0008)
Electoral College Votes			0.0001		9.05×10^{-5}
			(0.0002)		(0.0002)
Fixed-effects					
State	Yes	Yes		Yes	
FTA	Yes	Yes	Yes	Yes	Yes
Fit statistics					
Observations	29,099	28,997	29,501	29,099	29,614
R^2	0.55	0.55	0.54	0.55	0.54
Within R^2	0.50	0.50	0.52	0.50	0.52

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

Figure A5: Correlation of Variable Heat Map



Note: Created by Eric Thai 9/28/24