

Trade Policy, Economic Interests, and Party Politics in a Developing Country: The Political Economy of CAFTA-DR¹

RAYMOND HICKS AND HELEN V. MILNER

Princeton University

AND

Dustin Tingley

Harvard University

Developing countries have increasingly opened their economies to trade. Research about trade policy in developed countries focuses on a bottom-up process by identifying economic preferences of domestic groups. We know less about developing countries. We analyze how economic and political variables influenced Costa Rican voters in a referendum on CAFTA-DR, an international trade agreement. We find little support for Stolper–Samuelson models of economic preferences, but more support for specific factor models. We also isolate the effects of political parties on the referendum, controlling for many economic factors; we document how at least one party influenced voters and this made the difference for CAFTA-DR passage. Politics, namely parties using their organizational strength to cue and frame messages for voters, influenced this important trade policy decision. Theories about trade policy need to take into account top-down political factors along with economic interests.

In October 2007, Costa Rica held the first public referendum on a trade agreement in a developing country to decide the fate of the Central American-Dominican Republic Free Trade Agreement (CAFTA-DR), the agreement signed in 2004 between the five Central American Common Market countries (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua), the Dominican Republic, and the United States. The referendum passed by a razor-thin margin, 51.56–48.44%, with a turnout of 59.2% of the eligible population. Unlike portrayals of the legislative vote on CAFTA-DR in the United States (Guisinger 2009), the issue was highly salient and politicized in Costa Rica.

Existing arguments about individual trade policy preferences focus largely on public opinion surveys (Scheve and Slaughter 2001; Beaulieu, Yatawara and Wang 2005; Guisinger 2009), elections with trade as one key issue (Johnston, Blais, Gidengil and Nevitte 1996), or legislative voting (Beaulieu 2002a,b; Ladewig 2006), all of which are indirect measures of public preferences. In none of these cases does the public directly control the outcome of a trade policy initiative. In this referendum, voters decided whether Costa Rica would accept or reject the trade agreement. The referendum provides a unique opportu-

Raymond Hicks is the statistical programmer at the Niehaus Center for Globalization and Governance at Princeton University. His research interests include monetary and trade policy. Helen V. Milner is B. C. Forbes Professor of Politics and International Affairs at Princeton University and the director of the Niehaus Center for Globalization and Governance. She has written extensively on issues related to international political economy. Dustin Tingley is Associate Professor of Government at Harvard University. His research interests include the intersection of domestic politics and international relations and experimental social science.

nity to consider the role of domestic politics in shaping how voters form preferences over trade policy.

There exist three contrasting models of trade policy preference formation. Bottom-up models assume that individuals form preferences based on their particular circumstances. A common type of bottom-up model in international and comparative political economy assumes that voters calculate the economic consequences of policy and vote based on the personal economic consequences of a policy change (Scheve and Slaughter 2001; Baker 2005). In contrast, more recent research on individual preferences suggests that voters respond to issues like CAFTA-DR based upon their views on non-economic factors, like socialization, ethnocentrism, or nationalism (Hainmueller and Hiscox 2006; Mansfield and Mutz 2009). These bottom-up models leave little room for political actors to effect policy changes, and the more recent work argues that economic factors do not play an important role in shaping individual preferences. Top-down approaches, however, suggest that voters are often uncertain about their preferences or can be swayed by political elites who, because of their public position, resources, and information, have the capacity to influence public opinion (Oldendick and Bardes 1982; Brody 1991; Zaller 1992; Berinsky 2007; Baker 2008). Of course, both processes may occur simultaneously, which may be why disentangling elite and public influence is so difficult (e.g., Baker 2008; Canes-Wrone 2006; Erikson, MacKuen and Stimson 2002; Gabel and Scheve 2007).

We utilize new data and a variety of methods to investigate who supported and opposed CAFTA-DR. We contrast predictions made by the two main economic models of trade policy preferences and show that specific factors models provide a much better fit than do Stolper–Samuelson ones. Controlling for a variety of different economic preferences, we argue that politics, especially party politics, played a substantial role in affecting how the public voted in the referendum. We show that parties use

¹ The online appendix for this paper and data sets are available at http://hdl.handle.net/1902.1/19349. A previous version of this paper was presented at IPES 2008 and APSA 2009. We would like to thank numerous reviewers and David Francis and Torben Behmer for research assistance.

² Turnout was roughly the same as for the combined presidential and legislative elections of 2006. On January 1, 2009, following a series of legal challenges, CAFTA-DR went into effect in Costa Rica.

knowledge about the distributive consequences of policy to frame the debate for different audiences. We thus combine an explanation focusing on the trade policy preferences of the public (so-called bottom-up approaches) with a top-down model that elites (here, government leaders and parties) can shape public preferences. While voters are likely to act on their economic self-interest, there is room for politicians to influence how voters see agreements affecting their economic interests. Economic agreements such as CAFTA-DR are complex and have varying distributional consequences. Politicians can emphasize different consequences of policy to different audiences to build, or erode, support for the agreement. Thus, we argue that both bottom-up and top-down forces shape policy preferences.

Our paper first provides background on the CAFTA-DR agreement. Second, we discuss bottom-up and top-down arguments in detail. We examine the two central models of trade policy preferences derived from economic theory, contrasting predictions made by the Heckscher-Ohlin (HO) and Stolper-Samuelson (SS) models of trade to those made by the specific factor model of Ricardo-Viner (RV). The specific factor model predicts that export-oriented industries are more likely to support CAFTA-DR. We then formulate hypotheses about voter preferences for CAFTA-DR and the role of political elites, using theories about the ways parties use cues and frames (Lupia and McCubbins 1998; Lau and Redlawsk 2001; Christin, Hug and Sciarini 2002; Hobolt 2006). Many political actors can cue and frame messages for voters, but they may only be successful if they are well organized enough to present their message effectively and broadly. Finally, we combine the top-down and bottom-up approaches to focus on *how* political elites will frame their message.

We examine our hypotheses using three different sources of data. Initially, we quantitatively test our hypotheses about support and opposition to CAFTA-DR in Costa Rica using district-level referendum vote returns. Controlling for economic characteristics at the lowest level of geographic aggregation possible, we show how well-organized parties are better able to use cueing and framing to influence voters than less-organized parties. The differential impact of the main parties on the referendum results, given their different organizational capacities for influence, is a key factor in identifying their effects. Next, we present individual-level survey analyses, which are less susceptible to the ecological inference problem. Finally, qualitative evidence about how political parties and other social actors framed their message suggests support for the causal mechanisms we hypothesize. Identifying the causal effects of political parties is difficult, and thus, we draw on a variety of evidence including fixed-effects models to control for omitted variables and survey evidence. We provide the most systematic analysis to date of this unique window into mass politics around trade policy. Our inferences extend beyond Costa Rica, especially since a wave of developing nations has undergone both democratization and trade liberalization since the 1980s (Milner and Kubota 2005).

CAFTA-DR Background

In 2002, President Bush received Congressional approval to begin trade negotiations with five Central American countries (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua; the Dominican Republic joined the negotiations in 2004). Of the countries involved in CAFTA-DR,

the United States is by far Costa Rica's largest trading partner, as 45% of Costa Rican exports go to the United States and 45% of imports are from the United States. In contrast, about 16% of Costa Rican exports go to, and less than 5% of imports are from, Central America. Also, the investment, labor, intellectual property rights, and telecommunications provisions of the agreement—to which its critics were most vociferously opposed—were included at the insistence of the United States. Thus, in Costa Rican eyes, CAFTA-DR was largely an agreement with the capital-abundant United States (the supplementary materials have more detail on CAFTA-DR's effect on trade restrictions between Costa Rica and the United States).

Negotiations began in 2003 under President Abel Pacheco of the Social Christian Unity Party (PUSC), but involved representatives from the major political parties and various business and civil society interests in Costa Rica (McElhinny 2004). This followed the 2002 elections, which did not feature debates about the trade agreement. The agreement was signed in August 2004. By the end of 2005, Costa Rica was the only country that had not ratified it. By 2006, new presidential elections were in full swing, and CAFTA-DR became an issue in the presidential campaign (Economist 2006). Oscar Arias of the leftleaning National Liberation Party (PLN), with traditional mass support from poorer sections of Costa Rican society, vigorously supported the agreement, arguing that CAF-TA-DR was necessary for Costa Rica's future economic development, while Otton Solís of the relatively new Citizens' Action Party (PAC) opposed it, calling for a complete renegotiation of the agreement (Economist 2006; Wilson 2007).^{3,4} Thus, even prior to the 2007 CAFTA-DR referendum, parties competed for voters by taking different positions on CAFTA-DR. But the 2006 election was about more than just CAFTA-DR. The personalities and histories of the two presidential contenders were important (Wilson 2007). Arias of the PLN had been president before and had to have the constitution changed so that he could run again. This change was highly contested. It appears to help explain why the 2006 presidential election turned out so close (only 18,000 votes difference). And it also is related to the fact that wide differences existed in the PLN and PAC's presidential vote share versus their legislative vote shares. Solis of the newly formed PAC got 14.5% more of the vote than did his legislative party (Wilson 2007:715). Voters were focused on more than just CAFTA-DR in this election.

Arias barely won the 2006 presidential election; and his party alone did not have enough votes to control the legislative assembly. Opponents of CAFTA-DR delayed the vote on the agreement. Because there was a deadline for its ratification, the opponents hoped to kill the agreement this way (Martí 2008). But amid this contestation, the Costa Rican Supreme Court announced that a

³ The main PLN competitor, the PUSC, had been decimated by corruption scandals and played a minor role in the 2006 elections. Unlike the PLN, surveys showed more PAC support from wealthier individuals possibly due to their more urban roots.

⁴ As a left party early PLN rhetoric and policy favored state intervention and economic redistribution (Booth 2007). During the 1980s and 1990s, however, the PLN supported trade liberalization and other neoliberal reforms. In 1982, Costa Rica experienced a serious financial crisis and received help from the IMF, and in return, the PLN agreed to a policy program involving fiscal austerity, privatization, and liberalization (Booth 2007, Wilson 1994, 1999). The PLN later adopted a series of compensation measures enabling it to maintain its social democratic label in its competition with the more conservative PUSC.

public referendum might be possible. The PLN government chose this route to avoid the delaying tactics and began an intense campaign for public support. The PAC maintained its opposition. The PAC collected many different groups under its umbrella, those opposing Arias' second term, those opposed to CAFTA-DR, those opposed to privatization of major government-run industries (such as electricity and telecommunications), and those opposed to general neoliberal policies such as fiscal austerity (Wilson 2007). The PAC then had a hard time mobilizing a united front against CAFTA-DR. Because "significant CAFTA-DR opponents did not necessarily share a common agenda, their demands were seldom expressed in a unitary action platform" (Finley-Brook and Hoyt 2009; Rosenberg and Solís 2007:89). Nevertheless, the nationwide referendum was held on October 7, 2007 and passed with just 51.56% of the vote.⁵ Combining the 2007 referendum results with election data and surveys about the agreement before the referendum provides the most direct data for determining how voters form preferences over trade policy.

Theories about Trade Preferences: Bottom-Up and Top-Down

Bottom-Up Preferences: Stolper-Samuelson versus Ricardo-Viner

Bottom-up preference models assume that there are distributive consequences of trade policy and the public votes based on their perception of how it will affect them, their family, or, more broadly, their country (Balistreri 1997; Scheve and Slaughter 2001; Beaulieu et al. 2005; Mayda and Rodrik 2005). Standard arguments about the role of economic interests in determining trade policy preferences tend to draw on the Heckscher-Ohlin (HO) theorem and its related Stolper-Samuelson (SS) one (Scheve and Slaughter 2001; Beaulieu et al. 2005). The theorems suggest that owners of relatively scarce factors lose from trade liberalization, whereas owners of abundant factors gain. The United States is the primary trade partner of Costa Rica, and compared to the United States, Costa Rica is laborabundant and capital-scarce. Costa Rica's GDP per capita in constant dollars was only 12% that of the United States in 2005 (\$37,084 for the United States compared to \$4,504 for Costa Rica), and while 87% of the US population aged 25-34 have a high school diploma, in Costa Rica, only 57% of the Costa Rican population aged 20-29 had at least a 9th grade education (as of 2000). Given these relative endowments, the Stolper-Samuelson theorem predicts that trade liberalization will lead to increasing returns to unskilled labor and decreasing returns to capital (especially high-skilled, human capital) in Costa Rica. Thus, the SS model predicts high-skilled labor will oppose the agreement and low-skilled workers will support it.

Recent models and data suggest that the SS view of trade and its distributional consequences may not be applicable in developing countries (Feenstra and Hanson 1996; Wood 2002; Acemoglu 2003; Epifani and Gancia 2008; Ethier 2008). Many developing countries that have liberalized their trade have experienced gains for higher-

skilled workers and losses for lower-skilled ones (Wood 2002; Anderson 2005; Goldberg and Pavcnik 2007). The main alternative specification of bottom-up trade preferences comes from the so-called Ricardo-Viner (RV) model. This model assumes that factors of production may not be mobile, hence its name as the specific factor model. One factor of production at least is usually assumed to be tied to an industry, implying that its returns depend on that industry's fortunes. For factors that are specific to the export-oriented sector(s), trade liberalization produces gains and thus they should favor it. For factors that are specific to the import-competing industries, they should face losses from trade liberalization and hence oppose it. The preferences of more mobile factors will depend on their consumption patterns, which in developing countries are often weighted more toward import-competing ones. Based on the RV model, we expect export-oriented sectors to benefit most from CAFTA-DR and thus be strong supporters. These industries tend to also employ the most high-skilled workers (Hanson 2009:2).

Indeed, scholars have claimed that exports in Costa Rica benefit higher-skill sectors. Costa Rica's exports to the United States have shifted in recent years so that technology-intensive products are more important than either labor-intensive or primary goods (Rodríguez-Clare 2001; Mosley 2008). This has increased the demand for highskill jobs and their wages (Robbins and Gindling 1999), a pattern observed by other scholars (Murillo, Pinto and Ardanaz forthcoming). With CAFTA-DR securing the access of these exports to the United States, its impact is likely to be further export growth and increasing high-skill wages. If RV models are correct, one would expect exportoriented sectors to benefit most from CAFTA-DR and thus be strong supporters. These industries tend to also employ the most high-skilled workers. Hence, the RV model leads to contrary predictions from the SS model. In the next section, we discuss top-down models and then describe how the two can be combined.

Top-down Influences: Political Actors and Social Elites

Even if Costa Rican voters based their decisions on economic self-interest, there is still room for political elites to influence voters. Like most trade agreements, CAFTADR, which was over 340 pages not including the tariff schedules, was complex and could have many different effects. Uncertainty about these effects opens up opportunities for elite influence.

We focus on political elites, namely parties and the government, as the actors most able to cue and frame debates. This is not to say that social actors were unimportant. As others have stressed, social actors (e.g., labor unions, student and academic groups, religious organizations) played a very active role in the debate (Martí 2008). The anti-CAFTA-DR, or "No", campaign depended largely on social actors to deliver its message. The political party opposed to the agreement, the PAC, let this grassroots social movement play the primary role against it. While some claim that the behind-the-scenes approach of the PAC and divisions within the PLN meant that parties played little role in the referendum campaign (Martí 2008), our conclusions differ. The PAC played a lesser

⁵ Non-political groups undoubtedly played a key role in influencing the *closeness* of the referendum (Butler and Ranney 1994). Our data and focus suggest that the active support of a political party, the PLN, was necessary for *ratification* of CAFTA-DR.

⁶ Johnston et al. (1996) observe top-down influence in the Canadian elections of 1988 noting that "[public] opinion shifts on the FTA responded to parties' rhetorical initiatives." See Baker (2008) also.

role because it was a new party with limited organizational capacity and embraced many groups with different concerns. The well-established PLN and its governmental elites played a more significant role. In our empirical analysis, we estimate the effects of parties controlling for economic variables that could influence preferences. Our qualitative section analyzes mechanisms of cueing, framing, and organizational differences.

The literature on party influence identifies a number of mechanisms that parties and other elites use to shape voters' preferences. Key concepts are cueing and framing. With *cueing*, parties provide shortcuts to party members as to how to vote (Lupia and McCubbins 1998; Lau and Redlawsk 2001; Hobolt 2006). Cues serve a heuristic role, giving voters information about how to vote on a complex policy choice, such as a referendum (Christin et al. 2002). Such cueing is likely to be important because of the complexity of the CAFTA-DR agreement, where the economic "winners" and "losers" might not be clearly defined.

Framing refers to the way in which a message is presented, with certain features emphasized over others, which causes voters to evaluate the merits of the choice in specific ways (Chong and Druckman 2007). For the CAFTA-DR referendum, framing implies that political elites should emphasize particular aspects of the lengthy agreement in order to induce public support or opposition, given what they knew about their constituents' values. Parties should also cast a policy proposal as being close to the position of the median voter, while casting the reversion point (i.e., a rejection of the referendum) as representing an extreme position (Hobolt 2006). To employ both cueing and framing, parties should (i) publicize their position on the policy; (ii) frame the policy as being efficiency enhancing (better for the country as a whole) and its rejection as costly for the country, and (iii) frame the policy in particular ways tailored to appeal to particular groups of people. Opposing parties are expected to argue the opposite of ii, while still tailoring their messages. Of course, there are other goals that cueing and framing might be used for, such as appeals for equality or stability. Both cueing and framing emphasize an information-based model of trade preference formation (Murillo et al. forthcoming). Specifically, we argue that politicians understand the economic distributive consequences of policy and tailor their messages accordingly. When speaking to audiences from export-oriented regions, pro-CAFTA-DR elites will emphasize the job benefits of voting for CAFTA-DR and the job costs of voting against CAFTA-DR. When speaking to audiences from import-competing areas, whose jobs may be lost because of CAFTA-DR, pro-CAFTA-DR elites will emphasize the overall benefits to the country rather than job-related benefits.

In addition, the organizational strength of political parties may influence how well they can affect voters. First, better organized groups might be more effective in cueing and framing since they can present such messages more broadly and professionally. Second, national parties with extensive geographic coverage can pressure local party officials who can then directly cue and frame the issues to their constituents. Third, parties with extensive national organizations may be able to reach and mobilize undecided voters, who are often the least informed. The effectiveness of cueing and framing should be a function of the organizational strengths of parties. Our discussion of bottom-up and top-down sources of preferences leads to four main hypotheses.

Bottom-Up Economic Theories

Hypothesis 1 (SS model): Voters with lower-skill levels should be more likely to support CAFTA-DR than high-skill voters.

Hypothesis 1b (RV model): Voters in export-oriented industries should be most likely to support CAFTA-DR.

Top-Down Political Theories

Hypothesis 2 (party differences): Controlling for economic factors, the more a party supports (opposes) CAFTA-DR, the more likely voters for that party will be to support (oppose) CAFTA-DR.

Hypothesis 3 (organizational power of parties): Controlling for economic factors, the more organized PLN will be better able to get their message out and will therefore have a larger influence on voter preferences than less well-organized parties like the PAC.

Empirical Evidence

We use several new data sets and qualitative information to test our hypotheses. These data are unique in that the referendum involved citizens making choices directly on trade policy. Numerous problems remain with establishing the causal influence of economic and political variables on the public, including measurement error and omitted variable bias that can result in endogeneity (Gabel and Scheve 2007:1014). We employ a number of strategies to deal with these problems, including using fixed effects to deal with endogeneity and omitted variables, survey analysis of individuals, and qualitative evidence on the role of parties. None of these methods alone is perfect, but together they suggest that political elites and parties had an important influence on public preferences for CAFTA-DR. We first present results based on district-level referendum returns, then discuss evidence from public opinion surveys in order to address concerns about ecological inference problems, and finally discuss qualitative information that explores the causal story in our hypotheses.

District-Level Referendum Results

What impact did economically derived and politically motivated preferences have on voting for the CAFTA-DR referendum? Using referendum results for 473 Costa Rican administrative districts in 2007, we calculated the percentage of votes cast in favor of CAFTA-DR (perc_yes) for each district, which forms our dependent variable for this section. Costa Rica has 7 provinces divided into 81 cantons and 473 administrative districts, which are further subdivided into 1955 electoral districts, or polling places for voters. We attempted to collect all data at the most disaggregated level possible, and we conduct analyses at the administrative and electoral district levels in order to reduce any ecological inference problems. To examine our hypotheses, we link these referendum results to data collected from the 2000 Costa Rican census and electoral data from the 2006 legislative elections to see whether district-level referendum vote returns in 2007 correlate with district-level political and demographic characteristics. We examine how voting in the 2007 referendum was affected by a party's vote share in earlier elections to explore the role of top-down political pressures.

Our approach to explaining referendum voting as a function of previous party voting and economic variables is very similar to research on referendums in other contexts. Research on referendums within Europe, for example, use party returns in the last election as well as measures of cleavages, which include economic characteristics such as percentage of primary sector workers, occupational skill level, and education level (Pettersen, Jenssen and Listhaug 1996; Midtbo and Hines 1998; Markowski and Tucker 2005).

Economic Variables. Our first two hypotheses predict that individuals form preferences about trade policy based on their economic interests. For SS models, we expect that low-skill voters should favor, and high-skill ones oppose, CAFTA-DR. We map district-level census occupational data onto a proxy measure for skill levels. Existing work classifies particular industries onto an 'International Social Economic Index' (ISEI), which measures "the attributes of occupations that convert a person's education into income" (Ganzeboom, de Graaf and Treiman 1992:212). We scored each occupational category according to the ISEI, with higher scores having higher-skill levels. Next, we calculated the percentage of workers in each district that fell into a "low" ISEI occupation, defined as occupations below the national mean minus one standard deviation. This ISEI-based measure (LowSocEcon %) is our main economic independent variable; it measures the skill level of each district.

To test alternative theoretical expectations derived from the RV model, we constructed a variable that identifies the most export-oriented sectors; these industries are the largest Costa Rican exporters and correspond to relatively high-skill manufacturing industries. Then using our census employment data, we calculated district-level employment in these export-oriented manufacturing industries as a percentage of total employment, *Export*%. Because there is no trade data at the district level for constructing a district-level measure of exports, this measure is the best one available. This variable should positively influence support for CAFTA-DR since groups in export-oriented industries should be most supportive of trade.

To get closer to a district-level measure, we also identified the location of every district that had a free trade zone business designation, using data from resources provided by Costa Rica's investment promotion agency (CIN-DE). This variable (*FTZ*) also measures the presence of export-oriented industries and should positively influence CAFTA-DR voting in an RV model. But these zones are not the only places that contain industries that export in Costa Rica, so this measure is also partial; using both

measures of export orientation should provide more confidence in our results.

We thus try to control for the most important bottomup influences on trade preferences at the district level, which is critical for our identification of top-down political effects. Our data enable the most systematic accounting for economic effects to date in a developing country analysis of trade preferences. 10 These controls are all at the district level and hence face ecological inference problems. Our analysis assumes that these variables tap sociotropic concerns (Mansfield and Mutz 2009), but also reflect on average individual-level considerations. For example, an individual living in a district with an FTZ is more likely affected by the FTZ than an individual living in a district without an FTZ. Controlling for the most prominent factors that might generate bottom-up support for CAFTA-DR means that our analysis of the role of parties is much less likely to suffer from omitted economic variables.

We include as control variables a canton-level measure of the percent of the workforce that was unemployed, % *Unempl*, a district-level measure of employment in the public sector, PubEmpl%, as interviews with several country experts suggested public versus private sector divisions, and an additional measure of development as the percentage of households with a television, TV%.

Table 1 presents models regressing the percentage of pro-CAFTA-DR votes (*perc_yes*) in the 2007 referendum on economic and political variables. Models 1 and 3 do not include canton-level fixed effects, whereas the remaining models include fixed effects in order to deal with potential omitted variables. Models 1–4 use the larger administrative district unit of analysis; models 5, 6, and 7 show that at the more disaggregated level of the electoral district, we find similar results. We estimate models using a complete battery of economic models. Because unemployment data are only available at the canton level, it cannot be included in the fixed-effects models. Model 7 uses district-level fixed effects and so none of our controls can be used.

The use of canton-level fixed effects is important. There are roughly 5–6 districts per canton. Using fixed effects helps us deal with any endogeneity caused by potential omitted variables. If individual preferences about trade, rather than a party's cueing and framing, lead voters to choose a party that supports CAFTA-DRthat is, if endogeneity is present—then the problem involves a failure to include a variable that captures what creates these preferences about trade in the first place. Since we include all of the most important economic variables at the district level that might lead to this preference, there must be some other omitted variable. Since observations are at the district level, we include cantonlevel fixed effects to address this. These identify the influence of the explanatory variables as the district's deviations from the canton means (or district means in model 7). This controls for any variables constant at the canton level. There is no evidence that major political or eco-

 $^{^7}$ Because of redistricting between the 2000 census and the 2006 elections and 2007 referendum, there are only 459 observations available for the quantitative analysis.

⁸ These industries were optical, photographic, cinematographic, measuring, checking, precision, medical supplies (Harmonized system 90), machinery and mechanical appliances (HS 84), and electrical machinery and equipment and parts thereof (HS 85).

 $^{^9}$ Conversation with former director of Unit of the Ministry of Foreign Trade, 10/9/10.

We calculated the Ricardo–Viner measures used by Broz (2005); they did not fit the data well, due to the high amount of intra-industry trade. We also examined several sectors that have an export presence but that have different attachments to the global economy. We collected similar measures of employment in the main agricultural sectors (fruit, coffee, and rubber, Agric %) and the lower-skilled textile industry (Textile%) that faced more mixed prospects from CAFTA-DR. Including these variables does not change our results.

Table 1. % of Referendum Votes Pro-CAFTA-DR

	Model I	Model 2	A 2000 CT.				
%PLN06	0.38 (0.11)**	0.28 (0.08)**			0.33 (0.05)**		0.33 (0.05)**
%PAC06	-0.04 (0.15)	-0.25 (0.09)**			-0.21 (0.05)**		-0.15 (0.06)**
%PUSC06	0.48 (0.17)**	0.33~(0.14)*			0.13 (0.10)*		0.00 (0.08)
%Libert06	$0.30 (0.17)^{+}$	0.20 (0.23)			0.32 (0.07)**		0.37 (0.08)**
PLN-%Change			0.11 (0.02) **	0.08 (0.03)**		0.02 (0.01)	
PAC-%Change			0.00 (0.01)	-0.01 (0.01)		-0.01 (0.00)*	
PUSC-%Change			0.18 (0.05)**	0.16 (0.04)**		-0.01 (0.02)	
LIB-%Change			0.01 (0.00)**	$0.01 (0.00)^{+}$		$0.00 (0.00)^{+}$	
Export%	3.38 (1.21)**	1.99 (0.91)*	3.24 (1.16)**	2.37 (1.00)*	1.73 (1.22)	2.50 (1.60)	
FTŽ	0.03 (0.01)*	0.02 (0.01)*	0.02(0.01)	$0.02 (0.01)^{+}$	0.02 (0.01)*	0.04 (0.01)**	
LowSocEcon%	-0.23 (0.05)**	-0.18 (0.05)**	-0.22 (0.05)**	-0.18 (0.04) **	-0.19 (0.04)**	-0.21 (0.04)**	
%Unempl	0.01 (0.00)*		0.01 (0.00)**				
%PubEmpl	-0.60 (0.11)**	-0.32 (0.10)**	-0.61 (0.12)**	-0.45 (0.10) **	-0.50 (0.11)**	-0.59 (0.13)**	
IV%	0.28 (0.05)**	0.17 (0.07)*	0.22 (0.05) **	$0.12 (0.06)^{+}$	0.13 (0.05)*	0.05 (0.07)	
Constant	0.13(0.10)	0.33 (0.09)**	0.46 (0.07) **	0.58 (0.06)**	0.35 (0.05)**	0.56 (0.06)**	0.35 (0.03)**
Observations	459	459	458	458	1761	1563	1787
Level	District	District	District	District	Electoral district	Electoral district	Electoral district
Fixed effects	Nome	Canton	None	Canton	Canton	Canton	District
BIC	-908.97	-1254.37	-904.22	-1217.80	-2674.47	-2295.86	-3358.76
27	0.50	0.31	0.49	0.26	0.19	0.09	0.13
Between R ²		0.58		0.55	0.58	0.47	0.09

nomic factors vary across districts; rather provinces or cantons are the site of the most important cleavages. If there is a canton-level (or province-level) omitted variable, such as differences in "political culture" that we cannot measure, these fixed effects will capture the influence of these omitted variables. They also deal with the problem of unobserved economic variables that are constant within a canton (or province) but might be correlated with our partisan or other economic variables.

The results consistently show that the SS theorem does not fit this data, while the RV model does. The coefficient on the LowSocEcon % variable is consistently negative and significant. Districts with a high percentage of lowskill workers are significantly less likely to vote in favor of CAFTA-DR. Similarly, districts with a higher percentage of university-educated individuals were more supportive of CAFTA-DR (LowSocEcon% has a negative effect whether or not we also control for education). In contrast, the RV theory better fits the economic preferences we observe. The measures of a district's export orientation that we use are positively related to support for CAF-TA-DR. Districts containing the most export-oriented industries, Export%, are strongly favorable to CAFTA-DR in all of our regressions. Increasing this variable by one standard deviation increases Yes votes in a district by 1-2%, an important amount given the referendum passed by only 1.5%. Districts with a free trade zone, FTZ, also are more supportive of CAFTA-DR. In model 2, an FTZ increases Yes votes in a district by 2%. These results support hypothesis 1b, and not 1a.

Political Variables. Do political variables explain additional variation in the referendum returns once we control for economic preferences? For our main political variables, we use electoral returns of the four main Costa Rican parties from the 2006 legislative assembly elections and presidential elections, operationalized as the percentage of the vote received by each party in each district. We also present results using the percentage change in vote share from the respective 2002 election ((2006 vote share-2002 vote share)/2002 vote share). In the 2006 presidential elections, the two main parties were competing for voters by differentiating their stances in part on CAFTA-DR and in part on other issues such as Arias' reelection. Political elites in the PLN supported CAFTA-DR, while the PAC largely opposed it for a wide variety of reasons. Thus, it is important to include the economic control variables. Controlling for the economic reasons voters might support a party or the referendum, were political elites able to induce voters who supported them in 2006 to vote the party line on CAFTA-DR in 2007? Remember that the referendum barely passed; despite being tied or behind in the polls in late 2007, the Yes vote eked out a victory by 1.6%. Could the PLN have helped swing the vote?

If hypothesis 2 is correct, then voters supporting pro-CAFTA-DR (anti-CAFTA-DR) parties in 2006, like the PLN (the PAC), should be more likely to support (oppose) the referendum in 2007. Thus, %PAC06 should be negatively related to the referendum, and %PLN06 should be positively related. Also, the PLN was a well-established party that had alternated in power since democratization, while the PAC was founded only in 2001, included many disparate groups with different objections to CAFTA-DR, and was consequently not as well organized (Wilson 2007). If hypothesis 3 is correct, then voters supporting the PLN should be more likely to

support the referendum. Parties—whether pro- or anti-CAFTA-DR—lacking organizational strength should have less influence on voters in 2007. Hence, the PAC vote share, %PAC06, should be negative but less significant and smaller in magnitude than the PLN.

The results largely support our predictions. 11 We find a positive and significant coefficient for the PLN in every model. The coefficient for the PAC was negative but insignificant in all but models 2, 5, 6, and 7 where it was negative and significant. This evidence is partially supportive of hypotheses 2 and 3: these parties should have opposite influences on voters, but the PLN should have a greater influence due to its stronger organizational ability. In models 5 and 7, the PAC coefficient is half the size of the PLN. In model 2, the marginal effects of the PAC are similar in size to the PLN, and their effects overall are quite different since the mean and variance of the PAC and PLN variables are so different. The PLN has a much greater effect with a coefficient of the same size since its mean is much larger. We show in the supplementary materials that the magnitude of the PLN effect was much greater. The distribution of the PAC and PLN variables amplifies the differences between the effect of the PLN and the PAC. At the mean value of PLN vote share, the Yes vote would increase by 11%, while at the mean vote share of the PAC, the Yes vote would decline by about 6%. Since the difference between the Yes and No share in the referendum was only 3%, the difference between the PLN and the PAC effect represents the difference between the referendum succeeding or failing. In the supplementary materials, we show that this relationship holds at any objective comparison of the PLN and PAC (e.g., at the 25th or 75th percentile).

Models that use changes in vote share between 2002 and 2006 show similar results. Models 3, 4, and 6 display these results using vote changes as a percentage of the 2002 vote for each party. These models in effect explore the changes in party vote share before the treatment (i.e., CAFTA-DR is introduced) and after it has been introduced (i.e., by 2006). Conditional on the controls and fixed effects, these models of vote changes show a strong influence of the PLN but not the PAC. We also collected election return data at a level lower than available for economic data: the electoral district. These electoral districts are within the 473 administrative districts and hence are less aggregated. We present these results in models 5, 6, and 7 and include either the economic variables and canton fixed effects or administrative district fixed effects. Our results show an important influence of the PLN, but not the PAC. The supplementary materials show results using presidential election data, which paint a similar story.

The differential effect of the PLN, and thus support for hypothesis 3, is consistent with a Universidad de Costa Rica's survey taken in October after the referendum, which asked respondents what factor most influenced their vote in the referendum. As shown in the supplementary materials, more than twice as many pro-CAFTA-DR voters gave a political source, such as parties, for their decision as did anti-CAFTA-DR voters. Anti-CAFTA-DR voters were more likely, however, to say that specialists or members of the university community were the most influential. These data provide additional evidence that the anti-CAFTA-DR campaign depended less on political party influence compared to the pro-campaign. Furthermore, in

¹¹ Consistent with hypothesis 2, the coefficients on the pro-CAFTA-DR PUSC and Libertarian parties were positive though not as robust as the PLN.

the 2008 Latin American Public Opinion Project survey, a greater percentage of people said they made up their minds on CAFTA-DR 2 months or less prior to the referendum if they were pro-voters (58% vs 49%, p < .05). This suggests a greater potential role of active persuasion rather than preexisting economic or cultural preferences.

The potential for omitted variable bias is important. Our fixed-effects strategy gives us more confidence in our results. In particular, the relationship between economic or social characteristics and party affiliation could bias our estimate of partisan effects if there is an omitted variable that is also correlated with partisanship and voting. For example, if we do not control for our skill variable, the effects of the PAC becomes much larger. With canton fixed effects if this variable is constant within a canton, then such omitted variables are controlled for, as well as variables that vary at higher geographic levels like provinces, which capture different government administrative regions. While there could always be omitted variables that vary at the district level, our comprehensive collection of variables at the district level—suggested by theory to be important—helps to guard against this possibility within our fixed-effects specifications. Concerns about our results should be predicated on claims about specific omitted variables that vary at the district level and not the canton level. The fixed effects are also likely to pick up any cultural variation that others suggest might influence trade policy preferences (such as ethnocentrism). The fact that our economic variables remain substantively important and significant suggests, as others have (Murillo et al. forthcoming), that economic explanations should not be dismissed. 12

A final concern is that we make inferences about individuals through aggregated data, known as an *ecological inference* problem. To increase confidence in our results, we do two things. First, using King and Roberts' (2012) method, we estimate the percentage of PLN voters in the 2006 election who voted Yes on the referendum (King 1997). We find that about 75% of PLN voters voted Yes compared to only 34% of non-PLN voters. ¹³

Second, we analyzed individual-level survey data from the Universidad de Costa Rica in our supplementary materials. Individual-level survey data does not face an ecological inference problem. Several results stand out. Results using income or education as skill proxies were not supportive of SS predictions. The poor fit of the education measure suggests some pause in accepting socialization based accounts of preference formation (Hainmueller and Hiscox 2006). Unfortunately the surveys did not contain industry-level affiliations or other cultural variables, which are uncommon even in many US surveys.

Lacking detailed industry membership, we test the RV predictions by comparing support by individuals in districts with free trade zones and those without. Using data from the 2008 Latin American Public Opinion Project (LAPOP) surveys, which included district-level indicators (the UCR data had no geographic information on respondents), we merged in the FTZ data. Individuals in districts with an FTZ were significantly more likely to be CAFTA-DR supporters. For example, in the 2008 survey,

individuals were asked how they voted on CAFTA-DR. In districts with an FTZ, 73% said they had compared to 61% in districts without an FTZ (t=1.8). We also find a strong influence of parties across the surveys, as shown in the supplementary materials. In sum, individual-level data support our claims that economic motivations described by RV and party politics were important explanatory factors in the CAFTA-DR referendum vote.

As mentioned before, Yes voters were more likely to attribute PLN leadership advocacy for their vote than the PAC. In multivariate regressions reported in the supplementary materials on vote intention and vote choice, PLN and PAC voters sorted more clearly into supporting or opposing positions than voters that did not support one of the major parties. Unfortunately, as discussed in the supplementary materials, we cannot clearly distinguish whether there is a differential PLN effect, although there is suggestive evidence with respect to actual vote choice in the election. Overall, then, micro-level evidence, which does not suffer from ecological inference problems, provides some support for hypotheses 2 and 3.

Qualitative Evidence

Qualitative evidence shows that political parties and elites, especially from the PLN, had substantial organizational power, enabling them to mobilize voters and frame their message to different audiences. This organizational ability was a key difference between the PLN and PAC. The PLN had been one of two major parties since the 1950s, while the PAC was a new party. These features of parties help explain the effects captured in our quantitative section. ¹⁴ We first discuss the organizational capacity of the PLN and its ability to engage in targeted framing strategies and then contrast it with the PAC. We also discuss the salience of economic arguments, showing their importance. Appeals to cultural factors, like ethnocentrism (Mansfield and Mutz 2009), were present but played only a small role.

Party Organization. Well-organized parties can reach and mobilize voters, as well as help frame the considerations voters use in evaluating policies. Key planks of the Yes campaign's strategy were the formalized involvement of the PLN and a mass media campaign (Chacon and Chacon 2007). This reflected an appreciation of the importance that an organized political party can play. The importance of organizational abilities could be most salient in rural areas where voters are least informed, dispersed, and harder to reach. While both the pro- and anti-CAFTA-DR campaigns were active in urban areas, the pro-CAFTA-DR campaign was more active in rural areas. Indeed, scholars have remarked on the extensive and developed organization of the PLN throughout the country (Booth 2007:321). The pro-campaign led by the PLN set up 50 "casas del sí" to serve as informational centers in rural areas (Lara 2007). 15 The PLN organized a massive operation to bus voters to polling places, using over 20,000 vehicles, especially in rural areas. Turning to local party officials, those most likely to have a local impact, during legislative recesses in May and September 2007,

 $^{^{12}}$ We conducted additional econometrics checks, including the use of pruned regressions (Ho, Imai, King and Stuart 2007). in order to avoid extrapolation bias.

¹³ We also used the method of bounds (King, Rosen and Tanner 2004), which produced wide estimates of the PLN vote in the 2006 legislative elections and the Yes vote in the referendum, reflecting the closeness of both the referendum and the 2006 legislative election.

¹⁴ Little evidence exists that the parties differed on policy or cultural dimensions in ways beyond CAFTA-DR. The country is not known for having any major cleavages that the parties incorporate (Lehoucq 2008).

¹⁵ Analysis using a list of cantons involved showed that districts in cantons with casas del sís had higher turnout and pro-CAFTA-DR voting on average.

25 PLN deputies promised to return to their regions to campaign for a Yes vote on CAFTA-DR and to designate local leaders who would act as "multipliers" to get out Yes votes (Venegas 2007; Vizcaino 2007). Even direct pressure on canton-level mayors was suggested. The PLN's organizational abilities allowed them to reach voters, which as we discuss next allowed them to deploy cueing and framing strategies to a greater variety of potential voters.

Party Cueing/Framing. With greater organizational abilities, the PLN was able to target appeals tailored to different economic groups through cueing and framing. The PLN government, led by Arias, provided clear cues to supporters by encouraging CAFTA-DR's adoption and tailoring their message of support to different audiences. The Alianza Ciudadana por el Sí, an umbrella campaign whose executive committee included PLN, PUSC, and Partido Unión Nacional members, produced different materials for different audiences (Martí 2008). In sum, the Yes side was aware of voter differences and tailored information accordingly.

Examples of these tailored appeals drew on the type of RV preferences we observed in the quantitative section. Pro-CAFTA-DR rallies were held at particular industrial parks, and messages were tailored to these populations, often stressing the role of DFI in providing their jobs (Morales-Mateluna 2007; Valverde 2007a,b). At the opening of the Cartago Industrial Park, Arias stressed the wealth-generating effects of CAFTA-DR, famously stating "que vienen en bicicleta, con el TLC vendrán en motocicleta BMW, y los que vienen en un Hyundai, vendrán en un Mercedes Benz". ¹⁶ At the same time, Arias stressed the potential negative consequences of not passing the referendum, arguing that people would have more difficulty finding a job if CAFTA-DR failed to pass. ¹⁷

When Arias campaigned in rural areas, which some observers argue was key in deciding CAFTA-DR (Arino 2010), Arias tried to reassure agricultural workers about their jobs. He stressed that the exporting industries would benefit from the agreement (Valverde 2007a,b), supporting not only the Ricardo-Viner model, but our own attempt to combine top-down and bottom-up preferences, given the substantial uncertainty faced by agricultural sectors. Arias also underlined during his rural tour the job creation CAFTA-DR would provide to the country as a whole and the beneficial effect the trade agreement would have on consumer prices. Appealing directly to consumers, ¹⁸ Arias said that CAFTA-DR would lower prices and expand selection of consumer goods (Valverde 2007a,b; Villalobos 2007). 19 This is consistent with Baker's findings (Baker 2005, 2008). The PLN also emphasized that CAFTA-DR would not reduce social spending (Canaló 2007).

More broadly, the activities of the PLN were consistent with previous work suggesting that influential parties will also cue and frame referenda efforts as in the interests of the median voter, while emphasizing the negative effects of rejecting the agreement and portraying opponents as extreme (Hobolt 2006). The Arias government and many in the PLN repeatedly argued that rejecting CAFTA-DR would lead to negative consequences for the country because of its deleterious effects on exports and DFI in Costa Rica. In a television interview in late September, President Arias rejected the demands of some actors on the No side for a renegotiation of the agreement, stating that it would be impossible, "an opium dream," thus framing the referendum as a take-it-or-leave-it opportunity for a trade agreement with the United States and hence the high costs of rejecting the agreement (Al Dia 2007). Pro-CAFTA-DR politicians reinforced the image of an extreme opposition by suggesting the No campaign was under the control of Hugo Chavez and Fidel Castro. These efforts were designed to counter the emotional appeals of activist groups opposed to CAFTA-DR (Martí 2008), by framing the severe economic consequences of rejection.

In contrast, the PAC had very little organization, especially in the country's rural areas. Solon, head of the PAC in March 2006, recognized the important role of organization and territorial reach, saying, "We did not see with crystal clarity that our great weakness was in the outlying areas.... We lacked an organizational force and this is decisive.... We need to greatly improve in territorial structure" (Murillo 2006). In contrast to the PLN's transportation ability, the PAC contribution paled in comparison (Fallas 2007a). Outside of urban areas, anti-CAFTA-DR flags on cars and houses, graffiti, and bumper stickers were "few and far between" (Wilson 2008). Neither the PAC nor the social groups dedicated to stopping CAFTA-DR²⁰ had a strong presence in rural areas. Instead, the No campaign was concentrated in urban areas and with a smaller partisan role.

In contrast to the PLN, the PAC largely relied on social groups to spread its message. These social groups were active, drew on a broad cross-section of groups, and relied on messages related to national sovereignty and Costa Rican national welfare. The role of political parties was less salient for the No side. While these social groups had an important impact on the vote, the PAC took a less active role compared to the PLN. One way to see this difference is from the survey evidence discussed previously, showing that a greater percentage of Yes voters cited political sources as influencing their votes than did No voters. An explanation of this consistent with our theory focuses on the greater organizational ability and hence greater ability to mobilize voters and frame issues, of the PLN.

Both qualitative and quantitative evidence show that while economic self-interest influences trade policy preferences, top-down, political pressures can also shape trade policy preferences. The PLN engaged in an organized informational campaign, while the PAC played

¹⁶ Translated as "Those that come to work by bicycle will come on a BMW motorcycle under CAFTA and those that arrive in a Hyundai will drive a Mercedes Benz" (http://laverdaddeoscararias.blogspot.com/2007/05/arias-enfatiza-campana-del-si-al-tlc-en.html).

¹⁷ "a 63-year-old former truck driver, said he planned to vote "yes" because "I have children who are studying and one even works for Intel, and if they took it away, what would my children do?" (Associated Press 2007).

¹⁸ In the original quotation, Arias refers directly to "las amas de casa."

¹⁹ "We are going to decide the fate of the homemakers that take care of every aspect of their family and who need trade openness more than anybody, because each new PTA we sign signifies better, more abundant, and cheaper products in small grocery stores, from vendors, and at the super market" (Arias 2007).

²⁰ The No campaign seemed either a large group of patriotic organizations (Trejos 2008) or a group intent on distorting the contents of the agreement (Martí 2008). A grassroots-based movement, it utilized alternative media (internet, alternative newspapers and radio) and word-of-mouth. The campaign included such groups as the 140 "Comités Patrióticos", who were leaders in marches and discussions (Paniagua 2008), labor unions, teacher unions (Murillo 2007), university groups (Fallas 2007b), and the Catholic Church (Ávalos, Ángela 2007, Oviedo 2007).

a smaller role, as it was less organized and gave voters more ambiguous cues about where they stood on trade liberalization.²¹ Overall, the PLN was a more organized party, issued a clearer cue, and framed CAFTA-DR in many of the ways scholars of political influence have suggested (Hobolt 2006).

Discourse on the agreement included a heavy economic component, with appeals to both sectoral interests (as predicted by hypotheses 1a, b), but also to broader benefits such as consumer prices (Baker 2005, 2008). Political parties tried to influence trade policy outcomes by framing the messages so they complemented the economic consequences of the policy. While social groups in the No campaign emphasized anti-Americanism or anti-capitalist sentiments, less evidence exists that voters on the Yes side (i.e., the majority of voters that passed the referendum) were compelled by cultural motivations like non-ethnocentrism (Mansfield and Mutz 2009), "learned" preferences via an economics education (Hainmueller and Hiscox 2006), or equity considerations in determinants of trade preferences (Lu, Scheve, and Slaughter 2012). The extent to which these non-economic rationales appeal to voters in developing countries may be more limited.

Conclusion

The CAFTA-DR referendum in Costa Rica was the first direct public vote on a trade agreement in the developing world. It barely passed, and we think that one factor that aided passage at the end was the political cueing and framing done by the leading party, the PLN. Our micro-level study of trade policy in a developing country produces two new results. First, the economic bases of support for trade liberalization may be different than many scholars have assumed. We find little support for the standard Stolper-Samuelson model (H1a), which suggests that in developing countries, unskilled labor, which is most abundant, will be more favorable toward trade (Mayda and Rodrik 2005; Dutt and Mitra 2006). Individuals with lower levels of human capital, and districts with high concentrations of low-skilled workers, were not more likely to support CAFTA-DR. Instead, we find the economic bases of support for CAFTA-DR fit the Ricardo-Viner specific factor model of trade better. Industries with a strong orientation toward exports were more supportive of CAFTA-DR. This result may arise because globalization of the international economy means that foreign investment is now tightly linked to export industries and high-skilled workers in firms' global production chains.

Second, because of the uncertainty surrounding trade policy and the complexity of trade agreements, political elites can have an important impact on public attitudes toward trade. Political elites can use various strategies involving both communication and organizational resources to reinforce the link between voters' positions and their economic interests or to persuade voters to adopt positions that might be at odds with their eco-

nomic interests (Ray 2003; Gabel and Scheve 2007; Baker 2008). Such elite, or top-down, preference formation processes have been little studied in the political economy of trade. The role of elites might help resolve debates in the literature on the primacy of cultural or economic factors. The relative role of each depends on how elites frame the debate (Hainmueller and Hiscox 2006; Fordham 2008; Mansfield and Mutz 2009).

We used a variety of quantitative and qualitative data and empirical methods to bolster confidence in our results. Controlling for the most well-known economic variables, the association between previous voting for the PLN and the vote for CAFTA-DR in 2007 strongly suggests that well-organized parties can use their rhetorical and political resources to shape individuals' policy preferences. But parties are less able to convert voters to their positions when they are not well organized, as evidence about the PAC shows. An important concern is that omitted economic or cultural variables are correlated with political variables, inducing endogeneity. We have presented a wide variety of analyses to mitigate these problems, including the use of canton-level fixed effects. Unless there are specific omitted variables at the district level that can be adduced to explain both trade preferences and party identification, then these strategies should reassure readers about our claims. We have found no discussion of major political or economic factors that vary at the district level in Costa Rica, and hence, we feel that canton-level fixed effects are strong measures to rule out endogeneity. Individual survey analysis, which resolves ecological inference problems, and qualitative evidence also support our claims. Finally, while others have stressed the importance of different characteristics of individuals for their receptiveness to elite communication (Ray 2003; Gabel and Scheve 2007; Baker 2008), we focus on the internal characteristics of parties to explain their differential success. Our work extends the identification of the conditions under which we expect political elites to be able to influence voters (Chong and Druckman 2007).

Our findings about Costa Rica have more general implications. Baker's research (2008) on Latin American countries underscores our results; he does not find much support for Stolper-Samuelson models of individual preferences, instead finding evidence of top-down political pressures on trade preferences. Our results suggest that top-down political pressures, especially from parties and their messages, have been overlooked in studies of trade policy since little data, especially cross-national, exists to analyze their effects. Finally, the politics of trade policy in developing countries are not the mirror image of those in developed countries, as models like Stolper–Samuelson would predict. Instead, the economic cleavages look similar to those in developed countries, with high-skill individuals in export-oriented sectors supporting trade and low-skill in import-competing ones opposing it. Other variables, such as cultural attitudes, appear less salient in this case where citizens were asked to vote directly on a trade policy. Political cleavages around trade and globalization generally may follow more of a specific factors (RV) logic than a Stolper-Samuelson one in the developing world.

The role of parties and political elites may be of great importance in shaping the policies of developing countries toward the world economy. In the CAFTA-DR case, the PLN's support was essential for the referendum's success. By providing clear cues and frames for voters, espe-

Without controlling for bottom-up factors, some suggest that the PLN had little success in shaping preferences and that the social actors in the No campaign were much more successful (Estado de la Nación en Desarrollo Humano Sostenible 2008, Martí 2008) because over time, the No campaign narrowed the gap in favor of accepting the agreement. In all but two opinion polls that we found, the Yes campaign never had a substantial majority. And higher rates of absenteeism in rural areas where the PLN had traditionally been strong are best attributed to baseline difference compared to suburban and urban areas.

cially in the closing days of the referendum, the Arias government and its long-standing, well-organized party, the PLN, counterbalanced the emotional appeals of the No campaign led by social groups. Political elites in developing countries may have greater ability to shape debates and policies toward trade than previously acknowledged.

References

- Acemoglu, Daron. (2003) Patterns of Skill-Premia. Review of Economic Studies 70: 199–230.
- Al. Día. (2007) Arias: Pensar En Renegociación De TLC Es "Sueño De Opio". Al Día, September 21.
- ANDERSON, EDWARD. (2005) Openness and Inequality in Developing Countries: A Review of Theory and Recent Evidence. World Development 33: 1045–1063.
- Arias, Oscar. (2007) National Television Address. Accessed via: http://www.nacion.com/ln_ee/2007/septiembre/25/pais1254868.html
- Arino, Francisco. (2010) Personal Correspondence, Former Director of Unit of the Ministry of Foreign Trade.
- Associated Press. (2007) Costa Rica Votes in Referendum on U.S. Free Trade Deal. *International Herald Tribune*, October 7.
- Ávalos, Ángela. (2007) Iglesia Llama a Votar En Referendo Sobre El TLC. La Nación, May 1.
- Baker, Andy. (2005) Who Wants to Globalize? Consumer Tastes and Labor Markets in a Theory of Trade Policy Beliefs. *American Journal of Political Science* 49: 924–938.
- Baker, Andy. (2008) The Market and the Masses in Latin America: Policy Reform and Consumption in Liberalizing Economies. New York: Cambridge University Press.
- Balistreri, Edward. (1997) The Performance of the Heckscher-Ohlin-Vanik Model in Predicting Endogenous Policy Forces at the Individual Level. *Canadian Journal of Economics* 30: 1–17.
- Beaulieu, Eugene. (2002a) Factor or Industry Cleavages in Trade Policy? An Empirical Analysis of the Stopler-Samuelson Theorem. Economics and Politics 14: 99–131.
- Beaulieu, Eugene. (2002b) The Stolper-Samuelson Theorem Faces Congress. *Review of International Economics* 10: 343–360.
- Beaulieu, Eugene, Ravindra Yatawara, and Wei G. Wang. (2005) Who Supports Free Trade in Latin America? *The World Economy* 28: 941–958.
- Berinsky, Adam. (2007) Assuming the Costs of War: Events, Elites, and American Public Support for Military Conflict. *Journal of Politics* 69: 975–997.
- BOOTH, JOHN A. (2007) Political Parties in Costa Rica. In *Party Politics in New Democracies* edited by Paul Webb and Stephen White. Oxford: Oxford University Press.
- Brody, Richard A. (1991) Assessing the President: The Media, Elite Opinion, and Public Support. Stanford, CA: Stanford University Press.
- Broz, J. Lawrence. (2005) Congressional Politics of International Financial Rescues. *American Journal of Political Science* 49: 479–496.
- BUTLER, DAVID, AND AUSTIN RANNEY. (1994) Referendums around the World: The Growing Use of Democracy? Washington, DC: AEI Press.
- Canalé. (2007) Los Del Sí Empezaron Una Fuerte Campaña Publicitaria, Esto Por Un Crecimiento En Su Favor Al TLC. September 26.
- Canes-Wrone, Brandice. (2006) Who Leads Whom? Presidents, Policy, and the Public. Chicago: University of Chicago Press.
- Chacon, Vinicio, and Lorena Chacon. (2007) El Sí Juega a La Carta Del Miedo. Semanrio Universidad September 6, 2007, no. 1728.
- CHONG, DENNIS, AND JAMES N. DRUCKMAN. (2007) Framing Public Opinion in Competitive Democracies. *American Political Science Review* 101: 637–655.
- Christin, Thomas, Simon Hug, and Pascal Sciarini. (2002) Interests and Information in Referendum Voting: An Analysis of Swiss Voters. *European Journal of Political Research* 41: 759–776.
- Desarrollo Humano Sostenible. (2008) Décimo Cuarto Informe Sobre El Estado De La Nación. Accessed via: http://www.estadonacion.or.cr, September 18, 2009.
- Dutt, Pushan, and Devashish Mitra. (2006) Labor Versus Capital in Trade-Policy: The Role of Ideology and Inequality. *Journal of International Economics* 69: 310–320.

- ECONOMIST. (2006) Costa Rica: President by a Nose. In *Economist Intelligence Unit*.
- Epifani, Paolo, and Gino Gancia. (2008) The Skill Bias of World Trade. $\it Economic Journal~118:~927-960.$
- ERIKSON, ROBERT S., MICHAEL B. MACKUEN, AND JAMES A. STIMSON. (2002) *The Macro Polity*. New York: Cambridge University Press.
- ETHIER, WILFRED J. (2008) Globalization, Globalisation: Trade, Technology, and Wages. *International Review of Economics and Finance* 14: 237–258.
- FALLAS, HASSEL. (2007a) 375.000 Personas Trabajaran Por Sí Y No En Día De Referendo. La Nación, October 3.
- FALLAS, HASSEL. (2007b) Grupos Del 'No' Planean Más Manifestaciones. La Nación, July 22.
- FEENSTRA, ROBERT C., AND GORDON H. HANSON. (1996) Foreign Investment, Outsourcing, and Relative Wages. In *The Political Economy of Trade Policy* edited by R. C. Feenstra, G. M. Grossman and D. A. Irwin. Cambridge, MA: MIT Press.
- FINLEY-BROOK, MARY, AND KATHERINE HOYT. (2009) CAFTA Opposition: Divergent Networks, Uneasy Solidarities. Latin American Perspectives 36: 27–45.
- FORDHAM, BENJAMIN. (2008) Economic Interests and Public Support for American Global Activism. *International Organization* 62: 163–182.
- Gabel, Matthew, and Kenneth Scheve. (2007) Estimating the Effect of Elite Communications on Public Opinion Using Instrumental Variables. *American Journal of Political Science* 51: 1013–1028.
- GANZEBOOM, HARRY, PAUL DE GRAAF, AND DANIEL TREIMAN. (1992) A Standard International Socio-Economic Index of Occupational Status. Social Science Research 21: 1–56.
- Goldberg, Pinelopi K., and Nina Pavcnik. (2007) Distributional Effects of Globalization in Developing Countries. *Journal of Economic Literature* 45: 39–82.
- Guisinger, Alexandra. (2009) Determining Trade Policy: Do Voters Hold Politicians Accountable? *International Organization* 63: 533–557.
- HAINMUELLER, JENS, AND MICHAEL J. HISCOX. (2006) Learning to Love Globalization: Education and Individual Attitudes toward International Trade. *International Organization* 60: 469–498.
- Hanson, Gordon. (2009) Adjustment to Trade Policy in Developing Countries. Working paper.
- Ho, Daniel E., Kosuke Imai, Gary King, and Elizabeth Stuart. (2007) Matching as Nonparametric Preprocessing for Reducing Model Dependence in Parametric Causal Inference. *Political Analysis* 15: 199–236.
- Hobolt, Sara. (2006) How Parties Affect Vote Choice in European Integration Referendums. *Party Politics* 12: 623–647.
- JOHNSTON, RICHARD, ANDRE' BLAIS, ELISABETH GIDENGIL, AND NEIL NEVITTE. (1996) *The Challenge of Direct Democracy: The 1992 Canadian Referendum.* Montreal: McGill-Queen's University Press.
- KING, GARY. (1997) A Solution to the Ecological Inference Problem: Reconstructing Individual Behavior from Aggregate Data. Princeton: Princeton University Press.
- King, Gary, and Margaret Roberts. (2012) EI: A(n R) Program for Ecological Inference.
- KING, GARY, ORI ROSEN, AND MARTIN A. TANNER. (2004) Ecological Inference: New Methodological Strategies. New York: Cambridge University Press.
- LADEWIG, JEFFREY W. (2006) Domestic Influences on International Trade Policy: Factor Mobility in the United States, 1963 to 1992. International Organization 60: 69–103.
- LARA, JUAN F. (2007) El 'No' Apunta a Unificarse Y El 'Sí' Busca Fondos Para Campaña. La Nación, July 17.
- LAU, RICHARD R., AND DAVID P. REDLAWSK. (2001) Advantages and Disadvantages of Cognitive Heuristics in Political Decision Making. American Journal of Political Science 45: 951–971.
- Lehoucq, Fabrice. (2008) Proceso De Politicas, Partidos E Instituciones En La Costa Rica Democratica. In Democracia Fuerte Alcanza? Analisis De Gobernabilidad En Costa Rica. Inter-American Development Bank.
- LU, XIAOBO, KENNETH SCHEVE, AND MATTHEW SLAUGHTER. (2012). Inequity Aversion and the International Distribution of Trade Protection. American Journal of Political Science 56: 638–654.
- Lupia, Arthur, and Mathew D. McCubbins. (1998) The Democratic Dilemma. Can Citizens Learn What They Need to Know? Cambridge: Cambridge University.

- Mansfield, Edward, and Diana Mutz. (2009) Support for Free Trade: Self-Interest, Sociotropic Politics, and Out-group Anxiety. International Organization 63: 425–457.
- MARKOWSKI, RADOSLAW, AND JOSHUA TUCKER. (2005) Pocketbooks, Politics, and Parties: The 2003 Polish Referendum on Eu Membership. Electoral Studies 24: 409–433.
- MARTÍ, MIGUEL. (2008) Décimo Cuarto Informe Sobre El Estado De La Nación: La Alianza Ciudadan Por El Sí. Accessed via: http://www. estadonacion.or.cr/index.php/biblioteca-virtual/informes-costa-rica/ ponencias/aspectos-politicos/informe-xiv/ponencia-5. September 18, 2009.
- MAYDA, ANNA M., AND DANI RODRIK. (2005) Why Are Some People (and Countries) More Protectionist Than Others? *European Economic Review* 49: 1393–1430.
- McElhinny, Vincent. (2004) Update on the U.S. Central American Free Trade Agreement (CAFTA): Implications of the Negotiations. IDB-Civil Society Initiative.
- MIDTBO, TOR, AND KJELL HINES. (1998) The Referendum-Election Nexus: An Aggregate Analysis of Norwegian Voting Behaviour. Electoral Studies 17: 77–94.
- MILNER, HELEN V., AND KEIKO KUBOTA. (2005) Why the Move to Free Trade? Democracy and Trade Policy in the Developing Countries. International Organization 59: 157–193.
- MORALES-MATELUNA, CARLOS. (2007) CAFTA Referendum Heightens Social Tensions in Costa Rica. Workers World, November 2.
- MOSLEY, LAYNA. (2008) Workers' Rights in Open Economies Global Production and Domestic Institutions in the Developing World. Comparative Political Studies 41: 674–714.
- MURILLO, ALVARO. (2006) PLN Pecó De Triunfalista Y El PAC Fue Muy Urbano. *La Nación*, March 13.
- Murillo, Álvaro. (2007) Sindicato Gestionaría Recursos En El Extranjero. La Nación, May 17.
- MURILLO, VICTORIA, PABLO PINTO, AND MARTIN ARDANAZ. (2013)
 Sensitivity to Issue Framing on Trade Policy Preferences: Evidence from a Survey Experiment. *International Organization* 67 (2). Forthcoming.
- OLDENDICK, ROBERT W., AND BARBARA A. BARDES. (1982) Mass and Elite Foreign Policy Opinions. *The Public Opinion Quarterly* 46: 368–382.
- OVIEDO, ESTEBAN. (2007) Roce En Iglesia Tras Manifiesto De Curas. La Nación, September 27.
- Paniagua, Gerardo F. (2008) CAFTA: Primer Referéndum En Costa Rica (I). Agencia de Información Fray Tito para América Latina; www. adital.com.br (Accessed November 7, 2008).
- Pettersen, Per A., Anders T. Jenssen, and Ola Listhaug. (1996) The 1994 EU Referendum in Norway: Continuity and Change. Scandinavian Political Studies 19: 257–281.

- RAY, LEONARD. (2003) Reconsidering the Link between Incumbent Support and Pro-Eu Opinion. *European Union Politics* 4: 259–279.
- ROBBINS, DONALD, AND T. H. GINDLING. (1999) Trade Liberalization and the Relative Wages for More-Skilled Workers in Costa Rica. *Review of Development Economics* 3: 140–154.
- RODRÍGUEZ-CLARE, ANDRÉS. (2001) Costa Rica's Development Strategy Based on Human Capital and Technology: How It Got There, the Impact of Intel, and Lessons for Other Countries. Written for the Human Development Report of 2001, UNDP.
- ROSENBERG, MARK B., AND LUIS G. SOLÍS. (2007) The United States and Central America: Geopolitical Realities and Regional Fragility. New York: Routledge.
- SCHEVE, KENNETH F., AND MATTHEW J. SLAUGHTER. (2001) What Determines Individual Trade-Policy Preferences? Journal of International Economics 54: 267–292.
- Trejos, Eugenio. (2008) Décimo Cuarto Informe Sobre El Estado De La Nación: Una Visión Del Movimiento Patriótico Del No Acerca Del Proceso De Referéndum Sobre El Tlc. Accessed via: http://www.estadonacion.or.cr/index.php/biblioteca-virtual/informes-costa-rica/ponencias/aspectos-politicos/informe-xiv/ponencia-7. September 18, 2009.
- Valverde, Gerardo S. (2007a) Arias Pide a Los Trabajadores Defender Sus Fuentes De Empleo. *Diario La Extra*, August 20.
- VALVERDE, GERARDO S. (2007b) Arias Promete a Sancarleños Mas Desarrollo Con El TLC. *Diario La Extra*, August 18.
- Venegas, Ismael. (2007) Diputados Del PLN Se Lanzan a Buscar Votos Para El 'Sí' Al TLC. *La Nación*, May 16.
- VILLALOBOS, CARLOS. (2007) Arias Razona Por Que Votara Sí
 Al TLC. La $\it Naci\'on.$
- VIZCAINO, IRENE. (2007) Diputados Del PLN Abandonan Asamblea Para Trabajar Por El Sí. *La Nación* September 26.
- WILSON, BRUCE M. (1994) When Social Democrats Choose Neoliberal Economic Policies: The Case of Costa Rica. Comparative Politics 26: 149–168.
- WILSON, BRUCE M. (1999) Leftist Parties, Neoliberal Policies, and Reelection Strategies: The Case of the PLN in Costa Rica. Comparative Political Studies 32: 752–779.
- WILSON, BRUCE M. (2007) The General Election in Costa Rica, February 2006. *Electoral Studies* 26: 712–716.
- Wilson, Bruce M. (2008) Personal Correspondence. 13 March 2008.
- WOOD, ADRIAN. (2002) Globalization and Wage Inequalities: A Synthesis of Three Theories. *Review of World Economics* 138: 54–82.
- Zaller, John. (1992) *The Nature and Origins of Mass Opinion*. Cambridge: Cambridge University Press.