

# Policymakers' Horizon and Trade Reforms: The Protectionist Effect of Elections\*

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## Abstract

This paper shows that electoral incentives deter politicians from supporting trade liberalization. We focus on all major trade bills introduced since the early 1970s in the U.S. Congress, in which House and Senate members serve respectively two- and six-year terms and one third of senators face elections every two years. We show that senators are more likely to support trade liberalization than House representatives. However, this result does not hold for the last generation of senators, who face elections at the same time as House members, suggesting that inter-cameral differences are driven by term length. Considering senators alone, we show that the last generation is more protectionist than the previous two. This result holds both when comparing different individuals voting on the same bill and the same individual voting on different bills. It is also pervasive: even representatives of export constituencies, in which a majority of voters should gain from trade liberalization, become more protectionist at the end of their terms. Inter-generational differences disappear only for senators who hold safe seats or are retiring. Our findings suggest that re-election motives lead legislators to pander toward the interests of protectionist voters.

*JEL classifications:* D72, F10.

*Keywords:* Term length, election proximity, roll-call votes, trade liberalization.

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# 1 Introduction

As pointed out by Rodrik (1995), “no other area of economics displays such a gap between what policymakers practice and what economists preach as does international trade.” Why do policymakers often fail to support trade liberalization, favoring instead protectionist policies? This paper shows that electoral incentives play a key role in answering this question.

Elections have received little attention in the literature on the political economy of trade policy. The standard view is that international trade is not salient to voters, who base their decisions on “frontline” policy issues, such as taxation or education, rather than on “secondary” issues, such as trade or environment. According to this view, trade policy is determined outside the voting framework, through the interaction between incumbent politicians and deep-pocketed lobby groups.<sup>1</sup>

In contrast, we argue that electoral incentives can crucially affect politicians’ trade policy choices. This is because, although international trade is of secondary importance to the majority of the electorate, it is salient to *some* voters, who strongly favor protection over liberalization. In line with this idea, opinion surveys reveal systematic patterns in the *intensity* and *direction* of individuals’ trade policy preferences: only a minority of respondents rank international trade as an important policy issue, on which they base their voting decisions; however, most of these individuals are clearly against liberalization.<sup>2</sup> Electoral incentives can thus lead politicians to pander toward the interests of protectionist voters. Anecdotal evidence suggests that this is indeed often the case. For instance, during his first presidential campaign in 2008, Barack Obama was accused of pandering to the protectionist sentiments of blue-collar workers when he attacked the North American Free Trade Agreement (NAFTA) as being “devastating on the community” and stated “I don’t think NAFTA has been good for America, and I never have”. He later admitted that his campaign rhetoric had been “overheated and amplified”, stressing that “politicians are always guilty of that, and I don’t exempt myself”.<sup>3</sup>

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<sup>1</sup>As argued by List and Sturm (2006), this view is based on two arguments: first, while politicians decide on a range of policy issues during their term in office, voters have only the binary option of retaining the incumbent or replacing him with a challenger; second, given the multitude of policy issues, voters may find it optimal to remain uninformed about the choices of the incumbent on many issues that have little impact on them.

<sup>2</sup>For example, in the 2006 Cooperative Congressional Election Study (CCES), a random subsample of respondents were asked to rate the following issues in terms of importance: education, the environment, health care, immigration, international trade, social security, taxes, and terrorism (Campbell 2007). Specifically, they were asked “In determining whom you vote for, how important are the following issues?”. The possible replies were “Extremely”, “Very”, “Somewhat”, and “Not”. In a separate question, they were asked whether or not they were in favor of limits on imports. Only 16.10 % of respondents considered trade as an “Extremely” important issue in determining their voting decisions. However, 66.24% of the individuals who rated international trade as being “Extremely” important for their voting decisions were in favor of new limits on imports (for individuals who ranked trade as a less important issue, the corresponding percentages were significantly lower).

<sup>3</sup>See the article “Obama: NAFTA not so bad after all,” *Fortune*, June 18, 2008. Similarly, in 2012, less than two months before facing re-election, and the same day he was campaigning in the crucial swing state of Ohio, President Obama lodged a complaint against China at the World Trade Organization, alleging that it unfairly subsidizes car-part exports. “There was nothing subtle about (the timing of the complaint) – but then subtlety

To study the role of electoral incentives, we investigate U.S. legislators' voting on trade liberalization reforms. The focus on the United States is not only due to the availability of roll call votes, but also to the specific institutional features of the U.S. Congress, in which House and Senate representatives serve respectively two- and six-year terms, and one third of the Senate is up for re-election every two years. Inter-cameral differences in term length and the staggered structure of the Senate make the U.S. Congress an ideal setting to understand how policymakers' horizon shapes their trade policy decisions: at any point in time, it is possible to compare the voting behavior of legislators with mandates of different length, as well as the behavior of senators belonging to different generations, i.e. facing elections at different times.<sup>4</sup> Since most senators cast ballots on several trade reforms, we can also study how their voting behavior changes during their terms in office.<sup>5</sup>

To carry out our analysis, we collect data on individual roll call votes on all major trade liberalization bills introduced in the U.S. Congress since the early 1970s. These include the ratification and implementation of multilateral trade agreements (Tokyo and Uruguay Round of the GATT) and preferential trade agreements (e.g. the Canada-United States Free Trade Agreement, NAFTA) negotiated during this period, as well as the conferral and extension of fast track trade negotiating authority to the President. We have complemented this data with information on many characteristics of the legislators and their constituencies, covering both economic and non-economic drivers of individual voting decisions on trade reforms.

We compare first the voting behavior of House and Senate members. In line with previous studies, we show that senators are more likely to support trade liberalization than House representatives. Crucially, however, we find no significant difference between House members and the last generation of senators, two groups of legislators who are up for re-election at the same time. This result provides an explanation for the observed inter-cameral differences in trade policy votes. Some scholars have argued that senators are less protectionist than House members because they represent larger constituencies (e.g. Magee, Brock, and Young 1989); however, as already pointed out by Karol (2007), constituency size is actually unrelated to congressmen's votes on trade and cannot explain inter-cameral differences. Our analysis suggests that these are instead driven by differences in term length: senators are generally more supportive of trade liberalization because they serve longer mandates; as they approach the end of their terms, they become as protectionist as House members.

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does not win many elections" (*The Economist*, "Chasing the anti-China vote: a suspiciously timed dispute", September 22, 2012). Presidential candidate Mitt Romney responded by pledging that, if elected, he would crack down on unfair trade practices (*Los Angeles Times*, "In Ohio, Obama and Romney fight over China, trade", September 26, 2012).

<sup>4</sup>In most other countries, even if legislators belonging to the lower and upper house serve terms of different lengths, members of the same house face elections at the same time (e.g. Australia and France). An interesting exception is Argentina, in which both houses of the Congreso Nacional have a staggered structure.

<sup>5</sup>For example, during her first mandate as senator from New York state, Hillary Clinton voted on six trade liberalization bills, four times in favor (during the first four years) and twice against (during the last two years).

We then focus on the role of election proximity, comparing the voting behavior of different generations of Senate members. We find that the last generation is significantly more protectionist than the previous two. The effect is sizable: senators in the last two years of their mandates are around 10 percentage points less likely to support trade liberalization than senators in the first four years. The results continue to hold when – rather than comparing different individuals voting on the same bill – we study the behavior of the same individual over time. Inter-generational differences are also robust to including a wealth of controls for legislators (e.g. party affiliation, age, gender, contributions received from labor and corporate groups) and their constituencies (e.g. employment in export/import-competing industries, percentage of high skilled workers, size), focusing on different subsets of trade reforms, and using alternative econometric methodologies. The protectionist effect of election proximity is pervasive: even senators representing export constituencies, in which a majority of the electorate should gain from trade liberalization, become significantly more protectionist at the end of their terms.

To verify whether inter-generational differences are driven by electoral incentives, we carry out two falsification exercises, focusing on senators who hold safe seats (i.e. have been elected with a large margin of victory) or are retiring (i.e., have announced that they will not stand for re-election). We find that in neither case does proximity to election make senators more protectionist, suggesting that the fear of losing office is the key reason behind the cyclical behavior observed among U.S. senators at large.

The observed patterns in congressmen’s voting behavior cannot be readily explained by existing models in the literature on the political economy of trade policy, since they do not consider the role of term length and electoral calendars. Our findings concerning the inter-generational differences in voting behavior and their pervasiveness suggest that short-term electoral incentives lead politicians to pander toward the interests of voters who strongly oppose trade liberalization.

The remainder of the paper is organized as follows. Section 2 briefly reviews the related literature. Section 3 describes the dataset and variables used in our analysis. Section 4 examines the role of term length, comparing the voting behavior of House and Senate members. Section 5 focuses on the effect of election proximity, comparing the voting behavior of different generations of senators. Section 6 discusses the mechanisms behind our empirical findings. Section 7 concludes, pointing to avenues for future research.

## 2 Related literature

Our paper is related to several strands of the literature. First, it contributes to the analysis of the political economy of trade policy. Most studies in this area focus on the role of financial contributions by industry lobby groups (e.g. Grossman and Helpman 1994; Grossman and Helpman 1995, Goldberg and Maggi 1999; Gawande and Bandyopadhyay 2000). Some papers

highlight the role of other political factors, such as governments' inability to commit to policy choices (Maggi and Rodriguez-Clare 1998), electoral rules (Grossman and Helpman 2005), or ratification rules (Conconi, Facchini, and Zanardi 2012). This is the first paper to emphasize the importance of term length and election proximity.

Our analysis builds also on a large body of work that has studied the political economy obstacles to the adoption of economic reforms, i.e. major policy changes that go beyond regular government decisions, including structural reforms (e.g. trade or labor market liberalization) and stabilization reforms (e.g. important fiscal adjustments to drastically reduce budget deficits and/or inflation). One of the seminal contributions in this area is the paper by Fernandez and Rodrik (1991), which shows that uncertainty about who will enjoy the gains from trade liberalization can lead a rational electorate to oppose a reform *ex ante*, even when welfare is known to increase *ex post* for a majority. Several other papers have examined the political viability of economic reforms in the presence of distributional effects and uncertainty. For example, Alesina and Drazen (1991) show how a stabilization can be delayed due to a "war of attrition" between two groups, each of which is uncertain about the costs being incurred by the other. Dewatripont and Roland (1995) introduce instead aggregate uncertainty in the framework of Fernandez and Rodrik (1991) to analyze the optimal sequencing of economic reforms. None of these papers has examined the role of legislators' political horizon, which is the focus of our analysis.

Our work is also related to the literature on political business cycles, which emphasizes the importance of electoral calendars when politicians are office motivated. Close to election, incumbent politicians manipulate regular government decisions on fiscal and monetary policies to signal their competence (Rogoff and Sibert 1988; Rogoff 1990). Our paper shows that electoral calendars crucially affect legislators' choices on trade liberalization reforms.

Our empirical strategy builds on a vast political science literature that analyzes the effects of term length and election proximity on legislative behavior. Rather than studying the determinants of legislators' behavior on specific economic reforms such as trade liberalization, these studies focus on "voting scores", summary indexes of their voting record on a broad set of issues (e.g. ADA scores, D-Nominate and W-Nominate scores). Some papers in this tradition analyze how election proximity affects senators' ideological positions (e.g. Thomas 1985, Bernhard and Sala 2006). Other papers examine instead the effects of election proximity on senators' responsiveness to the desires of the polity (e.g. Amacher and Boyes 1978, Glazer and Robbins 1985, Levitt 1996). These studies compare senators' voting scores to measures of their constituencies' preferences and find that, while there are considerable discrepancies between the two, the gap gets smaller closer to elections. Two recent contributions, Titiunik (2008) and Dal Bo and Rossi (2011) use instead an experimental setting to study the effect of different term lengths on legislator's performance.<sup>6</sup>

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<sup>6</sup>Titiunik (2008) examines the effect of a randomly assigned term length on the behavior of a small group of

Finally, our paper is related to the empirical literature examining the determinants of the voting behavior of U.S. congressmen on specific economic policies. The pioneering contribution by Peltzman (1985) links senators' voting patterns on federal tax and spending with changes in the economic interests of their constituencies.<sup>7</sup> Only a few studies have examined the determinants of trade policy votes, focusing on the role of direct foreign investments and campaign contributions by lobby groups (Blonigen and Figlio 1998, Baldwin and Magee 2000).

### 3 Data

To carry out our analysis, we have assembled a novel dataset that allows us to link congressmen's voting behavior on a trade liberalization bill to a wealth of characteristics of the legislators and their constituencies. This enables us to investigate the role played by both economic and non-economic drivers of individual decisions. In this section, we describe our data, starting from our dependent variable. We discuss next the individual-level characteristics, and finally turn to the procedure we have followed to construct our constituency-level controls.

#### 3.1 Votes on trade reforms

Our analysis focuses on recorded (roll call) final passage votes on all major trade liberalization bills introduced in the U.S. Congress between 1973 and 2005. By looking at final passage votes, we exclude votes on amendments and other intermediate procedural steps from our analysis. We have decided to follow this strategy because the expectations on the effects of floor amendments are less clear cut than for final passage votes. Voting on amendments is often strategic and is therefore less likely to distinctly reflect the interests of the legislator's constituency (Poole and Rosenthal 1997).

Table 1 lists the bills included in our analysis, which cover the implementation of multilateral trade agreements (Tokyo and Uruguay Round rounds of the GATT) and preferential trade agreements negotiated in this period,<sup>8</sup> as well as the initiatives to confer or extend fast track trade negotiating authority to the President.<sup>9</sup>

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state senators in Arkansas and Texas. Dal Bo and Rossi (2011) consider two natural experiments in the Argentine legislature (in 1983 and 2001), when politicians were assigned different term lengths through a randomized procedure. Both papers reach the conclusion that longer terms in office lead to better performance (for instance in terms of floor attendance, or number of bills sponsored by a legislator).

<sup>7</sup>More recent contributions include Mian, Sufi, and Trebbi (2010), who investigate how constituencies' interests, lobbying, and politicians' ideology shape voting on two bills introduced in the aftermath of the recent financial crisis, and Facchini and Steinhardt (2011), who examine the determinants of voting behavior on U.S. immigration policy in the last four decades.

<sup>8</sup>We excluded the bills on the ratification of the US-Bahrain and US-Israel free trade agreements, which were approved by voice votes in at least one of the houses.

<sup>9</sup>See Conconi, Facchini, and Zanardi (2012) for a theoretical and empirical analysis of the role of fast track authority in international trade negotiations.

Table 1: Votes on trade liberalization bills

Bill	Description	Vote in House	Vote in Senate
H.R. 10710 Trade Act of 1974	First approval of fast track authority Other provisions: escape clause, antidumping, countervailing duties, trade adjustment assistance, GSP	Dec. 11, 1973 (272-140)	Dec. 20, 1974 (72-4)
H.R. 4537 Trade Agreements Act of 1979	Approval of Tokyo Round Agreements Other provisions: extension of fast track authority	July 11, 1979 (395-7)	July 23, 1979 (90-4)
H.R. 4848 Omnibus Trade and Competitiveness Act	Approval of fast track authority Other provisions: strengthening of unilateral trade retaliation instruments, authority of USTR	July 13, 1988 (376-45)	Aug. 3, 1988 (85-11)
H.R. 5090	Approval of free trade area between United States and Canada (CUSFTA)	Aug. 9, 1988 (366-40)	Sept. 19, 1988 (83-9)
H.Res. 101/S.Res. 78	Disapproval of extension of fast track authority	May 23, 1991 (192-231)	May 24, 1991 (36-59)
H.R. 1876	Extension of fast track authority	June 22, 1993 (295-126)	June 30, 1993 (76-16)
H.R. 3450	Approval of free trade area between United States, Canada and Mexico (NAFTA)	Nov. 17, 1993 (234-200)	Nov. 20, 1993 (61-38)
H.R. 5110	Approval of Uruguay Round Agreements	Nov. 29, 1994 (288-146)	Dec. 1, 1994 (76-24)
H.R. 2621	Approval of fast track authority (denied)	Sept. 25, 1998 (180-243)	
H.R. 3009 Trade Act of 2002	Approval of fast track authority Other provisions: Andean Trade Preference Act, trade adjustment assistance, GSP	July 27, 2002 (215-212)	Aug. 1, 2002 (64-34)
H.R. 2738	Approval of free trade area between United States and Chile	July 24, 2003 (270-156)	July 31, 2003 (65-32)
H.R. 2739	Approval of free trade area between United States and Singapore	July 24, 2003 (272-155)	July 31, 2003 (66-32)
H.R. 4759	Approval of free trade area between United States and Australia	July 14, 2004 (314-109)	July 15, 2004 (80-16)
H.R. 4842/S. 2677	Approval of free trade area between United States and Morocco	July 22, 2004 (323-99)	July 21, 2004 (85-13)
H.R. 3045	Approval of free trade area between United States, Dominican Republic, Costa Rica, El Salvador, Honduras, Guatemala, and Nicaragua (DR-CAFTA)	July 28, 2005 (217-215)	July 28, 2005 (55-45)

Notes: Only final passage votes are reported. With the exception of the votes in 1991, the first (second) number in parenthesis refers to votes in favor of the bill (against it). The Senate did not vote on the bill of 1998, since the House had already rejected it.

We distinguish between the 50 U.S. states – electing each two representatives for the Senate – and the 435 congressional districts – each electing one member of the House of Representatives.<sup>10</sup> Overall, we consider 29 votes.<sup>11</sup> For each of them, we collect the identity of the congressmen, their state or district, and their decision (in favor or against) from roll call records. In our benchmark analysis, we include all the trade bills in our sample, but we assess the robustness of our findings by focusing on different subsets of bills (see Section 4.3).

### 3.2 Characteristics of legislators

Table 2 provides definitions and sources for all the variables included as controls in our analysis (top panel), or used in the construction of such controls (bottom panel). We start with congressmen’s characteristics.

The main regressors of interests for our analysis are the indicator variable  $Senate^j$ , which is equal to one for legislators belonging to the upper house, and the indicator variables  $SenateG_t^j$ ,  $G = 1, 2, 3$  capturing the generation to which a senator belongs. As already discussed, one third of the Senate is elected every two years, together with the entire House. We define those senators facing election within two years as belonging to the third generation (or “in cycle”); those who face elections next belong to the second generation, while the first generation includes senators facing elections no sooner than in four years.

Party affiliation is known to be a strong predictor of a politician’s support for trade liberalization, with Democrats being systematically more protectionist than Republicans for the period under consideration in our study (e.g. Baldwin and Magee 2000; Hiscox 2004; Karol 2007). To assess the role played by a congressman’s ideological position, we employ the dummy variable  $Democrat_t^j$ , which is equal to one if the representative of constituency  $j$  at time  $t$  belongs to the democratic party, and zero otherwise.<sup>12</sup> Since age and gender have been shown to be important drivers of individual-level preferences for trade policy (see Mayda and Rodrik 2005), we control for the role of demographic characteristics of a congressman by including the variables  $Female^j$  and  $Age_t^j$  in our empirical analysis.

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<sup>10</sup>As it can be seen from Table 1, for each decision in the House and Senate less than 435 and 100 votes are reported, respectively. This is because some congressmen may not be present or may decide to abstain. Moreover, a seat in Congress may be vacant at any point in time because of special circumstances (e.g. resignation, death).

<sup>11</sup>Notice that in all but one case the trade reform has been approved, even though the margin of passage varies substantially across bills. In robustness checks, we will distinguish votes by their margin of passage.

<sup>12</sup>As discussed at the end of the section, we have also experimented using alternative measures of ideology (the DW-Nominate scores and the ACU conservative rating index), obtaining very similar results.



Table 2: Definition of variables and sources

Variable	Definition	Source
$Vote_t^j$	Vote cast by congressman from constituency $j$ Dummy equal to 1 if ‘yea’ and 0 if ‘nay’	Up to 1996: ICPSR Study number 4; From 1997: <a href="http://www.voteview.com">http://www.voteview.com</a>
$Senate^j$	Dummy equal to 1 if congressman $j$ is a senator	As for $Vote_t^j$
$Senate1_t^j$	Dummy equal to 1 if senator $j$ is in first two years of mandate	As for $Vote_t^j$
$Senate2_t^j$	Dummy equal to 1 if senator $j$ is in middle two years of mandate	As for $Vote_t^j$
$Senate3_t^j$	Dummy equal to 1 if senator $j$ is in last two years of mandate	As for $Vote_t^j$
$Democrat_t^j$	Dummy equal to 1 if congressman $j$ is a Democrat	As for $Vote_t^j$
$Female_t^j$	Dummy equal to 1 if congressman $j$ is female	Up to 1996: ICPSR Study number 7803; From 1997 up to 2000: Swift et al. (2000); From 2001: Biographical Directory of U.S. Congress
$Age_t^j$	Age of congressman $j$	As for $Female_t^j$
$Population_t^j$	Population of constituency $j$ (in millions)	U.S. Census Bureau
$Export\ ratio_t^j$	$\frac{X_t^j}{Y_t^j}$	County Business Patterns
$HHI\ exports_t^j$	Herfindahl-Hirschman Index for export industries	County Business Patterns
$HHI\ imports_t^j$	Herfindahl-Hirschman Index for import industries	County Business Patterns
$High\ skill_t^j$	Share of population above 25 years with at least a bachelor degree	U.S. Census Bureau
$Export_t^j$	Dummy equal to 1 if $Export\ ratio_t^j > 1$	As for $Export\ ratio$
$Labor\ contributions_t^j$	Contributions received by senator $j$ from labor groups	Federal Election Commission
$Corporate\ contributions_t^j$	Contributions received by senator $j$ from corporate groups	Federal Election Commission
$Safe_t^j$	Dummy equal to 1 if Margin of victory $t^j \geq 60$ percent	U.S. Office of the Clerk
$Retiring_t^j$	Dummy equal to 1 if senator $j$ is retiring	Up to 2004: Overby and Bell (2004); From 2005: Biographical Directory of U.S. Congress
$Incumbent_t^j$	Dummy equal to 1 if congressman $j$ is not in the first mandate	Biographical Directory of the United States Congress
$Years\ in\ Congress_t^j$	Years of service by congressman $j$ up to year $t$	As for $Female_t^j$
$Finance\ committee_t^j$	Dummy equal to 1 if congressman $j$ belongs to Finance committee	As for $Female_t^j$
$Appropriation\ committee_t^j$	Dummy equal to 1 if congressman $j$ belongs to Appropriation committee	As for $Female_t^j$
$Presidential\ aspirations_t^j$	Dummy equal to 1 if congressman $j$ ever participated in a presidential primary after year $t$	Leip (2008)
$Y_t^j$	Employees of constituency $j$ in import-competing industries	County Business Patterns
$X_t^j$	Employees of constituency $j$ in export industries	County Business Patterns
$Import/export\ industries_t$	Industries in which the U.S. is a net importer/exporter in year $t$	Feenstra (1996), Feenstra (1997), Feenstra et al. (2002) and U.S. ITC, IMF BoP
$Margin\ of\ victory_t^j$	Difference in votes shares between senator $j$ and runner-up in last election	U.S. Office of the Clerk

Another set of variables have only been collected for senators, since they are used to verify the robustness of the effects of election proximity. In particular, we have constructed two controls to capture the extent to which legislators are exposed to competition for their seats, in order to assess the role played by re-election incentives in explaining inter-generational differences in senators' voting behavior (see Section 5.4). First, we have used information on the margin of victory recorded by a senator in the last election (i.e. the gap between the share of votes obtained by the winner and the runner-up) to construct the dummy variable  $Safe_t^j$ , which equals one for legislators who have been last elected with a large margin of victory.<sup>13</sup> Second, we have constructed the dummy variable  $Retiring_t^j$ , which is equal to 1 for senators who do not seek re-election.<sup>14</sup>

A long tradition has emphasized the importance of lobbies' contributions in shaping international trade policy (e.g. Grossman and Helpman 1994; Goldberg and Maggi 1999; Gawande and Bandyopadhyay 2000) and the voting behavior of U.S. congressmen on trade liberalization bills (e.g. Baldwin and Magee 2000). To assess the role of campaign contributions, we have constructed measures of  $Labor\ contributions_t^j$  and  $Corporate\ contributions_t^j$  received by each senator throughout the political cycle. These variables are based on individual-level transactions reported to the Federal Electoral Commission (FEC) since 1979.<sup>15</sup>

In some robustness checks, we also include additional political controls. To account for incumbency effects, we control for whether or not a congressman is in his first term in office (including the dummy variable  $Incumbent_t^j$ ) and for his tenure (captured by the variable  $Years\ in\ Congress_t^j$ ). Since senators are known to be running more often for President than House members (see also Table 3), we verify whether presidential ambitions influence congressmen's voting behavior by constructing the dummy variable  $Presidential\ aspirations_t^j$ , which captures whether a legislator has taken part in presidential primaries in the years following each vote in the sample. As alternative measures of congressmen's ideological orientation, we try replacing legislators' party affiliation with the ratings provided by the American Conservative Union (ACU) or the DW-Nominate scores (see Poole and Rosenthal 2001). We also investigate the role of membership in the two most powerful Senate committees: the  $Finance\ committee_t^j$  and  $Appropriations\ committee_t^j$  (see Stewart and Groseclose 1999).

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<sup>13</sup>We considered seats to be safe if the margin of victory exceeded 60 percent. This threshold corresponds to the average margin of victory in the Senate plus two standard deviations.

<sup>14</sup>Following Overby and Bell (2004), we classify as retiring those senators who voluntarily departed (for personal reasons or to pursue other office), but exclude those who were expelled or defeated in either primary or general elections.

<sup>15</sup>We have collected information on each transaction between a political action committee (PAC) and an elected congressperson from the FEC website, and aggregated it by political cycle. In this way, we have been able to gather information on the amounts of PAC contributions received by an individual senator throughout his six years in office, rather than just during the last two years of his mandate (the latter information is more readily available).

### 3.3 Characteristics of constituencies

In order to capture the trade policy interests of each constituency, we control for the time-varying share of import-competing workers in a given state or congressional district. To do so, we first define an industry (i.e. at 2-digit SIC level or 3-digit NAICS level; see footnote 16 for details) as being import-competing (export), if the U.S. as a whole is a net importer (exporter) in that industry in a given year. We then collect information on employment in import-competing and export industries for all constituencies. Such variables can be easily constructed for the Senate, since state-level series are readily available. For the House of Representatives, on the other hand, we encountered two main difficulties. First, congressional district-specific data are not readily available, and must be constructed by aggregating county-level data using the County Business Patterns (CBP), a survey collected by the Bureau of the Census.<sup>16</sup> Importantly, a county may be split into different districts, as it is exemplified by Santa Clara County in California (see Figure 1), which encompasses four congressional districts, some of which cover parts of neighboring counties. The second difficulty is that the geographic definition of districts changes over time, following each decennial Census, when districts are re-apportioned following changes in population.

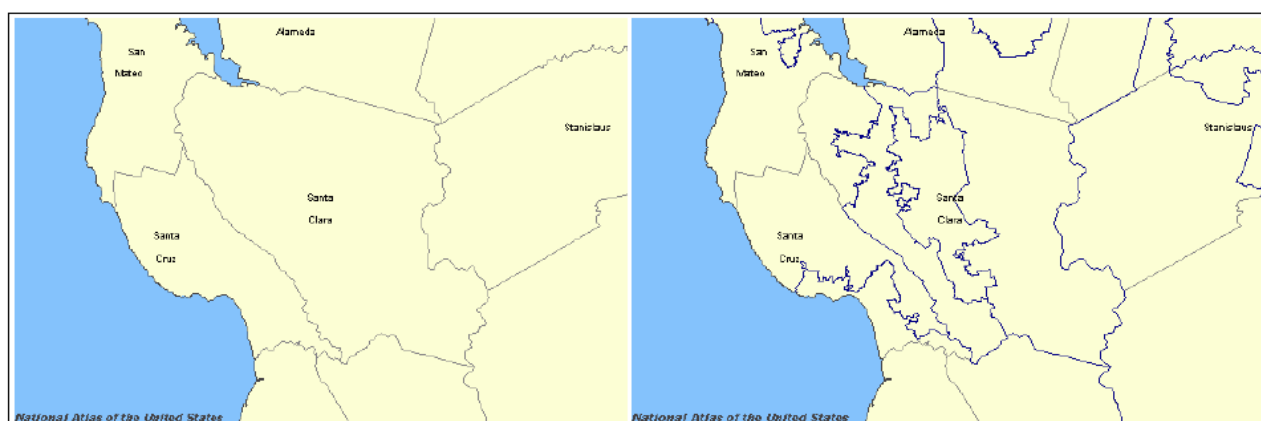


Figure 1: Santa Clara County: Congressional Districts

We have addressed these concerns as follows. To obtain district-level data from county level information, we first extract yearly county-level data from the CBP and then aggregate them at the district level. For those counties split across more than one district, we follow Baldwin and Magee (2000), among others, imputing employees proportionally to the share of population of a county assigned to that district. To deal with periodical redistricting, we have kept track of

<sup>16</sup>The CBP report annual data on employment by SIC manufacturing industries up to 1997 and by NAICS manufacturing industries from 1998 onwards, with very little detailed information for agriculture. However, manufacturing industries represent the lion's share of total imports and exports of the United States (i.e. at least 70 percent in each year from 1970 until 2005). Moreover, many agriculture-related activities are classified as manufacturing and are thus included in our dataset (e.g. dairy products, grain mill products, sugar).

changes in the boundaries of the electoral districts that occurred after the Censuses of 1970, 1980, 1990 and 2000. For example, Alaska has always had only one congressional district; between the first vote in 1973 and the last one in 2005, California saw the size of its House delegation increase from 43 to 53 representatives, whereas the number of districts for New York declined from 39 to 29 over the same time period.

Notice that employment data in the CBP are withheld when their disclosure would allow researchers to identify firms. In such cases, a flag gives the interval where the actual data belongs to (e.g. between 0 and 19 employees, between 20 and 99 employees and so on). These flags have been used to input values (i.e. the mid point of each interval) for the missing observations. In order to minimize the problem of undisclosed data, we use CBP employment data at the 2-digit SIC and 3-digit NAICS levels rather than at more disaggregated levels.

Using employment data by congressional district and by state, we compute the number of employees in export and import-competing industries for all constituencies. For each constituency  $j$  in year  $t$ , we then define the variable  $Export\ ratio_t^j$ , which captures dependence on export relative to import-competing jobs. This is defined as the ratio  $\frac{X_t^j}{Y_t^j}$ , where  $X_t^j$  ( $Y_t^j$ ) is the number of employees of constituency  $j$  in export (import) industries at time  $t$ . In some specifications, we also use the dummy variable  $Export_t^j$  to capture export-oriented constituencies, which equals 1 when a majority of workers are employed in export industries (i.e.  $Export\ ratio_t^j > 1$ ).

As an alternative, more long-term measure of the trade interests of a congressman's constituency, we have also constructed a proxy for the relative abundance of skilled labor. In particular,  $High\ skill_t^j$  represents the ratio of high-skilled individuals in the population over 25 years of age at time  $t$  in congressional district  $j$ , where high-skilled individuals are defined as those having earned at least a bachelor degree.

Legislators' voting behavior on trade policy may also be affected by the degree of industry concentration in export and import-competing industries. We thus construct time-varying Herfindahl-Hirschman Indexes for export industries and import-competing industries located in constituency  $j$ , denoted with  $HHI\ exports_t^j$  and  $HHI\ imports_t^j$ , respectively. Legislators representing larger constituencies may be less responsive to narrowly defined industry interests. We thus control for the size of each constituency, as proxied by  $Population_t^j$ .

Table 3 reports summary statistics for the main variables of interest for the pooled sample of observations for the House and the Senate (used in the first part of our empirical analysis), and for the Senate alone (used in the second part of the analysis). These figures show that trade liberalization bills passed in the Senate by a (statistically significant) larger margin than in the House. The mean of  $Export\ ratio$  below 1 suggests constituencies are on average import-competing. Employment appears to be more concentrated in export industries. The other summary statistics confirm well-known stylized facts about the U.S. Congress (e.g. senators tend to be older than House members and to run more often for President).

Table 3: Descriptive statistics

Variable	House and Senate			Senate		
	Observations	Mean	Std. dev.	Observations	Mean	Std. dev.
Vote <sub>t</sub> <sup>j</sup>	7,664	0.687	0.464	1,254	0.750	0.433
Senate <sup>j</sup>	7,664	0.174	0.379			
Senate1 <sub>t</sub> <sup>j</sup>	7,664	0.058	0.234	1,254	0.325	0.449
Senate2 <sub>t</sub> <sup>j</sup>	7,664	0.059	0.235	1,254	0.337	0.473
Senate3 <sub>t</sub> <sup>j</sup>	7,664	0.057	0.231	1,254	0.338	0.473
Democrat <sub>t</sub> <sup>j</sup>	7,664	0.535	0.499	1,254	0.540	0.497
Female <sub>t</sub> <sup>j</sup>	7,664	0.098	0.297	1,254	0.085	0.279
Age <sub>t</sub> <sup>j</sup>	7,664	54.48	10.159	1,254	58.89	9.958
Population <sub>t</sub> <sup>j</sup>	7,664	1.429	3.030	1,254	5.066	5.656
Export ratio <sub>t</sub> <sup>j</sup>	7,664	0.442	0.540	1,254	0.528	0.550
HHI exports <sub>t</sub> <sup>j</sup>	7,664	0.506	0.279	1,254	0.503	0.292
HHI imports <sub>t</sub> <sup>j</sup>	7,664	0.156	0.086	1,254	0.136	0.062
High skill <sub>t</sub> <sup>j</sup>	7,661	0.194	0.084	1,254	0.192	0.056
Labor contributions <sub>t</sub> <sup>j</sup>				1,254	0.463	1.001
Corporate contributions <sub>t</sub> <sup>j</sup>				1,254	1.834	2.720
Safe <sub>t</sub> <sup>j</sup>				1,213	0.047	0.215
Retiring <sub>t</sub> <sup>j</sup>				1,254	0.043	0.203
Export <sub>t</sub> <sup>j</sup>				1,254	0.138	0.345
Finance committee <sub>t</sub> <sup>j</sup>				1,254	0.201	0.401
Appropriation committee <sub>t</sub> <sup>j</sup>				1,254	0.278	0.448
Presidential aspirations <sub>t</sub> <sup>j</sup>				1,254	0.105	0.307

## 4 Inter-cameral differences in voting behavior

In this section, we start by examining the voting behavior of all congressmen, to verify whether House members are more protectionist than Senate members, as previously argued by Karol (2007). We then contrast House members with different generations of senators to establish whether inter-cameral differences are driven by term length.

### 4.1 House vs Senate

We first compare the behavior of Senate and House members. The dependent variable in our analysis,  $Vote_t^j$ , is dichotomous and equals one if the congressman representing constituency  $j$  in year  $t$  has voted in favor of trade liberalization, and zero otherwise. Our baseline specification is given by

$$Prob(Vote_t^j = 1) = \Phi(\beta_0 + \beta_1 Senate^j + \beta_2 \mathbf{X}_t^j + \beta_3 \mathbf{Z}) \quad (1)$$

where  $\Phi(\cdot)$  is the cumulative normal distribution (i.e. probit model) and House members are the omitted category. The main variable of interest is the *Senate* dummy.  $\mathbf{X}$  is a matrix of district-specific characteristics;<sup>17</sup>  $\mathbf{Z}$  is a matrix of additional controls;  $\beta_0$ ,  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  are the vectors of parameters to be estimated. We cluster standard errors by state-decade, allowing for the geographical correlation within each state to change over time (i.e. our sample spans four decades). In order to facilitate the interpretation of the estimated coefficients, in the tables we report marginal effects (calculated at the mean of each regressor).

Our first set of results is presented in Table 4. In the first three columns, we report the findings from a series of parsimonious specifications, where the only explanatory variables are the *Senate* dummy and a set of year or state fixed effects, or both. We find that senators are more likely to support trade liberalization bills.<sup>18</sup> The estimates of year and state fixed effects are jointly significant.<sup>19</sup>

In the remainder of the table, we investigate the role played by additional drivers of trade liberalization votes which have been identified by the existing literature. Column (4) represents our preferred specification, in which we control for congressmen's party affiliation and demographic characteristics, as well as for the size and the trade interests of a constituency.

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<sup>17</sup>For simplicity, when discussing the regression results, we drop all  $j$  and  $t$  indices.

<sup>18</sup>In the simplest possible specification with only the *Senate* dummy, its coefficient is also positive and significant at the 1 percent level.

<sup>19</sup>These estimates are available upon request and suggest a broad erosion in support for trade liberalization during the past four decades.

Table 4: Trade Liberalization votes: House vs Senate

	(1)	(2)	(3)	(4)	(5)	(6)
Senate <sup>j</sup>	0.064***	0.110***	0.083***	0.087***	0.087***	0.087***
	(0.021)	(0.019)	(0.021)	(0.027)	(0.027)	(0.027)
Democrat <sub>t</sub> <sup>j</sup>				-0.326***	-0.327***	-0.317***
				(0.026)	(0.026)	(0.027)
Female <sub>t</sub> <sup>j</sup>				-0.034	-0.036	-0.53**
				(0.023)	(0.023)	(0.023)
Age <sub>t</sub> <sup>j</sup>				-0.002***	-0.002***	-0.002***
				(0.001)	(0.001)	(0.001)
Population <sub>t</sub> <sup>j</sup>				0.003	0.003	0.003
				(0.003)	(0.003)	(0.003)
Export ratio <sub>t</sub> <sup>j</sup>				0.048*	0.065**	
				(0.026)	(0.027)	
HHI exports <sub>t</sub> <sup>j</sup>					-0.106	
					(0.077)	
HHI imports <sub>t</sub> <sup>j</sup>					0.124	
					(0.105)	
High skill <sub>t</sub> <sup>j</sup>						0.764***
						(0.128)
Year effects	included		included	included	included	included
State effects		included	included	included	included	included
Observations	7,664	7,664	7,664	7,664	7,664	7,661
Pseudo R <sup>2</sup>	0.10	0.06	0.16	0.26	0.26	0.27
Log likelihood	-4,296.29	-4,465.14	-3,988.51	-3,516.28	-3,513.69	-3,476.39
χ <sup>2</sup>	388.23***	305.82***	1,106.81***	980.71***	985.70***	1,041.44***
Predicted probability	0.72	0.70	0.73	0.75	0.75	0.75

The table reports marginal effects of probit regressions. The dependent variable,  $\text{Vote}_t^j$ , equals 1 if the congressman votes in favor of trade liberalization, 0 otherwise. Standard errors clustered at state-decade level in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level.

We find that Senate membership increases the probability of supporting trade liberalization by 11.6 percentage points. In line with previous studies, support for trade reforms is significantly lower (by 43.5 percent) for members of the Democratic party and for older legislators. The impact of *Export ratio* is positive and significant, suggesting that the larger is the share of export workers in a constituency, the more likely its representative is to favor a reduction in trade barriers. In line with the results of Karol (2007), senators' trade votes are unrelated to constituency size, as proxied by *Population*.

The estimates reported in column (5) show that inter-cameral differences are robust to the inclusion of concentration measures for export and import-competing industries. Notice that this leads to a more precisely estimated and more significant coefficient for *Export ratio*.

Finally, in column (6) we replace our trade orientation measure based on sectoral employment with one based on factor endowments. We find that congressmen representing more highly skilled districts are more likely to support trade liberalization measures, a result consistent with a Heckscher-Ohlin model in which U.S. imports are relatively unskilled-labor intensive. In all specifications, the estimate for the *Senate* dummy is positive and significant, confirming the importance of inter-cameral differences.

## 4.2 House vs different generations of senators

Next, we exploit the staggered nature of senators' mandates. This specific institutional feature of the U.S. Congress implies that, at any point in time (i.e. for every vote in our sample), one third of the senators have the same "political horizon" as House members (i.e. they face elections in less than two years). This gives rise to a quasi experimental setting: since electoral calendars are exogenously assigned to each Senate seat, we can compare the voting of legislators with different remaining time in office.

We estimate the following probit model:

$$Prob(Vote_t^j = 1) = \Phi(\gamma_0 + \gamma_1 Senate1_t^j + \gamma_2 Senate2_t^j + \gamma_3 Senate3_t^j + \gamma_4 \mathbf{X}_t^j + \gamma_5 \mathbf{Z}), \quad (2)$$

in which House members are the omitted category. The main regressors of interest are the dummy variables for the three generations of senators. In particular, the coefficient of the variable *Senate3* captures the stance of senators who are up for re-election first, together with all House members.

In Table 5 we replicate the same specifications reported in Table 4, distinguishing between different generations of senators. Notice that, in all specifications in which we control for time effects, the coefficient for senators belonging to the third generation is never significant, while the estimates for the other two generations are always positive and significant at the 1% level.<sup>20</sup> Depending on the specification, senators from the first generation are between 13.2 and 15.3 percent more likely to support trade liberalization bills (over the average predicted probability) than members of the House. Their behavior is not statistically different from that of the second generation, while third-generation senators are significantly more protectionist than the others (see the tests at the bottom of the table). As for the effect of the additional controls, their impact is the same as in Table 4.

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<sup>20</sup>The coefficient  $\gamma_3$  is insignificant even in the simplest specification including only the generations dummies.



Table 5: Trade Liberalization votes: House vs generations of senators

	(1)	(2)	(3)	(4)	(5)	(6)
Senate3 <sub>t</sub> <sup>j</sup>	0.015 (0.028)	0.063** (0.025)	0.032 (0.028)	0.040 (0.035)	0.040 (0.035)	0.41 (0.034)
Senate2 <sub>t</sub> <sup>j</sup>	0.079*** (0.026)	0.133*** (0.022)	0.104*** (0.024)	0.106*** (0.027)	0.106*** (0.027)	0.105*** (0.027)
Senate1 <sub>t</sub> <sup>j</sup>	0.095*** (0.023)	0.124*** (0.023)	0.107*** (0.024)	0.105*** (0.027)	0.104*** (0.027)	0.105*** (0.027)
Democrat <sub>t</sub> <sup>j</sup>				-0.326*** (0.026)	-0.327*** (0.026)	-0.316*** (0.027)
Female <sub>t</sub> <sup>j</sup>				-0.035 (0.023)	-0.037 (0.023)	-0.054** (0.023)
Age <sub>t</sub> <sup>j</sup>				-0.002*** (0.001)	-0.002*** (0.001)	-0.002*** (0.001)
Population <sub>t</sub> <sup>j</sup>				0.004 (0.003)	0.004 (0.003)	0.003 (0.003)
Export ratio <sub>t</sub> <sup>j</sup>				0.049* (0.026)	0.066** (0.027)	
HHI exports <sub>t</sub> <sup>j</sup>					-0.106 (0.076)	
HHI imports <sub>t</sub> <sup>j</sup>					0.125 (0.105)	
High skill <sub>t</sub> <sup>j</sup>						0.764*** (0.128)
Year effects	included		included	included	included	included
State effects		included	included	included	included	included
Test Senate3 <sub>t</sub> <sup>j</sup> = Senate2 <sub>t</sub> <sup>j</sup>	4.57**	7.02***	6.40**	5.12**	5.18**	4.87**
Test Senate3 <sub>t</sub> <sup>j</sup> = Senate1 <sub>t</sub> <sup>j</sup>	9.22***	5.81**	8.53***	5.27**	5.22**	5.41**
Test Senate2 <sub>t</sub> <sup>j</sup> = Senate1 <sub>t</sub> <sup>j</sup>	0.35	0.16	0.02	0.00	0.01	0.00
Observations	7,664	7,664	7,664	7,664	7,664	7,661
Pseudo R <sup>2</sup>	0.10	0.06	0.16	0.26	0.26	0.27
Log likelihood	-4,292.12	-4,461.44	-3,984.28	-3,512.71	-3,510.09	-3,472.89
χ <sup>2</sup>	392.30***	326.79***	1,138.60***	1,057.87***	1,070.83***	1,086.21***
Predicted probability	0.72	0.70	0.73	0.75	0.75	0.75

The table reports marginal effects of probit regressions. The dependent variable, Vote<sub>t</sub><sup>j</sup>, equals 1 if the congressman votes in favor of trade liberalization, 0 otherwise. Standard errors clustered at state-decade level in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level.

### 4.3 Additional robustness checks

To assess the robustness of our results on inter-cameral comparisons, we have performed a series of additional estimations, focusing on economic and political drivers of congressmen’s voting behavior and restricting the analysis to different subsamples of bills. The results of these estimations are available upon requests.

First, we have introduced additional controls for legislators’ constituencies (i.e. real GDP per capita, unemployment rate, and the share of the population over 65).<sup>21</sup> In line with previous studies, we find a negative and significant effect of unemployment on the support for trade liberalization. Including these variables does not alter our results on the comparison between House members and different generations of senators.

The trade variable used in our benchmark analysis is based on whether the United States is a net importer/exporter in a given industry relative to the rest of the world. It may be argued that this is an imprecise measure when it comes to the ratification of preferential trade agreements (PTAs), because of the idiosyncrasies of U.S. trade patterns.<sup>22</sup> For these votes, we have thus constructed a different version of the *Export ratio* variable, based on the net trade position of the United States vis-à-vis PTA partners. The qualitative results of our analysis are unaffected when using this alternative measure of constituencies’ trade interests.

We have also included additional political controls for the legislators. In particular, we have accounted for whether they are serving their first mandate, and for their tenure in office. The variables *Incumbent* and *Years in Congress* do not have a significant effect on legislators’ voting behavior on trade reforms and their inclusion does not alter our results on inter-cameral differences. The same is true if we replace party affiliation with alternative measures of congressmen’s ideological orientation (ACU ratings and the DW-Nominate scores).

We have also carried out our analysis on different subsamples of votes, to investigate whether our findings apply to different kinds of trade liberalization reforms. First, we have excluded bills on the conferral or extension of fast track authority, since their trade effects are less clear cut (see Conconi, Facchini, and Zanardi 2012). Second, we have examined separately the ratification of multilateral and regional trade agreements, which can have different welfare implications. Finally, we have restricted our analysis to the most important bills in our sample, i.e. the ratification of the Tokyo and Uruguay Rounds of GATT-WTO negotiations and of the most important regional trade agreements (CUSFTA and NAFTA). Our results on inter-cameral and inter-generational differences in congressmen’s voting behavior continue to hold.

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<sup>21</sup>These variables are not included in the benchmark analysis of Tables 4 and 5, since they are only available at the state level.

<sup>22</sup>For example, in recent years, the U.S. is an overall net importer of “Textile Product Mills”, but it is a net exporter of these goods to Australia, Chile, Singapore, with which it has signed a PTA.

## 5 Different generations of senators

We now move to the core of our analysis, in which we examine the role of election proximity on legislators’ voting behavior. To do so, we focus on votes cast in the U.S. Senate alone, exploiting its staggered structure and the fact that many of its members have voted on several trade bills during their careers.

We follow two complementary strategies. First, we compare how senators belonging to different generations vote on the same bill, thus exploiting differences across legislators. We estimate the following probit model, in which the first generation is taken as the omitted category:

$$Prob(Vote_t^j = 1) = \Phi(\delta_0 + \delta_1 Senate2_t^j + \delta_2 Senate3_t^j + \delta_3 \mathbf{X}_t^j + \delta_4 \mathbf{Z}). \quad (3)$$

Second, since our sample spans four decades, we can observe the votes that the same senator has cast on different trade bills. We can thus exploit the time variation in the voting behavior of individual senators. To this end, we include congressmen’s fixed effects, which allow to account for time-invariant individual characteristics, and estimate a conditional logit model:

$$Prob(Vote_t^j = 1) = \Omega(\lambda_0 + \lambda_1 Senate2_t^j + \lambda_2 Senate3_t^j + \lambda_3 \mathbf{X}_t^j + \lambda_4 \mathbf{Z} + \lambda^j). \quad (4)$$

Notice that this estimator only retains observations for senators who voted on more than one bill (and not always in favor or against protection), which greatly reduces the sample. Moreover, since the congressmen’s fixed effects are not estimated, marginal effects cannot be computed when estimating a conditional logic model, which limits the comparison with our previous results. In order to overcome these issues, we will also report the results of a linear probability model.

### 5.1 Comparison across senators

The results reported in Table 6 are based on the comparison of the behavior of different senators voting on the same bill. Notice that the marginal effect for the variable *Senate3* is always negative and statistically significant at the 1 percent level. Thus, compared to the omitted category (senators in the first two years of their mandates), “in-cycle” senators are less likely to support trade liberalization reforms. In particular, the estimates of the benchmark specification in column (4) suggest that they are around 10 percentage point less likely to support trade liberalization. This can also be seen in Figure 2, where we plot predicted probability for senators belonging to different generations.<sup>23</sup>

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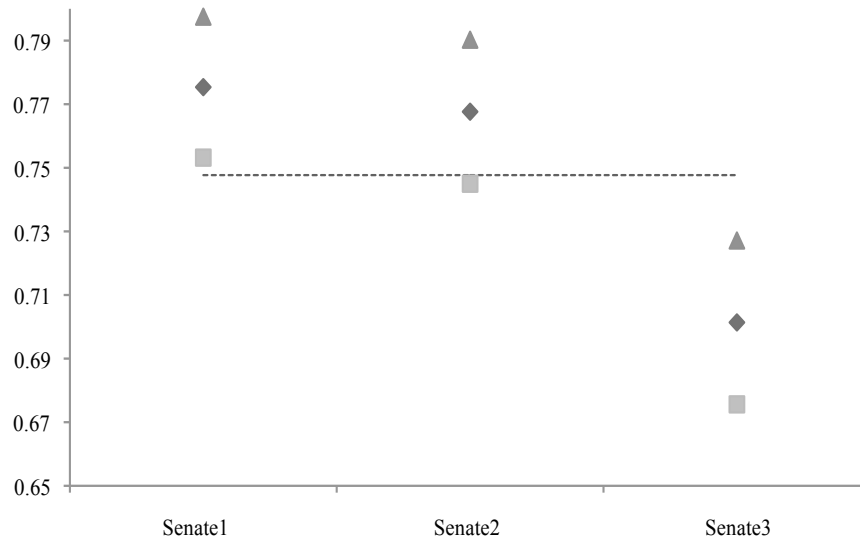
<sup>23</sup>The dotted line in Figure 2 depicts the average predicted probability that senators vote in favor of trade reforms (based on column 4 of Table 6); the symbols in dark grey are the predicted probabilities of different generations of senators, while the symbols in lighter grey represent their 95% confidence interval.

Table 6: Senator generations, different legislators voting on the same bill

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Senate3 <sub>t</sub> <sup>j</sup>	-0.077*** (0.027)	-0.075*** (0.027)	-0.090*** (0.027)	-0.081*** (0.027)	-0.081*** (0.027)	-0.079*** (0.027)	-0.104*** (0.029)
Senate2 <sub>t</sub> <sup>j</sup>	-0.015 (0.028)	0.000 (0.027)	-0.017 (0.028)	-0.009 (0.026)	-0.009 (0.026)	-0.013 (0.027)	-0.028 (0.027)
Democrat <sub>t</sub> <sup>j</sup>				-0.145*** (0.033)	-0.142*** (0.034)	-0.150*** (0.033)	-0.083** (0.035)
Female <sub>t</sub> <sup>j</sup>				-0.035 (0.048)	-0.042 (0.050)	-0.032 (0.049)	-0.012 (0.044)
Age <sub>t</sub> <sup>j</sup>				-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)
Population <sub>t</sub> <sup>j</sup>				0.004 (0.013)	0.005 (0.013)	0.006 (0.012)	0.010 (0.012)
Export ratio <sub>t</sub> <sup>j</sup>				0.103** (0.046)	0.139*** (0.054)		0.110** (0.046)
HHI exports <sub>t</sub> <sup>j</sup>					-0.083 (0.166)		
HHI imports <sub>t</sub> <sup>j</sup>					0.388 (0.447)		
High skill <sub>t</sub> <sup>j</sup>						-0.672 (1.240)	
Labor contributions <sub>t</sub> <sup>j</sup>							-0.070*** (0.017)
Corporate contributions <sub>t</sub> <sup>j</sup>							0.025*** (0.007)
Year effects	included		included	included	included	included	included
State effects		included	included	included	included	included	included
Test Senate3 <sub>t</sub> <sup>j</sup> = Senate2 <sub>t</sub> <sup>j</sup>	4.70**	6.84***	6.59***	6.50**	6.60***	5.38**	6.12**
Observations	1,331	1,254	1,254	1,254	1,254	1,254	1,254
Pseudo R <sup>2</sup>	0.09	0.17	0.28	0.31	0.31	0.31	0.33
Log likelihood	-661.04	-583.65	-508.83	-485.79	-484.68	-488.84	-474.28
χ <sup>2</sup>	86.63***	259.32***	485.64***	463.68***	482.32***	424.93***	531.12***
Predicted probability	0.79	0.79	0.82	0.84	0.84	0.83	0.84

The table reports marginal effects of probit regressions. The dependent variable,  $\text{Vote}_t^j$ , equals 1 if the congressman votes in favor of trade liberalization, 0 otherwise. Standard errors clustered at state-decade level in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level.

Figure 2: Predicted probabilities, different generations of senators



The estimates for the other regressors are in line with the results obtained in the previous section. However, the Democrat dummy has a much smaller marginal effect (reducing the probability of a vote in favor by less than 20 percentage points), indicating that the difference between Democrats and Republicans is larger in the House than in the Senate. On the contrary, age seems to have a bigger impact on senators than on House representatives, whereas the district’s skill composition does no longer have a significant effect on support for trade liberalization.<sup>24</sup> Overall, the qualitative conclusions that we reached when comparing senators are the same as those identified in Section 4: there is clear evidence of a protectionist effect as senators approach the end of their electoral mandate.

As we have argued in the introduction, much of the existing literature on the political economy of trade policy has emphasized the role of lobbying. In column (7) we investigate whether our results on inter-generational differences in senators’ voting behavior are robust to controlling for the influence of organized pressure groups. In particular, we supplement our benchmark specification (reported in column 4) by accounting separately for the amount of corporate and labor contributions received by a given senator during each congressional cycle, i.e. when belonging to different “generations”. In line with what found in previous studies (e.g. Baldwin and Magee 2000), we find that labor (corporate) contributions have a significant negative (positive) impact on legislators’ support for trade liberalization bills. Crucially, however, the inclusion of these additional regressors does not affect our main result: the coefficient of the *Senate3* dummy remains negative and statistically significant at the 1 percent level. This suggests that the protectionist effect of election proximity is not driven by cycles in campaign contributions.

<sup>24</sup>This latter result is not surprising, since in Table 6 we only exploit state-level variation in this measure, constructed from the decennial U.S. Census.

Table 7: Senator generations, same legislator voting on different bills

	conditional logit model				linear probability model			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Senate3 <sub>t</sub> <sup>j</sup>	-0.882*** (0.224)	-0.868*** (0.230)	-0.874*** (0.223)	-0.867*** (0.274)	-0.092*** (0.030)	-0.091*** (0.029)	-0.090*** (0.030)	-0.091*** (0.034)
Senate2 <sub>t</sub> <sup>j</sup>	-0.314 (0.216)	-0.274 (0.220)	-0.339 (0.215)	-0.346 (0.219)	-0.029 (0.030)	-0.028 (0.030)	-0.031 (0.030)	-0.031 (0.030)
Population <sub>t</sub> <sup>j</sup>	0.252 (0.205)	0.271 (0.203)	0.278 (0.208)	0.254 (0.171)	0.037 (0.023)	0.037 (0.023)	0.036 (0.023)	0.039* (0.021)
Export ratio <sub>t</sub> <sup>j</sup>	0.699* (0.393)	1.424*** (0.447)		0.716* (0.409)	0.084** (0.041)	0.162*** (0.050)		0.083** (0.041)
HHI exports <sub>t</sub> <sup>j</sup>		-1.592 (1.435)				-0.064 (0.175)		
HHI imports <sub>t</sub> <sup>j</sup>		5.164 (5.023)				1.028* (0.534)		
High skill <sub>t</sub> <sup>j</sup>			0.809 (12.810)				0.202 (1.847)	
Labor contributions <sub>t</sub> <sup>j</sup>				-0.184 (0.146)				-0.022 (0.019)
Corporate contributions <sub>t</sub> <sup>j</sup>				0.047 (0.061)				0.005 (0.005)
Year effects	included	included	included	included	included	included	included	included
Senator effects	included	included	included	included	included	included	included	included
Test Senate3 <sub>t</sub> <sup>j</sup> = Senate2 <sub>t</sub> <sup>j</sup>	7.51***	8.02***	6.55**	4.26**	4.47**	4.53**	3.89**	3.19**
Observations	754	754	754	754	1,331	1,331	1,331	1,331
Pseudo R <sup>2</sup>	0.22	0.23	0.22	0.22	0.46	0.47	0.46	0.46
Log likelihood	-249.47	-246.19	-249.47	-248.72				
χ <sup>2</sup>	80.24***	101.44***	81.32***	94.29***				

The table reports coefficient estimates of conditional logit (linear probability) models for all regressors in the first (last) four columns. The dependent variable,  $\text{Vote}_t^j$ , equals 1 if the congressman votes in favor of trade liberalization, 0 otherwise. Standard errors clustered at congressman level in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level.

## 5.2 Comparison within senators

We now turn to the analysis of the impact of election proximity on the voting behavior of individual senators on different bills during their political career. This alternative strategy to identify inter-generational differences in voting behavior allows us to control for time-invariant unobservable characteristics of legislators.

Table 7 reports the results of estimations that include fixed effects for individual legislators, using both a conditional logit model (columns 1-4) and a linear probability model (columns 5-8). We consider the same specifications as in Table 5, but exclude the *Female* and *Democrat* controls, as well as the state fixed effects, since they show little or no variation at the individual level. We also exclude *Age*, as it is collinear with year fixed effects in these specifications. Notice also that, in the conditional logit estimations, only the observations for senators who voted more than once and changed the behavior across trade liberalization bills are retained. As a result, our sample size is now reduced to 754 observations.

As it can be seen from all specifications included in the table, a senator in the last two years of his mandate is systematically less likely to support trade liberalization than the same individual in the first four years of his mandate. In fact, various senators *never* supported trade liberalization bill in the last two years before re-election, but did vote in favor at least once earlier in their terms.<sup>25</sup> As mentioned before, the conditional logic estimator does not allow to compute marginal effects, since the congressmen's fixed effects are not estimated. To get a sense of the magnitude of the effects, we can look instead at the estimates of the linear probability model in columns (5)-(8) of Table 7. The results for the generations of senators are very similar to those reported in Table 6, confirming once again that legislators become more protectionist as they approach their re-election date. The estimates for the other regressors are also in line with our previous findings. The only notable difference is that labor and corporate PAC contributions no longer have a significant impact on senators' voting behavior.

## 5.3 The pervasiveness of the protectionist effect of elections

The results presented above show that senators are significantly less likely to support trade liberalization reforms when they are close to facing elections. Is this finding driven solely by the voting behavior of "anti-trade" legislators, i.e. representatives of import-competing constituencies and members of the Democratic party? To address this question, we examine whether senators' cyclical behavior depends on the trade policy interests of their constituencies and their party affiliation.

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<sup>25</sup>Examples of this type of voting behavior include Senators Brown (CO), Clinton (NY), Dixon (IL), Feinstein (CA), Stabenow (MI), Reed (RI), and Wofford (PA).

Table 8: Senators generations, by constituency type and party affiliation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Senate3 <sub>t</sub> <sup>j</sup>	-0.074*** (0.025)	-0.066*** (0.025)	-0.066*** (0.025)	-0.066*** (0.025)	-0.088** (0.041)	-0.080** (0.040)	-0.079** (0.040)	-0.078* (0.040)
Democrat <sub>t</sub> <sup>j</sup>		-0.146*** (0.033)	-0.145*** (0.033)	-0.145*** (0.033)				
Female <sub>t</sub> <sup>j</sup>		-0.032 (0.048)	-0.035 (0.049)	-0.33 (0.048)		-0.035 (0.048)	-0.042 (0.050)	-0.031 0.048
Age <sub>t</sub> <sup>j</sup>		-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)		-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)
Population <sub>t</sub> <sup>j</sup>		0.005 (0.012)	0.005 (0.012)	0.005 (0.012)		0.004 (0.013)	0.005 (0.013)	0.006 (0.012)
Export ratio <sub>t</sub> <sup>j</sup>						0.103** (0.046)	0.139*** (0.054)	
HHI Exports <sub>t</sub> <sup>j</sup>			-0.062 (0.163)				-0.084 (0.166)	
HHI Imports <sub>t</sub> <sup>j</sup>			0.110 (0.408)				0.384 (0.447)	
High skill <sub>t</sub> <sup>j</sup>				-0.674 (1.253)				-0.684 (1.243)
Senate12 <sub>t</sub> <sup>j</sup> x Export <sub>t</sub> <sup>j</sup>	0.117*** (0.041)	0.104** (0.043)	0.113*** (0.041)	0.104** (0.043)				
Senate3 <sub>t</sub> <sup>j</sup> x Export <sub>t</sub> <sup>j</sup>	0.069 (0.060)	0.058 (0.064)	0.070 (0.061)	0.058 (0.063)				
Senate12 <sub>t</sub> <sup>j</sup> x Democrat <sub>t</sub> <sup>j</sup>					-0.180*** (0.051)	-0.164*** (0.049)	-0.159*** (0.049)	-0.172*** (0.049)
Senate3 <sub>t</sub> <sup>j</sup> x Democrat <sub>t</sub> <sup>j</sup>					-0.167*** (0.057)	-0.167*** (0.057)	-0.165*** (0.058)	-0.173*** (0.057)
Year and state effects	included	included	included	included	included	included	included	included
Test Senate3 <sub>t</sub> <sup>j</sup> + Senate3 <sub>t</sub> <sup>j</sup> x Export <sub>t</sub> <sup>j</sup> = Senate12 <sub>t</sub> <sup>j</sup> x Export <sub>t</sub> <sup>j</sup>	4.28**	3.24*	3.19*	3.25*				
Test Senate3 <sub>t</sub> <sup>j</sup> + Senate3 <sub>t</sub> <sup>j</sup> x Democrat <sub>t</sub> <sup>j</sup> = Senate12 <sub>t</sub> <sup>j</sup> x Democrat <sub>t</sub> <sup>j</sup>					4.41**	5.39**	5.61**	4.71**
Observations	1,254	1,254	1,254	1,254	1,254	1,254	1,254	1,254
Pseudo R <sup>2</sup>	0.28	0.31	0.31	0.31	0.30	0.31	0.31	0.31
Log likelihood	-506.30	-487.10	-486.84	-486.95	-495.65	-485.83	-484.73	-488.92
χ <sup>2</sup>	470.16***	415.18***	423.27***	400.00***	492.22***	467.27***	487.35***	426.11***
Predicted probability	0.83	0.84	0.84	0.84	0.83	0.84	0.84	0.83

The table reports marginal effects of probit regressions. The dependent variable,  $\text{Vote}_t^j$ , equals 1 if the congressman votes in favor of trade liberalization, 0 otherwise. Standard errors clustered at state-decade level in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level.



The results of these estimations are reported in Table 8. Since our previous findings show that there is no statistical difference in behavior between senators belonging to the first and second generation, for ease of exposition we consider these two groups together as the omitted category. In columns (1)-(4), we investigate whether the cyclical voting behavior of senators is driven by their constituencies' trade exposure. To do so, we introduce as controls the interaction terms between the variables *Senate3* and *Senate12* – identifying legislators belonging to the last and the first two generations, respectively – with the variable *Export* – identifying states in which a majority of workers are employed in export industries. We find that, earlier in their mandate, representatives of export constituencies are more willing to support trade liberalization reforms than representatives of import-competing ones (the coefficient of the interaction term *Senate12* x *Export* is positive and significant). However, this difference disappears at the end of their mandate (the coefficient of the interaction term *Senate3* x *Export* is positive but not significant). Crucially, election proximity reduces support for trade liberalization among representatives of both import-competing constituencies (the coefficient of the variable *Senate3* is negative and significant) and export constituencies (the test at the bottom of the table, comparing the last and the first two generations of senators from export-oriented states, rejects the null hypothesis that the effect is identical).

In columns (5)-(8) we examine instead the role of party affiliation, interacting the two classes of senators with the variable *Democrat*. These results confirm that members of the Democratic party are less supportive of trade liberalization than those of the Republican party. However, senators from both parties become more protectionist in the last two years of their mandate: inter-generational differences are observed among Republicans (the estimates for *Senate3* is negative and significant) as well as Democrats (the test at the bottom of the table, comparing the last and the first two generations of Democratic senators, rejects the null hypothesis that the effect is identical).

Table 8 shows that election proximity deters legislators from supporting trade liberalization reforms, even if they represent constituencies in which most workers are employed in export industries or they belong to the pro-trade Republican party. These findings suggest that, when elections approach, all legislators pander to the interest of protectionist voters.

## 5.4 The role of re-election incentives

Thus far our analysis has shown that election proximity leads legislators to become more protectionist. What drives this result? A natural explanation is represented by electoral incentives. To assess their role, in this section we carry out two falsification exercises, arguing that legislators who are not afraid of losing office should not alter their behavior as they approach the end of their term. In particular, we focus on two kinds of senators: those who have been elected with very large margins of victory, for whom there is very little chance of losing their seat, and those

who have announced their retirement, and thus do not care about their re-election chances.<sup>26</sup>

If re-election motives are the reason behind the inter-generational differences in voting behavior documented above, we would expect the protectionist effect of election proximity to disappear for senators who hold safe seats or who are not seeking re-election. To verify this hypothesis, we run a series of specifications in which we compare senators of the last generation with those of previous generations, and distinguish senators whose seat is *Safe* or who are *Retiring*.

Our findings are presented in Table 9. Notice that in all specifications the coefficient for the variable *Senate3* is negative and highly significant, confirming that senators in the last two years before re-election are less likely to support trade reforms than senators who are in the first four years of their terms in office. Thus election proximity has a protectionist effect on the trade policy choices of office-motivated legislators.

In columns (1)-(4) we examine the role of seat safety. We interact the dummy variables for senators belonging to the last and the first two generations (*Senate3* and *Senate12*, respectively) with the variable *Safe*, which is equal to one for legislators who were last elected with a margin of victory of at least 60 percentage points (the average margin of victory plus two standard deviations). The positive and significant coefficients on the interaction terms indicate that being secured in one's seat has a positive effect on the likelihood that a senator will support trade reforms. More importantly, the test at the bottom of the table shows that there are no significant inter-generational differences among individuals with safe seats: senators who are not concerned about losing office are no more protectionist during the last two years of their terms in office than during the first four. This result suggests that the protectionist effect of election proximity found for legislators who were not elected with very large margins of victory is driven by their fear of losing office.

In the last four columns of Table 9, we apply a similar logic to senators who have instead announced their retirement, by introducing the dummy variable *Retiring* as a control. In these specifications, we compare the behavior of retiring senators with that of legislators who are running for re-election.<sup>27</sup> The positive and significant estimates of the variable *Retiring* confirm that re-election incentives deter politicians from supporting trade liberalization reforms. In addition, the test at the bottom of the table indicates that retiring in-cycle senators are no more protectionist than senators in the first two generations.<sup>28</sup>

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<sup>26</sup>This is similar to the strategy used by Mian, Sufi, and Trebbi (2010), who make use of information on retiring legislators and “competitive” seats (the opposite of safe seats) to verify the role of re-election incentives.

<sup>27</sup>Since we do not have information on the exact date in which the decision to step down was taken, we cannot examine whether retiring senators change their behavior during their last mandate.

<sup>28</sup>Interestingly, two of the trade liberalization votes in our sample (the first approval of fast track in December 1974 and ratification of the Uruguay Round Agreement in December 1994) occurred following the November general elections, but before the newly elected congressmen have taken their seats. In line with the above results on retiring senators, we find that none of the defeated senators approaching the end of their tenure (“lame ducks”) voted against these trade liberalization bills.

Table 9: The role of re-election incentives: senators with safe seats or retiring

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Senate3 <sub>t</sub> <sup>j</sup>	-0.088*** (0.025)	-0.081*** (0.025)	-0.082*** (0.026)	-0.076*** (0.026)	-0.088*** (0.025)	-0.084*** (0.025)	-0.085*** (0.025)	-0.081*** (0.025)
Senate3 <sub>t</sub> <sup>j</sup> x Safe <sub>t</sub> <sup>j</sup>	0.116** (0.041)	0.142*** (0.026)	0.145*** (0.025)	0.135*** (0.034)				
Senate12 <sub>t</sub> <sup>j</sup> x Safe <sub>t</sub> <sup>j</sup>	0.150*** (0.032)	0.167*** (0.020)	0.168*** (0.021)	0.157*** 0.26				
Retiring <sub>t</sub> <sup>j</sup>					0.081 (0.057)	0.100** (0.045)	0.096** (0.047)	0.103** (0.045)
Democrat <sub>t</sub> <sup>j</sup>		-0.145*** (0.033)	-0.143*** (0.033)	-0.153*** (0.033)		-0.147*** (0.033)	-0.144*** (0.034)	-0.153*** (0.033)
Female <sub>t</sub> <sup>j</sup>		0.009 (0.043)	0.004 (0.043)	0.016 (0.042)		-0.031 (0.047)	-0.037 (0.049)	-0.027 (0.048)
Age <sub>t</sub> <sup>j</sup>		-0.005*** (0.002)	-0.006*** (0.002)	-0.005*** (0.002)		-0.005*** (0.001)	-0.005*** (0.001)	-0.005*** (0.001)
Population <sub>t</sub> <sup>j</sup>		0.006 (0.013)	0.005 (0.013)	0.005 (0.013)		0.004 (0.013)	0.004 (0.013)	0.005 (0.012)
Export ratio <sub>t</sub> <sup>j</sup>		0.140*** (0.049)	0.167*** (0.058)			0.101** (0.045)	0.135*** (0.053)	
HHI Exports <sub>t</sub> <sup>j</sup>			0.001 (0.193)				-0.079 (0.167)	
HHI Imports <sub>t</sub> <sup>j</sup>			0.479 (0.494)				0.364 (0.448)	
High skill <sub>t</sub> <sup>j</sup>				-0.600 (1.291)				-0.639 (1.239)
Year and state effects	included	included	included	included	included	included	included	included
Test Senate3 <sub>t</sub> <sup>j</sup> + Senate3 <sub>t</sub> <sup>j</sup> x Safe <sub>t</sub> <sup>j</sup> = Senate12 <sub>t</sub> <sup>j</sup> x Safe <sub>t</sub> <sup>j</sup>	1.74	2.53	2.08	1.22				
Test Senate3 <sub>t</sub> <sup>j</sup> + Retiring <sub>t</sub> <sup>j</sup> = 0					0.03	0.41	0.31	0.52
Observations	1,213	1,213	1,213	1,213	1,254	1,254	1,254	1,254
Pseudo R <sup>2</sup>	0.28	0.32	0.32	0.31	0.28	0.31	0.31	0.31
Log likelihood	-497.31	-472.79	-472.06	-477.97	-508.30	-484.61	-483.62	-487.59
χ <sup>2</sup>	586.21***	495.25***	483.03***	422.71***	488.05***	454.24***	474.83***	432.63***
Predicted probability	0.82	0.83	0.83	0.83	0.83	0.84	0.84	0.83

The table reports marginal effects of probit regressions. The dependent variable, Vote<sub>t</sub><sup>j</sup>, equals 1 if congressman votes in favor of trade liberalization, 0 otherwise. Standard errors clustered at state-decade level in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level.

The results of Table 9 show that the protectionist effect of election proximity is driven by re-election motives: the estimates for the variable *Senate3* indicate that, for senators who are running for re-election and whose seats are contested, the probability of supporting trade liberalization is between 9 and 11 percentage points lower in the last two years of their mandate; the tests at the bottom of the table show that this cyclical behavior disappears for senators who are not afraid of losing office, either because they are retiring or because they hold safe seats.

## 5.5 Additional robustness checks

So far in our analysis we have controlled for a variety of individual-level characteristics of the legislators (e.g. party affiliation, age, gender, seat safety). The literature on U.S. congressional politics suggests that other drivers might also play an important role in shaping their voting behavior. To account for them, in Table 10 we have carried out a series of additional robustness checks. In the specifications reported in columns (1)-(4), we examine the effect of election proximity by comparing the voting behavior of different senators on the same bill. In columns (5)-(8) we focus instead on the behavior of individual legislators on different bills.

In particular, we examine whether having served a longer term in office (columns 1 and 5), being or not in the first term in office (*Incumbent*) (columns 2 and 6), being a member of the two most powerful Senate committees (*Appropriations committee* and *Finance committee*) (columns 3 and 7) and having presidential ambitions (*Presidential aspirations*) (columns 4 and 8) affects our main result. Incumbency, tenure, and presidential aspirations do not appear to play a significant role, while membership in the Appropriation and Finance committees tends to increase support for trade liberalization reforms. Including these additional controls does not change our main result, i.e. senators belonging to the last generation are significantly more protectionist than senators belonging to the first and second generation.

It has been argued that party discipline is stronger for votes that only pass by a narrow margin (Snyder and Groseclose 2000). Our results might thus not hold for close votes, if senators follow the party line, independently of how close they are to facing elections. In Table 11, we investigate whether inter-generational differences in senators' behavior apply to both close and lopsided votes. Columns (1) and (3) reproduce the results of the benchmark specifications of Tables 6 and 7 (comparing across and within senators) when we restrict the analysis to close votes, for which the margin of passage was below the mean of the entire sample (0.54). In columns (2)-(4), we focus instead on those votes that passed with a broader margin. For both subsamples, we find evidence of a protectionist effect of election proximity: the estimates for *Senate3* are negative and significant, indicating that senators are less supportive of trade liberalization in the last two years of their terms. Interestingly, the coefficient for *Democrat* is only significant in column (1), suggesting that party discipline only matters for contested decisions.

Table 10: Additional political controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Senate3 $_t^j$	-0.078*** (0.024)	-0.076*** (0.024)	-0.085*** (0.023)	-0.076*** (0.024)	-0.696*** (0.187)	-0.680*** (0.190)	-0.722*** (0.197)	-0.700*** (0.190)
Democrat $_t^j$	-0.151*** (0.033)	-0.146*** (0.033)	-0.139*** (0.031)	-0.147*** (0.033)				
Female $_t^j$	-0.014 (0.045)	-0.025 (0.047)	-0.017 (0.045)	-0.040 (0.047)				
Age $_t^j$	-0.008*** (0.002)	-0.006*** (0.002)	-0.005*** (0.001)	-0.005*** (0.001)				
Population $_t^j$	0.006 (0.013)	0.003 (0.013)	0.006 (0.012)	0.005 (0.013)	0.247 (0.204)	0.193 (0.211)	0.285 (0.200)	0.242 (0.204)
Export ratio $_t^j$	0.101** (0.045)	0.102** (0.046)	0.085* (0.043)	0.103** (0.046)	0.745* (0.410)	0.751* (0.387)	0.652* (0.375)	0.717* (0.398)
Years in Congress $_t^j$	0.005** (0.002)				-1.049 (0.735)			
Incumbent $_t^j$		0.046 (0.031)				0.436 (0.353)		
Appropriations committee $_t^j$			0.055** (0.025) (0.025)				0.773 (0.484) (0.494)	
Finance committee $_t^j$			0.145*** (0.023) (0.023)				1.653*** (0.582) (0.582)	
Presidential aspirations $_t^j$				0.051 (0.042)				0.030 (0.708)
Year effects	included	included	included	included	included	included	included	included
State effects	included	included	included	included				
Senator effects					included	included	included	included
Observations	1,254	1,254	1,254	1,254	754	754	754	754
Pseudo $R^2$	0.32	0.31	0.33	0.31	0.22	0.22	0.23	0.22
Log likelihood	-482.92	-484.62	-472.26	-485.29	-250.27	-249.60	-246.07	-250.54
$\chi^2$	458.63***	464.54***	509.06***	477.54***	75.22***	78.90***	92.14***	76.93***
Predicted probability	0.84	0.84	0.84	0.83				

The dependent variable,  $\text{Vote}_t^j$ , equal to 1 if congressman votes in favor of trade liberalization, 0 otherwise. Columns (1)-(4): marginal effects of probit regressions, standard errors clustered at state-decade level in parenthesis; Columns (5)-(8): coefficients of conditional logit regressions, standard errors clustered at the congressman level in parenthesis; \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level.

Table 11: Close vs lopsided votes

	(1)	(2)	(3)	(4)
	small margin	large margin	small margin	large margin
Senate3 <sub>t</sub> <sup>j</sup>	-0.106** (0.052)	-0.102*** (0.037)	-0.814** (0.340)	-0.805** (0.376)
Democrat <sub>t</sub> <sup>j</sup>	-0.343*** (0.075)	-0.040 (0.039)		
Female <sub>t</sub> <sup>j</sup>	-0.026 (0.070)	-0.057 (0.096)		
Age <sub>t</sub> <sup>j</sup>	-0.009*** (0.003)	-0.004** (0.002)		
Population <sub>t</sub> <sup>j</sup>	0.041 (0.047)	0.011 (0.018)	-0.002 (0.250)	1.135 (0.822)
Export Ratio <sub>t</sub> <sup>j</sup>	0.215* (0.126)	0.097* (0.059)	0.464 (0.516)	0.726 (0.586)
Year effects	included	included	included	included
State effects	included	included		
Senator effects			included	included
Observations	591	403	323	183
Pseudo R <sup>2</sup>	0.31	0.19	0.13	0.15
Log likelihood	-275.91	-154.52	-111.71	-55.79
χ <sup>2</sup>	867.74***	107.12***	21.80***	24.53***
Predicted probability	0.63	0.87		

The dependent variable,  $\text{Vote}_t^j$ , equals 1 if the congressman votes in favor of trade liberalization, 0 otherwise. Columns (1)-(2): marginal effects of probit regressions, standard errors clustered at state-decade level in parenthesis; Columns (3)-(4): coefficients of conditional logit regressions, standard errors clustered at the congressman level in parenthesis. Columns (1) and (3) include only votes passed with a margin below the mean (0.54) of the entire sample. In columns (2) and (4) the analysis is restricted to votes passed with a margin above the mean/median. \*\*\* denotes significance at 1% level; \*\* 5% level; \* 10% level.

Our results were also unaffected when we introduced additional controls for legislators' constituencies (i.e. real GDP per capita, unemployment rate, and the share of the population over 65), used alternative measures to proxy for legislators' ideology and constituencies' trade policy interests, or restricted the analysis to different subsets of trade liberalization bills (see Section 4.3 for more details). The results of these estimations are available upon requests.

## 6 Discussion

The findings presented in the previous two sections show that the political horizon of legislators crucially affects their voting behavior on trade liberalization reforms. In particular, i) House Representatives are generally more protectionist than Senate members (Table 4), but inter-cameral differences disappear for the last generation of senators, who face re-election at the same time as House members (Table 5); ii) election proximity reduces senators' support for trade liberalization, a result that holds both when comparing different legislators voting on the same bill (Table 6) and individual legislators voting on different bills (Table 7); iii) the protectionist effect of election proximity is pervasive (Table 8): it applies not only to senators who generally oppose trade liberalization (members of the Democratic party and representatives of import-competing constituencies), but also to more pro-trade senators (members of the Republican party and representatives of export-oriented constituencies, in which a majority of voters should benefit from a reduction in trade barriers); iv) inter-generational differences disappear only for senators who are not concerned about losing office, either because they have decided to step down or because they hold very safe seats (Table 9). Existing theoretical models in the political economy of trade policy cannot readily explain these findings, since they do not consider the role of term length and election proximity.

Why are politicians more protectionist at the end of their terms in office? A simple explanation is that, when they approach re-election, they pander toward the interests of protectionist voters. Notice that this explanation requires the co-existence of two biases: when deciding whether to support reductions in trade barriers, legislators are more responsive to the interests of voters who oppose liberalization (protectionist bias); when deciding whether to re-elect incumbent legislators, voters attach greater weight to their recent policy choices (recency bias).

The existence of a protectionist bias is a stylized fact in the political economy of trade policy (Rodrik 1995). One possible reason is that voters differ in the *intensity* of their trade policy preferences. In line with this argument, opinion studies show that most voters do not consider international trade as a salient policy issue (e.g. Guisinger 2009); however, individuals who do base their voting decisions on trade policy are overwhelmingly against liberalization (see footnote 2). As a result, politicians may only be accountable to a vocal minority of protectionist voters. This argument can be formalized using a probabilistic voting model, in which an incum-

bent politician must decide on a primary issue, which is more important to most voters, and a secondary issue, which a minority cares more intensely about (Bouton, Conconi, Pino, and Zanardi 2013).<sup>29</sup>

The disproportionate salience of recent stimuli or observations is one of the key cognitive biases in behavioral economics, affecting belief formation, decision making, and human behavior in general (Lee 1971). The idea that voters suffer from a recency bias, following the “what have you done for me lately?” principle has also been emphasized by a large literature in political science (e.g. Nordhaus 1975; Fiorina 1981; Weingast, Shepsle, and Johnsen 1981; Ferejohn 1986; Lewis-Beck and Stegmaier 2000). Influential work by Canes-Wrone and Shotts (2004) shows that U.S. presidents seeking re-election are more responsive to mass opinion on issues that are familiar to citizens in their everyday lives, particularly when the next election is imminent. A recent study by Huber, Hill, and Lenz (2012) provides experimental evidence for the existence of this bias, showing that participants overweighted recent relative to overall incumbent performance when made aware of an election closer rather than more distant from that event.

Combining a protectionist bias in trade policy with recency effects in voting provides a simple explanation for the protectionist effect of election proximity: when deciding whether to support trade reforms, office-motivated politicians pander toward the interests of voters who strongly oppose liberalization; this bias is more pronounced at the end of their mandate, when their policy choices are more likely to affect voters’ decisions. This mechanism can also explain why the protectionist effect of election proximity is so pervasive: even representatives of export constituencies, in which most voters should gain from reductions in trade barriers, tend to oppose liberalization when they approach re-election, supporting the interests of a vocal protectionist minority.<sup>30</sup>

Financial contributions from lobby groups could provide an alternative mechanism behind the inter-generational differences in senators’ voting behavior on trade policy. This explanation would require that, over the course of their terms in office, legislators become more responsive to contributions from protectionist lobbies relatively to pro-trade lobbies.<sup>31</sup> In line with previous

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<sup>29</sup>Politicians may also cater to protectionist interests if individual preferences exhibit loss aversion (Freund and Ozden 2008) or if voters are more informed about the trade barriers that help them as producers than those that hurt them as consumers (Ponzetto 2011).

<sup>30</sup>As argued by Besley and Coate (2008), legislators’ policy choices often diverge from the preferences of the median voter in their constituencies, since citizens have only one vote to make their representatives accountable on a bundle of issues. This can lead legislators to pander toward the interests of voters who care intensely about a given issue. For example, heterogeneity in the intensity of preferences across citizens can explain lax gun control laws in the United States: while a majority of the electorate favors stricter gun controls, legislators cater to a minority of voters who oppose them with greater intensity (Schuman and Presser 1978).

<sup>31</sup>Existing lobbying models do not consider electoral cycles in campaign contributions. A priori, contributions may be concentrated at the beginning or at the end of the cycle: on the one hand, incumbent politicians may wish to raise contributions at the beginning of their terms, so as to deter potential challengers; on the other hand, they may be more in need of campaign funding when they are closer to facing re-election. Notice that, even if there are cycles in campaign contributions, it is unclear how they could explain our findings, unless they are systematically different between pro-trade and anti-trade lobbies.



studies, our empirical analysis shows that campaign contributions play an important role in explaining congressmen’s stance on trade policy: contributions from labor groups are associated with votes in favor of protection, while contributions from business groups are associated with votes in favor of freer trade. However, inter-generational differences are robust to controlling for the amount of labor and corporate contributions received by individual senators throughout their mandates, indicating that the protectionist effect of election proximity is not driven by cycles in campaign contributions.

## 7 Conclusions

This paper shows that electoral incentives play an important role in shaping legislators’ support for trade liberalization reforms. Our analysis exploits the institutional features of the U.S. Congress — in which House and Senate members serve respectively two- and six-year terms, and one third of senators face elections every two years — to examine the impact on term length and election proximity on congressmen’s voting behavior on trade liberalization reforms.

We show that House representatives are more protectionist than members of the Senate. However, this difference disappears for the last generation of senators, who face elections at the same time as House members. This finding provides an explanation for the observed inter-cameral differences in votes on trade policy: these are not driven by differences in constituency size or by unobserved characteristics of legislators correlated with their trade stance; rather, senators are generally more supportive of trade liberalization reforms because they serve longer mandates and are thus less responsive to short-term electoral pressure.<sup>32</sup>

When restricting our attention to the upper house, we find that the last generation is more protectionist than the previous two: senators who are in the last two years of their terms are less likely to support trade liberalization than senators who are further away from re-election. This result holds both when comparing the behavior of different legislators voting on the same bill, and the behavior of the same legislator over time. It is also robust to the inclusion of a large set of controls for congressmen and their constituencies, and the use of different econometric methodologies. We also show that calendar effects are pervasive: all senators, even those representing export-oriented constituencies, in which a majority of voters should benefit from trade liberalization, take a more protectionist stance as they approach re-election. Inter-generational differences disappear only for senators who hold very safe seats or are retiring, suggesting that the protectionist effect of election proximity is driven by the fear of losing office.

Our analysis calls for new theoretical models to shed light on the mechanisms through which electoral incentives affect policymakers’ voting behavior. Existing models in the political econ-

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<sup>32</sup>This finding is reminiscent of arguments raised by the founding fathers of the United States. In the *Federalist* (63), Madison (1788) championed the creation of the the Senate, “an additional body in the legislative department” with “sufficient permanency” to best deal with long-term policy decisions.

omy of trade cannot explain our empirical findings, since they do not examine the role of term length and election proximity. Our results suggest that, close to elections, office-motivated legislators pander toward the interests of voters who strongly opposes trade liberalization, knowing that the rest of the electorate will not make them accountable for their trade policy choices. In line with this argument, Conconi, Pino, and Zanardi (2012) and Bouton, Conconi, Pino, and Zanardi (2013) show that election proximity crucially affects U.S. senators' choices on environment and gun control, two other "secondary" policy issues, which are only salient to a minority of the electorate. In particular, office-motivated legislators take a significantly "greener" and more "pro-gun" stance as they approach the end of their terms in office, pandering toward the interests of vocal minorities. It would be interesting to examine whether election proximity also affect congressmen's voting behavior on "frontline" policy issues, which are salient to a majority of the electorate (e.g. taxation, education, or health).

Another important avenue for future research is to explore the role of lobbies. Financial contributions from interest groups cannot account for the effect of election proximity on senators' voting behavior. However, lobbies can still play an important role in explaining why office-motivated politicians pander to "single-issue" voters. For example, special interest groups (e.g. labor unions, green lobbies, or pro-gun lobbies) may convey information to politicians about the intensity of their members' preferences, making them more responsive to their interests (e.g. in favor of trade protection, environmental protection, or Second Amendment rights).

## References

- Alesina, A. and A. Drazen (1991). Why are stabilizations delayed? *American Economic Review* 81, 1170–1188.
- Amacher, R. C. and W. J. Boyes (1978). Cycles in senatorial voting behavior: Implications for the optimal frequency of elections. *Public Choice* 33, 5–13.
- Baldwin, R. E. and C. S. Magee (2000). Is trade policy for sale? Congressional voting on recent trade bills. *Public Choice* 105, 79–101.
- Bernhard, W. and B. R. Sala (2006). The remaking of an American Senate: The 17th amendment and ideological responsiveness. *Journal of Politics* 68, 345–357.
- Besley, T. and S. Coate (2008). Issue unbundling via citizens' initiatives. *Quarterly Journal of Political Science* 3, 379–397.
- Blonigen, B. A. and D. N. Figlio (1998). Voting for protection: Does direct foreign investment influence legislator behavior? *American Economic Review* 88, 1002–1014.
- Bouton, L., P. Conconi, F. J. Pino, and M. Zanardi (2013). Guns and votes. Mimeo, Université Libre de Bruxelles.

- Campbell, D. (2007). Cooperative Congressional Election Study, 2006.
- Canes-Wrone, B. and K. W. Shotts (2004). The conditional nature of presidential responsiveness to public opinion. *American Journal of Political Science* 48, 690–706.
- Conconi, P., G. Facchini, and M. Zanardi (2012). Fast track authority and international trade negotiations. *American Economic Journal: Economic Policy* 4, 146–89.
- Conconi, P., F. J. Pino, and M. Zanardi (2012). The greening effect of elections. Mimeo, Université Libre de Bruxelles.
- Dal Bo, E. and M. Rossi (2011). Term length and political performance. *Review of Economic Studies* 78, 1237–1263.
- Dewatripont, M. and G. Roland (1995). The design of reform packages under uncertainty. *American Economic Review* 85, 1207–1223.
- Facchini, G. and M. F. Steinhardt (2011). What drives U.S. immigration policy? Evidence from congressional roll call votes. *Journal of Public Economics* 95, 734–743.
- Feenstra, R. C. (1996). U.S. imports, 1972-1994: Data and concordances. NBER Working Paper 5515.
- Feenstra, R. C. (1997). U.S. exports, 1972-1994, with state exports and other U.S. data. NBER Working Paper 5990.
- Feenstra, R. C., J. Romalis, and P. K. Schott (2002). U.S. imports, exports, and tariff data, 1989-2001. NBER Working Paper 9387.
- Ferejohn, J. (1986). Incumbent performance and electoral control. *Public Choice* 50, 5–25.
- Fernandez, R. and D. Rodrik (1991). Resistance to reform: Status quo bias in the presence of individual specific uncertainty. *American Economic Review* 81, 1146–1155.
- Fiorina, M. P. (1981). *Retrospective voting in American national elections*. New Haven, CT: Yale University Press.
- Freund, C. and C. Ozden (2008). Trade policy and loss aversion. *American Economic Review* 98, 1675–1691.
- Gawande, K. and U. Bandyopadhyay (2000). Is protection for sale? Evidence on the Grossman-Helpman theory of endogenous protection. *Review of Economics and Statistics* 82, 139–152.
- Glazer, A. and M. Robbins (1985). How elections matter: A study of U.S. senators. *Public Choice* 46, 163–172.
- Goldberg, P. K. and G. Maggi (1999). Protection for sale: An empirical investigation. *American Economic Review* 89(5), 1135–55.
- Grossman, G. M. and E. Helpman (1994). Protection for sale. *American Economic Review* 84, 833–850.

- Grossman, G. M. and E. Helpman (1995). Trade wars and trade talks. *Journal of Political Economy* 103, 675–708.
- Grossman, G. M. and E. Helpman (2005). A protectionist bias in majoritarian politics. *Quarterly Journal of Economics* 120, 1239–1282.
- Guisinger, A. (2009). Determining trade policy: Do voters hold politicians accountable? *International Organization* 63, 533–567.
- Hiscox, M. J. (2004). Commerce, coalitions, and factor mobility: Evidence from congressional votes on trade legislation. *American Political Science Review* 96, 593–608.
- Huber, G. A., S. J. Hill, and G. S. Lenz (2012). Sources of bias in retrospective decision making: Experimental evidence on voters’ limitations in controlling incumbents. *American Political Science Review* 106, 720–741.
- Karol, D. (2007). Does constituency size affect elected officials’ trade policy preferences? *Journal of Politics* 69, 483–494.
- Lee, W. (1971). *Decision theory and human behavior*. New York: Wiley.
- Leip, D. (2008). Dave Leip’s atlas of U.S. presidential elections.
- Levitt, S. D. (1996). How do senators vote? Disentangling the role of voters’ preferences, party affiliation and senators ideology. *American Economic Review* 86, 425–441.
- Lewis-Beck, M. S. and M. Stegmaier (2000). Economic determinants of electoral outcomes. *Annual Review of Political Science* 3, 183–219.
- List, J. A. and D. M. Sturm (2006). How elections matter: Theory and evidence from environmental policy. *Quarterly Journal of Economics* 121, 1249–1281.
- Madison, J. (1788). Federalist Paper 63. In J. Jay, A. Hamilton, and J. Madison (Eds.), *The Federalist or the new Constitution*. London: Everyman Edition.
- Magee, S. P., W. A. Brock, and L. Young (1989). *Black Hole Tariffs and Endogenous Policy Theory: Political Economy in General Equilibrium*. New York: Cambridge University Press.
- Maggi, G. and A. Rodriguez-Clare (1998). The value of trade agreements in the presence of political pressure. *Journal of Political Economy* 106, 574–601.
- Mayda, A. M. and D. Rodrik (2005). Why are some people (and countries) more protectionist than others? *European Economic Review* 49, 1393–1430.
- Mian, A., A. Sufi, and F. Trebbi (2010). The political economy of the U.S. mortgage default crisis. *American Economic Review* 100, 1967–1998.
- Nordhaus, W. D. (1975). The political business cycle. *Review of Economic Studies* 42, 169–182.

- Overby, L. M. and L. C. Bell (2004). Rational behavior or the norm of cooperation? Filibustering among retiring senators. *Journal of Politics* 66, 906–924.
- Peltzman, S. (1985). An economic interpretation of the history of congressional voting in the twentieth century. *American Economic Review* 75, 656–675.
- Ponzetto, G. A. M. (2011). Heterogeneous information and trade policy. Discussion paper 8726, CEPR.
- Poole, K. T. and H. Rosenthal (1997). *A political-economic history of roll call voting*. New York: Oxford University Press.
- Poole, K. T. and H. Rosenthal (2001). D-nominate after 10 years: A comparative update to congress: A political-economic history of roll-call voting. *Legislative Studies Quarterly* 26, 5–29.
- Rodrik, D. (1995). Political Economy of trade policy. In G. M. Grossman and K. Rogoff (Eds.), *Handbook of International Economics*, Volume 3, pp. 1457–1494. Amsterdam and New York: North Holland.
- Rogoff, K. (1990). Equilibrium political business cycles. *American Economic Review* 80, 21–36.
- Rogoff, K. and A. Sibert (1988). Elections and macroeconomic policy cycles. *Review of Economic Studies* 55, 1–16.
- Schuman, H. and S. Presser (1977-1978). Attitude measurement and the gun control paradox. *The Public Opinion Quarterly* 4, 427–438.
- Snyder, J. M. and T. Groseclose (2000). Party influence in congressional roll-call voting. *American Journal of Political Science* 44, 193–211.
- Stewart, C. I. and T. Groseclose (1999). The value of committee seats in the United States Senate, 1947-91. *American Journal of Political Science* 43, 963–973.
- Swift, E. K., R. G. Brookshire, D. T. Canon, E. C. Fink, J. R. Hibbing, B. D. Humes, M. J. Malbin, and K. C. Martis (2000). Database of congressional historical statistics [computer file]. Ann Arbor, MI: Inter-university Consortium for Political and Social Research.
- Thomas, M. (1985). Election proximity and senatorial roll call voting. *American Journal of Political Science* 29, 96–111.
- Titunik, R. (2008). Drawing your senator from a jar: Term length and legislative behavior. Mimeo, University of California, Berkeley.
- Weingast, B. R., K. A. Shepsle, and C. Johnsen (1981). The political economy of benefits and costs: A neoclassical approach to distributive politics. *Journal of Political Economy* 89, 642–664.