

Capital on Capitol Hill: Personal Finances and Free Trade Agreements in the U.S.

Caleb Ziolkowski

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Abstract

Does ownership in companies affect votes on trade? I argue legislators who own stakes in productive firms in industries with substantial product differentiation are more likely to support preferential trade agreements (PTAs), in line with modern trade theory. Though legislators probably do not understand modern trade theory, they learn about the benefits of PTAs from lobbying by firms they own. Using roll call votes on free trade agreements (FTAs) enacted from 2004 to 2011, I show that members of Congress who own firms that gain from FTAs are more likely to support them. I offer evidence that owning firms that lobby drives financially self-interested voting. By leveraging the two-member districts of the Senate, I show constituency differences do not explain these results. I offer an extension of the prevailing macro explanation of PTA formation and open up new avenues of inquiry into the role of money in politics, with implications for representation.

1 Preliminary draft, do not cite without permission, please

2 Introduction

For 25 years John Kerry and Ted Kennedy together represented Massachusetts in the Senate.¹ They were similar in terms of age, gender, ideology, and political action committee (PAC) contributions. Unsurprisingly, they usually voted together on preferential trade agreements (PTAs). Sometimes, though, they split their votes on PTAs and PTA-related legislation, like the 2006 vote on the free trade agreement (FTA) with Oman and the 2002 trade-promotion-authority vote.² Why?

The dominant macro theory of PTA formation holds that electoral pressure increases PTA support. Politicians commit to policies voters prefer by signing PTAs (e.g. Mansfield, Milner, and Rosendorff 2002). Other scholarship highlights ideology, foreign policy, and campaign

¹I am a Ph.D. candidate in the Department of Political Science, University of California, Los Angeles, CA (cziolk01@ucla.edu). For feedback, I thank Margaret Peters, Jeff Lewis, Leslie Johns, Ron Rogowski, Art Stein, Shawn Patterson, Tyler Reny, Ciara Sterbenz, Frank Wyer, Cody Giddings, and participants in IPES, MPSA, and APSA conferences. The remaining errors are mine.

²The United States-Oman FTA (H.R. 5684) passed, 63 to 32, and the Trade Act of 2002 (H.R. 3009) obtained cloture, 64 to 32.

contributions—usually suggesting business (labor) contributions increase (decrease) support (e.g. Baldwin and Magee 2000; Milner and Tingley 2011).

I contend legislators support PTAs when their financial self-interest aligns with the preferences of pro-PTA firms. Recalling the Kerry-Kennedy example, existing explanations sometimes fail. Kennedy and Kerry share the same party and voters, have similar ideologies, and receive similar PAC contributions. Indeed, in 2006 Kennedy received more from corporate PACs and less from labor PACs, suggesting he, not Kerry, should have supported the FTA. Both were wealthy, yet only Kerry owned stock of firms that lobbied.³ I argue legislators' perceived financial self-interest—informed by signals from firms they own—influences PTA support.

Directly testing these ties is difficult since this behavior appears unethical. Instead, I test several implications of my theory. Upcoming elections, which increases the value of future office, should mitigate the impact of financial self-interest. Retirement removes electoral concerns, allowing financial self-interest to dominate. When legislators represent pro-PTA constituents, financial self-interest's impact should be muted as most factors favor PTAs. Beyond lobbying, business backgrounds should inform legislators' self-interest and membership on PTA-related committees should impact their perceptions of their constituents' interests. As PTAs become more salient, the effect of financial self-interest diminishes. Finally, firms should be more likely to lobby if owned by legislators because the expected payoff is higher.

I leverage unique features of the Senate to rigorously test my theory. Exploiting the dual-member districts controls for constituency characteristics and party. The staggered election cycle provides a source of quasi-exogenous variation in the value of future office. Early retirement announcements allow us to probe retirement's impact on financial self-interest.

Empirical evidence confirms my argument. For the main prediction, legislators who stand to gain tend to support PTAs, with ownership of lobbying firms driving this behavior. This holds in the House of Representatives and the Senate across a variety of model specifications and operationalizations of the variables of interest. An interquartile range (IQR) shift in a measure of legislators' informed, financial self-interest increases the predicted probability a legislator supports an FTA by 7 (10) percentage points in the House (Senate)—equivalent to roughly 15% (27%) of the effect of switching parties. Democrats drive these results, for whom this IQR shift amounts to

³LobbyView.org, OpenSecrets.org.

about 33% (nearly 50%) of the effect of switching parties in the House (Senate).

In the next section, I develop my theory and position it in the literature. I then describe my research design and present results. I conclude by summarizing my argument and findings.

3 Why legislators support PTAs

3.1 Existing scholarship of PTAs

The dominant macro theory of PTA formation, developed by Mansfield, Milner, and Rosendorff (2002) (MMR) and Mansfield and Milner (2012), argues politicians support PTAs to commit to voters' preferred policies. MMR assume that the typical voter, endowed with labor, desires moderate protection, while firms prefer high levels of protection. Thus voters, relative to firms, favor some liberalization. Conflicting goals motivate politicians: collecting rents from firms and retaining office. In democracies, MMR argue the enforcement mechanisms of PTAs help politicians commit by alerting voters of politicians' PTA violations. In equilibrium, democratic politicians support PTAs and voters reward them.

These preferences resemble those in Grossman and Helpman (1994) (GH). Firms seek protection. Rent collection *and* aggregate social welfare motivate politicians. Politicians collect rents from firms in exchange for protection if these rents outweigh the social welfare costs. The more politicians value aggregate social welfare, the more trade liberalization prevails. Legislators also might support or oppose PTAs in exchange for campaign contributions (Baldwin and Magee 2000). Ideology may affect their support of PTAs, as well (Greenaway and Nelson 2006; Milner and Tingley 2011). In the US, co-partisanship with the president could mean foreign policy matters (Milner and Tingley 2011, 2015).

While the trade literature focuses on campaign contributions, rents may consist of other things (Przeworski, Stokes, and Manin 1999). Scholars have focused on how financial self-interest relates to decisions to repeal the estate tax or intervene in/regulate the financial system (Griffin and Anewalt-Remsburg 2013; Tahoun and Lent 2018; Peterson and Grose 2020). Others have considered if legislators make out-sized returns on their investments (Ziobrowski et al. 2004, 2011; Eggers and Hainmueller 2009, 2013, 2014; Querubin and Snyder Jr 2013).

Turning to firms, recent work finds trade enriches certain firms, who lobby accordingly. New

new trade theory (NNTT) says productive firms in industries with higher levels of product differentiation gain most from trade liberalization (Melitz 2003; Bernard et al. 2007; Bernard, Jensen, and Schott 2009). Though PTAs do more than liberalize trade, firms that gain from various components of PTAs share similar characteristics. Large, productive firms import intermediate goods (Bernard et al. 2007; Bernard, Jensen, and Schott 2009; Baccini, Dür, and Elsig 2018). Productive MNCs with substantial product differentiation gain most from deeper integration (Helpman, Melitz, and Yeaple 2004; Antras and Helpman 2004; Blanchard and Matschke 2015; Baccini, Dür, and Elsig 2018; Kim and Osgood 2019). Productive firms producing internationally traded goods in differentiated industries prefer PTAs (Melitz 2003; Kim 2017). Further, large, productive firms seem to dominate trade-related lobbying (Kim 2017). Firms predicted to benefit most from liberalization make more positive public statements about trade (Kim and Osgood 2019). A collective action argument (Olson 1965) suggests pro-PTA lobbying efforts by a few, large firms dominate the interests of the populace and smaller firms opposed to PTAs (Kim and Osgood 2019).

Lobbying, in turn, may convey information, influencing sympathetic legislators who have similar preferences to the lobbying entity (Milyo, Primo, and Groseclose 2000; Grossman and Helpman 2001). Older theories of overlapping interests between political and economic elites pursuing narrow policy goals over the interests of an unengaged public imply that lobbying serves as a way for firms to communicate their interests to sympathetic legislators (Mills [1956] 2000; Schattschneider 1960; Olson 1965). There's debate whether lobbying targets persuadable legislators (Austen-Smith and Wright 1994, 1996) or offers allies a legislative subsidy (Rotemberg 2003; Hall and Deardorff 2006). In the case of PTAs in the US, legislative subsidies appear less relevant for Congress since the executive negotiates and writes PTAs.

Legislators may represent voters that oppose PTAs. Trade—including that resulting from PTAs—can cause geographically-concentrated harm (Autor, Dorn, and Hanson 2013, 2016; Hakobyan and McLaren 2016). Voters from these areas appear motivated to vote for anti-PTA policies and legislators—scholars point to, *inter alia*, the election of Donald Trump, Brexit, and far-right support in Europe (Autor et al. 2016; Ballard-Rosa et al. 2017; Colantone and Stanig 2018b; Ballard-Rosa, Jensen, and Scheve 2018). Voters from these areas seem to engage in sociotropic voting, consistent with the economic vote literature (Kinder and Kiewiet 1981; Duch and Stevenson 2008; Mansfield and Mutz 2009). Importantly, sociotropic evaluations appear

heavily influenced by local economic conditions (Ansolabehere, Meredith, and Snowberg 2014), including negative evaluations of PTAs in areas harmed by international integration (Colantone and Stanig 2018a). Many legislators behave as if voters will punish them for supporting PTAs. Legislators talk in a more protectionist manner when representing districts whose laborers face a high threat of off-shoring (Owen 2017). Legislators in districts impacted by the “China trade shock” tend to vote against trade liberalization (Feigenbaum and Hall 2015). As a general rule, legislators become less supportive of PTAs as elections draw near or become more competitive (Conconi, Facchini, and Zanardi 2014).

3.2 The preferences and information of legislators, firms, and voters

I follow MMR and GH but relax several assumptions. Most importantly, I argue that financial self-interest may motivate legislators—an incentive distinct from campaign contributions. Second, firms’ preferences over PTAs vary and they can lobby accordingly. Finally, voters’ may oppose or favor PTAs and vary in how much trade policy matters to them.

I argue that reelection and financial self-interest motivate legislators, but much literature focuses solely on the former (Schumpeter 1950; Downs 1957; Mayhew 1974; Gordon and Huber 2007; Bueno De Mesquita et al. 2005). I follow work which posits electoral concerns compete with other interests (Przeworski, Stokes, and Manin 1999; Ferraz and Finan 2009, 2011; Ashworth 2012). I focus on financial self-interest while recognizing campaign contributions may matter.

Legislators maximize their financial self-interest, subject to electoral constraints. PTAs can benefit or harm legislators’ personal finances, doing so increasingly as legislators’ firm ownership increases. Following NNTT, legislators owning productive firms in industries with high product differentiation should gain. The opposite holds for those owning no firms, unproductive firms, or firms in industries with low product differentiation. Those owning few or no firms—with labor as their primary endowment—should have weak, relatively anti-PTA preferences. Legislators with more capital in firms hurt by PTAs have strong, anti-PTA preferences, but such legislators are rare in the data. Returning to the opening example, Kennedy owned between \$250,00 and \$500,000 in an S&P 500 index tracking fund (line 5 in Figure 1). The firms that dominate this index are those that tend to gain from PTAs. Table 1 shows the top 10 firms in 2006 and how they rank in terms of labor productivity relative to all the firms owned by politicians in 2006. This table also shows

Table 1: Top 10 firms in S&P 500 in 2006

Company	Labor prod.	Kerry's stake (est.)	Lobbied on trade	Amt. spent
Exxon Mobil	Top 1%	\$42k	Yes	\$15m
General Electric	Top 7%	\$3m	Yes	\$26m
Microsoft	Top 3%	\$7m	Yes	\$12m
Citigroup	Top 7%	\$1m	Yes	\$7m
Bank of America	Top 4%	\$7k	No	\$0m
Procter & Gamble	Top 7%	\$12m	Yes	\$3m
Wal-Mart	Top 42%	\$0	Yes	\$4m
Johnson & Johnson	Top 5%	\$6m	Yes	\$5m
Pfizer	Top 2%	\$18k	Yes	\$24m
AIG	Top 22%	\$12m	Yes	\$9m

^a Source: Compustat, Open Secrets, LobbyView.

that Kerry owned stock in all of these firms except for Wal-Mart. Both Kennedy and Kerry owned firms predicted to gain from PTAs, albeit Kennedy through index-tracking funds.

It's unlikely legislators know how PTAs impact their financial self-interest. In 2006, Kennedy probably did not understand that highly productive firms dominated his index fund (Table 1) and gain most from PTAs. Likewise, Kerry probably doesn't naturally know General Electric (GE) ships aircraft engines to Oman ("GE Reports" 2005) or would make FTA-facilitated foreign direct investments there ("GE Reports" 2010). Legislators must know their financial self-interest to meaningfully act on it. Firms can provide legislators this information.

Firms look to maximize profits. PTAs can increase or decrease their profits and they largely understand this. Their participation in committee hearings sees them signaling the anticipated impact. For example, in the Senate Finance Committee's public hearing on CAFTA, Mark Berling, executive vice president of Kraft Foods, argued that Kraft and the "entire U.S. Food industry would benefit from access to CAFTA-DR markets" (*United States - Central America - Dominican Republic Free Trade Agreement* 2005, 70). Companies care about PTAs, sometimes publically tracking roll call votes for members of Congress. P&G—which Kerry owned—tracked on its website whether legislators supported the Oman FTA as well as other FTAs (La Botz 2008).

Lobbying enables firms to inform legislators of the *legislators'* financial self-interest in a PTA. Again, looking at Kennedy, his investments are either unknown to him (in a blind trust) or connected to index-tracking funds. Index tracking funds like this do not have lobbying operations. Kerry, by contrast, owns firms that lobbied on this FTA, like GE and P&G. Table 1 shows how much the largest firms spent on lobbying on trade in 2006, with the major caveat that this includes

Registrant Name: General Electric Company (Including subsidiaries)

Client Name: self

LOBBYING ACTIVITY. Select as many codes as necessary to reflect the general issue areas in which the registrant engaged in lobbying on behalf of the client during the reporting period. Using a separate page for each code, provide information as requested. Attach additional page(s) as needed.

15. General issue area code TRD (one per page)

16. Specific Lobbying issues

H.R.2506, Foreign Operations, Export Financing, and Related Programs Appropriations Act, 2002, Support funding for OPIC, Export-Import Bank, Trade Development Agency

→ H.R.3009, Andean Trade Promotion and Drug Eradication Act, Support

H.R.4138, To suspend temporarily the duty on certain high-purity rare earth oxides., Support

H.R.4277, To suspend temporarily the duty on APEC 1745., Oppose

S.149, Export Administration Act of 2001, Support

S.180, Sudan Peace Act, Support

S.J.RES.101, A joint resolution diapproving the extension of the waiver authority with respect to Vietnam, Oppose

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Figure 2: Page 21 of General Electric’s 2002 year-end lobby disclosure (soprweb.senate.gov)

spending on lobbying other issues reported on the same lobby disclosure forms. Figure 2 shows part of GE’s 2002 lobbying disclosure form. The arrow points to the Trade Act of 2002, which allowed George W. Bush to negotiate FTAs. As noted above, the bill faced a tight vote in the Senate (it obtained cloture by a margin of 5 votes) and saw Kennedy and Kerry split their votes. GE helpfully indicated their position on bill (Figure 2), something they stopped in later reports. As NNTT would predict, they supported the Trade Act of 2002. Though anecdotal, GE’s then status as the largest publicly listed firm makes this nontrivial.

Turning to the interaction between legislators and voters, I assume legislators are uncertain how much voters will penalize them for PTA roll call votes since voters care about non-PTA things but have only one vote (Przeworski, Stokes, and Manin 1999).⁴ More technically, we can say a legislator, when voting on a PTA, knows the distribution of PTA salience but not its realization. Perhaps she knows that if a factory in her district closes PTAs become more salient, but the factory closes with probability less than 1. Salience represents how much voters respond to PTA-policy choices relative to other factors—including potentially non-policy related factors such as charisma—when deciding whether to support the incumbent (Persson and Tabellini 2016).⁵

Voters want PTA policy near their ideal point. This ideal point lies on a continuum, from maximally opposed to maximally in favor. Since PTAs offer diffuse benefits for consumers and

⁴This assumption smooths legislators’ objective functions, meaning electoral competition need not eliminate rent extraction from a legislator’s optimum strategy (Persson and Tabellini 2016).

⁵Here we can assume that the incumbent’s challenger in the election contest credibly offers the voters their ideal PTA policy. The probabilistic nature of voters’ preferences means the incumbent has electoral space to deviate from voters’ ideal point on PTAs—or on policy in general—and still possibly win (Persson and Tabellini 2016).

diffuse costs for most labor, particularly in large economies like the US, it will not necessarily influence many voters.⁶

Politicians' valuation of future office impacts their decisions to support or oppose PTAs. The more they value reelection, the less financial self-interest should influence these decisions. Though many things could impact the value of retaining office, I focus largely on time horizons. The further off reelection, the more a legislator discounts future office.⁷

3.3 Equilibrium behavior and empirical implications

Firms choose whether to lobby, a costly activity. Since they seek to maximize profits, this action conveys information. Firms, knowing they have some chance to influence legislators, will be more likely to lobby in favor or against a PTA as their expected gains or losses increase. Firms unaffected by a PTA have no reason to lobby. Also, firms may be affected by a PTA but not have the wherewithal to lobby—NNTT says the firms most likely to be hurt by PTAs are smaller, less productive firms, and these firms have been found to lobby less (Kim 2017; Kim and Osgood 2019).

Legislators are lobbied and update their beliefs about their financial self-interest. If the firms they own lobbied in favor of or against the PTA, they become more certain that they stand to gain or lose. If firms they own do not lobby, legislators believe this is because PTAs do not affect the firms or the firms find lobbying unnecessary or too costly. “Unlobbied” legislators remain more uncertain about how their financial self-interest is effected. Legislators vote, considering their information about their financial self-interest, voters' PTA preferences, and the expected salience of PTAs for voters. The salience of PTAs for voters is realized and voters choose the candidate they prefer, based on PTA policy and other factors.

I now layout empirical implications. *1) The more a PTA benefits a legislator's financial self-interest, the more the legislator should support the PTA.* This holds as their firms gain more *and* as their investments in such firms increase. For example, say legislator *A* owns \$1000 in a highly productive firm involved in trade while *B* owns \$1000 in a highly unproductive firm involved in

⁶The most common answers to ANES's open-ended question about important problems facing the country do not include trade, substantiating this claim (electionstudies.org). Recent survey work shows concerns about limiting trade are of the least importance to most Americans (Vavreck, Sides, and Tausanovitch 2019).

⁷We could also motivate a role for time horizons with voter recency bias. While future discounting is rational, recency bias appears to require a behavioral explanation—a challenger can easily raise an incumbent's voting record from any part of an incumbent's term. Why should voters place more weight on recent votes?

trade. *A* has more financial self-interest in supporting the PTA than *B*. If instead legislator *B* owns \$1m in the same highly productive firm that *A* owns, *A* and *B*'s preferences push them in the same direction, but *B*'s preferences are more intense.

As noted above, regarding financial self-interest, empirically we mostly see legislators with low-intensity, relatively anti-PTA preferences—those who own few or no firms affected by PTAs—and legislators with high-intensity preferences favoring PTAs—those who own firms that gain. There exist only a few instances of legislators that should be strongly opposed to PTAs—legislators owning firms predicted to be hurt by PTAs. As we move from the few legislators that own firms hurt by PTAs to those legislators that do not own firms affected by PTAs and then on to those who own firms that benefit from PTAs, levels of support for PTAs should increase, *ceteris paribus*.

2) *The effect of financial self-interest on PTA support depends on legislators' information about their financial self-interest.* Most obviously, lobbying should convey this information, leading legislators to increasingly vote their financial self-interest. We can usefully compare this expectation to “uninformed” legislators who have not been lobbied and yet own firms that we expect to gain from PTAs. The effect of informed financial self-interest on PTA support should be larger than uninformed financial self-interest. When unlobbied, legislators will be less certain about how PTAs affect their financial self-interest. We can also imagine other means of getting information about financial self-interest, such as through pre-congressional career experience.

3) *The effect of financial self-interest should decrease as the value of future office increases.* When legislators care less about reelection—either because it is distant or because they have announced retirement, they should be more likely to vote their financial self-interest.

4) *Financial self-interest will have a stronger impact on legislators representing anti-PTA voters.* As noted, MCs tend to either own firms that will gain from PTAs or do not own firms likely to be affected. Thus, pressure from voters is the primary factor pushing against PTAs. If legislators represent pro-PTA voters, we can't separate financially self-interested voting from voting the way voters prefer. Legislators that do not own firms impacted by PTAs, though they have relatively anti-PTA financial self-interest, have little at stake and vote for PTAs. It is when voters are anti-PTA and legislators have intense pro-PTA financial self-interest that financial self-interest should have a discernible impact.

5) *As the salience of a vote increases the effect of financial self-interest should decrease.* We

can imagine finding variation in salience across PTAs. We could also compare PTAs to different issues that vary in salience. For instance, PTAs appears less salient than immigration, so the impact of financial self-interest should be higher for PTA votes.

6) *Firms should be more likely to lobby when legislators own them* since lobbying is costly and legislators sympathize with firms' when the firms' interests and the legislators' financial self-interest align. The expected payoff of lobbying increases when legislators own the firm.

4 Research design

4.1 Background

Congress may not seem to matter for trade. FTAs run to thousands of pages, with the executive branch spending years negotiating details. Congress holds an up-down vote. Then the executive branch (and third-party arbitration) regulates the agreement. While seeming trivial, Congress has constitutional authority—i.e. a veto—over FTAs (Krehbiel 1998; Tsebelis 1995, 2002) and it can deny the President the power to meaningfully negotiate (Bailey, Goldstein, and Weingast 1997).

The public, structured nature of roll call votes provide a relatively clear measure of FTA support. MCs do not offer amendments, reducing opportunities for strategic voting. Partisanship does not dominate trade votes, so something like financial self-interest may explain intra-party variation—about 90 (33) percent of Republicans (Democrats) support the FTAs analyzed here.

4.2 Measuring MCs' interests

I measure MCs' financial self-interest through expected returns to their assets, particularly focusing on their investments in firms. Since 1978, MCs annually disclose their finances.⁸ US legislators report, *inter alia*, earned and unearned income, assets, and liabilities. Table 2 has details on these and other data collected.

Legislators must report assets worth more than \$1000. These assets include securities, real estate (except their primary residence), businesses, and bank accounts. They need not report federal employment retirement accounts. MCs report into which of 10 “bins” each asset falls, as can be

⁸Ethics in Government Act of 1978.

Table 2: Data collected, covering 2004 to 2011

Data	Original source	Variables	N
Personal finances	Center for Responsive Politics (Clerk of the House, Senate Office of Public Records)	name of asset (as reported by filer), asset value, asset type, type of income from asset, location of asset, industry of asset (CRP coding)	311,595
Firm financials	COMPUSTAT and Orbis (Bureau van Dijk); Imrohrouglu & Tuzel	net income, employees, cost of goods sold, equity, total assets, industry codes (NAICS), capital expenditure, property, plant, and equipment; total factor productivity	314,778 and over 365 million; 29,213
Mutual fund details	CRSP	market capitalization of firms, the proportion of mutual fund portfolios firms comprise	over 224 million
Industry details	Broda & Weinstein; Census Bureau	product differentiation; US imports and exports by NAICS code	8,213
Lobbying	LobbyView	lobbying activity by year; lobbying activity by bill; amount spent on lobbying	56,064
Bills	voteview.com	roll call votes on free trade agreements (FTAs)	4,715
Campaign contributions	Federal Election Commission	labor PAC contributions, corporate PAC contributions	311,222 (labor), 1,068,672 (corporate)
Constituency characteristics	Foster-Molin and Social Explorer; Census Bureau	percent foreign-born in a district, percent recently arrived, percent Black, percent Hispanic, percent with high school ed., percent with bachelors degree, unemployment, median income, population; number of people employed in NAICS industries	33,077 (annual, county-level for some variables)
Other legislator characteristics	Foster-Molin and The Congressional Biographical Directory; voteview.com; Nelson & Stewart; Carnes	age, gender, race, Senate class; ideology scores (DW-NOMINATE), party; committee membership; pre-politics career/occupation	5,885

^a Note: The primary dataset is a panel of legislator-votes with corresponding variables.

seen in “Block B” of Figure 1. I take the midpoints of each bin to estimate the value.⁹ Though MCs may disclose inaccurately, formal enforcement and potential punishment by voters limit this (Eggers and Hainmueller 2014). The estimate of total assets varies greatly across legislators (the standard deviation is \$35m) and roughly half claim at least \$1m in total assets. Arguably, those hiding assets would more strongly vote their financial self-interest, downwardly biasing estimates.

I measure an MC’s financial self-interest by weighting the value of each asset by the firm’s productivity and the industry’s product differentiation—discussed below—then summing these weighted values. The “concordance” package in R, provided a NAICS 6-digit code,¹⁰ computes product differentiation (Liao et al. 2020).¹¹ Note this removes firms that do not deal in internationally traded goods. I use labor productivity to measure productivity, following Kim (2017).¹²

⁹The results hold when using the lower or upper bound. Approximately 11 percent of the time MCs reported exact values. Consistent with previous work (Eggers and Hainmueller 2014), using these exact values for imputation doesn’t substantively alter results.

¹⁰Firms can have several NAICS codes. I first attempt to match that designated as primary. If this was a non-traded industry, I match any secondary or alternative codes available.

¹¹The inverse of the mean elasticity of substitution for Harmonized System 10-digit products with an associated NAICS 6-digit code (Broda and Weinstein 2006).

¹²Using market capitalization, capital productivity, return on assets, return on equity, or total factor productivity (İmrohrouglu and Tüz el 2014) produces similar results.

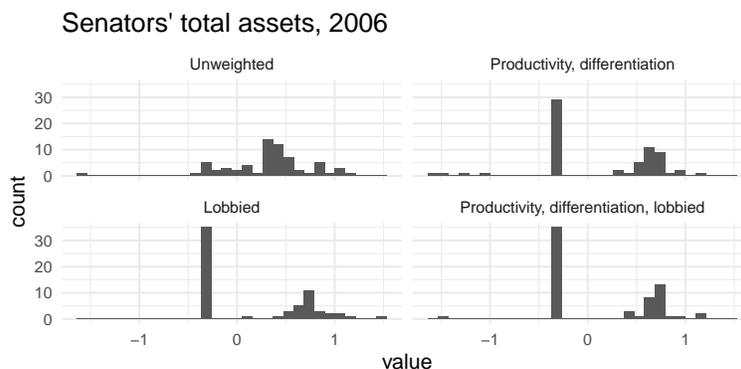


Figure 3: Given skewing both above and below 0 for some variables and values between -1 and 1, I follow Gelman and Hill (2006). For $x \leq -1$ I calculate $-\log(|x|)$, for $x \geq 1$ I take the log, and for $-1 > x > 1$ I set $x = 0$. All variables are then standardized to have mean 0 and standard deviation of .5. “Unweighted” is simply the sum of the mid-point value of the senators’ assets. Other variables are weighted by the variables noted. Productivity is measured as $\frac{\text{net income}}{\text{employees}}$. Differentiation follows the definition from Broda and Weinstein (2006). Senators’ total “lobbied” assets are those that lobbied Congress on trade in 2006, while “Productivity, differentiation, lobbied” are the sums of the productivity-, differentiation-weighted values of stakes held in firms that lobbied.

Figure 3 shows the distribution of this variable for Senators in 2006.¹³ Constructing this measure requires matching the assets listed on a personal financial disclosure (PFD) to firms in the Orbis (Bureau van Dijk), Copmustat, and/or CRPS business databases. This involved a lot of manual matching and checking to deal with misspellings etc. by MCs. I match 96.6 (57.4) percent of MCs’ assets that `opensecrets.org` classifies as public (private) firms.¹⁴ Most private firms rarely export, rendering this missingness negligible. Since this represents asset-level missingness, it seldom means a legislator goes from owning significant capital to little.¹⁵ For mutual funds, I multiply the portfolio proportion of listed shares held at the end of each year with corresponding firm-level data and sum, resulting in average measures of productivity and differentiation for the mutual fund. I imputed missing values since diversification leads to less variation in differentiation and productivity compared to firms. Dropping mutual funds and/or private firms does not substantially change the results (Appendix B.1). I use a logarithmic-type of transformation since I expect a move from \$0 to \$1 million matters more than one from \$25m to \$26m (see note for Figure 3).

Lobbyists’ reports show if firms lobbied Congress on trade during an FTA vote, which I match

¹³Other ways of summarizing the data produce consistent findings (Appendix B.2).

¹⁴Data on public firms from Eggers and Hainmueller (2013), which I extended temporally and marginally improved the match rate, aided the effort.

¹⁵The main results hold when summing up senators assets without weighting, which does not suffer this missingness.

with legislators’ firms (Kim 2018). To measure lobbying, I sum the number of quarters a firm lobbied Capitol Hill on trade in the year and year after an FTA since lobbying reports often report lobbying for the previous year.¹⁶ I consider politicians more informed when their firms lobby. By differentiating between lobbied and unlobbied financial self-interest before summing a legislators’ financial self-interest, I create measures of (un)informed financial self-interest.

4.3 Measuring confounders

Potential confounders included in at least some model specifications consist of personal, demographic, and FTA-specific characteristics. Personal characteristics include ideology, career background, and PAC contributions. Most of these are post-treatment, though the results largely hold regardless of their inclusion. For ideology, I use DW-NOMINATE scores (Poole and Rosenthal 2000, 1985; McCarty, Poole, and Rosenthal 2016; Lewis et al. 2018). Since certain career backgrounds may dispose MCs to favor PTAs, I gather data on the proportion of MCs’ pre-congressional careers spent in 3 broad categories—profit-oriented professions, service-oriented professions, and working-class jobs—and sometimes I use more granular categories (Carnes 2013). Following Conconi, Facchini, and Zanardi (2014), I measure campaign contributions as the log of the sum of contributions made to a legislator by labor union (corporate) PACs per two-year cycle. Like similar studies (Milner and Tingley 2011; Conconi, Facchini, and Zanardi 2014), I collected data on the margin of victory in the previous general election, age, party, copartisanship with the president, and gender.

Scholars have long studied constituency characteristics’ connection to roll call votes (MacRae 1952; Froman 1963). Several variables identified by scholars as important for trade votes (Milner and Tingley 2011; Conconi, Facchini, and Zanardi 2014; Mansfield and Mutz 2009): high skill workers—the proportion of the populace over 25 with at least a bachelors degree (Milner and Tingley 2011), the foreign-born, black, and Hispanic proportion of the population;¹⁷ median household income and unemployment; and the ratio of people employed in exporting industries over those employed in import-competing industries (*export ratio*). For *export ratio*, I aggregate county data

¹⁶Measuring lobbying as a simple binary or weighted by dollars spent, and including or excluding the lagged year, all produce similar results. Attempting to connect lobbying activity to FTAs specifically supports these results, though, missing data presents serious issues since about 85% of trade-related lobbying during the years in question are not matched to specific legislation (Kim 2018).

¹⁷I use the 2000 (2010) Census for votes before (following) 2010.

to the state level for senators. For the House, I use the Geographic Correspondence Engine from the Missouri Census Data Center to transform it to the congressional district level. I include state fixed effects in the House. All models include some sort of vote fixed effect.

4.4 Analyzing votes in both chambers of Congress

I adopt different approaches for the two chambers. In the House I use predictive inference (Gelman and Hill 2006; Gelman et al. 2013; Ward and Ahlquist 2018), building a model to capture the data generating process as evidenced by goodness of fit and out-of-sample prediction. I model “yeas” and “nays” using a logit link and maximum likelihood estimation (MLE). I include the control variables discussed above and, through interaction and polynomial terms, allow for model flexibility. In Appendix A.1 I discuss the cross-validation process. Selecting the best-fit model, I examine model implications. Most of these results are in the appendix.

In the Senate, I attempt to control for selection into treatment by accounting for all pre-treatment, observable confounders. I limit the comparisons to same-party, same-state senators voting on the same FTA to control for confounders at the constituency level. This also controls for partisanship, the varying impact of different trading partners for constituencies’ economies, the international environment, current executive-legislative-branch-party relations, vote whipping, etc. This only fails to control senator-level factors.

By default, I use MLE to fit a logistic model with pre-treatment, legislator-level covariates (gender and age)¹⁸ and fixed effects for same-party, same-state, same-FTA pairs, resulting in a high parameter-to-observation ratio. When MLE fails, I move to Bayesian estimation, putting votes in same-party, same-state, same-FTA nests. This leaves 284 Republican votes and 252 Democratic votes. I code non-votes as NAs. Of these matched votes, 13 (40) times Republican (Democrat) pairs split. Any effect I find using MLE will be driven by these split votes. In Bayesian models, financial self-interest could help predict when pairs vote together, though I choose priors over the variances of the random intercepts to minimize this. Since observational data presents a challenge to causal inference, I conduct a number of tests for the different empirical implication I derived from my theory. I also discuss and present evidence on why many plausible alternate explanations fall short.

¹⁸Including arguably post-treatment DW-NOMINATE scores and/or PAC contributions does not substantially alter results—e.g. Figure 10.

5 Results

5.1 Support of PTAs increases as financial self-interest increases

My theory posits legislators will be more likely to support PTAs as their financial self-interest increases, which analysis confirms. I estimate the effect of financial self-interest in explaining the divergence of same-party, same-state senator-pairs. The left panel of Figure 4 shows the predicted probabilities for the votes of two Montana senators, Max Baucus and John Tester, on the Colombia FTA. To calculate the predicted probabilities, I move financial self-interest from the lowest to the highest value in the data, stopping at 98 evenly spaced values in between, calculating a predicted probability at each. I use simulation to calculate the 95 percent confidence intervals (c.f. Tomz, Whittenberg, and King 2003).¹⁹ We see a strong, positive relationship between financial self-interest and FTA support. For the minimum value of financial self-interest, the predictions for both senators start at about 10 percent and rise steadily to over 80 percent by the end. Tester’s observed financial self-interest has about a .3 probability of supporting the FTA—which he didn’t. Baucus did support the FTA, which the model assigned about .75 probability.

The right panel of Figure 4 shows the average first difference (AFD) of an interquartile range (IQR) shift in financial self-interest.²⁰ Using MLE to estimate the model, the estimated effect is about 7 percentage points—about 10% the average level of support of PTAs for these senator pairs (72%). This quantity, which accounts for the fact that pair fixed effects preclude financial self-interest from mattering when senators vote together, is sizeable.

The right panel of Figure 4 also shows the AFD of an IQR shift in financial self-interest when its effect is allowed to vary across FTAs.²¹ The Bayesian model²² estimates this quantity at about

¹⁹An MC block-bootstrap ignores many dependencies and leads to much smaller confidence intervals. A parametric bootstrap, though appropriate, results in perfect separation in some iterations.

²⁰I first calculate the first difference for each observation given an IQR shift in financial self-interest. That is, I set the value of financial self-interest to the third quartile for each observation and calculate predicted probabilities. I do the same using the first quartile of financial self-interest. I subtract the second vector from the first and calculate the mean. This minimizes extrapolation and—compared to choosing a single, possibly unrepresentative observation or setting all variables to their means or medians—this quantity incorporates all observations (Ward and Ahlquist 2018).

²¹Using Bayesian estimation, I place each vote in same-state, same-party, same-FTA nests, while adding the FTA interaction term to the model. The nests serve the role of the fixed effects in the MLE model, with the exception being that Bayesian estimation involves shrinkage between nested-groups. I place uninformative priors over these random intercepts to minimize shrinkage.

²²For most terms in the Bayesian models in this paper I use weakly informative priors—essentially ruling out unreasonably large estimates (be they positive or negative) (Gelman et al. 2008). Having standardized all the variables, summarizing them is straightforward. For binary coefficients (FTA indicators, gender), the priors are

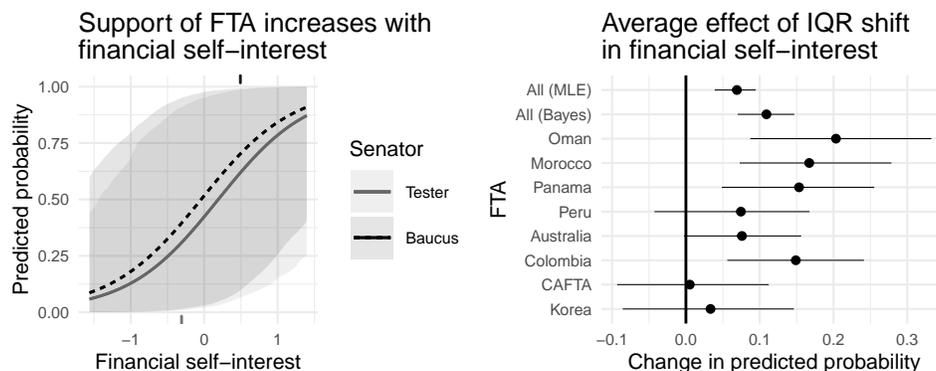


Figure 4: Support for FTAs increases as financial self-interest increases. *Left panel:* Predicted probabilities for Max Baucus and John Tester—Democrats from MT—supporting the Colombia FTA (H.R. 3078, 112th) as financial self-interest increases. 95% confidence intervals for MLE predicted probabilities are based on 1000 simulations. Tick marks show observed financial self-interest and vote outcomes, with support (opposition) on the ceiling (floor). *Right panel:* The change in the predicted probability of voting in favor of FTAs that results from moving from the third quartile to the first quartile of financial self-interest, averaged across all observations in the data. 1000 simulations produce the 95% confidence intervals for the MLE estimate (“All (MLE)”). Bayesian estimation results in the other estimates, with 95% credible intervals based on 4000 draws from the posterior distribution. FTA-specific estimates are ordered (descending) by the relative size of each FTA according to a gravity model of trade.

10 percentage points. Oman, Morocco, Panama, and Colombia have the largest estimates, and CAFTA and Korea the lowest. The effect size decreases as a gravity model estimate of the size of the trading partner increases—a point I return to below. These results are consistent with the main implication of my theory; increases in financial self-interest increase FTA support. This result holds in the House, where the AFD of an IQR shift in financial self-interest is about 4 percentage

normal distributions with mean 0 and standard deviation of 2.5. For continuous variables—age and financial self-interest—the standard deviation is approximately 5 and increases to about 12.5 for the interaction terms (e.g. FTAs \times financial self-interest). These priors serve to regularize estimates—which penalizes the effect of financial self-interest protects against overfitting. I limit this regularization for the nests for pairs of votes. The purpose of these nests is to focus on financial self-interest’s ability to explain diverging support for FTAs within these pairs of votes. The intercepts for each nest are modeled as a multivariate normal with mean 0 (Goodrich et al. 2020; Gelman et al. 2013). The covariance matrix for this multivariate normal density is decomposed into a correlation matrix and variances, with the variances being decomposed into the product of a simplex vector and the trace of the matrix. To get the trace, the square of a scale parameter is multiplied by the order of the matrix. The trace equals the sum of the variances. A large trace allows the parameter for each nest’s intercept to easily take on relatively large values. I increase the trace by increasing the scale parameter, the prior over which is a gamma distribution. I set this gamma distribution’s shape parameter to 50 and its scale parameter to 10 (the defaults are 1 and 1), resulting in a mean of 500. Increasing the scale parameter much more creates convergence problems. These priors create a high expected sum of variances— $500^2 \times 243$, with 243 being the order of the covariance matrix. I will note that, in terms of overall estimated effects, this choice matters little; financial self-interest is both good at predicting which pairs vote together and, when pairs split votes, which senator will vote in favor. This specification of priors, does, however, allow us to better estimate the effect across FTAs when we are interested in how financial self-interest explains within-pair divergences in behavior.

points (see Appendix B.3.1).

5.2 Informed legislators follow their financial self-interest

Does the effect of financial self-interest increase in legislators’ knowledge of their financial self-interest? I first consider whether senators who own firms that lobby on trade are more likely to vote their financial self-interest. I replace the original measure of financial self-interest in my previous model with my measures for informed financial self-interest and uninformed financial self-interest. The top-right panel of Figure 5 displays predicted probabilities for two Kentucky Democrats voting on the Peru FTA. As informed financial self-interest increases—that is, the value of shares a politician owns in firms that lobbied Congress increases—support for the FTA increases. The predicted probabilities for uninformed financial self-interest move in the opposite direction, though there is more uncertainty about this relationship.

The AFD of an IQR shift can again tell us how the model predicts (un)informed financial self-interest matters across all votes. The MLE and Bayesian estimates for this quantity are shown in the top-right panel of 5, being about 10 and 15 percentage points, respectively. The Bayesian model once again includes an FTA-specific interaction as well as the same weak priors over the nest intercepts. Of note is that the estimated AFD for informed financial self-interest does not show the same decreasing trend as the gravity model estimate of the trade partners’ importance increase as we saw in 4, while that for uninformed financial self-interest does. I revisit this below. Even simpler ways of measuring the role of lobbying produce consistent results (Appendix B.2).

Legislators could learn of their financial self-interest in other ways, such as a pre-congressional career in business. I use data on the previous careers of MCs from Carnes (2013) to classify which politicians were previously business executives or “for-profit” professionals—such as lawyers.²³ Interacting business career with financial self-interest has the expected effect.²⁴ The bottom left panel of Figure 5 shows the AFD of an IQR shift in financial self-interest, conditional on having had a business career, resulting in a sharp distinction between those with a business career and

²³The results hold for using only one category or the other by itself.

²⁴I use a Bayesian model like that used to make most of the top-right panel of 4, changing out the FTA term for the business background dummy. I made the prior for the sum of the variances of the nest intercept terms slightly more informative, choosing a gamma distribution with a shape parameter of 20 and a scale parameter of 10, leading to an average prior variance of 200. Larger parameters than this lead to model convergence problems, including divergent transitions for the No-U-Turn sampler (Hoffman and Gelman 2014).

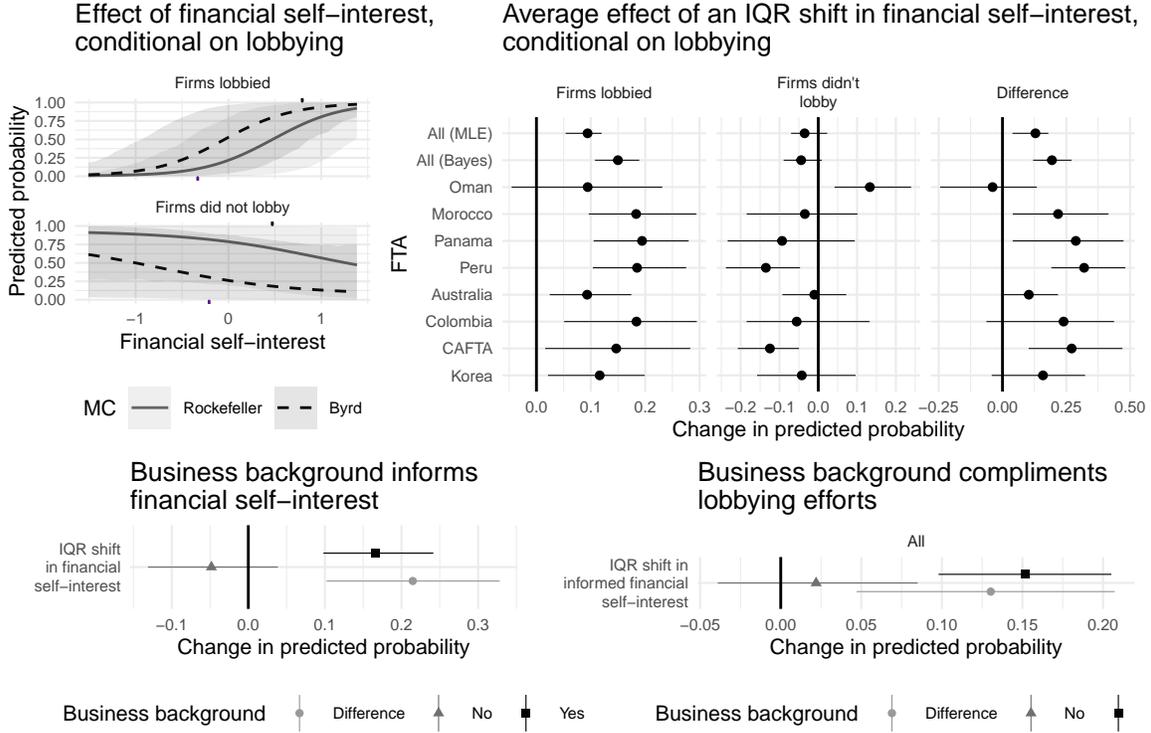


Figure 5: The effect of financial self-interest increases with information. *All panels:* Unless otherwise noted, all quantities are averages across all observations, with 95% Bayesian high density credible intervals based on 4000 draws from the posterior distribution. *Top-left panel:* Predicted probabilities for Robert Byrd and John D. Rockefeller IV—Democrats from KY—supporting the the Peru FTA (H.R. 3688, 110th) as financial self-interest increases, conditional on whether the firms owned lobbied. 95% MLE confidence intervals based on 1000 simulations. *Top-right panel:* The average change in the predicted probability of voting in favor of FTAs that results from moving from the third quartile to the first quartile in financial self-interest, conditional on firm lobbying, for all observations in the data. 1000 simulations produce the 95% confidence intervals for the MLE estimate of the effects across all bills (“All (MLE)”). FTA-specific estimates are ordered (descending) by the number of “Nays” on a given FTA. *Bottom-left panel:* The average change in predicted probability of supporting an FTA given an IQR shift in financial self-interest, conditional having had a business career. *Bottom-right panel:* The average change in predicted probability of supporting an FTA given an IQR shift in financial self-interest when the firms owned have lobbied, conditional having had a business career.

those without, with the difference being estimated at over 20 percentage points.

We can further consider what happens if a previous business career and “lobbied” (or informed) financial self-interest interact. I argue legislators with a business background will be better positioned to understand the messaging of lobbyists, so I expect an interaction term between the two variables to result in a larger estimated effect of informed self-interest for those with a business background. The bottom-right panel of Figure 4 supports this. Again, I use an AFD of an IQR shift in informed financial self-interest, this time conditioning on business career.²⁵

These results align with theoretical expectations. Financial self-interest matters when paired with information. Appendix B.3.2 shows this empirical implication finds support in the House, too.

5.3 The effect of financial self-interest decreases as the value of future office increases

The impact of financial self-interest should decrease as the present value of future office increases. The first evidence I offer of this leverages the staggered elections of senators, the precise timing of which for a given senator is arguably exogenous of the individual senators’ characteristics (Conconi, Facchini, and Zanardi 2014). Senators up for reelection in a given term should value the prospect of that future term more than those for whom election lies further off.

Again using the same-party, same-state, same-vote nests,²⁶ I interact an election-this-term indicator variable with financial self-interest. I calculate predicted probabilities for three senators. The results are in the top-left panel of 6 First, I compare the estimated effect for Kent Conrad, Democrat of ND, on two similar votes—the Morocco and Oman FTAs. At the time of the Morocco vote, Conrad was not up for reelection, but he was during the Oman vote. Next, I compare the predicted probabilities for Kirstin Gillibrand and Charles Schumer on the Panama FTA, the former of which faced reelection. In both comparisons, the model only puts appreciable weight on financial self-interest when a senator doesn’t face reelection. In the Oman vote, both Conrad and his fellow North Dakotan, Byron Dorgan, voted against the FTA, which gives a sense how the model uses the same-state, same-party, same-vote random intercept to push the estimate to the

²⁵The model is like that described in the previous footnote, including the strengthening of the priors affecting the trace of the correlation matrix for the nest intercepts.

²⁶Though the results do not clear conventional levels of statistical significance, the direction of the findings presented here hold when nesting votes in individual senators (Figure 19). Given how little the assets held by MCs vary across years, this is strongly corroborating evidence.

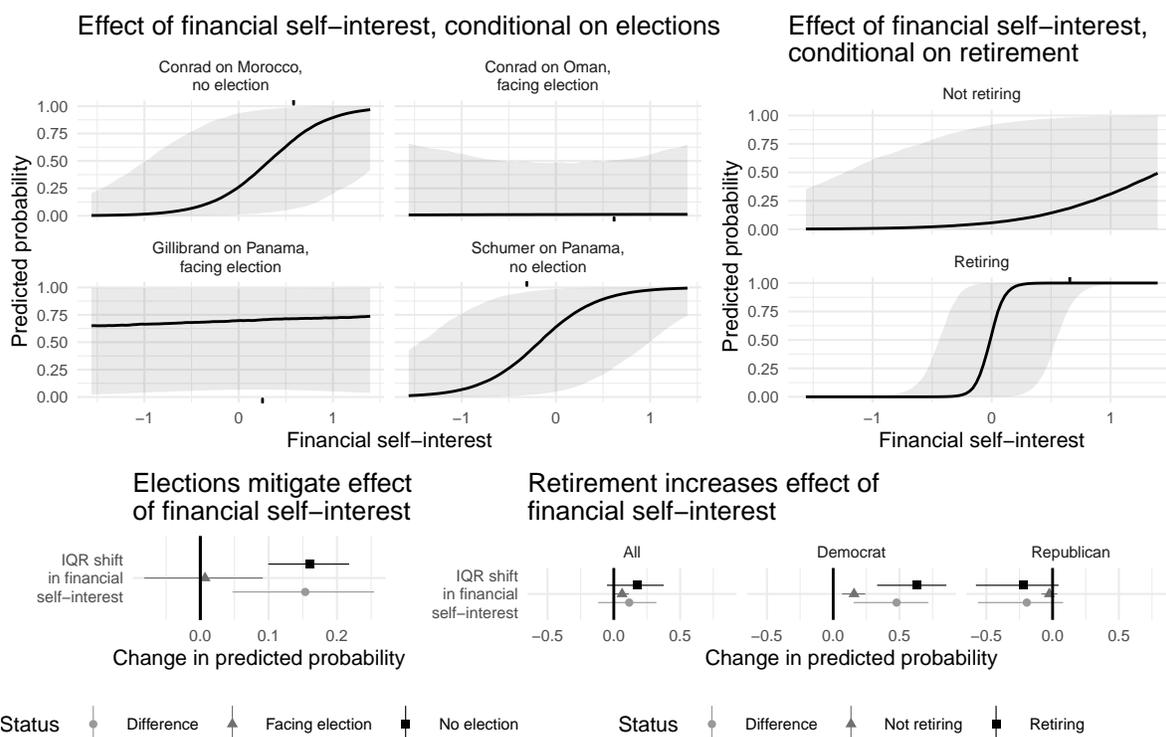


Figure 6: The effect of financial self-interest increases when politicians’ value retaining office less. *All panels:* Unless otherwise noted, all quantities are averages across all observations, with 95% Bayesian high density credible intervals based on 4000 draws from the posterior distribution. *Top-left panel:* Predicted probabilities for Kent Conrad—Democrat from ND—supporting the Morocco FTA (H.R.4842, 108th) and the Oman FTA (H.R.5684, 109th) and Kirsten Gillibrand and Charles Schumer—Democrats from NY—supporting the Panama FTA (H.R. 3688, 110th) as financial self-interest increases, conditional on facing elections. *Top-right panel:* Predicted probabilities for Jeff Bingaman—Democrat from NM—supporting the Colombia FTA (H.R. 3078, 112th) as financial self-interest increases, conditional on retirement. Bingaman was retiring and voted “Yea.” *Bottom-left panel:* The average change in the predicted probability of voting in favor of FTAs that results from moving from the third quartile to the first quartile in financial self-interest, conditional on having announced retirement. *Bottom-right panel:* The average change in the predicted probability of voting in favor of FTAs that results from moving from the third quartile to the first quartile in financial self-interest, conditional on having announced retirement.

floor. The predicted probabilities for Schumer and Gillibrand on Panama see the model using the intercept to try to balance the fact that Schumer—who does not have much financial self-interest in FTAs—voted yes while Gillibrand—who has more—voted no. The model finds that fit improves by canceling out the effect financial self-interest for a senator facing reelection when that senator-pair splits their votes, evidenced by the basically flat line for Gillibrand.

The bottom-left panels of Figure 6 shows the estimated AFD an IQR shift in financial self-interest has on FTA support, conditional on facing an election. When not facing election in a term, financial self-interest has a strong effect which disappears when elections loom. The difference between these quantities is about 15 percentage points.

The value of future office disappears with retirement. With electoral concerns removed, senators should be freer to vote their financial self-interest. I code a senator as retiring when they enter the final Congress of the term after which they retire. This makes sense since senators tend to announce their retirements close to the beginning of these final two years (Karol 2015). I interact this variable with financial self-interest and produce the predicted probabilities for Jeff Bingaman on the Colombia FTA (top-right panel of Figure 6). While the model finds a positive effect of financial self-interest when changing Bingaman’s status to “not retiring,” the relationship is weaker.

The point estimate of the AFD of an IQR shift in financial-self interest, shown in the bottom-right panel of Figure 6, also suggests retirement frees senators. Given there are only 28 observations for retiring members, we should not be surprised the estimates are noisy and the difference fails to meet conventional levels of statistical significance. The size of the estimate for retiring legislators is large at about 20 percentage points. The estimated effect for Democrats is massive, with the difference easily attaining conventional levels of significance. This effect is only possible because most of the retirees happen to be Democrats, most of the senator pairs with a retiring senator split their votes, and financial self-interest is highly predictive of voting patterns in these pairs.²⁷

The analysis of how retirement and reelection interact with financial self-interest comport with the theoretical expectation that the effect of financial self-interest decreases in the value of future office. Next, I turn to examine the partisan differences more thoroughly.

²⁷When analyzing within-senator behavior, I find similar results (Figure 19).

5.4 Financial self-interest has more effect when voters oppose PTAs

I expect that financial self-interest matters when voters oppose PTAs since absent this opposition most factors push legislators towards supporting PTAs—this directionality, of course, dependent on an international economy where the largest firms gain from trade and dominate lobbying as discussed above. One way of testing this is by examining partisan differences.

Republican voters traditionally tend to support FTAs more than Democratic voters—though Democrats and Republicans may have switched positions sometime during Obama’s presidency (Jones 2017). Thus, if we think of voters as the primary means to secure reelection, Democratic senators should face voters more opposed to FTAs.

“Voters”, though, is shorthand for actors important for reelection—actors whose interests legislators facing reelection will consider. For the GOP, ties to the business community loom large (Hacker and Pierson 2010), including efforts by pro-FTA activist groups to influence primaries (Roth 2015). For instance, in 2004 the Club for Growth spent \$2.3m trying to replace incumbent Arlen Specter with Pat Toomey. In 2009 Specter switched parties to avoid a rematch (Hacker and Pierson 2010, 235). Specter didn’t always support FTAs, which likely contributed to the Club for Growth’s decision, illustrating how—beyond campaign contributions to incumbents—the pro-FTA business wing of the GOP can leverage electoral pressure.

Republican senators wanting to support an FTA out of financial self-interest will find support from the business community. Senators with intense financial self-interest in seeing FTAs fail basically don’t exist. Thus Republican senators, in terms of financial self-interest, either weakly oppose or strongly favor FTAs. Financial self-interest should not play a role, given a largely pro-FTA voter base and the pro-business elements in the party.

Conversely, Democratic senators have ties to labor unions. Labor unions make campaign contributions and, perhaps more important, turn out the vote in primaries and general elections (Bawn et al. 2015; Patterson 2018). Usually, unions oppose FTAs—e.g. (“Opposition to the Central American Free Trade Agreement” 2005). Democratic senators who depend on union support feel pressure to oppose FTAs. Under these circumstances financial self-interest should manifest itself.

Statistical analysis shows Democrats drive the results. The top-left panel of Figure 7 shows predicted probabilities for Lindsey Graham and Tom Carper voting on CAFTA. For Carper, there

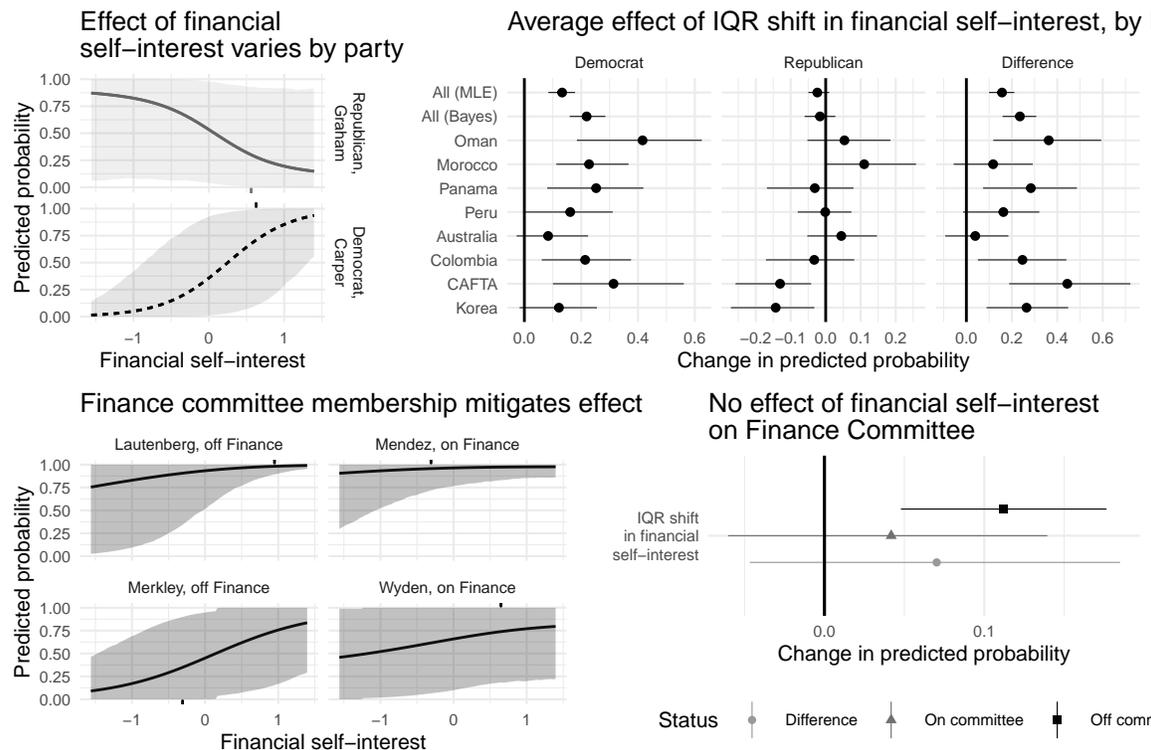


Figure 7: The effect of financial self-interest increases when constituents oppose PTAs. *All panels:* Unless noted, quantities are calculated across all observations, with 95% Bayesian high density credible intervals from posterior 4000. *Top-left panel:* Predicted probabilities for Lindsey Graham—Republican from SC—and Tom Carper—Democrat from DE—supporting CAFTA (H.R.3045, 109th) as financial self-interest increases. MLE 95% confidence intervals based on 1000 simulations. *Top-right panel:* AFD of IQR shift in financial self-interest by FTA, calculated by party. The “All (MLE)” 95% confidence intervals based on 1000 simulations. *Bottom-left panel:* Predicted probability of supporting the Korea FTA (H.R. 3080, 112th) for four Democrats—Jeff Merkley and Ron Wyden of OR and Bob Menendez and Frank Lautenberg of NJ—half of whom are on the Finance Committee. *Bottom-right panel:* AFD of IQR shift in financial self-interest, conditional on being on the Finance Committee.

is a strong positive relationship and, for Graham, a negative relationship.

Democratic senators, on average, have an effect of about 17-20 percentage points across all votes (top-right panel of Figure 7). The effect for the GOP is negative and noisy. We again see what appears to be a negative relationship between the size of the effect and the importance of a trading partner—the FTAs are again ordered in terms of ascending size according to a gravity model of trade, which I discuss in the next section. The major exceptions to this basic trend appear to be Colombia and CAFTA for the Democrats. The votes happen to be two of the three tightest in terms of final vote counts (55-45 for CAFTA,²⁸ 66-33 for Colombia, and 60-34 Oman). Given the tighter vote margins, the expected value—in terms of financial self-interest—of supporting FTAs should increase. This may be behind the higher estimated effects in these votes.

The Senate Committee on Finance is the primary committee that coordinates with the executive branch on PTAs. Members of this committee should, like Republicans, respond less to financial self-interest. Two factors contribute to this. First, they hear heavily slanted messages about the benefits of FTAs. For example, during Congressional hearings on FTAs, pro-trade committee chairs disproportionately choose pro-FTA witnesses, downplaying import competition and offshoring (Lee and Osgood 2019). Members of the Finance Committee are more likely to think voters' gain from the passage of FTAs.

Second, members of committees like this one are expected to raise a lot of campaign contributions (Powell and Grimmer 2016; Berry and Fowler 2018). Returning to the larger universe of actors legislators appease to win reelection, senators getting these contributions feel compelled to offer something in return, according to Bob Dole (Kaiser 2009, 148). I argue that members of this committee will not be as influenced by financial self-interest as those off the committee, both due to hearing more positive messages about FTAs and their need to raise campaign contributions from pro-FTA firms. Like Republicans, these committee members should see most forces favoring FTAs, leaving little room for financial self-interest to matter.

When I add an interaction term between financial self-interest and Finance Committee membership,²⁹ predicted probabilities suggest a stronger relationship for senators off the committee (bottom-left panel of Figure 7). In the bottom-right panel—though the difference does not at-

²⁸As congressional-executive agreements, FTAs only need a simple majority in both chambers.

²⁹This is another Bayesian model with a nest for same-state, same-party Senators with uninformative priors over the size of the random intercepts.

tain conventional statistical significance—we see that the estimated effect for all members off the committee is about 11 percentage points compared to 4 percentage points on it.

5.5 The effect of financial self-interest should decrease in a vote’s salience

Financial self-interest should matter less when a vote is more salient. We can look for evidence across FTA votes. Recall in the right panel of Figure 4 that as the importance of the trading partner increased the effect decreased. I measure the expected or latent salience of an FTA by calculating the relative size of the expected trade flows between the US and the various trade partners using a gravity model of trade.³⁰ The reasoning is simply the greater the expected or potential trade flows of a trade partner, the more salience an FTA with this partner will potentially have. The realized salience of CAFTA (Irwin 2017), which has the second-highest latent salience score, suggests this measure has some validity. Further, the prominent contention over NAFTA (Irwin 2017), which would have an even larger score, also makes sense.

I explicitly model the relationship between salience and financial self-interest by adding an interaction term—I use a Bayesian model with same-state, same-party, same-vote intercepts.³¹ I calculate the AFD of an IQR shift in financial self-interest for 15 evenly-spaced levels of salience ranging from the minimum to the maximum value observed (top panel of Figure 8). I add, for comparison, the FTA-specific estimates from the right panel of Figure 4—colored red and labeled by FTA. There is a clear downward trend in the effect of financial self-interest as salience increases.

The bottom panel of Figure 8 examines how this relationship changes when we account for lobbying.³² Uninformed financial self-interest drives the decrease in the effect as salience increases. This greater reaction to salience coheres with the theoretical model in this paper. Legislators more certain of their financial gain will be less dissuaded from voting their financial self-interest when a salience increases, relative to those less certain of their financial self-interest.

³⁰I use the meta-analysis of gravity model estimations by Head and Mayer (2014). Across structural gravity models, they report the median estimated distance coefficient is -1.14 and the median coefficient for the origin country’s GDP is .86. I calculate a country’s predicted trade flows with the US as $\propto \frac{\text{GDP}^{.86}}{\text{distance from US}^{1.14}}$.

³¹I again choose relatively weak priors to allow these intercepts to take on large values, subject to convergence constraints. I set the shape parameter of the gamma distribution controlling the variance of these intercepts to 20 and the scale parameter to 10.

³²The model is similar to that used to make the top panel in Figure 8, but I substitute the measures for informed and uninformed financial self-interest for the original financial self-interest measure. I choose relatively weak priors to allow the same-party, same-state, same-vote intercepts to take on large values. I set the shape parameter of the gamma distribution controlling the variance of these intercepts to 50 and the scale parameter to 10.

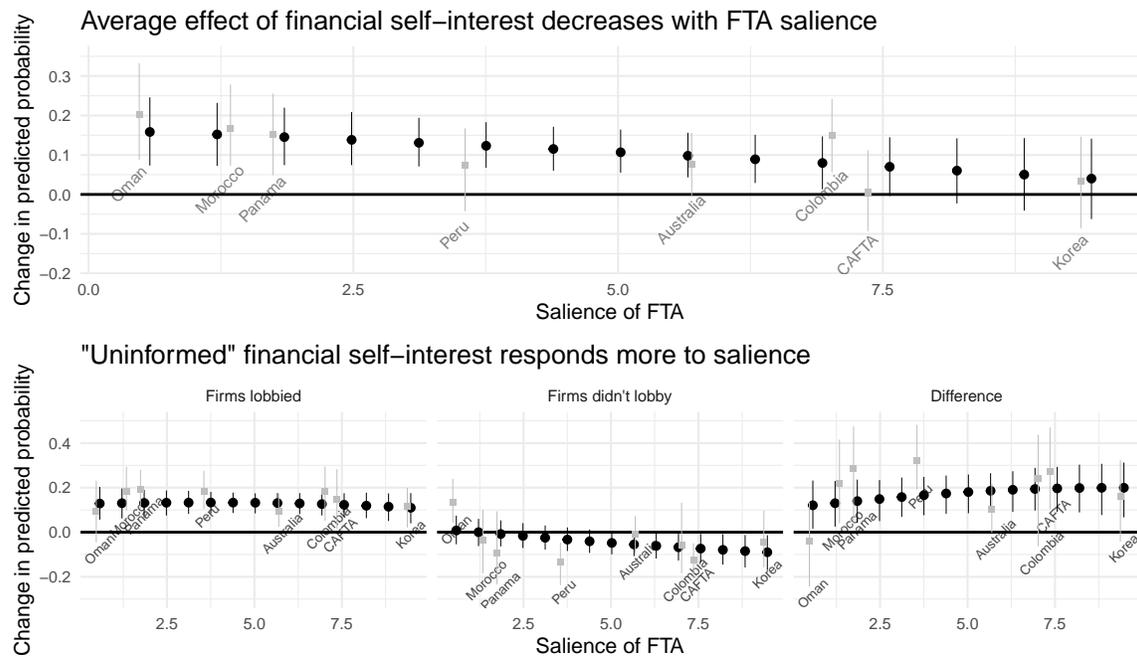


Figure 8: The effect of financial self-interest decreases as the salience of the FTA increases. *All panels:* Quantities are calculated across all observations, with 95% Bayesian highest density credible intervals from 4000 posterior draws. FTA salience is measured by the predicted trade flows from a gravity model of trade. FTA-specific effects from Bayesian models above added (small grey squares). *Top panel:* The AFD of an IQR in financial self-interest as the salience of an FTA increases left-to-right. *Bottom panel:* The AFD of an IQR in (un)informed financial self-interest as the salience of an FTA increases left-to-right.

We could also imagine testing this implication across different issues that vary in salience. For example, immigration legislation seems more salient than trade legislation—which aligns with recent findings (Vavreck, Sides, and Tausanovitch 2019). Using a similar paired-senator design, I find the effect of financial self-interest (expressed as an AFD of an IQR shift in financial self-interest) of 3.5 percentage points across all immigration votes from 2004 to 2014 (Appendix B.4)—one-third to one-half of the FTA estimates (right panel of Figure 4).

5.6 Firms lobby when legislators own them

Firms should tend to lobby more if their lobbying efforts will be successful. Though legislators may buy stock because they are lobbied, this does not mean they do not care about financial self-interest. Eggers and Hainmueller (2014) find that MCs’ “politically connected” investments—those in their district or that have made campaign contributions—outperform their other investments. While perhaps not surprising, an empirical relationship between firm lobbying and MC ownership should exist if legislators seek financial gain, firms are rational, and firms have information legislators lack.

I model firms’ lobbying decisions as a function of whether legislators own the firm, including all publically listed firms involved in trade from 2004 to 2014. Following Kim (2017), I use a logistic regression of a binary indicator of lobbying on labor productivity, differentiation, number of employees, cost of goods sold, market value, capital expenditure, and investments in property, plants, and equipment. I include year and industry fixed effects (NAICS 2-digit).

I first add to this model a binary indicator for whether a member of Congress owned the firm or not. The top-left panel of Figure 9 shows firms owned by MCs are about six times more likely to lobby. The top-right panel of Figure 9 shows that the effect of MC ownership on firms’ lobbying decisions increases as more MCs own the firm. Here we exchange the binary indicator of MC ownership for a four-degree polynomial for the number of MCs that owns the firm. We see a sharp increase to nearly 65% from a baseline of about 2 percent over the first 15 MCs that own a firm. The rate of increase decrease until picking up again about 25 MCs. When about 40 MCs own a firm the predicted probability of lobbying nears 100%.

Since lobbying is costly, smaller firms should be more influenced by MC ownership. Lobbying’s initial costs burden smaller firms; large firms can more easily pay the fixed costs. Smaller firms should respond more strongly to an increased chance of lobbying success—which increases in MC

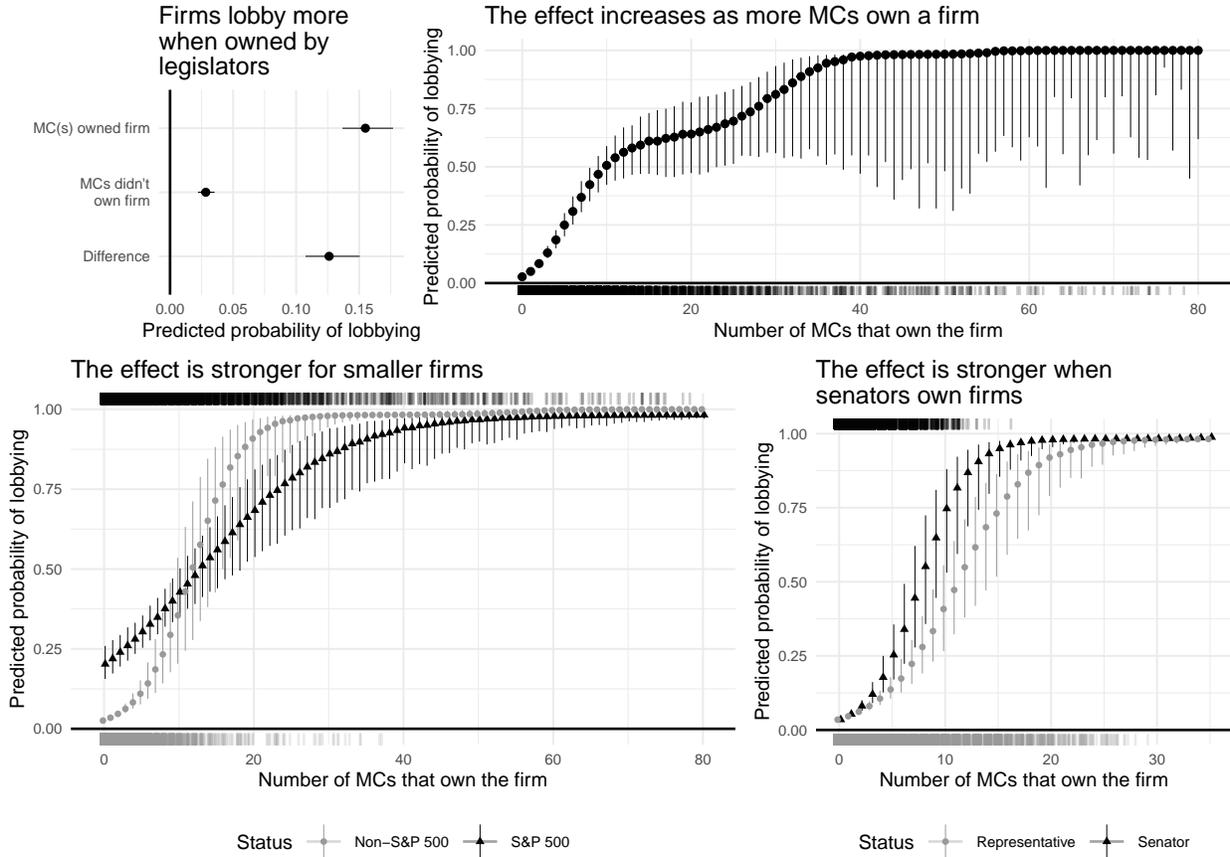


Figure 9: Firms lobby more when legislators own them. *All panels:* Quantities are calculated across all observations, with 95% confidence intervals from 1000 simulations and standard errors clustered by firm. I include all publically listed firms in industries involved in trade from 2004 to 2014. *Top-left panel:* Predicted probabilities when conditional on legislator ownership (binary), and the difference between these. *Top-right panel:* A four-degree polynomial term for the number of MCs owning a given firm replaces the binary indicator, giving the predicted probabilities as the number of MCs owning the firm increases from 0 to 80—higher numbers of ownership are excluded given the scarcity of such observations. *Bottom-left panel:* Predicted probabilities of lobbying as a function of the number of MCs that own a firm, conditional on membership in the S&P 500. *Bottom-right panel:* Predicted probabilities of lobbying as the number of MCs that own a firm increase, differentiating between senators and representatives. When increasing senator ownership, house ownership is set to 0, and vice versa.

ownership. To test this, I exchange the four-degree polynomial for an interaction between a dummy variable for S&P 500 membership and the number of MCs owning a firm. The bottom-left panel of Figure 9 confirms the relationship between lobbying by small firms and MC ownership is stronger.

Senator ownership should matter more to firms. With fewer of them, a senators' vote is relatively more valuable than a House member. I remove the S&P 500 variable and separate the number of MCs that own a firm into senators and representatives, with an interaction between these. The impact of senator ownership exceeds that for representatives (the bottom-right panel of Figure 9). In Appendix B.5, I show restricting firms to those owned by representatives or senators—not by both—confirms the results.

5.7 Substantive effects

The magnitude of the effect of financial self-interest compares favorably with other important variables. Here I focus in particular on lobbied or informed financial self-interest. In the US, partisanship predicts FTA support well. The estimated effect of party in the House (Senate) is 47.4 (37.4) percentage points.³³ The AFD of an IQR shift for informed financial self-interest of 7 (10) percentage points amounts to 15% (27%) of this. The results here not only attest to the size of the effect of financial self-interest but also shows its effects are robust to including what, as seen in the literature above, may be important—albeit likely post-treatment—confounders.

I compare the variables' effects within parties; large changes in ideology effectively represent changing parties. Figure 10 shows AFDs of within-party IQR shifts for informed financial self-interest, PAC contributions, and DW-NOMINATE scores. In the House, DW-NOMINATE dominates overall and for Democrats. Informed financial self-interest and corporate PACs are about equal. Labor union contributions have large negative (positive) effects for Republicans (Democrats). In the Senate, PAC contribution results disappear. Informed financial self-interest's estimate exceeds DW-NOMINATE's in magnitude (and imprecision) and enjoys notable consistency across chambers and parties.

³³For these estimates—and others in this section—I use a model for the House described in Appendix A.1 and a Bayesian model for the Senate that includes informed financial self-interest, labor and corporate PAC contributions, and DW-NOMINATE scores, cross-nesting votes in same-party, same-state, same-FTA pairs, in parties, and in FTAs. I also include the pretreatment covariates age and gender. I calculate party AFDs by setting all observations' party to Republican and DW-NOMINATE scores to the Republican chamber median, calculating predicted probabilities. I subtract from these predicted probabilities the predicted probabilities that result from setting all observations to Democrat and giving them the Democratic median DW-NOMINATE score for the appropriate chamber.

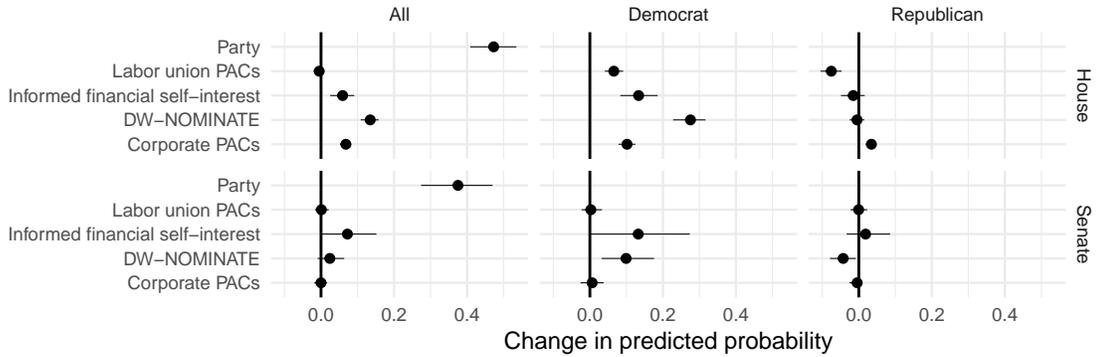


Figure 10: Average change in predicted probability of supporting an FTA given a within-party IQR shift in select variables. House (Senate) 95 percent confidence (credible) intervals based on 1000 simulations (4000 draws from the posterior distribution).

6 Alternate explanations

I offer evidence of the validity of the measure of financial self-interest and discuss some alternate explanations, as well as ending with a brief discussion of implications for representation. One test of measurement validity is whether it predicts votes on other issues. This measure, based on research on economic integration, should be fairly FTA-specific. When I compare the effect of financial self-interest on FTAs to votes on abortion, espionage/intelligence, financial regulation, and taxation, I find the estimated effects for FTAs to be stronger and more precise across both chambers, though there is some evidence that my measure predicts tax votes (Appendix B.6.1). I demonstrate, however, that the informational role of trade lobbying does not replicate for financial regulation- or taxation-related voting (Appendix B.6.2). This argues against an explanation being “pro-business” types causes legislators to own firms (that lobby on trade) and vote for FTAs.

Perhaps “globalists”—distinct from a pro-business type—invest in firms that gain from and lobby for FTAs and vote for FTAs because of type. Analyzing within-senator behavior produces results that consistent with those above, though a lack of variation in the assets individual legislators hold across years leads to imprecise estimates (Appendix B.6.3). When I test whether owning a firm that lobbies on trade at the time of the vote—which should tap into financial self-interest—increases support of FTAs more than ever owning a firm that lobbied on trade—which should capture something more permanent like type—I find more evidence in favor of financial self-interest, this time easily clearing conventional levels of statistical significance (Appendix B.6.4).

Alternatively, MCs may invest in firms to signal their loyalty, presumably in exchange for something. The obvious things motivating senators seem to be campaign contributions or a job after they retire from Congress. The finding that, after announcing retirement, senators vote their financial-self interest more strongly argues against campaign contribution *quid pro quos* as the driver. It does not rule out the revolving door incentive, which deserves further study. Yet, financial self-interest would still drive behavior, with the payoff including a job.

Maybe all legislators seek to faithfully represent voters, but investments in firms that lobby on trade inform politicians about the state of the world. This information leads them to see FTAs as beneficial to their constituents. There are a couple of problems with this argument. First, the electoral mitigation of the effect of financial self-interest means many legislators do not show “true leadership” but rather pander (Canes-Wrone, Herron, and Shotts 2001; Ashworth 2012). Second, the lobbying results mean, even though lobbyists presumably try to inform everyone about the true state of the world, only those with stock in the companies they represent absorb these messages. While we could incorporate this in a complicated theory, it seems unlikely.

7 Conclusion

Recent scholarship on the pro-PTA preferences and lobbying efforts of firms (e.g. Melitz 2003; Kim 2017) and on the concentrated harmful effects of PTAs and the anti-PTA attitudes of localities thereby affected (e.g. Hakobyan and McLaren 2016; Colantone and Stanig 2018a) encourage us to rethink our macro theories of PTA formation. The recent success of anti-PTA candidates and policies makes more sense if we relax some of our assumptions about the preferences of voters, firms, and legislators over PTAs. I argue that, while many voters may be relatively opposed to PTAs, firms and legislators that gain from PTAs support them. Firms lobby legislators on PTAs, sending a costly signal that PTAs benefit the firms. Due to interest alignment, legislators who own the firms prove sympathetic, voting for PTAs more frequently.

Evidence from Congress substantiates the theory. Owning firms that gain from trade predicts support of FTAs, with lobbying acting as a mechanism. In the Senate, retirement frees MCs to vote their financial self-interest even more strongly while nearing elections do the opposite. Limiting the comparison to same-party, same-state senators rules out constituency and party explanations.

Democrats drive most results, as expected given differences in constituencies. This finding dovetails with work highlighting the crucial role of moderate Democrats, like Max Baucus and Ben Nelson, who cross the aisle on important business and financial legislation (Hacker and Pierson 2010; McCarty, Poole, and Rosenthal 2013). Though speculative, my work suggests financial self-interest could play a role in motivating these pivotal legislators, helping firms achieve legislative goals. This may contribute to an economy where the largest firms take most profits, adding to anti-integration and anti-establishment sentiments prominent in mass publics of advanced democracies (Kim and Osgood 2019).

This matters for representation. Schiller (2000)'s detailed study of same-party, same-state senators finds numerous ways in which their behavior can diverge. This can be beneficial for representation, since each specialize in offering services to different parts of their constituencies. Yet she neither expects nor finds this extends to roll call votes. If we think they are motivated primarily by reelection, which is in the hands of the same voters, the positions Senators take on the same legislation seemingly should not diverge. Some results—specifically the electoral mitigation of the effect of financial self-interest, its amplification with retirement, and its conditionality on lobbying—compound the problem of interpreting my results as stemming from faithful representation. Movements like Occupy Wall Street and the Tea Party's calls to "drain the swamp" echo the muckraking journalism of the Gilded Age and the widespread belief that politicians—particularly Senators—were in it for personal gain.

Any such broad conclusions, however, demand more study. I've examined a single issue in a single country at a particular time. Probing if these results replicate across issues, countries, vastly different institutions, and in other periods—with different international economic backgrounds—offer obvious extensions.

A Appendix A

A.1 Crossvalidation

I use information criteria and crossvalidation to select the statistical model I use when analyzing FTA votes in the House. There are a huge number of models I could attempt to run. In some of them my variable of interest may be statistically and substantively significant. Selecting a model based on statistical significance may not be ideal. Instead, without looking at how my variable of interest performs, I look to test a lot of models that I think might explain the data well. By “explain the data well,” I mean a model (1) does well at explaining the variation in the outcome for data on which the model was fit, (2) is not *needlessly* complex, and (3) is good at predicting out-of-sample observations on which the model was not trained (Friedman, Hastie, and Tibshirani 2001). As Ward and Alquist (2018, p. 84) write,

If our favored model is no better than feasible and simpler alternatives at predicting new data then we have little reason to prefer that model, regardless of whether our theoretically-inspired specification has ‘significant’ coefficients for special covariates. If we have little reason to believe that the favored covariate is an important part of the underlying data-generating process then it makes little difference that its regression coefficient conforms to theoretical expectations in an overfit model.

The purpose of this section is to show, before looking at how the personal finances of legislators do or do not affect their support of free trade, that the model I am going to use to examine this question does the best job of capturing the data generating process. The results suggest that firm-centered inspired measures perform best, justifying their centrality in my argument.

I fit a logit model, with votes in support of an FTA coded as a 1, those against as 0, and excluding those that were not “aye” or “no.” I include all of the confounding variables above. Not only that, but I tested out many different specifications of the model, including interactions of important variables (Gelman and Hill, 2006) and squared terms of variables where it seemed appropriate. I allowed several interactions of the variable of interest with DW-NOMINATE, party affiliation, vote fixed effects, and campaign contributions. I tested out others, but interaction terms of the variables just noted were the ones that usually improved model fit and out-of-sample prediction.

In an effort to adjudicate whether productivity and differentiation represented an improvement over Heckscher–Ohlin (H-O)—that is, does weighting an asset by productivity and differentiation

improve model performance when compared to simply summing a legislator's assets—I used 5-fold cross validation and a large number of model specifications for different variables representing different theories. For H-O this was the sum of the legislator's assets. For NTT this was the sum of their differentiation-weighted assets. For NNTT, I tried weighting their assets with the different productivity measures and then summing. Finally, rather than assuming they must be mutually exclusive, I followed Melitz and Ottaviano (2008) and weighted MCs' assets both by their differentiation and firm productivity, then summed. I fit dozens of models for each of these different measures, changing and removing interaction terms and including polynomial terms. I then selected the best performing models for each measure based on Akaike information criterion (AIC), Bayesian information criterion (BIC), and the logistic loss for the five-fold cross validation. AIC and BIC are calculated without five-fold cross validation. They both punish complexity, with BIC applying stricter penalties to additional terms than does AIC.

Having identified the best performing model for each measure, I then reran the five-fold cross validation, this time calculating additional measures of predictive power: accuracy, precision, F1, and the area under the receiver operating characteristic curve (AUC). These metrics are calculated on the out-of-sample portion of the five-fold cross validation for each iteration. The evidence points to the measures that combines the differentiation and productivity weights as being the best. New and new new trade theory ((N)NTT) best capture the data generating process. The goodness of fit and cross validation results are shown in Figure 11.³⁴

Since I have multiple variables to measure productivity, I denote the different NNTT measures in Figure 11 by referring to the individual measures discussed above. "NTT" means the value of the asset was weighted by the product differentiation in that industry. Looking at Figure 11, if we think that modern trade theories should add something to classic theories, the AIC and BIC measurements of goodness of fit tell this story perfectly. Likewise, the AUC, which is perhaps the best single number summary of the out-of-sample predictive performance of a model, supports the same story. The H-O measure performs the worst in all these categories. If we look at only differentiation or productivity by themselves, they do better than H-O. Yet the best performers, no matter how we measure productivity, are those where, following (N)NTT, we combine productivity

³⁴For reference, the results of a model that includes only an intercept results in the following: an AIC of 4601, a BIC of 4607, a negative logistic loss of -.649, and an accuracy of .647.

Measure	AIC	BIC	AUC	Log_loss	Accuracy	F1	Precision
1 TFP-NTT	2635.340	3251.706	0.910	-0.393	0.846	0.888	0.875
2 Labor prod-NTT	2643.676	3241.551	0.910	-0.395	0.844	0.888	0.872
3 Size-NTT	2648.243	3246.117	0.910	-0.394	0.856	0.888	0.875
4 ROA-NTT	2653.738	3251.613	0.909	-0.396	0.845	0.889	0.873
5 Capital prod-NTT	2656.374	3254.248	0.910	-0.395	0.845	0.878	0.875
6 ROE-NTT	2656.374	3254.248	0.909	-0.397	0.845	0.879	0.875
7 NTT	2657.327	3255.202	0.909	-0.393	0.848	0.889	0.875
8 TFP (NNTT)	2662.573	3278.938	0.909	-0.395	0.844	0.878	0.876
9 H-O	2678.489	3288.691	0.907	-0.398	0.847	0.881	0.875

Figure 11: Model fit and predictive power for different measures of (productive and/or differentiated) capital.

and differentiation in weighting capital.

The negative logistic loss and F1 measures are not dramatically different, but sometimes the models using just differentiation or productivity outperform some of those that combine the two. The precision results do not differentiate much between the models, though the measures using labor productivity and ROA are laggards. The only metric where the simple H-O mechanism (simply summing capital) performs better than most is accuracy, where it is in the top three. It should be noted, however, that accuracy is a blunter measure of model performance than AUC or the negative logistic loss. In calculating a model’s accuracy predictions are made based on a 50 percent predicted probability threshold and those that are wrong are penalized. That is, accuracy does not account for how confident or uncertain a prediction was (a guess of 51 percent and 99 percent are treated the same—either right or wrong).

This cross validation exercise provides evidence that weighting a legislator’s capital holdings by the firm’s productivity and its industry’s product differentiation better captures the data generating process. Further, we can be confident that the implications for the measure of interest that come from this model are being derived from a model that performed well in terms of predicting observations it was not trained on.

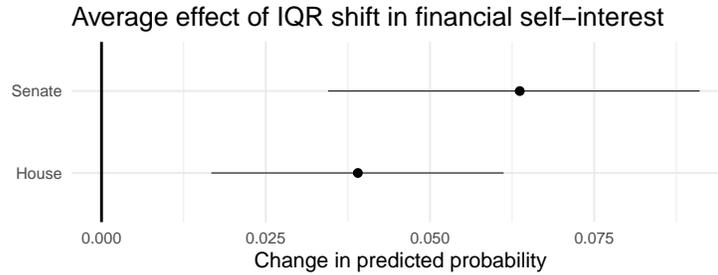


Figure 12: Support for FTAs increases as financial self-interest increases. These results do not change if we only use assets categorized as “public” firms by `OpenSecrets.org` to construct the measure of financial self-interest, dropping all else, including mutual funds and private firms. The cross validated model for the House and the same-state, same-party, same-vote fixed effects Senate model with pre-treatment covariates produce the estimates in this figure. MLE results in the point estimates of the effect of an AFD for an IQR shift in financial self-interest and 1000 simulations produce the 95% confidence intervals.

B Appendix B

B.1 Robust to dropping all classes of assets but public firms

Dropping anything that looks like a bank account, mutual funds, and private banks before creating the measure of financial self-interest for each legislator does not change the results of the analysis above (see Figure 12). Other combinations of which `OpenSecrets.org` categories of assets that are included do not change these basic results as long as publicly listed firms are included (results available on request).

B.2 Robust to alternative operationalizations of financial self-interest

To show the relationship between financial self-interest and support of FTAs does not depend on the particular way I constructed the measure, I show similar results using different operationalizations. I first show that if I simply classify the firms politicians own as productive *and* engaged in making products that are traded or not, the effect of financial self-interest still holds. I classify a firm as productive if it its measure of labor productivity is greater than the median for firms in the data. I use the firms NAICS code to determine if it produces internationally traded goods. Any firm that is above median labor-productivity and traded I classify as “productive.” All others I label “unproductive.” While clearly some of these “unproductive” firms may be productive but not traded, if they are not involved in trade NNTT does not predict they will have an interest in

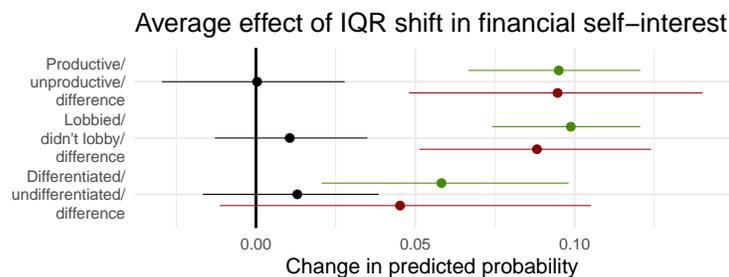


Figure 13: Support for FTAs increases as financial self-interest increases. These results do not change if we change the way we operationalize the variables. Instead of weighting, I simply bin assets according to 1) if the firms were above median productivity and produce traded goods or not, 2) whether the firms lobbied on trade, and 3) if the firms industries were above the median level of differentiation and they produce traded goods or not. I then estimate the effect of financial self-interest using the same-state, same-party, same-vote fixed effects Senate model with pre-treatment covariates. MLE results in the point estimates of the effect of an AFD for an IQR shift in financial self-interest and 1000 simulations produce the 95% confidence intervals.

trade liberalizing policies. I then sum up all the value of a senators' shares in productive firms and in unproductive ones. I use the same baseline model for same-party, same-state, same-vote senator pairs that produced the MLE estimates in Figure 4, substituting these two measures for my original financial self-interest measure. Figure 13 shows that the effect of this alternative measure of financial self-interest is large and significantly different from the unproductive firm measure.

I do a similar exercise for lobbying. I categorize whether each firm lobbied or not, and sum up the value of their shares in firms that lobbied and those that didn't. I put them in the baseline model in place of the original financial self-interest measure. The estimate for financial self-interest, when lobbied, is large and significantly different from when firms didn't lobby, as shown in Figure 13.

I also do the same with differentiation. Like with productivity, firms in industries where differentiation is greater than the median observed and that make traded goods are labeled "differentiated" and those no are labeled "undifferentiated." Substituting the original measure of financial self-interest with these two measures, once again we see that the estimated effect for the measure my theory expects to matter for FTA support is much larger than the complementary measure (Figure 13).

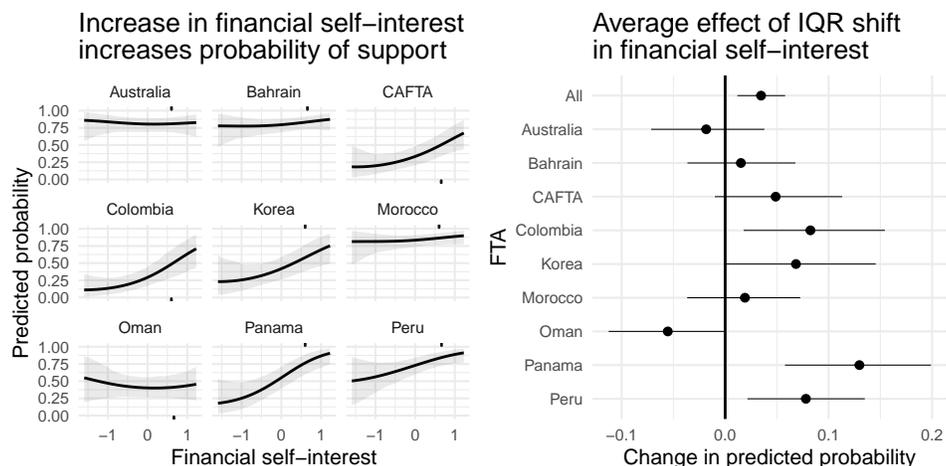


Figure 14: In the House, support for FTAs increases as financial self-interest increases. MLE produces point estimates and 1000 simulations produce 95% confidence intervals. *Left-panel:* predicted probabilities of Adam Schiff supporting FTAs across the range of financial self-interest. *Right-panel:* AFD of IQR shift in financial self-interest for all observations in the House.

B.3 Main findings reproduced in the House

B.3.1 Financial self-interest increases FTA support

The main finding, that legislators should be more likely to support FTAs when their financial self-interest increases holds in the House. Using the cross-validated model (see Appendix A), I estimate predicted probabilities for Adam Schiff (D-CA) supporting the nine FTAs Democrats voted on (see Figure 14, left panel). Using this model to estimate the AFD of an IQR shift in financial self-interest produces the right panel of Figure 14. The House confirms the main implication of the theory. The fact that the estimate of the overall effect (top estimate in the right panel of Figure 14; c.f. the top estimate in the right panel of Figure 4) is smaller than that for the Senate coheres with the idea that, facing reelection every two years, House members feel more pressure to hold on to office and financial self-interest has less influence in general.

B.3.2 Informed financial self-interest drives FTA support

Legislators can only act in their financial self-interest if they know what that is. As in the Senate, I find evidence of this in the House. Using firm lobbying as a mechanism by which MCs gain information about their financial self-interest, I show it is informed financial self-interest that influences support of FTAs. Using the crossvalidated House model as the point of departure

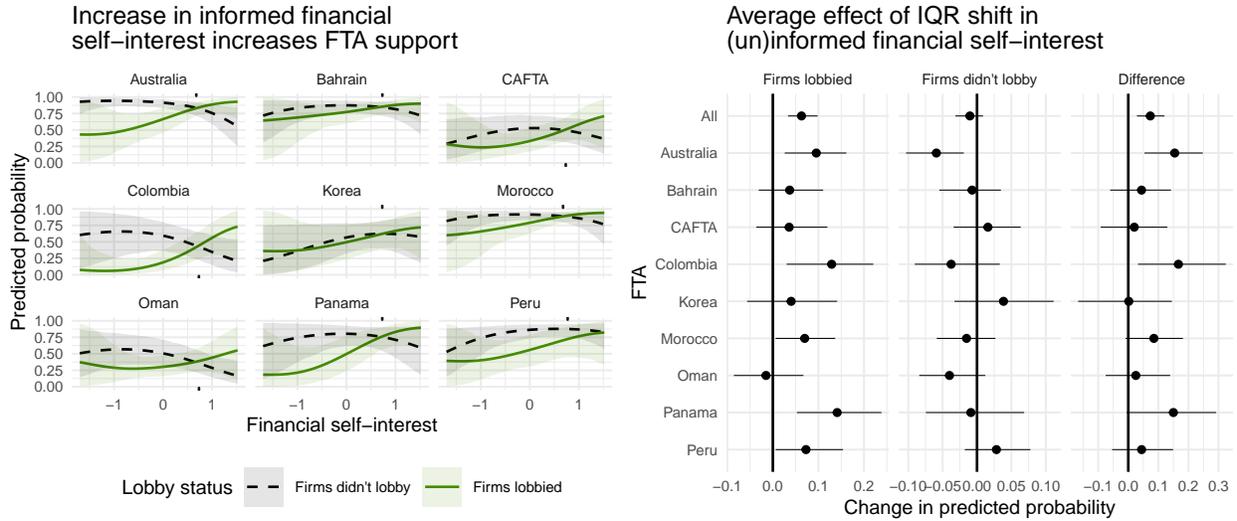


Figure 15: In the House, support for FTAs increases when MCs are informed of their financial self-interest increases. MLE produces point estimates and 1000 simulations produce 95% confidence intervals. *Left-panel*: predicted probabilities of Adam Schiff supporting FTAs across the range of financial self-interest, conditional on firm lobbying. *Right-panel*: AFD of IQR shift in financial self-interest for all observations in the House, conditional on firm lobbying.

(Appendix A.1), I switch out the original financial self-interest measure for both the informed and uninformed measures.

I calculate predicted probabilities for Adam Schiff across the 9 FTAs considered by the House (see the left panel of Figure 15). When firms lobby, and thus Adam Schiff should be informed of his financial self-interest, increasing the measure of financial self-interest corresponds to higher predicted levels of FTA support. The corresponding effect for uninformed financial self-interest is absent.

The right panel of Figure 15 shows that this effect is not unique to the estimates for Schiff. While the AFD of an IQR shift in informed financial self-interest across all votes is large, about 7 percentage points, the corresponding effect for uninformed financial self-interest is not. The estimated difference between these two quantities is about 8 percentage points and attains conventional levels of statistical significance.

B.4 Financial self-interest effects are smaller for more salient immigration bills

Immigration policy, as opposed to trade, has simple implications for firms, all of which should gain from more immigration (Freeman 1995; Joppke 1998; Milner and Tingley 2015). To measure

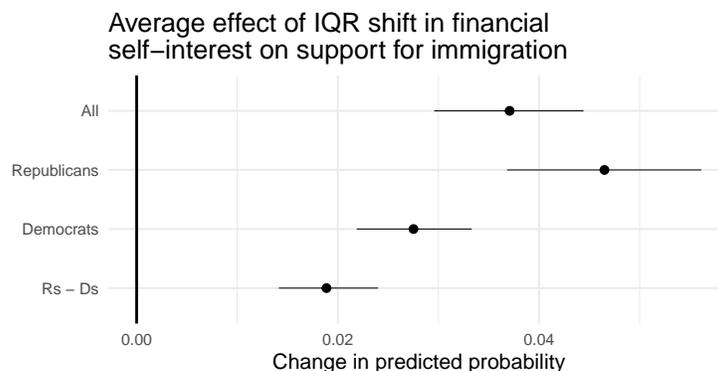


Figure 16: The change in the predicted probability of voting in favor of more liberal immigration that results from moving from the third quartile to the first quartile in assets for all observations in the data. The 95 percent confidence intervals are calculated through 1000 simulations.

a legislator’s financial self-interest in more open immigration, I sum up the value of the firms they own. Using the same type of same-state, same-party, same-vote model for the Senate that I have throughout the paper—and including pre-treatment covariates—I estimate the effect of financial self-interest on immigration votes cast in the Senate from 2004 to 2014. I used the Comparative Agendas Project (comparativeagendas.net) to determine which were immigration votes. I categorized as pro- or anti-immigration each immigration roll call vote—of which there were 87—using the bill’s text as well as resources like GovTrack.us, congress.gov, voteview.com, *CQ*, and the Comparative Agendas Project (comparativeagendas.net).³⁵ The estimates of the AFD of an IQR shift in financial self-interest are displayed in Figure 16. While positive and statistically significant, the effect size is about half that for FTAs. We also see corroboration that the effects are stronger when senators face constituents that oppose a policy that a senator’s financial self-interest supports, if we accept that Democratic voters were more pro-immigration than Republican voters.

B.5 Senator’s votes matter more on restricted sample

In the bottom-right panel of 9 I showed that the effect of a senator owning a firm mattered more than a representative for that firm’s lobbying decision. Here I show this finding is robust to severely restricting the firms used to estimate this relationship. We may think, after all, that when a senator owns a firm this necessarily means many representatives already do, leading to a stronger relationship for the former even with the inclusion of an interaction term. Dropping all firms except

³⁵There were 5 votes I did not feel confident enough to classify as either pro- or anti-immigration.

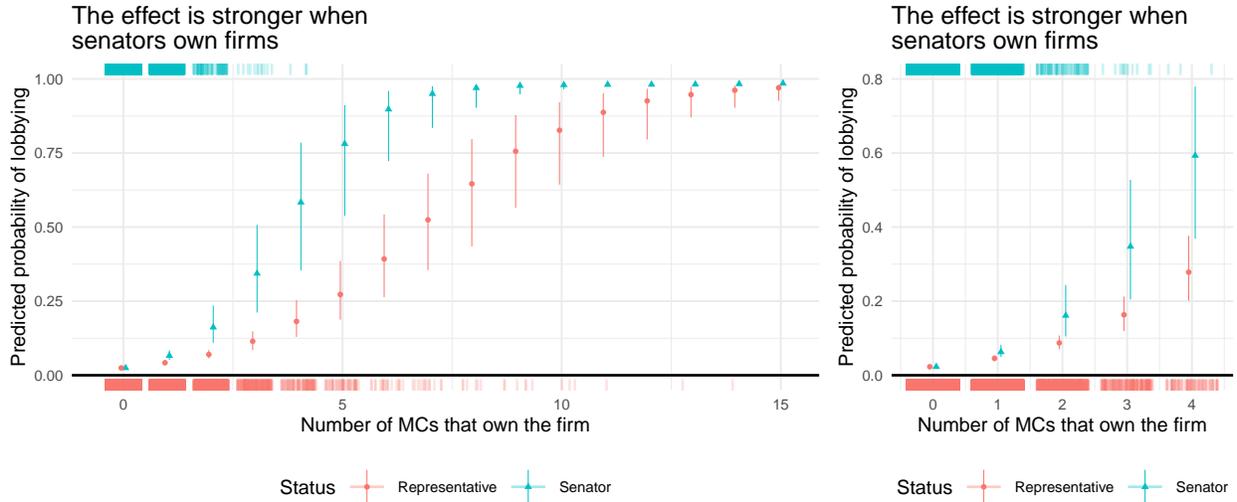


Figure 17: Firms lobby more when senators own them. *All panels:* Quantities are calculated across all observations on, with 95% confidence intervals from 1000 simulations and standard errors clustered by firm. *Left panel:* Predicted probabilities of lobbying as the number of MCs that own a firm increase, differentiating between senators and members of the House. Firms are restricted to those publically listed between 2004 to 2014 and where only members of the House or Senate (or neither) owned the firm. *Right panel:* Predicted probabilities of lobbying as the number of MCs that own a firm increase, differentiating between senators and members of the House. Firms are restricted to those publically listed between 2004 to 2014 and where only members of the House or Senate (or neither) owned the firm and where fewer than 5 MCs owned the firm. Note the *y*-axis range.

those where only senators or representatives—or no MCs—own the firm produces the left panel of Figure 17. The pattern of a greater impact for senator ownership remains. Again, we may be concerned about extrapolation, as the number of times more than no more than 4 senators own firms when no House member own the firm. Further restricting the sample to cases where less than 5 senators or House members own the firm produces the right panel of Figure 17. The result remains.

B.6 Alternative explanations and measurement validity

Here I present evidence against alternative explanations and in favor of the validity of my measure of financial self-interest.

B.6.1 (Trade-specific) financial self-interest predicts FTA votes best

I download all final passage votes related to abortion, espionage/intelligence, financial regulation, and taxation (Issue codes “Abortion/Care of deformed newborns”, “CIA/Spying/Intelligence”,

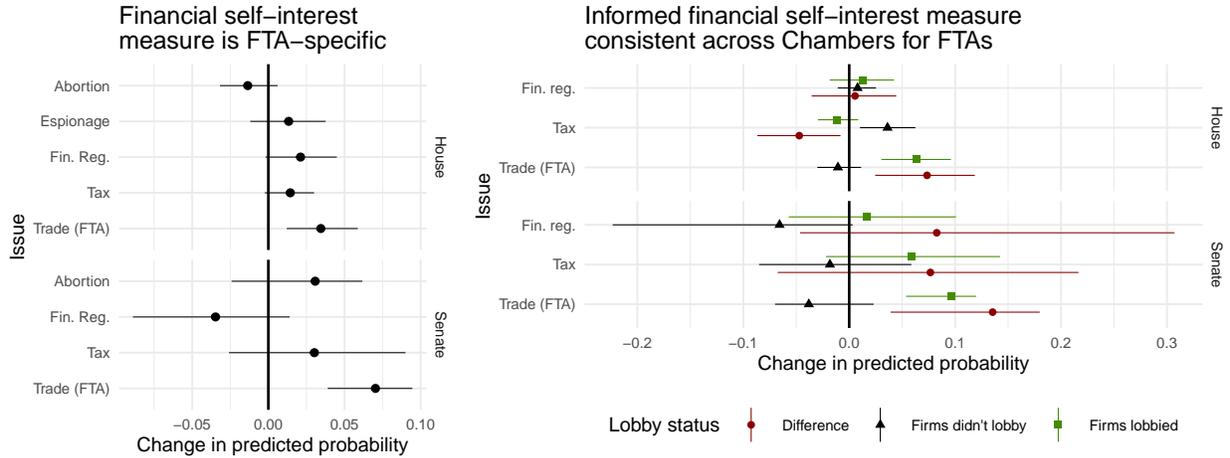


Figure 18: Evidence of the validity of the financial self-interest measure and the information from lobbying for FTAs. *Left panel:* House (Senate): AFD for an IQR shift in financial self interest across several issue areas during same years as votes on FTAs. 95% confidence (credible) intervals based on 1000 simulations (4000 draws from posterior distributions). *Right panel:* Same as left panel, except conditional on MCs being informed of their financial self-interest—measured by firm lobbying on trade. 95% credible intervals based on 4000 draws from the posterior.

“Banking and Finance”, and “Tax rates”) happening the same years as the FTA votes (voteview.com). Coding votes in favor of restricting abortion, supporting espionage, against financial regulation, and against taxes as 1,³⁶ I fit the initial House and Senate models with the new outcome variables. The left panel of Figure 18 shows the AFDs of an IQR shift in financial self-interest bear out expectations (no “espionage” votes happened in the Senate). The sign of the point estimate for the estimate for abortion and financial regulation switch across chambers and are not different from zero at conventional levels of significance. Espionage votes do not achieve conventional significance either. The estimate for tax legislation is consistent across chambers but doesn’t quite reach conventional levels of significance. We might think, however, that many of the firms that would gain from trade would have an interest in tax policy, so we should perhaps not be too surprised by this result.

B.6.2 (Trade-specific,) informed financial self-interest predicts FTA votes best

I also argue that we should not see lobbying on trade operating in the same way for non-trade issues. To test this, I run similar as those that produced the left-panel of Figure 18, exchanging

³⁶Though the models allow flexibility across bills, coding them all in a consistent direction allows coherent estimates when aggregating.

financial self-interest for informed and uninformed financial self-interest. I focus on the issues that seem most related to financial self-interest—taxes and financial regulation. If the information being conveyed by firms lobbying on FTAs is working as I’ve theorized, this information should not impact non-trade-related legislation in the same way, even if some financial self-interest is involved. The left panel of Figure 18 offers evidence that this is the case. The only non-FTA instance of there being an appreciable difference between informed and uninformed financial self-interest is in the House for tax legislation, and the effect is in the opposite direction of what we find for FTAs.

The results in Figure 18 also suggest a broadly “pro-business type” of MC is not a compelling alternative explanation. We would expect such a pro-business type to likely support weakening financial regulations and surely we would expect them to support lower taxes. Further, we would not anticipate the FTA-specific, lobbying-related findings.

B.6.3 Within-senator analysis largely supports results

I now offer some evidence against such a “globalist”-type explanation. Analysis of the relationship between support of FTAs and financial self-interest within senators reveals that many of the findings above hold. For computational reasons, again I use Bayesian analysis. I include many individual-level variables discussed in the “Measuring confounders” section above: labor union and corporate PAC contributions, margin of victory in the previous election, and copartisanship with the president. While most controls for constituents are relatively constant for individuals, I do include the ratio of a state’s workers employed in import-competing versus exporting industries as this is during the period of the China shock and the proportions employed in these different types of industries may have changed significantly from 2004 to 2011. I control for the differences in effects between FTAs—in line with results above—by adding an interaction between the gravity model-based measure of FTA importance and financial self-interest. I choose priors over the individual senator intercepts that reduce shrinkage of the individual senator intercept estimates.³⁷

It is important to note that there is not much variance of financial self-interest within senators.³⁸ That makes this a difficult test for finding an impact of financial self-interest on FTA

³⁷As in the Bayesian models to this point, for most terms in the model I use weakly informative priors. The intercepts for each senator-nest are the exception. I again allow them to easily take on large values. I set the shape parameter of the gamma distribution controlling the variance of these intercepts to 20 and the scale parameter to 20.

³⁸Recalling that the financial self-interest variables were rescaled to have mean = 0 and standard deviation = .5, the means of the within-senator variance of financial self-interest, informed financial self-interest, and uninformed

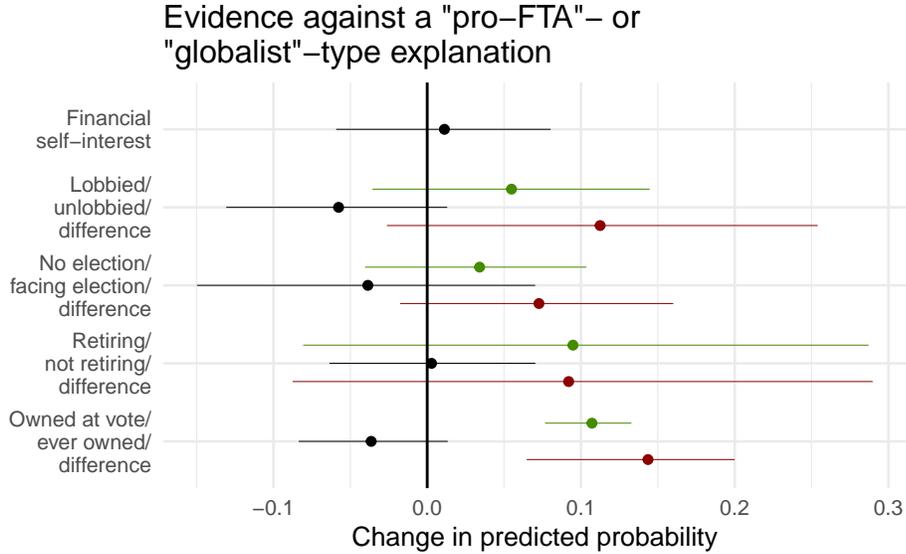


Figure 19: The first four results show that the main findings from above largely hold when we restrict the analysis to within-senator behavior. For these four results, priors over the covariance matrix for the individual senators are chosen to minimize “shrinkage,” as was done in the senator-pair models. These are estimates of the AFD of an IQR shift in financial self-interest, with the *y*-axis showing what variable is being conditioned upon. 95% Bayesian highest density credible intervals from 4000 posterior draws. The fifth and final result compares the impact of owning at least one firm that lobbied on a FTA at the time of the vote with having ever owned a firm that lobbied on a FTA. The quantity estimated is the average change in predicted probability when setting each observation to “owning a firm that lobbied at the time of the vote” minus setting each observation to “ever having owned a firm that lobbied on trade.” This model includes same-state, same-party, same-vote fixed effects and is estimated with MLE. 95% confidence intervals based on 1000 simulations.

support. Imprecise estimates are to be expected. Finding that the limited variation we see in within-senator financial self-interest predicts FTA support in ways consistent with the models above—where there was substantially more variation in financial self-interest to exploit—constitutes strong validation of the theory, noisy estimates notwithstanding.

B.6.4 Owning a lobbying firm at the time of the FTA vote is highly predictive of FTA support

The first 4 results in Figure 19 show the AFD of and IQR shift in financial self-interest. Though signed in the right direction, the estimate for financial self-interest is small and noisy. When we condition on whether firms lobbied, however, we see larger estimates and the difference between financial self-interest are .11, .09, and .17, respectively. There is no variation for the median senator on any of these measures and, at the third quartile, the standard deviation is .08, .06, and .33 respectively.

informed financial self-interest and uninformed financial of 11 percentage points almost reaches conventional statistical significance. Likewise, the credible intervals for the difference between the effect of financial self-interest when senators do not face election compared with when they do only just contain zero. The estimates when conditioning on retirement are also in the right direction, though there is a considerable lack of power. The direction of all these within-senator estimates suggests that changes in financial self-interest explain changes in individual senators' voting behavior—something we would not expect under a “globalist”-type explanation.

I return to the same-state, same-party, same-vote design in another attempt to adjudicate between a “globalist”-type explanation and the theory advanced in this paper. I create a simple binary variable for whether a senator owned a firm that lobbied on trade at the time of the vote and another that indicates if a senator ever owned a firm that ever lobbied on trade. The reasoning is that the first—owning a firm that lobbied at the time of the vote—should tap into financial self-interest, while the latter—ever owning a firm lobbying on trade—should tap into the more intransigent notion of type. Using MLE to estimate the model, I find that owning a firm that lobbied on trade at the time of the FTA vote is statistically and substantively more predictive of FTA support, shown in the last result in Figure 19. This evidence also points to financial self-interest, rather than type, as the better explanation for the results in this paper.

Bibliography

Ansola-behere, Stephen, Marc Meredith, and Erik Snowberg. 2014. "Mecro-Economic Voting: Local Information and Micro-Perceptions of the Macro-Economy." *Economics & Politics* 26 (3): 380–410.

Antras, Pol, and Elhanan Helpman. 2004. "Global Sourcing." *Journal of Political Economy* 112 (3): 552–80.

Ashworth, Scott. 2012. "Electoral Accountability: Recent Theoretical and Empirical Work." *Annual Review of Political Science* 15: 183–201.

Austen-Smith, David, and John R Wright. 1994. "Counteractive Lobbying." *American Journal of Political Science* 38 (1): 25–44.

———. 1996. "Theory and Evidence for Counteractive Lobbying." *American Journal of Political Science* 40 (2): 543.

Autor, David, David Dorn, and Gordon H Hanson. 2013. "The China Syndrome: Local Labor Market Effects of Import Competition in the United States." *American Economic Review* 103 (6): 2121–68.

———. 2016. "The China Shock: Learning from Labor-Market Adjustment to Large Changes in Trade." *Annual Review of Economics* 8: 205–40.

Autor, David, David Dorn, Gordon Hanson, and Kaveh Majlesi. 2016. *Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure*. w22637. National Bureau of Economic Research Cambridge, MA.

Baccini, Leonardo, Andreas Dür, and Manfred Elsig. 2018. "Intra-Industry Trade, Global Value Chains, and Preferential Tariff Liberalization." *International Studies Quarterly* 62 (2): 329–40.

Bailey, Michael A, Judith Goldstein, and Barry R Weingast. 1997. "The Institutional Roots of American Trade Policy: Politics, Coalitions, and International Trade." *World Politics* 49 (3): 309–38.

Baldwin, Robert E, and Christopher S Magee. 2000. "Is Trade Policy for Sale? Congressional Voting on Recent Trade Bills." *Public Choice* 105 (1-2): 79–101.

Ballard-Rosa, Cameron, Amalie Jensen, and Kenneth Scheve. 2018. "Economic Decline, Social Identity, and Authoritarian Values in the United States." *American Political Science Asso-*

ciation, Boston.

Ballard-Rosa, Cameron, Mashail Malik, Stephanie Rickard, and Kenneth Scheve. 2017. “The Economic Origins of Authoritarian Values: Evidence from Local Trade Shocks in the United Kingdom.” In *Annual Meeting of the International Political Economy Society, Nov*, 17:18.

Bawn, Kathleen, Knox Brown, Angela Ocampo, Shawn Patterson, and John Zaller. 2015. “Social Choice and Coordination Problems in Open House Primaries.” In *Annual Meeting of the American Political Science Association*.

Bernard, Andrew B, J Bradford Jensen, Stephen J Redding, and Peter K Schott. 2007. “Firms in International Trade.” *Journal of Economic Perspectives* 21 (3): 105–30.

Bernard, Andrew B, J Bradford Jensen, and Peter K Schott. 2009. “Importers, Exporters, and Multinationals: A Portrait of Firms in the Us That Trade Goods.” In *Producer Dynamics: New Evidence from Micro Data*, edited by Timothy Dunne, J Bradford Jensen, and Mark J Roberts, 513–52. Chicago: University of Chicago Press.

Berry, Christopher R, and Anthony Fowler. 2018. “Congressional Committees, Legislative Influence, and the Hegemony of Chairs.” *Journal of Public Economics* 158: 1–11.

Blanchard, Emily, and Xenia Matschke. 2015. “US Multinationals and Preferential Market Access.” *Review of Economics and Statistics* 97 (4): 839–54.

Broda, Christian, and David E Weinstein. 2006. “Globalization and the Gains from Variety.” *The Quarterly Journal of Economics* 121 (2): 541–85.

Bueno De Mesquita, Bruce, Alastair Smith, James D Morrow, and Randolph M Siverson. 2005. *The Logic of Political Survival*. MIT press.

Canes-Wrone, Brandice, Michael C Herron, and Kenneth W Shotts. 2001. “Leadership and Pandering: A Theory of Executive Policymaking.” *American Journal of Political Science*, 532–50.

Carnes, Nicholas. 2013. *White-Collar Government: The Hidden Role of Class in Economic Policy Making*. University of Chicago Press.

Colantone, Italo, and Piero Stanig. 2018a. “Global Competition and Brexit.” *American Political Science Review* 112 (2): 201–18.

———. 2018b. “The Trade Origins of Economic Nationalism: Import Competition and Voting Behavior in Western Europe.” *American Journal of Political Science* 62 (4): 936–53.

Conconi, Paola, Giovanni Facchini, and Maurizio Zanardi. 2014. “Policymakers’ Horizon and

Trade Reforms: The Protectionist Effect of Elections.” *Journal of International Economics* 94 (1): 102–18.

Downs, Anthony. 1957. “An Economic Theory of Democracy.”

Duch, Raymond M, and Randolph T Stevenson. 2008. *The Economic Vote: How Political and Economic Institutions Condition Election Results*. Cambridge University Press.

Eggers, Andrew C, and Jens Hainmueller. 2009. “MPs for Sale? Returns to Office in Postwar British Politics.” *American Political Science Review* 103 (4): 513–33.

———. 2014. “Political Capital: Corporate Connections and Stock Investments in the US Congress, 2004-2008.” *Quarterly Journal of Political Science*, 2012–26.

Eggers, Andrew, and Jens Hainmueller. 2013. “Capitol Losses: The Mediocre Performance of Congressional Stock Portfolios.” *The Journal of Politics* 75 (2): 535–51.

Feigenbaum, James J, and Andrew B Hall. 2015. “How Legislators Respond to Localized Economic Shocks: Evidence from Chinese Import Competition.” *The Journal of Politics* 77 (4): 1012–30.

Ferraz, Claudio, and Frederico Finan. 2009. “Motivating Politicians: The Impacts of Monetary Incentives on Quality and Performance.” National Bureau of Economic Research.

———. 2011. “Electoral Accountability and Corruption: Evidence from the Audits of Local Governments.” *American Economic Review* 101 (4): 1274–1311. <https://doi.org/10.1257/aer.101.4.1274>.

Freeman, Gary P. 1995. “Modes of Immigration Politics in Liberal Democratic States.” *International Migration Review* 29 (4): 881–902.

Froman, Lewis A. 1963. “Inter-Party Constituency Differences and Congressional Voting Behavior.” *American Political Science Review* 57 (1): 57–61.

Gelman, Andrew, John B Carlin, Hal S Stern, David B Dunson, Aki Vehtari, and Donald B Rubin. 2013. *Bayesian Data Analysis*. Chapman; Hall/CRC.

Gelman, Andrew, and Jennifer Hill. 2006. *Data Analysis Using Regression and Multi-level/Hierarchical Models*. Cambridge university press.

Gelman, Andrew, Aleks Jakulin, Maria Grazia Pittau, Yu-Sung Su, and others. 2008. “A Weakly Informative Default Prior Distribution for Logistic and Other Regression Models.” *The Annals of Applied Statistics* 2 (4): 1360–83.

“GE Reports.” 2005. *GE Reports*, November. <https://www.genewsroom.com/press-releases/ge-powering-planes-middle-east>.

“GE Reports.” 2010. *GE Reports*, July. <https://www.genewsroom.com/press-releases/ges-advanced-gas-turbine-technology-services-selected-help-southern-oman-meet-its-0>.

Goodrich, Ben, Jonah Gabry, Imad Ali, and Sam Brilleman. 2020. “Rstanarm: Bayesian Applied Regression Modeling via Stan.” <https://mc-stan.org/rstanarm>.

Gordon, Sanford C, and Gregory Huber. 2007. “The Effect of Electoral Competitiveness on Incumbent Behavior.” *Quarterly Journal of Political Science* 2 (2): 107–38.

Greenaway, David, and Douglas R Nelson. 2006. “The Distinct Political Economies of Trade and Migration Policy: Through the Window of Endogenous Policy Models, with a Focus on North America.” In *Labor Mobility and the World Economy*, 295–327. Springer.

Griffin, John D, and Claudia Anewalt-Rensburg. 2013. “Legislator Wealth and the Effort to Repeal the Estate Tax.” *American Politics Research* 41 (4): 599–622.

Grossman, Gene M, and Elhanan Helpman. 1994. “Protection for Sale.” *The American Economic Review* 84 (4): 833–50.

———. 2001. *Special Interest Politics*. MIT press.

Hacker, Jacob S, and Paul Pierson. 2010. *Winner-Take-All Politics: How Washington Made the Rich Richer—and Turned Its Back on the Middle Class*. Simon; Schuster.

Hakobyan, Shushanik, and John McLaren. 2016. “Looking for Local Labor Market Effects of Nafta.” *Review of Economics and Statistics* 98 (4): 728–41.

Hall, Richard L, and Alan V Deardorff. 2006. “Lobbying as Legislative Subsidy.” *American Political Science Review* 100 (1): 69–84.

Head, Keith, and Thierry Mayer. 2014. “Gravity Equations: Workhorse, Toolkit, and Cookbook.” In *Handbook of International Economics*, 4:131–95. Elsevier.

Helpman, Elhanan, Marc J Melitz, and Stephen R Yeaple. 2004. “Export Versus Fdi with Heterogeneous Firms.” *American Economic Review* 94 (1): 300–316.

Hoffman, Matthew D, and Andrew Gelman. 2014. “The No-U-Turn Sampler: Adaptively Setting Path Lengths in Hamiltonian Monte Carlo.” *Journal of Machine Learning Research* 15 (1): 1593–1623.

İmrohoroğlu, Ayşe, and Şelale Tüzel. 2014. “Firm-Level Productivity, Risk, and Return.”

Management Science 60 (8): 2073–90.

Irwin, Douglas A. 2017. *Clashing over Commerce: A History of Us Trade Policy*. University of Chicago Press.

Jones, Bradley. 2017. “U.S. Support for Free Trade Agreements Rebounds, but Divisions Remain.” *Pew Research Center*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2017/04/25/support-for-free-trade-agreements-rebounds-modestly-but-wide-partisan-differences-remain/>.

Joppke, Christian. 1998. “Why Liberal States Accept Unwanted Immigration.” *World Politics* 50 (2): 266–93.

Kaiser, Robert G. 2009. *So Damn Much Money*. Vintage.

Karol, David. 2015. “Forcing Their Hands? Campaign Finance Law, Retirement Announcements and the Rise of the Permanent Campaign in Us Senate Elections.” In *Congress & the Presidency*, 42:79–94. 1. Taylor & Francis.

Kim, In Song. 2017. “Political Cleavages Within Industry: Firm-Level Lobbying for Trade Liberalization.” *American Political Science Review* 111 (1): 1–20.

———. 2018. “LobbyView: Firm-Level Lobbying & Congressional Bills Database.”

Kim, In Song, and Iain Osgood. 2019. “Firms in Trade and Trade Politics.” *Annual Review of Political Science* 22: 399–417.

Kinder, Donald R, and D Roderick Kiewiet. 1981. “Sociotropic Politics: The American Case.” *British Journal of Political Science* 11 (2): 129–61.

Krehbiel, Keith. 1998. *Pivotal Politics: A Theory of Us Lawmaking*. University of Chicago Press.

La Botz, Dan. 2008. “PDF.”

Lee, Jieun, and Iain Osgood. 2019. “Exports, Jobs, Growth! Congressional Hearings on Us Trade Agreements.” *Economics & Politics* 31 (1): 1–26.

Lewis, Jeffrey B, Keith Poole, Howard Rosenthal, Adam Boche, Aaron Rudkin, and Luke Sonnet. 2018. “Voteview: Congressional Roll-Call Votes Database (2018).” URL: <https://Voteview.Com>.

Liao, Steven, In Song Kim, Sayumi Miyano, and Feng Zhu. 2020. *Concordance: Product Concordance*. <https://CRAN.R-project.org/package=concordance>.

MacRae, Duncan. 1952. “The Relation Between Roll Call Votes and Constituencies in the

Massachusetts House of Representatives.” *American Political Science Review* 46 (4): 1046–55.

Mansfield, Edward D, and Helen V Milner. 2012. *Votes, Vetoes, and the Political Economy of International Trade Agreements*. Princeton University Press.

Mansfield, Edward D, Helen V Milner, and B Peter Rosendorff. 2002. “Why Democracies Cooperate More: Electoral Control and International Trade Agreements.” *International Organization* 56 (3): 477–513.

Mansfield, Edward D, and Diana C Mutz. 2009. “Support for Free Trade: Self-Interest, Sociotropic Politics, and Out-Group Anxiety.” *International Organization* 63 (3): 425–57.

Mayhew, David R. 1974. *Congress: The Electoral Connection*. Vol. 26. Yale University Press.

McCarty, Nolan, Keith T Poole, and Howard Rosenthal. 2013. *Political Bubbles: Financial Crises and the Failure of American Democracy*. Princeton University Press.

———. 2016. *Polarized America: The Dance of Ideology and Unequal Riches*. mit Press.

Melitz, Marc J. 2003. “The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity.” *Econometrica* 71 (6): 1695–1725.

Mills, C Wright. (1956) 2000. *The Power Elite*. Vol. 20. Oxford University Press.

Milner, Helen V, and Dustin Tingley. 2015. *Sailing the Water’s Edge: The Domestic Politics of American Foreign Policy*. Princeton University Press.

Milner, Helen V, and Dustin H Tingley. 2011. “Who Supports Global Economic Engagement? The Sources of Preferences in American Foreign Economic Policy.” *International Organization* 65 (1): 37–68.

Milyo, Jeffrey, David Primo, and Timothy Groseclose. 2000. “Corporate Pac Campaign Contributions in Perspective.” *Business and Politics* 2 (1): 75–88.

Olson, Mancur. 1965. “The Theory of Collective Action: Public Goods and the Theory of Groups.” *Harvard University Press, Cambridge*.

“Opposition to the Central American Free Trade Agreement.” 2005. *AFL*. <https://aflcio.org/about/leadership/statements/opposition-central-american-free-trade-agreement-cafta>.

Owen, Erica. 2017. “Exposure to Offshoring and the Politics of Trade Liberalization: Debate and Votes on Free Trade Agreements in the Us House of Representatives, 2001–2006.” *International Studies Quarterly* 61 (2): 297–311.

Patterson, Shawn. 2018. “The Effect of Party Networks on Congressional Primaries.” *eSchol-*

arship, University of California. UCLA. <https://escholarship.org/uc/item/56c3v42q>.

Persson, Torsten, and Guido Tabellini. 2016. *Political Economics*. MIT press Cambridge, MA.

Peterson, Jordan C, and Christian R Grose. 2020. “The Private Interests of Public Officials: Financial Regulation in the Us Congress.” *Legislative Studies Quarterly*.

Poole, Keith T, and Howard Rosenthal. 1985. “A Spatial Model for Legislative Roll Call Analysis.” *American Journal of Political Science*, 357–84.

———. 2000. *Congress: A Political-Economic History of Roll Call Voting*. Oxford University Press on Demand.

Powell, Eleanor Neff, and Justin Grimmer. 2016. “Money in Exile: Campaign Contributions and Committee Access.” *The Journal of Politics* 78 (4): 974–88.

Przeworski, Adam, Susan C Stokes, and Bernard Manin. 1999. *Democracy, Accountability, and Representation*. Vol. 2. Cambridge University Press.

Querubin, Pablo, and James M Snyder Jr. 2013. “The Control of Politicians in Normal Times and Times of Crisis: Wealth Accumulation by Us Congressmen, 1850-1880.” *Quarterly Journal of Political Science* 8 (4): 409–50.

Rotemberg, Julio J. 2003. “Commercial Policy with Altruistic Voters.” *Journal of Political Economy* 111 (1): 174–201.

Roth, Andrew. 2015. “What’s Tpp, Tpa, and Taa? " Club for Growth.” *Club for Growth*. Club for Growth. <https://www.clubforgrowth.org/whats-tpp-tpa-and-taa/>.

Schattschneider, Elmer Eric. 1960. “The Semisovereign People: A Realist’s View of Democracy in America.” Illinois: The Drayden Press.

Schiller, Wendy J. 2000. *Partners and Rivals: Representation in Us Senate Delegations*. Princeton University Press.

Schumpeter, Joseph Alois. 1950. *Capitalism, Socialism, and Democracy & E 3rd Ed*.

Tahoun, Ahmed, and Laurence van Lent. 2018. “The Personal Wealth Interests of Politicians and Government Intervention in the Economy.” *Review of Finance* 23 (1): 37–74.

Tomz, Michael, Jason Whittenberg, and Gary King. 2003. “Clarify: Software for Interpreting and Presenting Statistical Results.” *Journal of Statistical Software*.

Tsebelis, George. 1995. “Decision Making in Political Systems: Veto Players in Presidential-

ism, Parliamentarism, Multicameralism and Multipartyism.” *British Journal of Political Science* 25 (3): 289–325.

———. 2002. *Veto Players: How Political Institutions Work*. Princeton University Press.

United States - Central America - Dominican Republic Free Trade Agreement. 2005. *United States - Central America - Dominican Republic Free Trade Agreement*. U.S. Government Printing Office.

Vavreck, Lynn, John Sides, and Chris Tausanovitch. 2019. “What Is Voters’ Highest Priority? There’s a Way to Find Out.” *The New York Times*, December. <https://www.nytimes.com/2019/12/05/upshot/impeachment-biggest-issue-voters-poll.html>.

Ward, Michael D, and John S Ahlquist. 2018. *Maximum Likelihood for Social Science: Strategies for Analysis*. Cambridge University Press.

Ziobrowski, Alan J, James W Boyd, Ping Cheng, and Brigitte J Ziobrowski. 2011. “Abnormal Returns from the Common Stock Investments of Members of the Us House of Representatives.” *Business and Politics* 13 (1): 1–22.

Ziobrowski, Alan J, Ping Cheng, James W Boyd, and Brigitte J Ziobrowski. 2004. “Abnormal Returns from the Common Stock Investments of the Us Senate.” *Journal of Financial and Quantitative Analysis* 39 (4): 661–76.