

Fast Track Authority and International Trade Negotiations*

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Abstract

By granting Fast Track Authority (FTA) to the President, the U.S. Congress can decide to give up the power to amend trade agreements, constraining itself to only approve or reject trade deals negotiated by the executive. To explain FTA voting behavior, we develop a simple two-country model of trade relations, in which legislators represent constituencies with different stakes in import-competing and export industries. FTA votes involve a decision between alternative country representatives: the executive or the majority in Congress. We show that strategic delegation motives are key to understanding FTA voting behavior. In particular, a congressman will never delegate trade negotiating authority to an agent who is keener than himself to reach an agreement with the foreign country. Moreover, when no district type enjoys a majority, the probability that representatives of non-specialized districts vote in favor of FTA declines with their own share of seats. To assess these predictions, we examine the determinants of all votes on FTA since the introduction of this procedure in 1974, constructing time-varying measures of trade exposure from county-level data to capture the trade policy stakes of congressmen's constituencies. Our empirical results provide strong support for the predictions of our model.

JEL classifications: F13, D72

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1 Introduction

The negotiation and ratification of international agreements between the United States and a partner country is a complex process that typically involves both Congress and the President. In the case of trade agreements, all deals negotiated by the President must be approved by Congress, which has the constitutional prerogative to amend them. This is because Congress holds primary responsibility for matters dealing with taxation, including tariffs on foreign imports. Indeed, Article 1 of the Constitution gives the legislative branch the power to “regulate commerce with foreign nations ...” and to “...lay and collect taxes, duties, imposts, and excises.”

Since 1974, however, U.S. legislators can decide to give up their power to amend trade agreements, by granting fast track authority (FTA) to the President. Under fast track procedures, Congress can only approve or reject trade deals negotiated by the executive, but cannot change their content. How do domestic institutional rules governing the interaction between the legislative and executive branches of government affect relations between countries? In particular, why would legislators vote in favor of FTA, thus giving up the possibility of shaping trade agreements? To shed light on these questions, we develop a theoretical model of congressmen’s voting behavior on FTA and we empirically assess its predictions.

We analyze trade relations between two countries, “Home” (representing the United States) and “Foreign” (representing a large trading partner or a group of trading partners). The two countries share similar economic features and are characterized by an uneven distribution of economic activity across electoral districts. In particular, we group districts in three categories, depending on their international trade exposure: import, export, and non-specialized. Elected politicians represent the interests of their constituencies: legislators stand for their own districts, whereas the executive stands for the entire country. Naturally, representatives of import (export) districts are less (more) willing to trade off reductions in domestic import tariffs with reductions in foreign tariffs.

To capture the peculiarity of fast track procedures,¹ we allow trade policy institutions to differ between countries: in Foreign, the authority to negotiate trade agreements is delegated to the executive; in Home, Congress votes on FTA, deciding whether or not to retain the power of amending trade deals. Each legislator in Home votes so as to maximize his expected utility, anticipating the impact that FTA (or the lack thereof) will have on the outcome of the negotiations with Foreign.

Fast track votes involve a decision on trade negotiation procedures, rather than on the content of specific agreements. In other words, Home legislators implicitly choose who should represent the country in the negotiations with Foreign: the executive (if FTA is granted) or the majority in Congress (if FTA is denied). We show that Home representatives will never delegate authority to an agent who is keener than themselves to reach an agreement with Foreign. Instead,

¹The United States is the only country in which the legislative branch has the power to amend trade agreements, rather than simply to ratify them.

they may choose to support a more protectionist agent, which might be able to achieve a more favorable outcome. We also show that when no group of districts enjoys a majority, the likelihood that representatives of non-specialized constituencies will support FTA declines with their own share in Congress. To understand this result, notice that – under some mild conditions – trade agreements negotiated by the executive can only be amended by a coalition of legislators from non-specialized and import districts. Representatives of non-specialized districts are less likely to support FTA when they control more seats, as the resulting coalition will not be ‘too protectionist’, while still being ‘tougher’ than the executive in the negotiations with Foreign. Our analysis implies that, when a more protectionist coalition of legislators can better serve the country’s interests, the executive should be happy not to be granted FTA. This result might help to understand why the Obama administration has not been eager to obtain FTA,² and has been able to negotiate more favorable terms for the Korea-U.S. free trade agreement (Schott, 2010).

To evaluate the predictions of our model, we construct a novel dataset to examine the determinants of all congressional votes on FTA since 1974. To capture the trade policy stakes of the each constituency, we use county-level data to construct a time-varying measure of trade exposure for all states and congressional districts. We find that a congressman is more likely to support FTA, the more export oriented his own constituency is relatively to the country as a whole. More importantly, in line with our results on strategic delegation, we show that the voting behavior of representatives of non-specialized constituencies depends on the degree of protectionism of the majority of Congress. In particular, in the empirically relevant scenario in which no legislator type enjoys a majority, the likelihood that non-specialized representatives support FTA decreases with their own share of seats.

To the best of our knowledge, this paper represents the first attempt to examine both theoretically and empirically congressmen’s voting behavior on fast track. This is somewhat surprising, given the pre-eminence of this institution in the policy debate.

Our analysis builds on the literature on strategic delegation in bargaining. Starting from the seminal work by Schelling (1956), several papers in this tradition have emphasized that players can gain by sending biased agents to negotiate on their behalf, so as to increase their bargaining power vis-à-vis other parties. Our theoretical analysis shows how legislators’ decision to grant fast track authority depends crucially on how this procedure affects the outcome of trade negotiations. Our analysis of FTA voting behavior constitutes one of the very first attempts to empirically assess strategic delegation models.³

Our paper also contributes to the literature on “two-level games” (Putnam, 1988), which

²Barack Obama has made this clear since his election campaign, when he stated “I will not support extension of the existing Fast Track process that expired. I have not and would not support renewing Trade Promotion Authority for this President” (campaign statement on April 2, 2008). Indeed, since becoming President, he has never requested FTA.

³Previous studies have used experimental data to examine the effect of delegation on the efficiency of the bargaining (Schotter *et al.*, 2000) and on how players perceive and play the game (Fershtman and Gneezy, 2001).

focuses on the interaction between domestic politics and international negotiations. Previous studies show how domestic political factors, such as lobbying by interest groups or governments' inability to commit to policy choices, can affect the outcome of trade negotiations (e.g., Grossman and Helpman, 1995; Maggi and Rodríguez-Clare, 2007). However, little attention has been devoted to the interaction between the executive and the legislative power. An interesting exception is the paper by Milner and Rosendorff (1997), who examine legislators' decision to ratify trade agreements negotiated by the executive, but do not consider the decision to grant FTA, which is instead the focus of our analysis.

Our paper is also related to a series of studies that have examined the evolution of U.S. trade policy institutions (e.g., Lohmann and O'Halloran, 1994; Bailey *et al.*, 1997; Hiscox, 1999). In particular, Lohmann and O'Halloran (1994) provide an alternative rationale for trade policy delegation to the executive based on the idea that restricting legislators' amendment ability can reduce protectionist logrolling in Congress. Their model of distributive politics focuses on the interaction among representatives of different import-competing interests. Since they do not consider export interests and international trade, their analysis does not take into account the interaction between domestic and international politics, which is instead crucial to understanding how fast track decisions affect trade negotiations.⁴

Finally, our empirical analysis contributes to the literature on the determinants of trade policy decisions in the U.S. Congress (e.g., Box-Steffenmeier *et al.*, 1997; Blonigen and Figlio, 1998; Baldwin and Magee, 2000). To the best of our knowledge, this is the first paper to systematically examine the drivers of fast track voting behavior.⁵ Also, differently from most of the existing literature, we carry out our analysis by looking at the voting behavior of both U.S. Senators and House Representatives.

The remainder of the paper is organized as follows. In Section 2, we briefly describe the history of fast track procedures. In Section 3, we develop a simple model of trade negotiations between two large countries. Section 4 introduces the trade policy preferences of Congress representatives and examines the determinants of FTA voting behavior. Section 5 describes the data used in our empirical analysis, whereas Section 6 presents our methodology and results. Section 7 reports the findings of several robustness checks. Section 8 concludes.

⁴Bailey *et al.* (1997) use a spatial model to show how reciprocity in trade agreements can help to solve the collective action problems of exporters. In their analytical framework, the preferences of the legislators are not derived from a fully microfounded trade model. Similarly to our analysis, Hiscox (1999) models trade policy decisions in Congress as being shaped by differences in the endowments of production factors across constituencies; however, his analysis focuses only on one country, and thus cannot be applied to examine how trade policy delegation affects the strategic interaction between countries.

⁵Some papers have focused on specific fast track votes. For example, Conley (1999)'s analysis is limited to the votes of 1991 and 1997.

2 A Brief History of Fast Track Authority

The U.S. Constitution assigns authority over all matters related to taxation, including tariff policy, to Congress. For roughly the first 150 years of the United States, Congress exercised this authority by setting tariff rates on all imported products. Tariffs were the main trade policy instrument, and a primary source of federal revenues.

In the 1930's, two bills radically changed the shape and conduct of U.S. trade policy. The first was the Smoot-Hawley Act, which raised import duties to record levels and has been widely blamed for sharply reducing trade (Irwin, 1998). The second important measure was the Reciprocal Trade Agreements Act (RTAA) of 1934, which gave the President the authority to undertake tariff-reduction agreements with foreign countries. The crucial feature of the RTAA was that the President could implement trade agreements by proclamation, i.e., without the need for congressional approval, although the RTAA itself required periodic renewal. The main goal of the RTAA was to undo the damage created by the Smoot-Hawley act, unwinding beggar-thy-neighbor trade policies through negotiated tariff reductions. Under the RTAA, the executive signed various bilateral trade deals in the late 1930s, negotiated the General Agreement on Tariffs and Trade (GATT) in 1947 and subsequent rounds of GATT negotiations.

Under the Trade Expansion Act of 1962, Congress granted again RTAA authority for five years. This allowed President Johnson to negotiate the Kennedy Round (1963-1967). However, since this agreement also involved interventions in two areas related to non-tariff barriers (customs valuation and antidumping practices), some congressmen argued that the President had overstepped his authority. The outcome of the Kennedy Round made evident that non-tariff barriers would increasingly dominate the agenda of future trade negotiations. As a result, when Congress considered a new grant of authority for the Tokyo Round of GATT negotiations, it decided to extend the President's negotiating authority to non-tariff barriers, but to maintain final control over trade agreements.

The process ultimately culminated in the Trade Act of 1974, which sets the rules to delegate fast track trade negotiating authority to the President. Three key features characterize this procedure. First, if Congress supports granting FTA (by a simple majority in both houses), it can only accept or reject trade agreements that are submitted for approval, without being able to amend them. Second, FTA is not granted for a specific trade deal, but for a period of time, during which various agreements can be reached. Third, under FTA Congress faces mandatory deadlines and a limitation on debate (90 legislative days from the day in which the implementing bill is put forward).⁶ The key difference between the current and the previous institutional rules on trade policy delegation is that under FTA Congress retains the power to ratify trade agreements negotiated by the President, while under RTAA there was no need for congressional approval.

⁶See Brainard and Shapiro (2001) and Smith (2007) for a more detailed description of the Trade Act of 1974.

Table 1: Votes authorizing or extending FTA

Bill	Description	Vote in House	Vote in Senate
H.R. 10710 Trade Act of 1974	First approval of FTA 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	Extension of FTA Other provisions: implementation of Tokyo Round	July 11, 1979 (395-7)	July 23, 1979 (90-4)
H.R. 4848 Omnibus Trade and Competitiveness Act	Approval of FTA Other provisions: strengthening of unilateral trade retaliation instruments, authority of USTR	July 13, 1988 (376-45)	Aug. 3, 1988 (85-11)
H.Res. 101	Disapproval of extension of FTA	May 23, 1991 (192-231)	
S.Res. 78	Disapproval of extension of FTA		May 24, 1991 (36-59)
H.R. 1876	Extension of FTA	June 22, 1993 (295-126)	June 30, 1993 (76-16)
H.R. 2621	Approval of FTA (denied)	Sept. 25, 1998 (180-243)	
H.R. 3009 Trade Act of 2002	Approval of FTA Other provisions: Andean Trade Preference Act, trade adjustment assistance, GSP	July 27, 2002 (215-212)	Aug. 1, 2002 (64-34)

Sources: Destler (2005) and Smith (2007).

Notes: Only final 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.

Table 1 reports the outcome of all the votes called in Congress to authorize or extend FTA.⁷ Figure 1 shows when FTA has been granted or extended. As it can be seen, almost every President has enjoyed FTA, which has been granted for periods of different length and has often been carried over from one President to the other. During the period of our empirical analysis (1974-2002), all trade agreements signed by the United States have been negotiated under fast track procedures, the only exception being the U.S.-Jordan free trade agreement.

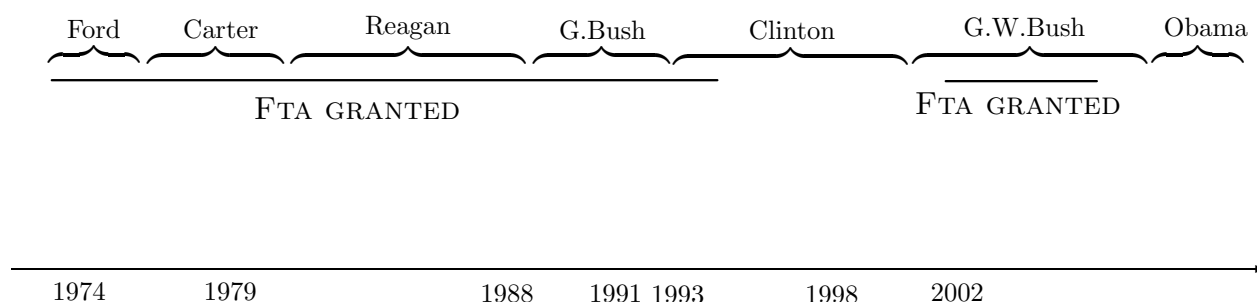


Figure 1: FTA votes and conferrals

Presidential fast track trade negotiating authority, renamed “trade promotion authority” by the George W. Bush administration, was last renewed with the Trade Act of 2002. This allowed the United States to sign and implement several free trade agreements (e.g., with Australia, Chile and Peru) and to negotiate additional ones (with Panama, South Korea and Colombia). FTA expired on July 1, 2007 and has not been renewed since.

3 A Simple Model of Trade Negotiations

We start our analysis by introducing a standard model of trade relations between two large countries, “Home” and “Foreign”, which differ in their factor endowments. As in Johnson (1953-54) and Bagwell and Staiger (1999), terms-of-trade effects are the driving force behind agreements: Home and Foreign negotiate away the negative terms-of-trade externalities that would be created by the imposition of trade restrictions.⁸

Variables referring to Foreign are denoted by a “*”. Each country is made up of several electoral constituencies, which have different stakes in import-competing and export industries. Elected officials represent the interests of their constituency: legislators stand for their electoral districts, while the executive stands for the country as a whole. In this setting, the executive

⁷Notice that some of the listed bills focus only on fast track negotiating authority, while others include other trade provisions. The sole episode of denial of FTA is represented by bill H.R. 2621 of September 25, 1998.

⁸In our model, countries negotiate only on tariff reductions. Bagwell and Staiger (2001), Conconi and Perroni (2002) and Limão (2007) examine settings in which negotiations also involve non-trade issues such as labor and environmental standards.

has trade preferences that are generally different from those of the majority of Congress, and he is more attuned to “the public interest” compared to individual legislators.⁹

In order to emphasize the role played by the heterogeneity in the geographical distribution of industries and the different size of the congressmen’s and the President’s constituencies, we abstract from lobbying.¹⁰ In Appendix 1, we show that introducing lobbying pressure or re-election motives would not affect the thrust of our analysis.¹¹

To develop our analysis we start by considering international negotiations between the executives of the two countries. In Section 4, we allow instead legislators in Home to choose whether or not to delegate trade negotiating authority to the President.

3.1 The Economic Environment

Each economy is characterized by three sectors, $i = 0, 1, 2$. All goods are produced using a constant-returns-to-scale technology and are sold under conditions of perfect competition. The freely traded good 0 serves as the numeraire and is produced using labor alone. We choose units so that the international and domestic price are both equal to one. We assume that aggregate labor supply, $L = L^*$, is large enough to sustain production of a positive amount of good 0. This implies that in a competitive equilibrium the wage rate equals unity in each country. Goods 1 and 2 are manufactured using labor and a sector-specific input, which is available in fixed supply. Home is abundant in sector-specific input 2, while Foreign is abundant in sector-specific input 1. As a result, Home imports good 1, while Foreign imports good 2. For simplicity, we assume symmetry in factor endowments between the two countries. The domestic and international price of a nonnumeraire good i are denoted by p_i and π_i , respectively, and the rent R_i , accruing to the specific factor in sector i , depends only on the producer price of the good, and can thus be expressed as $R_i(p_i)$. Industry supply is given by $Q_i(p_i) = \partial R_i / \partial p_i$.

Trade policies in the two countries consist of ad valorem import tariffs or subsidies, denoted by τ and τ^* , which drive a wedge between domestic and international prices.¹² In Home, the domestic price of good 1 is thus equal to $p_1 = (1 + \tau)\pi_1$, with $\tau > 0$ ($\tau < 0$) representing an import tariff (subsidy); the domestic price of the export good is instead equal to $p_2 = \pi_2$. In Foreign, domestic prices are given by $p_1^* = \pi_1$ and $p_2^* = (1 + \tau^*)\pi_2$.

⁹This has been suggested by Baldwin (1985), among others. As discussed in footnote 30, some support for this assumption can be found in the data.

¹⁰In doing so, we follow Grossman and Helpman (2005), who show how asymmetries in the distribution of industries across constituencies can lead to a protectionist bias in majoritarian systems.

¹¹Song (2008) examines a setting in which lobbies can influence legislators’ decision on whether or not to ratify a trade policy proposed by the President. Since he focuses on a small open economy and assumes that Congress can never amend trade policy bills, his analysis cannot be used to explain fast track voting decisions and their impact on trade negotiations.

¹²Following Johnson (1953-54) and Mayer (1981), we restrict the set of policy tools available to import tariffs and subsidies. This allows us to describe the preferences of the two countries in the tariff space (τ, τ^*) and to easily characterize trade negotiations between them. Levy (1999), in his model of lobbying and international cooperation, has convincingly argued that export subsidies and taxes are rarely used, the only exception being probably agriculture.

The economy is populated by a continuum of agents, and the size of the population is normalized to one. Each agent shares the same quasi-linear and additively separable preferences, which can be written as

$$u(c_0, c_1, c_2) \equiv c_0 + \sum_{i=1}^2 u_i(c_i), \quad (1)$$

where c_0 represents the consumption of the numeraire good, and c_1 and c_2 represent the consumption of the other goods. The sub-utility functions are assumed to be twice differentiable, increasing, and strictly concave.

Provided that income always exceeds the expenditure on the numeraire good, the domestic demand for good $i \in \{1, 2\}$ can be expressed as a function of price alone, $D_i(p_i)$. Imports of good 1 by Home can then be written as $M_1(p_1) = D_1(p_1) - Q_1(p_1)$, while its exports are given by $X_2(p_2) = Q_2(p_2) - D_2(p_2)$.

World product markets of goods 1 and 2 clear when

$$M_1\left((1 + \tau)\pi_1\right) - X_1^*(\pi_1) = 0, \quad (2)$$

$$M_2^*\left((1 + \tau^*)\pi_2\right) - X_2(\pi_2) = 0. \quad (3)$$

From (2) and (3) we can derive an expression for world equilibrium prices as a function of the policies in the two countries, i.e., $\pi_1(\tau)$, $\pi_2(\tau^*)$. Tariff revenues in Home are

$$T(\tau) = \tau\pi_1(\tau)M_1(\tau) \quad (4)$$

and are assumed to be redistributed uniformly to all domestic residents.

Individuals derive income from several sources: they all supply one unit of labor and earn wages as workers; they also receive the same lump sum transfer (possibly negative) of trade policy revenues from the government; in addition, some individuals own a share of the specific inputs used in the production of goods 1 and 2. Quasi-linear preferences imply that aggregate welfare in the Home country is given by

$$W(\tau, \tau^*) = 1 + R_1(\tau) + R_2(\tau^*) + T(\tau) + \Omega(\tau, \tau^*), \quad (5)$$

where $\Omega(\tau, \tau^*) \equiv u\left(D_1(\tau)\right) - p_1D_1(\tau) + u\left(D_2(\tau^*)\right) - p_2D_2(\tau^*)$ denotes total consumer surplus, and we have exploited the fact that $R_1(p_1) = R_1(\pi_1(1 + \tau))$ and $R_2(p_2) = R_2(\pi_2(1 + \tau^*))$. The welfare of Foreign can be defined analogously.

Dropping sectoral subscripts, the first-order condition for the maximization of (5) can be written as¹³

$$-M\frac{d\pi}{d\tau} + \tau\pi\frac{dM}{d\tau} = 0. \quad (6)$$

¹³This is found by substituting $-D(dp/d\tau)$ and $Q(dp/d\tau)$ for the derivatives of consumer surplus and industry rents, respectively, and by substituting $(dp/d\tau) = (1 + \tau)(d\pi/d\tau) + \pi$.

from which we obtain the standard formula for Home's optimal import tariff:

$$\hat{\tau} = \frac{1}{\varepsilon^*}, \quad (7)$$

where $\varepsilon^* \equiv (dM^*/dp^*)(p^*/M^*)$ is the elasticity of foreign export supply. In Appendix 1, we characterize Home's and Foreign's indifference curves in the tariff plane (τ, τ^*) .

3.2 Trade Negotiations

Combining information on the preferences of the two countries, we can examine the scope for trade agreements between the two executives, which is illustrated in Figure 2.¹⁴ Point Z represents the exogenously given status-quo for the negotiations.¹⁵

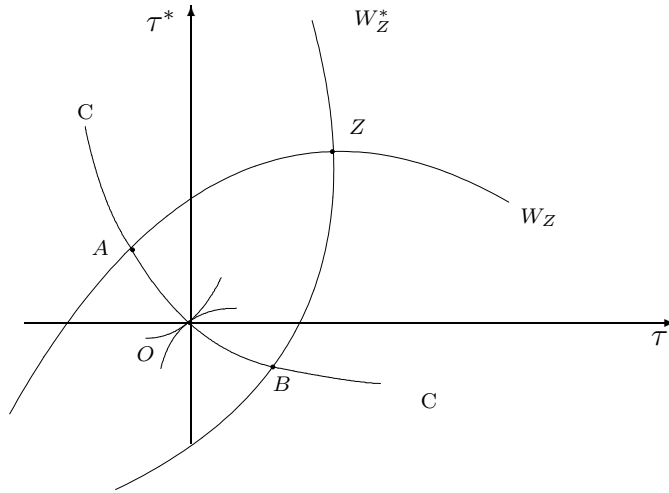


Figure 2: Trade negotiations between the two executives

We impose the following standard restriction about trade agreements:

Assumption 1 *The two executives can only agree to tariff combinations that make each of them at least as well off as they are in the status quo.*

As a result, agreements must be mutually advantageous, implying that they must lie in the lens comprised between the two executives' indifference curves going through the status-quo point, W_Z and W_Z^* . We also require trade deals to be efficient:

Assumption 2 *The two executives can only agree to tariff combinations such that no additional welfare gains can be achieved by one of them without the other one losing.*

¹⁴We abstract from the problem of enforcing trade agreements, which has been examined by Bagwell and Staiger (1990) and Maggi (1999), among others.

¹⁵This might be thought of as the outcome of previous negotiations (e.g., the tariffs agreed upon at the multilateral level).

As a result, no renegotiation can occur between the two executives and agreed tariff combinations must lie on the contract curve (CC in Figure 2). In Appendix 1, we show that efficient trade deals are characterized by the following condition:

$$(1 - \tau\epsilon^*)(1 - \tau^*\epsilon) - 1 = 0. \quad (8)$$

Notice that an infinite number of tariff-subsidy combinations satisfy (8). Together, Assumptions 1 and 2 imply that the executives agree to combinations of import tariffs (subsidies) which lie on the arc AB of the contract curve in Figure 2.

In order to derive the equilibrium outcome of the trade negotiations, we employ the generalized Nash bargaining solution. In other words, domestic and foreign tariffs must be chosen as the solution to the following maximization problem:

$$\max_{W, W^*} (W - W_Z)^\gamma (W^* - W_Z^*)^{1-\gamma}, \quad (9)$$

where $\gamma \in [0, 1]$ captures Home's relative bargaining strength. If the two countries are symmetric ($\gamma = \frac{1}{2}$), the outcome of the negotiations will be point O in Figure 2. If Home has instead all (no) the bargaining power, i.e. $\gamma = 1$ ($\gamma = 0$), the equilibrium outcome are given by point B (A), where Home (Foreign) obtains the highest level of utility and Foreign (Home) achieves the same level of utility as in the status quo.

4 Fast Track Votes and Trade Negotiations

So far we have assumed that trade negotiations are carried out by the two executives. We introduce now a crucial asymmetry: for Foreign, we retain the assumption that trade policy is set by the President; for Home, we assume instead that legislators in Congress must decide whether or not to delegate trade negotiating authority to the President by granting him FTA. This allows us to focus on the impact of FTA on the outcomes of trade negotiations.

The starting point of the political economy model described below is the uneven geographical distribution of industries across constituencies. The trade policy preferences of the members of Congress are heterogeneous, as they reflect the interests of their electoral districts, which depend on the specific industries located there.¹⁶ As discussed in Appendix 1, our results do not rely on the specific preferences we have assumed for the President and the legislators, but rather on the fact that the executive's preferences may not coincide with those of the majority of Congress.

¹⁶There is substantial evidence on the importance of geographical industry concentration in shaping trade policy. See, for example, Hansen (1990) and Busch and Reinhardt (1999).

4.1 Congressional Preferences

Home is divided into D districts, each populated by $h = 1/D$ individuals and represented in Congress by one legislator. Consumers share identical preferences (equation (1) above) and receive the same transfer from the government. Importantly, districts differ instead in their production patterns, and have different trade policy preferences. In particular, we distinguish three types of districts/congressmen:

- *Import districts (M)*: a fraction β^M of districts is specialized in the production of the import-competing good. Each district is characterized by a share α_1^M (α_2^M) of rents in the production of the import-competing (export) good, with $\alpha_1^M > \alpha_2^M$. The representative's utility function is given by

$$W^M(\tau, \tau^*) = h + \alpha_1^M R_1(\tau) + \alpha_2^M R_2(\tau^*) + h [T(\tau) + \Omega(\tau, \tau^*)]. \quad (10)$$

- *Export districts (X)*: a fraction β^X of districts is specialized in the production of the export good. Each district is characterized by a share α_1^X (α_2^X) of rents associated with import-competing (export) production, with $\alpha_1^X < \alpha_2^X$. The representative' utility function is given by

$$W^X(\tau, \tau^*) = h + \alpha_1^X R_1(\tau) + \alpha_2^X R_2(\tau^*) + h [T(\tau) + \Omega(\tau, \tau^*)]. \quad (11)$$

- *Non-specialized districts (N)*: the remaining fraction $\beta^N = 1 - \beta^M - \beta^X$ of districts has equal stakes in the production of the two goods, i.e., $\alpha_1^N = \alpha_2^N = h$. The representative's utility function is given by

$$W^N(\tau, \tau^*) = h + hR_1(\tau) + hR_2(\tau^*) + h [T(\tau) + \Omega(\tau, \tau^*)], \quad (12)$$

implying that an N district is just a scaled-down representation of the country's economy.

Figure 3 provides a graphical representation of the indifference curves of the three types of representatives going through a generic point Z . N representatives share the same preferences as the executive, whereas the indifference curve of the representative of an import (export) district M (X) are steeper (flatter) than that of the executive. This reflects the fact that districts specialized in the production of import-competing (export) goods are less (more) willing to trade off a reduction in domestic import tariffs with a reduction in foreign import taxes.¹⁷ Appendix 1 provides a formal derivation of these results.

¹⁷Differences in trade policy stances across legislators could be attenuated in the presence of compensation mechanisms like the Trade Adjustment Assistance program. The analysis of the role of transfers is beyond the scope of this paper (see Magee (2001) and Drazen and Limão (2008) on this point).

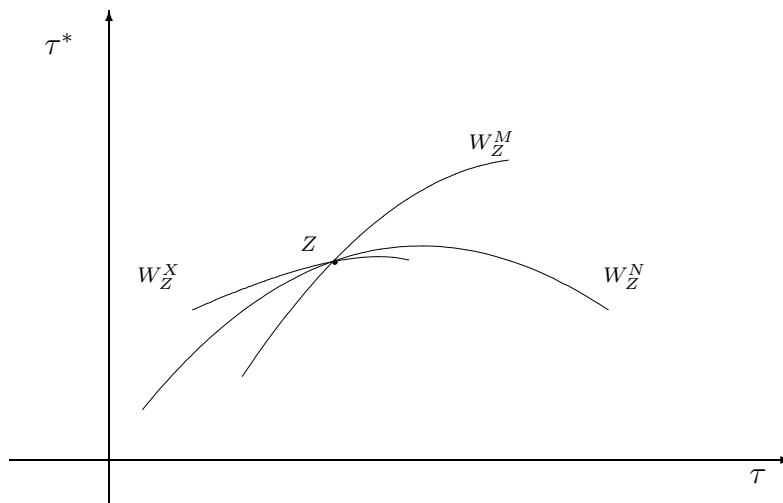


Figure 3: Preferences of congressmen in Home

4.2 The Game

In Home, Congress must decide whether or not to delegate trade negotiating authority to the President (granting FTA) or to retain amendment power (not granting FTA). Each legislator votes to maximize his expected utility, anticipating the impact that FTA (or lack thereof) will have on the outcome of the negotiations with Foreign.

We take as given the composition of the home Congress, i.e., the share of elected members of each district type and their trade policy preferences.¹⁸ The game consists of three stages as illustrated in Figure 4, and in solving it we focus on subgame perfect Nash equilibria.

In stage 1, legislators in the home Congress decide by simple majority voting whether or not to grant fast track authority to the President. If FTA is granted, Congress commits to only approve or reject negotiated trade deals.¹⁹ If instead FTA is not granted, Congress retains the power to amend any trade deal that the President may negotiate.

In stage 2, the home and foreign executives carry out negotiations to reduce domestic and foreign tariffs compared to the status quo (point Z in Figure 2 above), following a generalized Nash bargaining protocol (equation (9) above).

Finally, in stage 3, legislators in the home Congress must approve the trade deal negotiated between the two executives. Congressional approval can take two forms, depending on the

¹⁸For simplicity, we assume that the status quo is given by point Z in Figure 2 above, independently of Home's Congress composition. The qualitative results of our analysis would still hold if we considered alternative status-quo points, possibly biased in favor of one country.

¹⁹Previous studies have pointed out that the effectiveness of strategic delegation depends on the extent to which contracts are observable (e.g., Katz, 1991; Fershtman and Kalai, 1997) and on how costly it is to revoke them (e.g., Muthoo, 1996): if the contract with the agent cannot be effectively communicated to the other party, or if it can be easily renegotiated, then there is less to gain from delegation. In this respect, fast track procedures represent an effective way of delegating trade authority: as discussed in Section 5 below, all fast track votes are public and recorded; moreover, renegeing on the decision not to amend trade agreements negotiated under fast track procedures would be extremely costly in terms of the U.S. international reputation.

outcome of the FTA vote in stage 1. If the President has been granted FTA, Congress can only ratify or reject the proposed agreement by simple majority voting. If instead the President has been denied FTA, the home Congress can amend the agreement reached by the two executives in stage 2 by simple majority voting. To enter into force, amended trade deals still require the approval of the foreign executive. In fact, as pointed out by Milner (1997), any attempt by Congress to amend a proposed agreement “constitutes its rejection and necessitates renewed renegotiation with the other countries” (p. 75).

Notice that the outcome of the FTA voting stage implies an important distinction between “ratification” and “renegotiation” in the congressional approval stage. If FTA is granted in stage 1, negotiated agreements can only be accepted or rejected in stage 3.²⁰ If instead FTA is denied in stage 1, Congress retains the possibility to amend a negotiated deal, but any amendment must be approved by the foreign executive. Thus, in the absence of FTA, any trade deal negotiated in stage 2 can be renegotiated in stage 3. In this case, the game’s outcome is the same as if the foreign President negotiated directly with the majority of the home Congress in the last stage of the game.

In Section 3, in which we have examined international trade negotiations abstracting from the role of the home Congress, we have imposed two restrictions on policy outcomes. First, trade deals must be Pareto improving from the point of view of the two executives (Assumption 1). This assumption must still hold in the game described in Figure 4. This is because, even when the home President lacks FTA, he can always veto trade bills that would make the Home country worse off than the status quo.²¹ Graphically, this implies that trade agreements cannot lie above the indifference curve W_Z in Figure 2.

Second, we have assumed that trade agreements must be such that no further welfare gains can be achieved by one executive without the other one losing (Assumption 2). This assumption must still hold when the home executive negotiates with the foreign executive under FTA. In the absence of FTA, however, the foreign executives effectively negotiates with a majority of home legislators; in this case, the no-renegotiation constraint must be rewritten as:

Assumption 3 *In the absence of FTA, the foreign executive and a majority of home legislators can only agree to tariff combinations such that no further welfare gains can be achieved by one without the other one losing.*

When considering the role of the home Congress under fast track procedures, the following ratification constraint must also be imposed:

²⁰If the home Congress grants fast track negotiating authority to the President, but then rejects the deal negotiated between the executives, it is assumed to be too costly to start a new round of negotiations.

²¹Under Art. I, Sect. 7 of the U.S. Constitution, every bill must be presented for approval to the President, who has the option to veto it. For simplicity, we do not explicitly model the President’s veto power, which he would only exercise in the empirically irrelevant scenario in which Congress majority is made by export representatives (see Appendix 2).

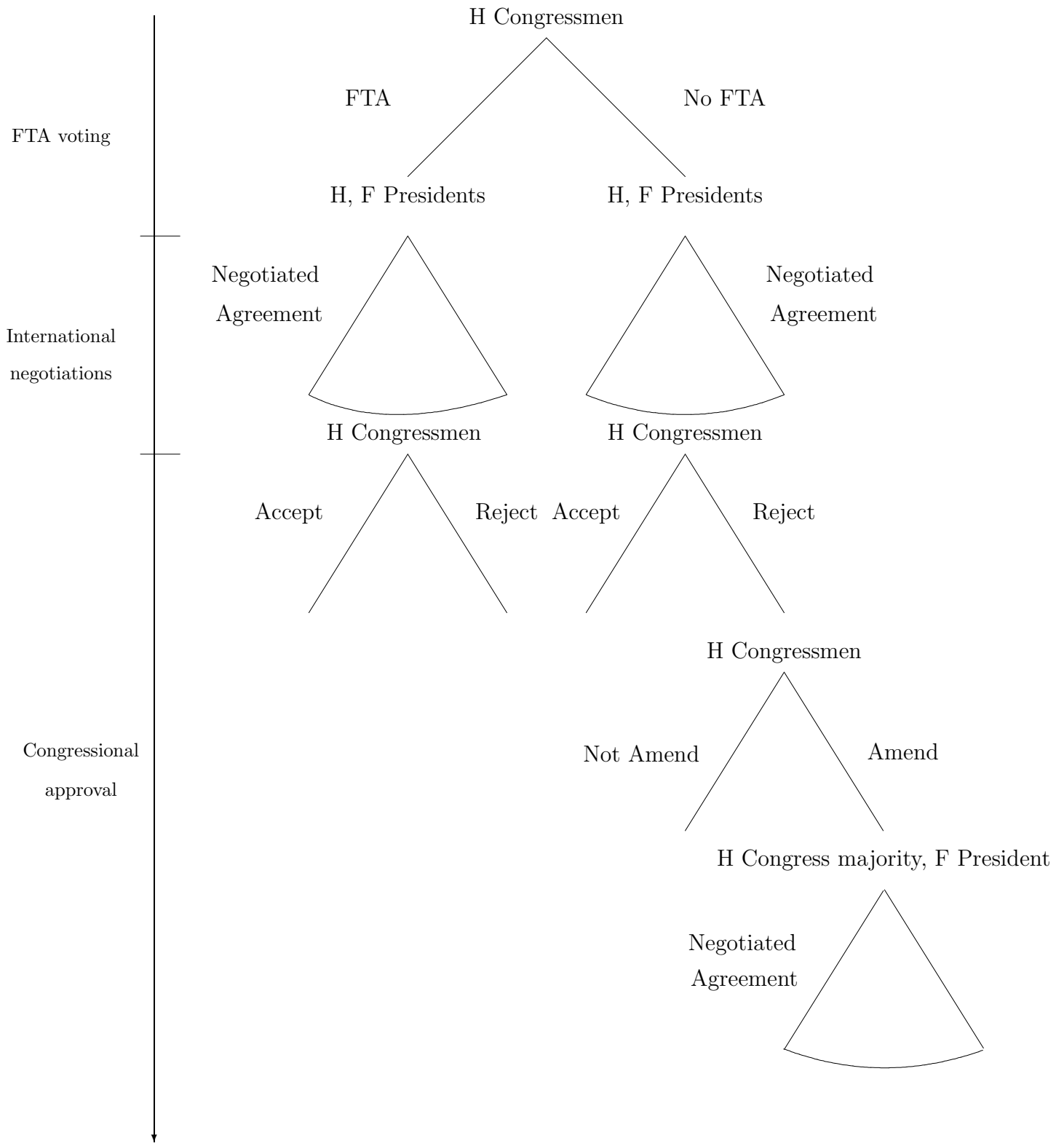


Figure 4: Game tree

Assumption 4 *Trade agreements must make a majority of home legislators at least as well off as they are in the status quo.*

4.3 FTA Voting Behavior

To analyze the link between Congress composition and FTA voting behavior, it is useful to distinguish two scenarios. In the first, a group of legislators (M , X or N) enjoys a majority in Congress, whereas in the second, no group controls Congress. In the latter case, in the absence of FTA, trade deals can only be amended by a coalition of legislators.

The broad message that emerges from our analysis is that strategic delegation considerations play a crucial role in shaping voting behavior. In particular, we show that a congressman will never delegate trade negotiating authority to an agent who is keener than himself to reach an agreement with the foreign country, as this would weaken his country's bargaining position.

In what follows, we analyze legislators' voting behavior when no district type has a majority in Congress, i.e., $\beta^i < \frac{1}{2}$ for all $i \in \{M, X, N\}$. We focus on this scenario since it is the only one relevant for our empirical analysis (see Section 5). FTA voting behavior under different Congress compositions is discussed in Appendix 2.

We proceed by backward induction, examining first the legislators' behavior in the congressional approval stage of the game. As discussed above, this can take two forms, depending on whether or not the proposed agreement has been negotiated under fast track procedures.

If FTA has been granted, congressional approval involves an up or down vote on the deal negotiated by the two executives. In this scenario, the set of feasible agreements coincides with the AB portion of the CC curve in Figure 2. These agreements satisfy Assumptions 1 and 2, i.e., they benefit (at least weakly) the two executives and leave no scope for renegotiation. Moreover, it is easy to show that they also satisfy Assumption 4, i.e., the ratification constraint is never binding. To see this, notice that the representatives of both the non-specialized N districts and the export X districts are at least as well off in any agreement on the AB segment of the CC curve as they are in the status-quo point Z .²² Together, these two groups of legislators form a majority that is willing to ratify the proposed agreement (remember that $\beta^N + \beta^X > \frac{1}{2}$).

Consider next the case in which FTA has not been granted in stage 1. Since no group has a majority in Congress, trade deals negotiated by the executives in stage 2 can only be amended in stage 3 by a coalition of home legislators. If a coalition is formed between two groups of home legislators i and j , its preferences are given by a weighted sum of the preferences of its members: $W^{i,j} = \omega^i W^i + \omega^j W^j$. For simplicity, we assume that the weights are given by each group's share in Congress, i.e., $\omega^i = \beta^i$ and $\omega^j = \beta^j$.²³ Since amended deals need to be approved by the

²²Representatives of the N districts, whose preferences coincide with those of the home country, cannot by definition be hurt by a deal that satisfies Assumption 1 and is thus (at least weakly) beneficial to the President. Representatives of X districts always strictly gain from a trade agreement: any point on the AB segment of the CC curve, including point A , yields a higher utility to them compared to the status quo.

²³As long as the legislators' weight in a coalition are positively related with their share of seat in Congress, the

foreign executive, in the absence of FTA, it is as if international trade negotiations effectively took place in stage 3 of the game between the coalition of home representatives and the foreign President.

Under mild conditions (see Lemma 1 in Appendix 1), a coalition between M and N representatives is more protectionist than a coalition between M and X representatives, since legislators from non-specialized constituencies are less willing to trade off reductions in domestic import tariffs with reductions in foreign tariffs than legislators from export constituencies. In this case, the only coalition that can be formed in the amendment stage is one between legislators from import and non-specialized constituencies. The intuition for this result is that M representatives will always prefer to form a coalition with N representatives rather than with X representatives, given that the preferences of this coalition will be closer to their own. Furthermore, if N representatives reject the President's proposal, they can only increase their utility in the amendment stage by forming a coalition with M representatives, since this strengthens their bargaining position vis-à Foreign.

To illustrate the impact of FTA decisions on trade policy outcomes, we can use Figure 5 below, in which we have replicated the set of feasible agreements that can be reached between the two executives under FTA (the AB portion of the CC curve). We have also drawn the indifference curve of the coalition of M and N district representatives going through the status quo point, $W_Z^{M,N}$. This allows us to construct the set of feasible agreements that can be reached in the absence of FTA, when the coalition of home legislators negotiates directly with the foreign executive. This set is identified by the arc $A'B'$ on the $C'C'$ curve, which satisfies assumptions 1, 3 and 4 above.

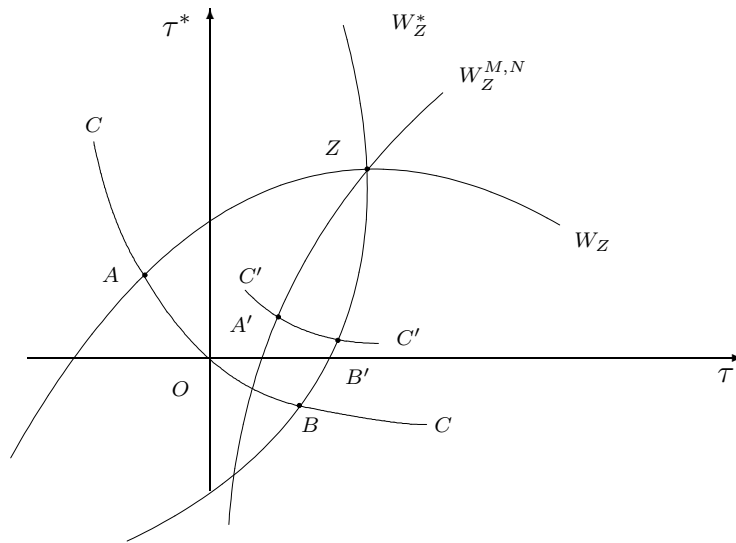


Figure 5: Trade negotiations between foreign executive and coalition of M and N legislators

 results of our analysis will continue to hold.

Notice that the set of feasible agreements between the coalition of M and N representatives and the foreign executive is smaller than the corresponding set for the two executives; moreover, the $C'C'$ curve lies above the CC curve.²⁴ Thus, trade deals negotiated without FTA are skewed in favor of Home. Indeed, in the case of Figure 5, trade agreements on the $A'B'$ segment of the $C'C'$ curve are always characterized by $\tau > \tau^*$. This is because Home has a stronger bargaining position in the negotiations when being represented by a Congress majority that is not as keen as the President to reach an agreement with Foreign. Notice also that, unlike in the case of trade negotiations under fast track procedures, free trade cannot be an outcome, and trade deals in which both countries set positive import tariffs are now possible.

Moving to the analysis of FTA voting behavior, it is easy to see that M district representatives will *never vote in favor* of fast track, independently of Home's bargaining power in the negotiations with Foreign. To verify this, we must compare the welfare of these agents when they negotiate with the foreign President as part of a coalition with N representatives and when they instead delegate trade negotiating authority to the executive. Using the generalized Nash bargaining solution described by equation (9) above, we can establish the following: first, if the foreign party enjoys all the bargaining power (i.e., $\gamma = 0$) the outcome A' always yields a higher utility to M districts than the outcome A ; analogously, if Home enjoys all the bargaining power (i.e., $\gamma = 1$) M district representatives are always better off at B' than at B ; the same applies for any given $\gamma \in (0, 1)$. The intuition behind this result is as follows: compared to the President, the trade policy interests of the coalition of M and N representatives are closer to those of the M representatives; moreover, since the President is more willing to reduce domestic tariffs in exchange for a reduction in foreign tariffs, granting FTA implies weakening Home's bargaining position vis-à-vis Foreign. Thus, M representatives will always prefer to delegate trade negotiating authority to the coalition of M and N representatives. As shown below, the same is not true for N representatives, whose voting behavior depends crucially on the degree of protectionism of such coalition.

To examine the voting behavior of N and X representatives, consider next Figure 6 below. Let us start by focusing on the preferences of a N district representative. Comparing points A and A' , it is straightforward to see that, when $\gamma = 0$, representatives of non-specialized districts obtain a higher utility in the absence of fast track (i.e., A' lies on a lower indifference curve than A for N legislators, implying $W_{A'}^N > W_A^N$). The intuition for this result is straightforward: when Home is very weak vis-à-vis Foreign, N legislators (and the country as a whole) can gain by leaving trade negotiating authority in the hands of a protectionist Congress majority. This result is in line with findings of the literature on strategic delegation, which shows how principals may gain by delegating policymaking to status-quo biased agents, to increase their bargaining power in negotiations with other parties (e.g., Schelling, 1956; Jones, 1989). Consider next the

²⁴To see this, notice that the indifference curve of the coalition through point B is steeper than the one of home executive. Thus the tangency between the indifference curves of the coalition and of the foreign executive must lie to the right and above point B . The same argument applies to any point on the CC arc.

opposite scenario in which $\gamma = 1$. Comparing points B and B' , it is immediate to verify that in this case N legislators prefer being represented by the executive than by a more protectionist Congress majority (i.e., B lies on a lower indifference curve than B' for N legislators, implying $W_B^N > W_{B'}^N$). The intuition for this result is that, when Home has all the bargaining power, non-specialized district representatives prefer to delegate negotiations to the President, who shares their preferences, rather than to a Congress majority with different preferences.

For intermediate bargaining weights, the preferences of N representatives will depend on how protectionist the M, N coalition is. Consider, as an example, the case in which the two countries have identical bargaining power ($\gamma = \frac{1}{2}$) and international negotiations lead to the free trade outcome E under fast track procedures and to outcome E' in the absence of fast track. If the preferences of the M, N coalition are as in Figure 6, E' yields a higher utility to N representatives than E . This implies that representatives of non-specialized constituencies would prefer to vote against FTA, delegating trade negotiating authority to a protectionist coalition rather than to the President. Notice that this is true even if the N districts and the President share the same preferences.

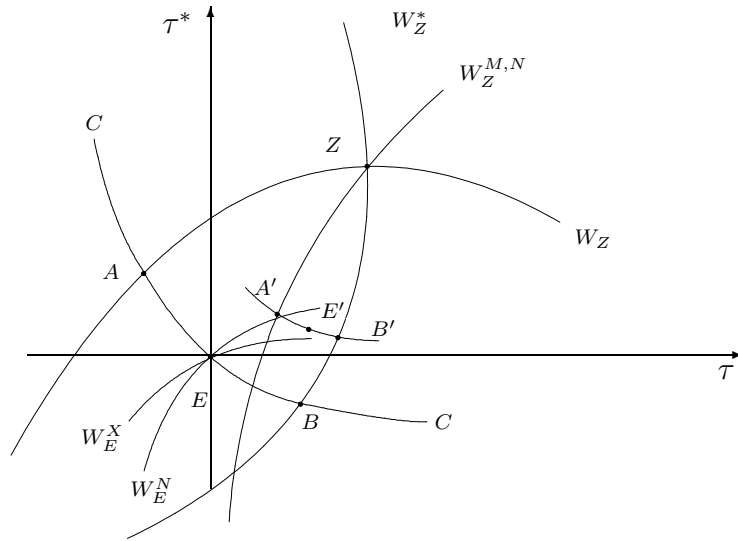


Figure 6: Preferences of X and N legislators under no majority

Finally, consider the voting behavior of representatives of export districts. In the case illustrated in Figure 6, X representatives will prefer A' to A and B to B' . Hence, legislators from the more export-oriented districts may also in some cases prefer to vote against FTA, strategically delegating negotiation authority to the coalition of M and N legislators. However, the range of bargaining weights for which X legislators prefer the FTA negotiation outcome is larger than the corresponding range for N legislators. For example, in the case of identical bargaining power ($\gamma = 1/2$), if the coalition's preferences are as in Figure 6, X representatives prefer the free trade outcome E to outcome E' , while the opposite is true for N representatives. This is

because export districts have preferences that differ more from those of import districts, making delegation to the M, N coalition more costly for them.

Summing up, our theoretical analysis shows that, when voting on FTA, home legislators must implicitly decide who should represent their country in the negotiations with Foreign. In the scenario in which none of the district representatives enjoys a majority in Congress, the choice is between the President and the more protectionist coalition of representatives from import and non-specialized constituencies. Strategic delegation concerns crucially affect this choice. Our model predicts that FTA voting decisions should be driven by the extent to which the trade policy interests of the legislators – who stand for their own constituencies – differ from those of the President – who represents the entire country. In particular, in the case of no majority, we have established the following:

Proposition 1 *If $\beta^i < \frac{1}{2}$ for all $i \in \{M, X, N\}$, representatives of import districts will never vote in favor of FTA; representatives of export districts will vote in favor of FTA whenever non-specialized district representatives do.*

A second less intuitive result can be derived from our model, concerning the voting behavior of non-specialized district representatives. In our analysis above, we have shown that, for intermediate bargaining weights, representatives of N districts will vote against FTA if they can reach more favorable negotiation outcomes by forming a coalition with M representatives. In what follows, we show that this will be the case whenever their share of seats exceeds a critical threshold.

To verify this, notice that for a given $\gamma \in (0, 1)$ there exists an equilibrium point E corresponding to the tariff combination that is solution to the executives' bargaining problem and is efficient.²⁵ Denote with W_E^N the welfare level of non-specialized district representatives in this equilibrium. Similarly, for the same $\gamma \in (0, 1)$, there exists an equilibrium point E' corresponding to the tariff combination that solves the bargaining problem between the foreign executive and the M, N coalition and is efficient.²⁶ Denote with $W_{E'}^N$ the welfare level of non-specialized district representatives in this equilibrium. Notice that the tariff combination $\tau_{E'}, \tau_{E'}^*$ depends on the degree of protectionism of the M, N coalition; in turn, this depends on β^N , the share of seats controlled by N legislators.²⁷

²⁵The tariff combination τ_E, τ_E^* maximizes $(W - W_Z)^\gamma (W^* - W_Z^*)^{1-\gamma}$ and satisfies the no-renegotiation constraint $\frac{d\tau^*}{d\tau} = \left(\frac{d\tau^*}{d\tau}\right)^*$ (i.e., tangency between the indifference curves of the two executives).

²⁶The tariff combination $\tau_{E'}, \tau_{E'}^*$ maximizes $(W^{M,N} - W_Z^{M,N})^\gamma (W^* - W_Z^*)^{1-\gamma}$ and satisfies the no-renegotiation constraint $\left(\frac{d\tau^*}{d\tau}\right)^{M,N} = \left(\frac{d\tau^*}{d\tau}\right)^*$ (i.e., tangency between the indifference curves of the M, N coalition and of the foreign executive).

²⁷To see this, notice that point E' must satisfy the no-renegotiation constraint

$$-\frac{[(\beta^M \alpha_1^M + \beta^N h) \frac{\partial R_1}{\partial \tau} + (\beta^M + \beta^N) h (\frac{\partial T}{\partial \tau} + \frac{\partial \Omega}{\partial \tau})]}{[(\beta^M \alpha_2^M + \beta^N h) \frac{\partial R_2}{\partial \tau^*} + (\beta^M + \beta^N) h \frac{\partial \Omega}{\partial \tau^*}]} = \frac{M_1 \frac{d\pi_1}{d\tau}}{M_2^* \frac{d\pi_2}{d\tau^*} (1 - \tau^* \epsilon)}.$$

By equating W_E^N with $W_{E'}^N$, we can solve for the critical threshold $\hat{\beta}^N$ such that N legislators are indifferent about whether or not to grant fast track, since the outcome of the negotiations between the two executives (point E) yields them the same level of utility as the outcome of the negotiations between the foreign executive and the M, N coalition (point E'). As an example, Figure 7 below depicts a situation in which the two countries have identical bargaining power ($\gamma = 1/2$) and N legislators obtain the same level of utility with or without fast track (i.e., points E and E' are on the same indifference curve).

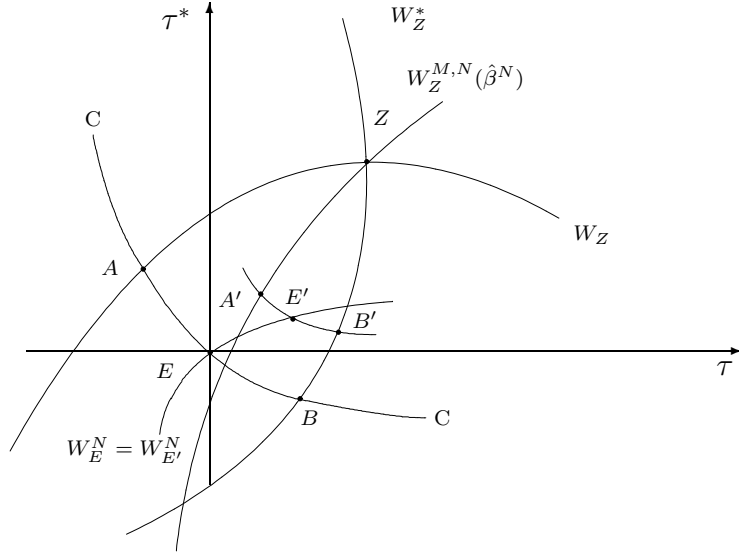


Figure 7: Preferences of N legislators under no majority

Starting from the critical threshold $\hat{\beta}^N$, an increase in β^N will cause the coalition's indifference curve $W_Z^{M,N}$ to become flatter, leading N legislators to oppose fast track (as in the case depicted in Figure 6 above); an increase in β^N will have the opposite effect. We can thus state the following:

Proposition 2 *When $\beta^i < \frac{1}{2}$ for all $i \in \{M, X, N\}$, N representatives will vote against (in favor of) FTA if their share of seats in Congress is above (below) $\hat{\beta}^N$.*

In our empirical analysis, we will assess the validity of the two propositions above. When bringing these theoretical results to the data, we have to take into account that FTA voting behavior of N and X representatives depends both on their trade preferences and on the bargaining power of the United States in trade negotiations, which can vary across FTA votes. For the purpose of our empirical analysis, we thus reformulate the predictions of our model as follows:

When no district type has a majority, the likelihood that a U.S. congressman votes in favor of FTA increases with the degree to which his own constituency is relatively export-oriented compared to the U.S. as a whole.

When no district type has a majority, the likelihood that representatives from non-specialized constituencies vote in favor of FTA decreases with their relative share in Congress.

Notice that, while the first prediction could be generated by other alternative models of trade voting, the second one represents a distinctive implication of our theoretical analysis, which follows directly from strategic delegation motives.

5 Data

To carry out our analysis, we start by considering all votes on FTA that occurred in Congress between 1973 and 2002 (see Table 1).²⁸ In our theoretical analysis, we did not make a difference between types of constituencies. Empirically, however, we distinguish between the 50 U.S. states – electing two representatives each for the Senate – and the 435 congressional districts – electing each one member of the House.

Overall, thirteen votes on FTA have been held in Congress, including the House and Senate resolutions of disapproval that were rejected in 1991. Seven of them took place in the House, and six in the Senate. For each vote, the identity of congressmen, their party affiliation, their state or district and their voting behavior (in favor or against FTA) have been collected from roll call records. Table 2 provides details of the definitions and sources for all the variables used in our regressions (top panel) and in the construction of the regressors (bottom panel). These include legislators' party affiliation and ideological preferences, whether they belong to the same party as the President, whether they are members of the House or the Senate, and whether they have been elected in swing states.

Our theoretical model suggests that FTA decisions should be driven by strategic delegation motives, which result from differences between the trade policy interests of individual congressmen and those of the executive. To capture these interests, we first define an industry as being import-competing (export), if the U.S. as a whole is a net importer (exporter) for that industry in that year. We then collect information on employment in import-competing and export industries for all constituencies. Such variables are relatively easy to construct for the Senate, since state-level series are readily available. For the House of Representatives, on the other hand, we encountered two main difficulties.

The first problem is that district-specific data are not readily available, but must be constructed by aggregating county-level data using the County Business Patterns (CBP), a survey collected by the Bureau of the Census. Importantly, a county may be split into different districts, as it is exemplified by Santa Clara County in California in the nineties (see Figure 8), which encompassed four congressional districts, some of which covered parts of neighboring counties.

²⁸Notice that there may be a selection bias in the FTA votes held in Congress, as we are unlikely to observe votes on fast track when it is clear that the majority of Congress is against granting it. However, this is not a concern for our empirical analysis, in which we assess predictions concerning the voting *behavior* of individual congressmen, rather than the voting *outcomes*.

Table 2: Definition of variables and sources

Variable	Definition	Source
Vote_t^i	Vote cast by congressman i in year t Dummy equal to 1 if ‘yea’ and 0 if ‘nay’	Up to 1996: ICPSR Study number 4 From 1997: http://www.voteview.com
Trade exposure $_t^i$	Ratio $\Lambda_t^i \equiv \lambda_t^i / \lambda_t^{US}$	As for λ_t^i
Share $_t^N$	Share of N legislators in Congress in year t	As for λ_t^i
Senate i	Dummy equal to 1 if congressman i is a senator	As for Vote_t^i
Democrat $_t^i$	Dummy equal to 1 if congressman i is a Democrat in year t	As for Vote_t^i
Conservative rating $_t^i$	Rating (0–100) of congressman i in year t by American Conservative Union	http://www.acuratings.org/
Party as President $_t^i$	Dummy equal to 1 if congressman i and President belong to same party in year t	As for Vote_t^i
Swing state $_t^i$	Dummy equal to 1 if congressman i is from a state in which the margin of victory in the last Presidential election was less than 10%	Leip (2008)
President’s state $_t^i$	Dummy equal to 1 if congressman i is from a state won by the President in the last Presidential election	As for Swing state
Divided $_t$	Dummy equal to 1 if the majority of both houses and the executive are not from same party	U.S. Congress
Majority $_t^i$	Dummy equal to 1 if congressman i is from majority party in his house in year t	U.S. Congress
λ_t^i	Employees in year t of district i in export industries divided by employees of district i in import industries	County Business Patterns
λ_t^{US}	U.S. employees in year t in export industries divided by U.S. employees in import industries	As for λ_t^i
X_t^i, M_t^i, N_t^i districts	Dummy equal to 1 if in year t district i is of type $X, M,$ or N	As for λ_t^i
Congressional Districts	Aggregate of counties included in each district	1973-1982: ICSPR dataset 8258; 1983-2012: provided by Christopher Magee
Import/export industries	Industries in which the U.S. is a net importer/exporter (annual basis)	The Center for International Data at UC Davis, U.S. ITC, IMF BoP Statistics



Figure 8: Santa Clara county

The second issue is that the geographic definition of districts changes over time, following each decennial census.

We have addressed these concerns as follows. To obtain district-level employment data from county level information, we first extract yearly county-level employment information from the CBP and then aggregate it at the district level.²⁹ 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 the problem of redistricting, we have kept track of changes in the boundaries of the electoral districts that occurred after the censuses of 1970, 1980 and 1990.

Notice that employment data in the CBP are withheld when their disclosure would allow researchers to identify specific firms. In such cases, a flag gives the interval where the actual data belong 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 midpoint 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. Unfortunately, the CBP do not provide any flag for the data withheld in 1973. Treating these observations as missing results in a substantial underestimate of the employment in each county. For this reason we have decided to omit the House vote of 1973 from our main estimations. Thus, we are left with 3,068 observations (i.e., votes from 1974 until 2002).

In our theoretical model, a congressman's behavior depends on his constituency's trade position compared to the United States. For each constituency i (congressional district or state) in year t , we define the ratio of employees in export industries (indexed by x) relative to import-competing industries (indexed by m); we then construct the same ratio for the United States as

²⁹The CBP report annual data on employment by SIC manufacturing industries up to 1997 and by NAICS manufacturing industries from 1998, 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 today). In Appendix 1, where we report the results of various robustness checks, we include information on agriculture employment, as well as on employment in the service sector.

a whole (indexed by US):

$$\lambda_t^i = \frac{\sum_x L_{x,t}^i}{\sum_m L_{m,t}^i}, \quad (13)$$

$$\lambda_t^{US} = \frac{\sum_x L_{x,t}^{US}}{\sum_m L_{m,t}^{US}}. \quad (14)$$

Our main regressor of interest, Λ_t^i , captures a constituency's relative *Trade exposure*:

$$\Lambda_t^i \equiv \frac{\lambda_t^i}{\lambda_t^{US}}. \quad (15)$$

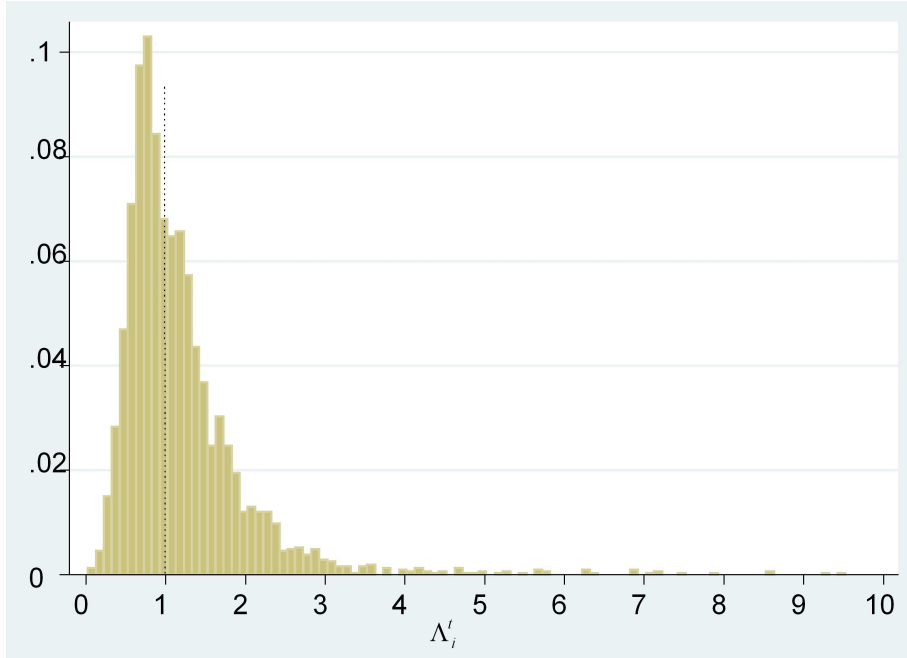


Figure 9: Trade exposure

Figure 9 plots the empirical distribution of Λ_t^i for the full sample of 3,068 votes.³⁰ Notice that our theoretical model identifies three different groups of congressmen, based on their trade policy preferences. Our *Trade exposure* measure is instead a continuous variable. To construct an empirical counterpart to our theoretical model we define the identity of district i at time t as follows:

$$I_t^i = \begin{cases} M & \text{if } \Lambda_t^i \in [0, 1 - g) \\ X & \text{if } \Lambda_t^i \in (1 + g, \infty] \\ N & \text{if } \Lambda_t^i \in [1 - g, 1 + g]. \end{cases} \quad (16)$$

³⁰Notice that our assumption that the executive represents the trade policy interests of the entire country is supported by the data: comparing the distribution of λ_t^i for the states won by a given President in his last election and for those in which he lost, it appears that they are never statistically different from each other. This is true for the entire period, as well as on a yearly basis.

Notice that $g = 0$ would provide the exact empirical counterpart to the non-specialized N districts considered in our model. However, this methodology has no empirical content, since none of the constituencies in our data is characterized by a value of Λ_t^i that is exactly equal to unity. To ensure that the empirical analysis captures the spirit of our theoretical model, we have thus experimented with alternative small values of g , defined as a fraction (0.20, 0.25, and 0.30) of the standard deviation of Λ_t^i .

As shown in Figure 10, alternative cut-off values of g give rise to different classifications of the legislators' identity and, correspondingly, of Congress composition. Notice though that, for all the values of g we consider, none of the district types made up for more than fifty percent of Congress.³¹ Therefore, only the scenario considered in Section 4.3, characterized by no majority of any district type, is empirically relevant.

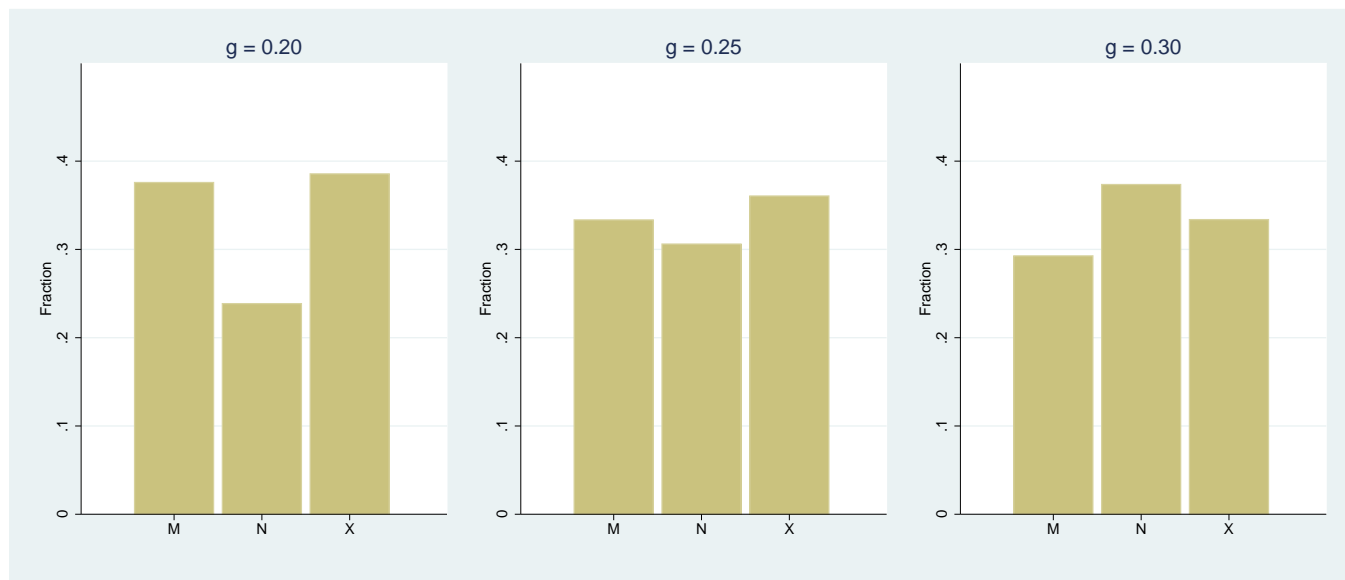


Figure 10: Congress composition for alternative values of g

Summary statistics for the main variables of interest are reported in Table 3. Notice that the mean of the constituency's relative trade exposure is slightly higher than 1; this is because, as it is apparent from Figure 9, some districts are outliers with respect to their high shares of employees in export industries. Table 3 also reports summary statistics for all the other variables used as controls in our regressions. Although the theoretical model is silent on their role, they have been included in other studies of congressional roll call votes. To uncover possible differences between the two chambers of Congress, we include a *Senate* dummy. To proxy for congressmen's ideology, we use the *Democrat* dummy and the *Conservative rating* index provided by the American Conservative Union (ACU), which ranks congressmen on a scale from 0 to 100,

³¹Although Figure 10 is based on the entire sample, the same picture applies when we look at the distribution of Λ_t^i year by year. Notice also that no district type has a majority even for very small values of g . In the limit case of $g = 0$, M and X legislators have nearly identical shares in Congress; this is not surprising given that the distribution of the trade exposure variable is relatively symmetric (see Figure 9), with a median value of 0.99.

with higher scores assigned to more conservative politicians.³² We also include the following additional controls: *Party as President*, which equals one for congressmen belonging to the same party as the executive, and zero otherwise; *Swing state*, which identifies battleground states, in which no Presidential candidate had an overwhelming majority in the previous election;³³ *President's state*, which equals one for states which were carried by the incumbent President in the previous election.

Table 3: Summary statistics

Variable	Observations	Mean	Std. dev.
$Vote_t^i$	3,068	0.697	0.460
Trade exposure $_t^i$	3,068	1.194	0.829
Senate i	3,068	0.207	0.405
Democrat $_t^i$	3,068	0.559	0.497
Conservative rating $_t^i$	3,065	46.70	37.45
Party as President $_t^i$	3,068	0.495	0.500
Swing state $_t^i$	3,068	0.513	0.500
President's state $_t^i$	3,068	0.705	0.456
Share $_t^N$	3,068	0.306	0.050
Share $_t^M$	3,068	0.333	0.043
Share $_t^X$	3,068	0.361	0.037

Notes: the congressional shares variables are computed for $g = 0.25$.

6 Empirical Methodology and Results

The dependent variable in our empirical analysis, $Vote_t^i$, is dichotomous and equals one if the congressman has voted in favor of granting or extending FTA and zero otherwise. Our baseline specification is thus given by

$$Prob(Vote_t^i = 1) = \Phi(\alpha + \delta_1 \mathbf{X}_t^i + \delta_2 \mathbf{Z}) \quad (17)$$

where $\Phi(\cdot)$ is the cumulative normal distribution (i.e., probit model); \mathbf{X}_t^i is a matrix of district-specific variables, which are defined for each constituency i ; \mathbf{Z} is a matrix of additional controls, which may or may not be time-invariant and district specific (e.g., time or state dummies); and α , δ_1 , and δ_2 are the vectors of parameters to be estimated. In some specifications, the main variable of interest is the relative trade position of the legislator's constituency at the time of the vote ($Trade\ exposure_t^i$); in others, it is the share of non-specialized district representatives in Congress ($Share_t^N$). In order to facilitate the interpretation of the estimated coefficients, in the tables we report marginal effects (calculated at the mean of each regressor).

³²Using the first dimension of the DW-Nominate scores as an alternative way to measure a congressman's ideology (e.g., Rosenthal, 2001) yields very similar results. This is hardly surprising, since the correlation between ACU ratings and DW-Nominate scores is 0.89.

³³We follow Glaeser and Ward (2006) in defining swing states as those with a margin of victory less than 10 percent in the last presidential election. The results are unchanged when we use a 5 percent threshold.

Table 4: Empirical results for all constituencies

Regressor									House	Senate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trade exposure $_t^i$	0.032** (0.016)	0.059*** (0.015)	0.059*** (0.014)	0.053*** (0.016)	0.057*** (0.016)	0.053*** (0.016)	0.053*** (0.015)	0.053*** (0.016)	0.055*** (0.019)	0.075*** (0.028)
Senate i			0.063** (0.025)	0.073*** (0.026)	0.073*** (0.025)	0.073*** (0.026)	0.090*** (0.025)	0.090*** (0.025)		
Democrat $_t^i$				-0.286*** (0.031)		-0.288*** (0.030)	-0.297*** (0.028)	-0.297*** (0.028)	-0.328*** (0.035)	-0.148*** (0.039)
Conservative rating $_t^i$					0.004*** (0.0005)					
Party as President $_t^i$						-0.013 (0.027)				
Swing state $_t^i$							-0.011 (0.024)			
President's state $_t^i$								0.002 (0.027)		
Trend							-0.029*** (0.002)	-0.029*** (0.002)		
Year effects	included	included	included	included	included	included			included	included
State effects		included	included	included	included	included	included	included	included	included
Observations	3,068	3,051	3,051	3,051	3,048	3,051	3,051	3,051	2,506	476
Log likel.	-1,550.18	-1,442.63	-1,419.35	-1,269.48	-1,294.37	-1,269.24	-1,353.70	-1,353.87	-1,049.34	-174.50
Pseudo R ²	0.18	0.24	0.24	0.32	0.31	0.32	0.28	0.28	0.34	0.31
Pred. Prob.	0.75	0.77	0.77	0.78	0.78	0.78	0.77	0.77	0.76	0.86

Notes: The dependent variable, $Vote_t^i$, equals 1 if congressman votes in favor of FTA, 0 otherwise. Marginal effects reported for all regressors, calculated as discrete changes from 0 to 1 for dummy variables. Standard errors clustered at state-decade level in parenthesis; *** denotes significance at 1% level; ** 5% level; * 10% level.

In all tables, we report standard errors with decade-specific state clusters, thus allowing for the geographical correlation to change over time.³⁴

We start by assessing our first empirical prediction, according to which the likelihood that a legislator will support FTA should increase with the degree to which his constituency is export-oriented compared to the U.S. as a whole. To capture the trade policy preferences of a constituency we employ the variable $Trade\ exposure_t^i$. The results are presented in Table 4. In column (1) we report a specification including only the districts' trade exposure and a set of year effects. In column (2) we introduce additive state-specific effects, which are then retained throughout the rest of the table.³⁵

We find that the impact of trade exposure is positive and significant. In other words, a congressman is more likely to support granting or extending FTA the more export oriented his district is compared to the U.S. as a whole, as predicted by our theoretical model.³⁶ The set of year dummies is jointly significant and the estimated coefficients become negative and statistically significant in recent years, as compared to the first year in the sample (1974), which is taken as the omitted category. This indicates that over time support for FTA has declined.³⁷

The remainder of the table contains a series of robustness checks to investigate the role played by additional controls, which are often included in the literature on congressional voting. In all specifications the district's trade exposure continues to be positively and significantly correlated with FTA voting. We begin by investigating the role of Senate membership (column 3) and find that senators are more likely to favor FTA. In particular, a senator is on average 6.3 percentage points more likely to vote for FTA than a House representative, implying an 8 percent increase over the average predicted probability of a positive vote reported at the bottom of the table.³⁸ We turn next to consider the role of ideology, measured both as party affiliation (column 4) and as conservative rating (column 5). We find that Republicans and more conservative legislators are significantly more likely to support FTA. These results are in line with previous evidence showing that, for our sample period, Republican congressmen tend to be more pro trade (e.g., Hiscox, 1999; Karol, 2000). Alignment with the party of the President (column 6) instead does

³⁴We have also experimented clustering errors by year (equivalent to clustering by FTA vote, since no more than one bill was brought to the floor in each year) and the results are unchanged. Notice that we cannot cluster at the congressional district level because, as discussed in Section 5, districts are redefined by the Census every ten years, implying that the clusters change over time. The option of using decade-specific clusters for congressional districts cannot be pursued, since such clusters would include at most three votes.

³⁵The state dummies are jointly significant. Notice also that the inclusion of state effects forces us to drop the 17 observations for the congressmen from Wyoming, since they all and always voted in favor of FTA.

³⁶In the simplest possible specification, in which we drop the year dummies, the coefficient for $Trade\ exposure_t^i$ is also positive and significant at 1 percent. The estimates of the state and year dummies are not reported to save on space. All the results not reported in the paper are available upon requests.

³⁷This trend mirrors a more general decline in the support for trade liberalization reforms (see Conconi, Facchini and Zanardi, 2011).

³⁸Inter-cameral differences appear to be driven by the fact that Senate members serve longer mandates (lasting six instead of two years): in a series of additional regressions, we find that senators who are in the last two years of their mandate are as likely to support FTA as House members. These additional results (available upon request from the authors) are in line with the findings of Conconi, Facchini and Zanardi (2011), who examine how term length and election proximity affect congressmen's votes on a broader set of trade liberalization bills.

not play a significant role, once we control for party affiliation. This is consistent with the fact that Republicans are more likely to support FTA and most FTA votes occurred under a Republican President.³⁹ Political features of the states where the congressman was elected do not play a significant role either. In particular, legislators elected in swing states (column 7) or in states won by the President in the last election (column 8) are no more/less likely to support FTA.⁴⁰

Notice that, since year fixed effects cannot be introduced in the specifications of columns (7)-(8),⁴¹ we have replaced them with a linear trend. Consistently with decreasing support for FTA over time, the trend is negative and statistically significant at the 1 percent level.

In our theoretical model, to keep our analysis tractable, we did not explicitly model multiple chambers in Congress. To capture potential differences between them, in the last two columns of Table 4 we separately consider House and Senate, obtaining qualitatively similar results, even if ideology appears to play a bigger role in the voting behavior of House representatives.⁴²

We turn next to assess the second and most distinctive prediction of our model. As highlighted in Section 5, all FTA votes have occurred in scenarios of no majority. Following Proposition 2, we then expect representatives of non-specialized constituencies to be less likely to support FTA as their share in Congress increases. We assess this prediction by examining the voting behavior of congressmen from N constituencies, as a function of their share of seats, $Share_t^N$.⁴³

To define N districts, the benchmark analysis reported in Table 5 is based on setting $g = 0.25$ in equation (16). In Section 7, we carry out a series of robustness checks using alternative values of g , and obtain similar results. Notice that, since our main regressor of interest, $Share_t^N$, varies only over time, we have replaced the year fixed effects with a linear time trend in all our specifications. In line with our findings in Table 4, the trend is always negative and significant at the 1 percent level, confirming that support for FTA has declined over time.⁴⁴

Table 5 contains five different specifications. In all cases, our results are consistent with Proposition 2: the estimated coefficient for $Share_t^N$ is always negative and significant at the 1 percent level, indicating that representatives of non-specialized constituencies are less likely

³⁹Only five of the votes listed in Table 1 occurred under a Democratic President.

⁴⁰We have also investigated the effects of presidential term limits by including a dummy for votes cast during the second term of a presidential mandate, but the estimated coefficients were never significant.

⁴¹*Swing state* and *President's state* cannot be included with year and state dummy variables, since there is no variation within states for a given year.

⁴²Looking at the composition of the two chambers separately, we find that no legislator type had a majority in either one of them. Furthermore, the shares of each type of legislator were similar in the two chambers. These results are available upon request.

⁴³We obtain similar results when examining the voting behavior of N congressmen as a function of their relative share of seats in the coalition with M representatives, i.e., the likelihood that N representatives vote in favor of FTA decreases with $Share_t^N / (Share_t^N + Share_t^M)$.

⁴⁴Notice that, if we exclude the variable *Trend* from the set of controls, the coefficient for $Share_t^N$ remains negative and significant at 1 percent. The same is true if we include the variable *Trade exposure* _{t} ^{i} ; unsurprisingly, this is never significant, since N legislators represent by definition similar constituencies.

to support fast track the higher is their share of seats in Congress.⁴⁵ As for the effect of the additional controls, we obtain results closely resembling those of Table 4: senators are more likely to support FTA as are Republican and more conservative legislators; the same is not true instead for congressmen representing swing states or states won by the President in the last election. The only noticeable difference with the results of Table 4 is that alignment with the President has now a positive and significant impact.

Our findings are consistent with the predictions of our model, and suggest that strategic delegation plays an important role. To further assess the causal effect of this motive, we have carried out a falsification exercise, looking at votes on the content of specific trade agreements put forward in Congress during the 1974-2002 period.⁴⁶ Interestingly $Share_t^N$ was never found to be negative and significant.⁴⁷

Table 5: Empirical results for N constituencies

Regressor	(1)	(2)	(3)	(4)	(5)
$Share_t^N$	-0.023*** (0.007)	-0.025*** (0.007)	-0.022*** (0.007)	-0.024*** (0.007)	-0.023*** (0.007)
Senate ⁱ	0.126** (0.047)	0.126** (0.046)	0.124** (0.048)	0.128** (0.047)	0.126** (0.048)
Democrat ⁱ	-0.352*** (0.048)		-0.343*** (0.051)	-0.351*** (0.048)	-0.353*** (0.048)
Conservative rating ⁱ		0.005*** (0.001)			
Party as President ⁱ			0.075** (0.038)		
Swing State ⁱ				0.028 (0.035)	
President's State ⁱ					0.034 (0.048)
Trend	-0.021*** (0.004)	-0.020*** (0.004)	-0.022*** (0.004)	-0.021*** (0.004)	-0.021*** (0.004)
State effects	included	included	included	included	included
Observations	849	848	849	849	849
Log likelihood	-371.37	-374.11	-369.18	-371.12	-371.10
Pseudo R ²	0.31	0.31	0.32	0.32	0.32
Predicted Prob.	0.73	0.73	0.73	0.73	0.74

Notes: The dependent variable, $Vote_t^i$, equals 1 if congressman votes in favor of FTA, 0 otherwise. Marginal effects are reported for all regressors, calculated as discrete changes from 0 to 1 for dummy variables. Only congressmen from N constituencies (based on $g = 0.25$) are included. Standard errors clustered at state-decade level in parenthesis; *** denotes significance at 1% level; ** 5% level; * 10% level.

⁴⁵Based on the regression results reported in the first column, a one standard deviation increase in the variable $Share_t^N$ induces a 10.0 percentage point decrease in the probability of voting in favor of FTA, which corresponds to a 13.7 percent decrease over the average predicted probability of a positive vote.

⁴⁶These include all major trade liberalization bills that were not bundled with decisions on fast track procedures: the House vote on U.S.-Israel free trade area (since the Senate only held a voice vote), and the House and Senate votes on the U.S.-Canada free trade area (CUSFTA), the North-American Free Trade Agreement (NAFTA), and the implementation of the Uruguay Round Agreements.

⁴⁷The results are available upon request from the authors.

7 Robustness checks

In this section, we perform four sets of additional estimations to assess the robustness of our main findings, focusing on the second prediction of our model. They involve the definition of our key explanatory variable, possible concerns with omitted variables, the structure of our panel dataset, and potential confounding effects due to the complex nature of some of the legislative initiatives considered in our sample. Further robustness checks are discussed in Appendix 1.

We start by looking, in Table 6, at alternative definitions of our key explanatory variable, allowing for different cutoff values of g to define neutral districts. Considering specifications with $g = 0.2$ and $g = 0.3$ does not alter our main findings.

Table 6: Alternative definitions of N districts

Regressor	$g = 0.20$			$g = 0.30$		
	(1)	(2)	(3)	(4)	(5)	(6)
Share $_t^N$	-0.038*** (0.012)	-0.038*** (0.012)	-0.038*** (0.012)	-0.015** (0.008)	-0.018** (0.007)	-0.016** (0.008)
Senate i	0.097 (0.060)	0.103* (0.057)	0.095 (0.061)	0.122** (0.043)	0.122*** (0.042)	0.122** (0.045)
Democrat $_t^i$	-0.340*** (0.054)		-0.334*** (0.056)	-0.351*** (0.042)		-0.343*** (0.045)
Conservative rating $_t^i$		0.005*** (0.001)			0.005*** (0.001)	
Party as President $_t^i$			0.052 (0.042)			0.088** (0.035)
Trend	-0.016*** (0.006)	-0.015*** (0.006)	-0.016*** (0.006)	-0.028*** (0.004)	-0.026*** (0.004)	-0.028*** (0.005)
State effects	included	included	included	included	included	included
Observations	658	657	658	1,061	1,059	1,061
Log likelihood	-280.65	-282.27	-279.84	-452.92	-457.47	-449.29
Pseudo R ²	0.33	0.33	0.33	0.34	0.33	0.34
Predicted Prob.	0.74	0.74	0.74	0.72	0.72	0.72

Notes: The dependent variable, $Vote_t^i$, equals 1 if congressman votes in favor of FTA, 0 otherwise. Marginal effects reported for all regressors, calculated as discrete changes from 0 to 1 for dummy variables. Only congressmen from N constituencies are included (based on $g = 0.2$ and $g = 0.3$ respectively). Standard errors clustered at state-decade level in parenthesis; *** denotes significance at 1% level; ** 5% level; * 10% level.

Our theoretical model focuses on the role played by the trade policy interests of different electoral districts, and as a result in Table 5 we have focused on the role of trade exposure as the driver of voting behavior. One concern is that our findings could be biased by the omission of other constituency-level characteristics that might affect FTA voting decisions. To address this possibility, we have collected information on a series of additional economic and socio-economic controls. Some of these are available at the district level (percentage of urban population, percentage of black population), while others are available only at the state level (real GDP per capita, unemployment rate). Importantly, data at the district level are mostly available

from the decennial censuses, whereas data with annual variation are only available at the state level.⁴⁸ Results are reported in Table 7. While some of these additional controls do affect voting behavior, our main results are unchanged, i.e., the impact of $Share_t^N$ continues to be negative and significant.⁴⁹ To further account for unobservable time-varying features at the state level, we have also tried including state-specific trends in all the specifications included in Table 5. Also in this case our qualitative results are unaffected.

Table 7: Including additional district-level controls

Regressor	(1)	(2)	(3)	(4)
$Share_t^N$	-0.030*** (0.008)	-0.028*** (0.007)	-0.024*** (0.007)	-0.024*** (0.007)
Senate ⁱ	0.118** (0.047)	0.136*** (0.047)	0.127*** (0.047)	0.129*** (0.047)
Democrat ⁱ	-0.353*** (0.049)	-0.354*** (0.049)	-0.322*** (0.051)	-0.366*** (0.049)
Trend	-0.017*** (0.005)	0.009 (0.012)	-0.021*** (0.004)	-0.021*** (0.004)
Unemployment rate	0.034** (0.015)			
Real GDP per capita		-0.055*** (0.021)		
% Black population			-0.004*** (0.001)	
% Urban population				0.002** (0.001)
State effects	included	included	included	included
Observations	849	849	849	849
Pseudo R^2	0.32	0.32	0.32	0.32
Log likelihood	-369.38	-367.61	-367.16	-369.13
Predicted prob.	0.73	0.73	0.73	0.74

Notes: The dependent variable, $Vote_t^i$, equals 1 if congressman votes in favor of FTA, 0 otherwise. Marginal effects are reported for all regressors, calculated as discrete changes from 0 to 1 for dummy variables. Only congressmen from N constituencies are included. Standard errors clustered at state-decade level in parenthesis; *** denotes significance at 1% level; ** 5% level; * 10% level.

One may also be concerned with the panel structure of our dataset. As a result, to put more emphasis on the cross-sectional variation instead of the time dimension, we have estimated our main specifications by decade. To this end, we have defined three subsamples following each decennial census, starting with the first year for which the new districts were defined, i.e., 1973-1982, 1983-1992, and 1993-2002. The results for the two more recent decades are qualitatively similar to those for the full sample, while this is not true for the first subsample. However, analyzing the first decade in isolation is not very meaningful since the data does not exhibit

⁴⁸For these reason we have decided not to include these additional controls in our benchmark specification.

⁴⁹We have also tried substituting the time trend with country level macroeconomic characteristics, such as GDP growth and unemployment rates. Once again, the coefficients of our main regressors of interest remained significant and with the expected sign.

much variation as the 1974 and 1979 bills were approved by an overwhelming majority (see Table 1) and the vote of 1973 is not included because of data problems (see Section 5).

Finally, notice that bills introduced to grant or extend FTA have often contained also other important trade policy provisions. To eliminate potentially confounding factors, we have restricted our sample to legislative proposals focusing exclusively on FTA. This resulted in a sample including only bills that were voted upon in 1991, 1993 and 1998, but our qualitative results were unaffected.

8 Conclusions

In this paper, we have developed a simple two-country model of trade relations to understand what drives U.S. legislators to grant FTA to the President, and thus to give up the possibility to shape international trade deals. Our theoretical framework emphasizes the role played by the geographic heterogeneity in the distribution of economic activities across constituencies. Our analysis suggests that legislators' decisions should depend crucially on the degree of protectionism of Congress majority, which affects the desirability of delegating trade negotiating policy to the executive.

We have examined the determinants of all congressional votes on FTA since the introduction of this procedure in 1974. To capture the trade policy stakes of all U.S. congressmen, we have constructed a novel dataset, which maps information available from the County Business Patterns into data at the congressional district level for each year in our dataset. Our results provide strong support for the predictions of our theoretical model. We find that a congressman is more likely to support FTA the more export oriented his constituency is relative to the country as a whole. Furthermore, the voting behavior of representatives of non-specialized constituencies depends on the degree of protectionism of the majority in Congress. In particular, representatives of neutral districts are less likely to support FTA, the larger is their own share of seats in Congress. These findings are consistent with the predictions of our model for the empirically relevant no-majority scenario, and are remarkably robust. Our analysis of FTA voting behavior represents one of the first attempts to empirically assess strategic delegation models.

When a congressman decides whether to support FTA, at least three considerations come to mind: (1) to what extent are his/her preferences over trade policy similar those of the President? (2) would Congress or the President be a tougher counterpart in the bargaining with the foreign country? and (3) would the decision to grant FTA affect the probability that a trade agreement is actually reached? In this paper, we have emphasized the first two considerations, examining the effect of fast track procedures on the *terms of the agreement*, in a standard bargaining model in which negotiations can never fail.

To examine instead the impact of fast track procedures on the likelihood that international negotiations are successfully concluded, our analysis could be extended by allowing the possibility

of bargaining failure. Our model suggests that, unless the representatives from export districts enjoy a majority in Congress, Foreign prefers to negotiate with Home under FTA, since lack of FTA tends to strengthen Home's bargaining position in the negotiations. This might explain the reluctance of foreign partners to negotiate with the United States in the absence of FTA,⁵⁰ which can lower the chances that a trade agreement is reached.

Another avenue for further research involves the generalization of our analysis to a multi-country setting. Our setup shows that Home can gain when a protectionist Congress retains amendment power. This conclusion may be reversed in the presence of multiple negotiating partners. In this case, in the absence of FTA, negotiations with the United States may become too costly, and trading partners may decide to enter into agreements with other countries instead.⁵¹

Finally, it would be interesting to consider a setting in which Home and Foreign are characterized by similar institutional arrangements.⁵² In this scenario, both countries may be tempted to leave trade negotiations in the hands of protectionist legislators, so as to skew trade agreements in their favor. However, if they both did so, they would end up being worse off than if they could commit to delegate trade negotiations to their executives (Jones, 1989).

While our analysis has focused on the determinants of fast track voting decisions in the United States and their implications for trade negotiations, our model can help to shed light on broader institutional design questions, that can arise in the context of the negotiation of other types of international agreements.

References

- Ai, C. and E. C. Norton (2003). "Interaction Terms in Logit and Probit Models," *Economics Letters* 80, 123-129.
- Bagwell, K., and R. Staiger (1990). "Theory of Managed Trade," *American Economic Review* 80, 779-795.
- Bagwell, K., and R. Staiger (1999). "An Economic Theory of GATT," *American Economic Review* 89, 215-248.
- Bagwell, K., and R. Staiger (2001). "Domestic Policies, National Sovereignty and International Economic Institutions," *Quarterly Journal of Economics* 116, 519-562.

⁵⁰In line with this argument, during the period in which President Clinton lacked FTA, it was argued that U.S. "trading partners are negotiating with the U.S. Congress through the administration (...). In effect, the administration appears to be intent on taking advantage of the anxiety of other trading partners, by asking them to pay a price now before going to the Congress" (see www.sunsonline.org).

⁵¹As Bhagwati has recently pointed out "if we don't have fast track, we are going to lose out in the race for bilaterals. When the Europeans try for bilaterals, we've sort of stopped them in their tracks by joining in and pushing for these things ourselves. Now, we could get handicapped" (see www.cfr.org/publication/12592/bhagwati.html).

⁵²This would enable us to analyze, for example, the effects of allowing the EU Council of Ministers to amend trade agreements negotiated by the EU Trade Commissioner, rather than simply accepting them or rejecting them, as it is the case under the current arrangements.

- Bailey, M., J. Goldstein, and B. R. Weingast (1997). "The Institutional Roots of American Trade Policy: Politics, Coalitions and International Trade," *World Politics* 49, 309-338.
- Baldwin, R. E. (1985). *The Political Economy of U.S. Import Policy*, MIT Press: Cambridge, MA.
- Baldwin, R. E., and C. Magee (2000). "Is Trade Policy for Sale? Congressional Voting on Recent Trade Bills," *Public Choice* 105, 79-101.
- Blonigen, B. A., and D. N. Figlio. (1998). "Voting for Protection: Does Direct Foreign Investment Influence Legislator Behavior?," *American Economic Review* 88, 1002-1014.
- Brainard, L., and H. Shapiro (2001). "Fast Track Trade Promotion Authority," Brookings Policy Brief No. 91.
- Box-Steffenmeier, J. M., L. W. Arnold, and C. J. W. Zorn (1997). "The Strategic Timing of Position Taking in Congress: A Study of the North American Free Trade Agreement," *American Political Science Review* 91, 324-338.
- Busch, M. L., and E. Reinhardt (1999). "Industrial Location and Protection: The Political and Economy Geography of U.S. Nontariff Barriers," *American Journal of Political Science* 43, 1028-1050.
- Conconi, P., and C. Perroni (2002). "Issue Linkage and Issue Tie-in in International Negotiations," *Journal of International Economics* 57, 423-447.
- Conconi, P., G. Facchini, and M. Zanardi (2011). "Policymakers' Horizon and Economic Reforms," mimeo, Université Libre de Bruxelles.
- Conley, S. R. (1999). "Derailing Presidential Fast-Track Authority: The Impact of Constituency Pressures and Political Ideology on Trade Policy in Congress," *Political Research Quarterly* 52, 785-799.
- Destler, I. M. (2005). *American Trade Politics*, 4th edition, Institute for International Economics: Washington, DC.
- Drazen, A., and N. Limão (2008). "A Bargaining Theory of Inefficient Redistribution Policies," *International Economic Review* 49, 621-657.
- Fershtman, C., and E. Kalai (1997). "Unobserved Delegation," *International Economic Review* 38, 763-774.
- Fershtman, C., and U. Gneezy (2001). "Strategic Delegation: An Experiment," *Rand Journal of Economics* 32, 352-368.
- Glaeser, E. L., and B. Ward (2006). "Myths and Realities of American Political Geography," *Journal of Economic Perspectives* 20, 119-144.
- Grossman, G., and E. Helpman (1995). "Trade Wars and Trade Talks," *Journal of Political Economy* 103, 675-708.

- Grossman, G., and E. Helpman (2005). "A Protectionist Bias in Majoritarian Politics," *Quarterly Journal of Economy* 120, 1239-1282.
- Hansen, W. L. (1990). "The International Trade Commission and the Politics of Protectionism," *American Political Science Review* 84, 21-46.
- Hiscox, M. J. (1999). "The Magic Bullet? The RTAA, Institutional Reform, and Trade Liberalization," *International Organization* 53, 669-698.
- Irwin, D. A. (1998). "From Smoot-Hawley to Reciprocal Trade Agreements: Changing the Course of U.S. Trade Policy in the 1930s," in M. D. Bordo, C. Goldin, and E. N. White (eds.), *The Defining Moment: The Great Depression and the American Economy in the Twentieth Century*, University of Chicago Press: Chicago, IL.
- Johnson, H. G., (1953-1954). "Optimum Tariffs and Retaliation," *Review of Economic Studies* 21, 142-153.
- Jones, S. R. G. (1989). "Have Your Lawyer Call my Lawyer: Bilateral Delegation in Bargaining Situations," *Journal of Economic Behavior & Organization* 11, 159-174.
- Karol, D. (2000). "Divided Government and U.S. Trade Policy: Much Ado About Nothing?," *International Organization* 54, 825-844.
- Katz, M. (1991). "Game-Playing Agents: Unobservable Contracts as Precommitments?," *Rand Journal of Economics* 22, 307-328.
- Leip, D. (2008). *Dave Leip's Atlas of U.S. Presidential Elections*.
- Levy, P. (1999). "Lobbying and international cooperation in tariff setting," *Journal of International Economics* 47, 345-370.
- Limão, N. (2007). "Are Preferential Trade Agreements with Non-trade Objectives a Stumbling Block for Multilateral Liberalization?," *Review of Economic Studies* 74, 821-855.
- Lohmann, S., and S. O'Halloran (1994). "Divided Government and U.S. Trade Policy: Theory and Evidence," *International Organization* 48, 595-632.
- Magee, C. (2001). "Administered Protection for Workers: an Analysis of the Trade Adjustment Assistance Program," *Journal of International Economics* 53, 105-125.
- Maggi, G. (1999). "The Role of Multilateral Institutions in International Trade Cooperation," *American Economic Review* 89, 190-214.
- Maggi, G., and A. Rodríguez-Clare (2007). "A Political Economy Theory of Trade Agreements," *American Economic Review* 97, 1374-1406.
- Mayer, W. (1981). "Theoretical Considerations on Negotiated Tariff Adjustments," *Oxford Economic Papers* 33, 135-153.
- Milner, H. V. (1997). *Interests, Institutions, and Information*, Princeton University Press: Princeton, NJ.

- Milner, H. V., and B. P. Rosendorff (1997). "Democratic Politics and International Trade Negotiations: Elections and Divided Government as Constraints on Trade Liberalization," *Journal of Conflict Resolution* 41, 117-146.
- Muthoo, A. (1996). "A Bargaining Model Based on the Commitment Tactic," *Journal of Economic Theory* 69, 134-152.
- Putnam, R. (1988). "Diplomacy and Domestic Politics: The Logic of Two Level Games," *International Organization* 42, 427-460.
- Rosenthal, H. (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.
- Schelling, T. C. (1956). "An Essay on Bargaining," *American Economic Review* 46, 281-306.
- Schotter, A., W. Zheng, and B. Snyder (2001). "Bargaining Through Agents: An Experimental Study of Delegation and Commitment" *Games and Economic Behavior* 30, 248-292.
- Schott, J. J. (2010). "KORUS FTA 2.0: Assessing the Changes," Peterson Institute for International Economics Policy Brief No. 10 - 28.
- Smith, C. C. (2007). "Trade Promotion Authority and Fast-Track Negotiating Authority for Trade Agreements: Major Votes," CRS Report for Congress No. RS21004.
- Song, Y. (2008). "Protection for Sale: Agenda-setting and Ratification in the Presence of Lobbying," mimeo, Korea Institute for International Trade Policy.
- Sussman, G., and B. W. Daynes (1995). "The Impact of Political Ideology on Congressional Support for Presidential Policy Making Authority: The Case of Fast-Track," *Congress and the Presidency* 22, 141-53.
- Wilson, R. K., and C. D., Young (1997). "Cosponsorship in the U.S. Congress," *Legislative Studies Quarterly* 22, 25-43.

1 Appendix 1

1.1 Home's Indifference Curves

We start by considering the preferences of the executive, and then turn to the preferences of legislators from different electoral constituencies. As in Mayer (1981), we characterize the indifference curves in the (τ, τ^*) space. Totally differentiating equation (5) and setting $dW = 0$, the slope of the executive's indifference curve is given by

$$\frac{d\tau^*}{d\tau} = -\frac{\left[\frac{\partial R_1}{\partial \tau} + \frac{\partial T}{\partial \tau} + \frac{\partial \Omega}{\partial \tau}\right]}{\left[\frac{\partial R_2}{\partial \tau^*} + \frac{\partial \Omega}{\partial \tau^*}\right]} \quad (\text{A.1})$$

and substituting we obtain

$$\frac{d\tau^*}{d\tau} = \frac{M_1 \frac{d\pi_1}{d\tau} (1 - \tau \epsilon^*)}{X_2 \frac{d\pi_2}{d\tau^*}}, \quad (\text{A.2})$$

where $\epsilon^* = \frac{dX_1^*}{dp_1^*} \frac{p_1^*}{X_1^*} > 0$.

Notice that, since Home imports good 1 and exports good 2, we must have $M_1 > 0$ and $X_2 > 0$. Also, as long as goods 1 and 2 are normal, an increase in their price will decrease overall consumption, so we have

$$\frac{d\pi_1}{d\tau} = -\frac{\pi_1 \frac{dM_1}{dp_1}}{\frac{dM_1}{dp_1} (1 + \tau) + \frac{dX_1^*}{dp_1^*}} < 0, \quad (\text{A.3})$$

$$\frac{d\pi_2}{d\tau^*} = -\frac{\pi_2 \frac{dM_2^*}{dp_2^*}}{\frac{dM_2^*}{dp_2^*} (1 + \tau^*) + \frac{dX_2}{dp_2}} < 0. \quad (\text{A.4})$$

This implies that the denominator of the term on the right-hand side of equation (A.2) is positive. Turning now to the numerator, its sign depends on the sign of $(1 - \tau \epsilon^*)$. It follows immediately that

$$\frac{d\tau^*}{d\tau} \begin{matrix} \geq \\ \leq \end{matrix} 0 \Leftrightarrow \tau \begin{matrix} \leq \\ \geq \end{matrix} \frac{1}{\epsilon^*} \quad (\text{A.5})$$

where $\hat{\tau} = \frac{1}{\epsilon^*}$ is Home's optimal tariff as derived in (7). Therefore, for non-negative values of τ , the slope of the executive's indifference curves is positive, zero or negative depending on Home's actual tariff rate being less than, equal to, or larger than its optimal tariff.

We turn now to the preferences of the legislators. Representatives of non-specialized N constituencies share the same preferences as the President (see equation 12). As for the representatives of the more protectionist M constituencies, totally differentiating equation (10), and setting $dW^M = 0$, we obtain

$$\left(\frac{d\tau^*}{d\tau}\right)^M = -\frac{\left[\alpha_1^M \frac{\partial R_1}{\partial \tau} + h \left(\frac{\partial T}{\partial \tau} + \frac{\partial \Omega}{\partial \tau}\right)\right]}{\left[\alpha_2^M \frac{\partial R_2}{\partial \tau^*} + h \frac{\partial \Omega}{\partial \tau^*}\right]}. \quad (\text{A.6})$$

Notice that, compared to the right-hand side of equation (A.1), the numerator is bigger and the denominator is smaller in absolute value, since $\alpha_1^M > h > \alpha_2^M$. Thus, as shown in Figure 3, the indifference curves of M representatives are *steeper* than those of N representatives. It immediately follows that the optimal tariff for M representatives, $\hat{\tau}^M$, is higher than the optimal

tariff for the executive, i.e., $\hat{\tau}^M > \hat{\tau}$.

The slope of the preferences of the X representatives is instead given by

$$\left(\frac{d\tau^*}{d\tau}\right)^X = -\frac{[\alpha_1^X \frac{\partial R_1}{\partial \tau} + h(\frac{\partial T}{\partial \tau} + \frac{\partial \Omega}{\partial \tau})]}{[\alpha_2^X \frac{\partial R_2}{\partial \tau^*} + h \frac{\partial \Omega}{\partial \tau^*}]} \quad (\text{A.7})$$

Notice that, compared to the right-hand side of equation (A.1), the numerator is smaller and the denominator is bigger in absolute value as $\alpha_2^X > h > \alpha_1^X$. Thus, for each τ , the indifference curve of X legislators is *flatter* than the indifference curve of the executive, and as a result the optimal tariff for X representatives, $\hat{\tau}^X < \hat{\tau}^N$.

1.2 Characterization of the CC Locus

We can now proceed to characterize the set of efficient agreements that can be negotiated by the executives of the countries. This set is represented by tariff combinations (τ, τ^*) that satisfy Assumption 2, such that the Presidents' indifference curves are tangent to each other. The slope of the indifference curve of the foreign executive is given by

$$\left(\frac{d\tau^*}{d\tau}\right)^* = \frac{M_1 \frac{d\pi_1}{d\tau}}{M_2^* \frac{d\pi_2}{d\tau^*} (1 - \tau^* \epsilon)}. \quad (\text{A.8})$$

Recalling that $M_1 = X_1^*$ and that $M_2^* = X_2$, efficient agreements must then satisfy the condition

$$(1 - \tau \epsilon^*)(1 - \tau^* \epsilon) - 1 = 0, \quad (\text{A.9})$$

implying that the set of efficient agreements goes through the free trade point.

1.3 Lemma 1

Lemma 1 *Let $(\frac{d\tau^*}{d\tau})^{M,N}$ and $(\frac{d\tau^*}{d\tau})^{M,X}$ be the slopes of the preferences of a coalition between import and non-specialized district representatives and between import and export district representatives, respectively. If $|(\frac{d\tau^*}{d\tau})^{M,N}| > |(\frac{d\tau^*}{d\tau})^{M,X}|$, the only possible coalition in the amendment stage is between M and N representatives. A sufficient condition for this inequality to hold is $\beta^N \leq \beta^X$.*

Proof. The slope of the indifference curve of the (M, N) coalition is

$$\left(\frac{d\tau^*}{d\tau}\right)^{M,N} = -\frac{[(\beta^M \alpha_1^M + \beta^N h) \frac{\partial R_1}{\partial \tau} + (\beta^M + \beta^N) h (\frac{\partial T}{\partial \tau} + \frac{\partial \Omega}{\partial \tau})]}{[(\beta^M \alpha_2^M + \beta^N h) \frac{\partial R_2}{\partial \tau^*} + (\beta^M + \beta^N) h \frac{\partial \Omega}{\partial \tau^*}]}, \quad (\text{A.10})$$

while that of the (M, X) coalition is given by

$$\left(\frac{d\tau^*}{d\tau}\right)^{M,X} = -\frac{[(\beta^M \alpha_1^M + \beta^X \alpha_1^X) \frac{\partial R_1}{\partial \tau} + (\beta^M + \beta^X) h (\frac{\partial T}{\partial \tau} + \frac{\partial \Omega}{\partial \tau})]}{[(\beta^M \alpha_2^M + \beta^X \alpha_2^X) \frac{\partial R_2}{\partial \tau^*} + (\beta^M + \beta^X) h \frac{\partial \Omega}{\partial \tau^*}]}. \quad (\text{A.11})$$

If $|\left(\frac{d\tau^*}{d\tau}\right)^{M,N}| > |\left(\frac{d\tau^*}{d\tau}\right)^{M,X}|$, the coalition of M and N legislators is more protectionist than that of M and X legislators. If this is the case, M representatives will always prefer to form a coalition with N representatives rather than with X representatives, since the preferences of this coalition will be closer to their own. Furthermore, if N representatives reject the President's proposal, they can only increase their utility in the amendment stage by forming a coalition with M representatives, which strengthens their bargaining position vis-à-vis Foreign.

Recall that X districts have higher stakes in the production of the export good and lower stakes in the production of the import-competing good compared to non-specialized districts ($\alpha_1^X < h < \alpha_2^X$). This implies that X representatives are more willing to trade off reductions in domestic import tariffs with reductions in foreign tariffs. In turn, this implies that the coalition of M and N legislators is likely to be more protectionist than the one between M and X legislators. This is the case, for example, if $\beta^N \leq \beta^X$. ■

Notice that the M, N coalition could only be less protectionist than the M, X coalition only in extreme (and empirically irrelevant) scenarios in which the share of X representatives is very small compared to that of N representatives and the trade preferences of N and X representatives are very similar.

1.4 Semi-benevolent politicians

In our theoretical analysis we have assumed that all policymakers are benevolent, i.e., they equally weight the welfare of all individuals in their constituencies.

A large literature in the political economy of trade policy has instead emphasized the importance of lobbying. Examining how pressure groups affect FTA voting decisions requires modeling their interaction with different branches of government. We can show that, as long as pressure groups lobby all politicians, our main results are not affected. To capture lobbying, let us assume that each domestic politician attaches a weight $(1 + \sigma)$ to the rents obtained by the specific-factor owners in the import-competing sector.⁵³ Under this alternative assumption, the preferences of the executive are captured by

$$W(\tau, \tau^*) = 1 + (1 + \sigma)R_1(\tau) + R_2(\tau^*) + T(\tau) + \Omega(\tau, \tau^*), \quad (\text{A.12})$$

while those of M , X and N legislators are respectively given

$$W^M(\tau, \tau^*) = h + (1 + \sigma)\alpha_1^M R_1(\tau) + \alpha_2^M R_2(\tau^*) + h [T(\tau) + \Omega(\tau, \tau^*)], \quad (\text{A.13})$$

$$W^X(\tau, \tau^*) = h + (1 + \sigma)\alpha_1^X R_1(\tau) + \alpha_2^X R_2(\tau^*) + h [T(\tau) + \Omega(\tau, \tau^*)], \quad (\text{A.14})$$

$$W^N(\tau, \tau^*) = h + (1 + \sigma)hR_1(\tau) + hR_2(\tau^*) + h [T(\tau) + \Omega(\tau, \tau^*)]. \quad (\text{A.15})$$

It is straightforward to verify that the indifference curves of all policymakers are steeper than in

⁵³Alternatively, one could think of the additional weight attached to the welfare of specific-factor owners in sector 1 as resulting from the ideological orientation of some legislators. In particular, democratic politicians are typically more protectionist, and may thus care more about import-competing producers. The logic of strategic delegation would still apply to this alternative formulation. However, the specific predictions about FTA voting decisions would depend on how ideology and trade preferences interact.

the absence of lobbying. Moreover, the contract curve does not go through the free trade point, and the set of feasible agreements between the two executives includes outcomes in which both countries set positive tariffs (see Bagwell and Staiger (1999) for a similar result). However, the results of our analysis concerning FTA voting behavior are not affected, since they do not hinge on the specific trade preferences of the executive and the legislators, but rather on the *relative* trade policy stance of the President and the majority of Congress.

One could also consider a setting in which politicians want to be re-elected, and thus care only about the interests of the *majority* in their constituency. As long as re-election motives affect both the preferences of the legislators and those of the President, the preferences of the majority of Congress will generally be different from those of the President, and the main results of our analysis will continue to hold.

1.5 Additional Robustness Checks

In the remaining of this appendix, we discuss the results of two additional robustness checks carried out in our empirical analysis. We start by including in our specification a series of additional political economy controls capturing an alternative explanation for FTA voting decisions that has been proposed in the literature. Next, we extend our measure of trade exposure to include also the service sector.⁵⁴

Our theoretical analysis has emphasized the role of strategic delegation motives. An alternative rationale has been proposed by Lohmann and O'Halloran (1994). Their idea is that, by restricting legislators' amendment power, the delegation of trade policy to the president might eliminate protectionist logrolling in tariff legislation. In their setting, congressmen can gain by delegating trade policy to the executive, who represents the country as a whole and cares about the welfare of all districts. However, the President is likely to be biased in favor of legislators from his own party. Thus, support for fast track procedures depends on whether or not the majority in Congress and the executive are aligned, and on the legislator's party affiliation. In particular, members of the majority party should be less willing to grant FTA to the executive when the government is divided. To empirically capture this argument, we use two dichotomous variables. The first indicates whether a legislator belongs to the majority in Congress ($Majority_t^i$), and the second whether the legislative and executive branches are aligned ($Divided_t$). The key implication of Lohmann and O'Halloran (1994) argument concerns the interaction between these two variables, which is expected to have a negative sign.

Table A.1 reports the results when we include these regressors. Notice that the coefficient on $Share_t^N$ continues to be negative and significant in all specifications. On the other hand, the coefficient on $Majority_t^i \times Divided_t$ is never significant, suggesting that anti-logrolling motives do not play an important role in explaining FTA voting decisions.⁵⁵

⁵⁴In an additional series of specifications, we have also controlled for the role of the size of the agricultural sector. The estimated coefficient was never significant, and the sign and significance of the other explanatory variables were not affected.

⁵⁵We have followed Ai and Norton (2003), to calculate the magnitude and sign of the interaction term.

Table A.1: Divided government and FTA voting

Regressor	(1)	(2)	(3)	(4)
Share _t ^N	-0.025*** (0.007)	-0.026*** (0.007)	-0.025*** (0.007)	-0.024*** (0.007)
Senate ⁱ	0.122** (0.046)	0.129*** (0.044)	0.123** (0.046)	0.120** (0.046)
Democrat _t ⁱ	-0.414*** (0.042)		-0.414*** (0.042)	-0.417*** (0.042)
Majority _t ⁱ	0.246** (0.104)	0.144 (0.092)	0.245** (0.106)	0.251** (0.104)
Divided _t	-0.104 (0.085)	-0.126 (0.076)	-0.104 (0.085)	-0.107 (0.083)
Majority*Divided _t ⁱ	-0.005 (0.122)	0.053 (0.107)	-0.003 (0.123)	-0.007 (0.122)
Conservative rating _t ⁱ		0.005*** (0.001)		
Swing State _t ⁱ			0.012 (0.040)	
President's State _t ⁱ				0.063 (0.057)
Trend	-0.017*** (0.004)	-0.016*** (0.004)	-0.017*** (0.004)	-0.017*** (0.004)
State effects	included	included	included	included
Observations	849	848	849	849
Log likelihood	-350.47	-359.66	-350.43	-349.70
Pseudo R ²	0.36	0.34	0.36	0.36
Predicted Prob.	0.72	0.72	0.72	0.72

Notes: The dependent variable, $Vote_t^i$, equals 1 if congressman votes in favor of FTA, 0 otherwise. Marginal effects reported for all regressors, calculated as discrete changes from 0 to 1 for dummy variables. Only congressmen from N constituencies (based on $g = 0.25$) are included. Standard errors clustered at state-decade level in parenthesis; *** denotes significance at 1% level; ** 5% level; * 10% level.

In our benchmark analysis, our key explanatory variable $Trade\ exposure_t^i$ includes only information on employment in the manufacturing sector. As services are becoming increasingly important, we have decided to check the robustness of our findings to the inclusion of this sector. The main difficulty is that data on trade in services is not available by the same SIC or NAICS codes used by the CBP. This prevents us from directly classifying activities as being import-competing or export oriented. Since 1986, trade data on services can be derived instead from the IMF balance of payments (BoP) statistics, but is only available in large groupings, and to carry out our analysis we have manually matched SIC and NAICS codes to the categories of services available from the BoP statistics.

The results are reported in Table A.2. Column (1) replicates the findings of Table 5, column (1), using data only on manufacturing for the period 1988-2002, and is introduced as a benchmark. When we include services in columns (2)-(6), all our main findings continue to hold. In particular, the estimates for $Share_t^N$ are in line with those of Table 5, even if they are based on different observations, as the identity of N constituencies is influenced by the inclusion of employment in services.

Table A.2: Results including services

Regressor	(1)	(2)	(3)	(4)	(5)	(6)
Share _t ^N	-0.033*** (0.009)	-0.017** (0.009)	-0.015* (0.009)	-0.021** (0.010)	-0.017** (0.009)	-0.016* (0.009)
Senate ⁱ	0.159*** (0.054)	0.162*** (0.054)	0.161*** (0.051)	0.160*** (0.054)	0.162*** (0.055)	0.163*** (0.054)
Democrat _t ⁱ	-0.420*** (0.049)	-0.424*** (0.065)		-0.442*** (0.049)	-0.424*** (0.067)	-0.425*** (0.065)
Conservative rating _t ⁱ			0.005*** (0.001)			
Party as President _t ⁱ				-0.070 (0.057)		
Swing State _t ⁱ					-0.081* (0.044)	
President's State _t ⁱ						0.027 (0.061)
Trend	-0.013** (0.007)	-0.020*** (0.005)	-0.021*** (0.005)	-0.018*** (0.006)	-0.021*** (0.005)	-0.020*** (0.005)
State effects	included	included	included	included	included	included
Observations	877	693	691	693	693	693
Log likelihood	-418.48	-336.11	-349.29	-334.92	-334.64	-335.97
Pseudo R ²	0.29	0.26	0.23	0.27	0.27	0.26
Predicted Prob.	0.64	0.68	0.67	0.68	0.68	0.68

Notes: The dependent variable, $Vote_t^i$, equals 1 if congressman supports FTA, 0 otherwise. Marginal effects reported for all regressors, calculated as discrete changes from 0 to 1 for dummy variables. Data are from the period 1988-2002. Column (1) excludes services; columns (2)-(6) include data on services. Standard errors clustered at state-decade level in parenthesis; *** denotes significance at 1% level; ** 5% level; * 10% level.

2 Appendix 2

2.1 Majority of M districts ($\beta^M > \frac{1}{2}$)

To analyze the scenario in which import districts representatives have a majority of seats in Congress, we use Figure 11, where we have replicated the CC curve along which the indifference curves of the two executives are tangent. We have also drawn the indifference curve of an M district representative going through the status quo point, W_Z^M . Notice that the ratification constraint rules out tariff combinations that lie above the indifference curve W_Z^M , since these trade agreements would be opposed by a majority of home legislators.

The set of feasible agreements under fast track procedures comprises all tariff combinations that satisfy Assumptions 1, 2 and 4. It is straightforward to verify that, when Home's bargaining power is large enough, this set corresponds to the BK segment of the CC contract curve: this represents tariff combinations that are Pareto improving from the point of view of the two executives, that leave no scope for renegotiation, and for which the ratification constraint is not binding. If instead Home's bargaining power is smaller than a critical threshold,⁵⁶ feasible tariff combinations lie along the KA' segment of the indifference curve W_Z^M . In the limit case in which Foreign has all the bargaining power ($\gamma = 0$), the outcome of the negotiations under fast track

⁵⁶This is the threshold β^K which satisfies condition A.10 at point K in Figure 11, in which the majority of M legislators is indifferent between the agreement and the status quo Z .

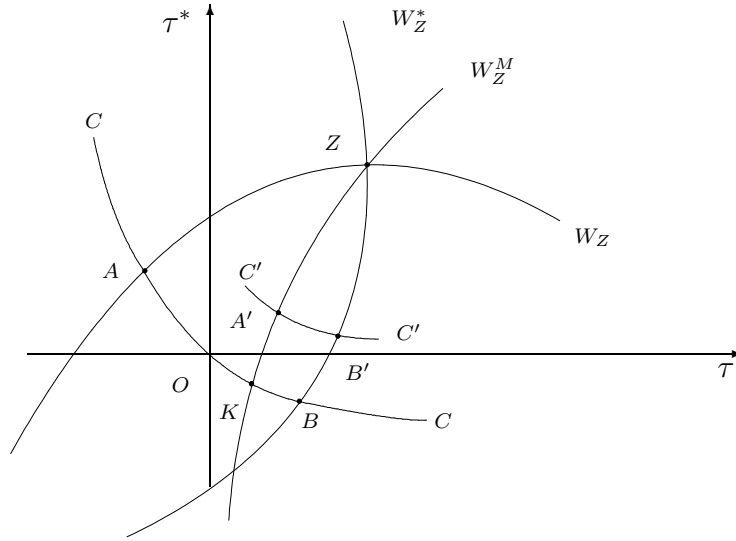


Figure 11: Trade negotiations between foreign executive and home M majority

procedures will be point A' , the best possible deal that can be achieved by Foreign given the ratification constraint. In the absence of fast track procedures, the set of feasible agreements is identified instead by the arc $A'B'$ on the $C'C'$ curve, which includes all tariff combinations satisfying Assumptions 1, 3 and 4 above.

It is easy to see that representatives of import districts will never support fast track. To verify this, notice the following: if Home enjoys all the bargaining power (i.e., $\gamma = 1$), M district representatives are always better off at B' than at B ; the same applies for any given $\gamma \in (0, 1]$; in the limit case in which Foreign enjoys all the bargaining power (i.e., $\gamma = 0$), the two negotiation procedures yields the same outcome (A'). The intuition behind this result is as follows: from the point of view of M legislators, granting FTA implies delegating trade negotiating authority to an agent, the President, who does not share their trade preferences; furthermore, this agent is less protectionist than they are, implying that granting FTA would weaken Home's bargaining position vis-à-vis Foreign. Turning to the behavior of representatives of export and non-specialized constituencies, in line with the results obtained in Section 4.3 for the case of no majority, we can show that they may vote in favor or against fast track procedures.⁵⁷ In particular, their support for fast track procedures increases with Home's bargaining power, and X representatives are generally more willing to support FTA than N representatives.

2.2 Majority of X Districts ($\beta^X > \frac{1}{2}$)

Consider now a scenario in which the representatives of the X export districts are the majority in Congress. To analyze this case, we use Figure 12.

The set of feasible agreements under FTA is represented by the AB segment of the CC curve, along which Assumptions 1, 2 and 4 are satisfied.⁵⁸ In the absence of FTA, feasible agreements

⁵⁷Notice that in this scenario, voting by N and X representatives will not affect whether FTA is granted or not. We assume that, whenever the outcome is independent of a legislator's vote, he still casts his vote according to his preferences.

⁵⁸Notice the ratification constraint is never binding along the AB segment, since the majority of X legislators

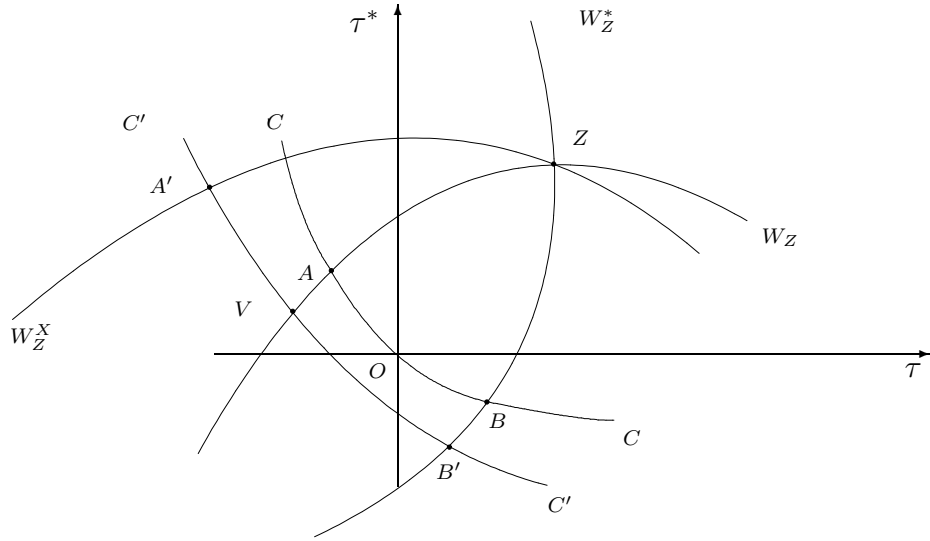


Figure 12: Trade negotiation between foreign President and X majority

are instead identified by the portion $A'B'$ of the $C'C'$ curve. Point V represents the trade agreement which is efficient from the point of view of the X majority and the foreign executive, and which gives the same level of utility to the home country as the status quo. Assumption 1 rules out agreements lying between V and A' . In this scenario, the set of feasible agreements between the Congress majority and the foreign executive is larger than the corresponding set for the two executives. Moreover, the $C'C'$ curve now lies below the CC curve.⁵⁹

It is easy to verify that M and N representatives will always support FTA. This is because, when negotiating with Foreign, they will always prefer to be represented by the President than by the X majority, as the executive is able to achieve a more favorable deal.⁶⁰ Next, consider X representatives. In line with the results discussed above even if they enjoy a majority in Congress, they might still prefer to support FTA and delegate trade negotiation authority to the executive.⁶¹

2.3 Majority of N Districts ($\beta^N > \frac{1}{2}$)

Finally, consider the scenario in which the majority of Congress is made up of representatives of the non-specialized N districts. Since the preferences of these districts coincide above, independently on whether or not negotiations occur under FTA; as a result, legislators are indifferent between granting or not FTA.

is always better off in all possible agreements compared to the status quo Z .

⁵⁹See footnote 24 for the argument.

⁶⁰It can be shown that, for any given γ , an outcome on the AB curve is always preferred to the corresponding outcome on the $A'B'$ curve. Only in the limit case in which $\gamma = 0$, N districts would be indifferent between FTA or not. In this case, both negotiation procedures would yield a level of utility W_Z for the N districts.

⁶¹This is the case, for example, when the two countries have similar bargaining strength. Note that in the extreme case in which foreign has all the bargaining power ($\gamma = 0$), X representatives will be against FTA ($W_V^X > W_A^X$). In the opposite extreme ($\gamma = 1$), X representatives always oppose FTA ($W_{B'}^X > W_B^X$). For intermediate values of γ , we have $W_E^X \leq W_{E'}^X$, where E and E' are the negotiation outcomes achieved with or without FTA.