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Preventing protectionism: international institutions and trade policy

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Preventing Protectionism: International Institutions and Trade Policy

Abstract

This paper examines the role of international institutions in preventing the rise of protectionism. We analyze states' choices in trade policy during the current global economic crisis, a situation likely to exacerbate uncertainty in the conduct of commercial relations and to push countries toward "beggar-thy-neighbor" trade policies. The main argument of the paper is that the numerous international institutions present in the international system during the current economic crisis serve as conveyors of information and mechanisms of commitment and socialization. They mitigate the uncertainty problem that prevails in prisoner's dilemma settings such as trade. Economic international organizations increase the flow of information about the preferences and behaviors of its members. Non-economic organizations also have a role to play as social environments that encourage cooperation. Specialized international institutions devoted to trade, such as the WTO and preferential trade agreements (PTAs), not only provide monitoring and enforcement functions but also lock in commitments to liberal trade through legal obligations that make defections costly. We test our argument using a dataset of trade policies during the current economic crisis and of membership in international organizations. The paper finds strong support for the role of international institutions as commitment and socialization mechanisms in preventing the rise of protectionism.

The current global economic crisis is widely regarded as the most serious setback for the international economy since the Great Depression and one which has brought a host of governance issues to the fore. The impact of the crisis has not been limited to the financial sector in which it originated but has extended to virtually all areas of international economic interactions. Among the casualties has been international trade, which saw a historic and steep drop in the months following the outbreak of the crisis. The "great trade collapse" (Baldwin 2009) in part reflects the trade policy choices of countries that are deeply integrated into the global trading system but have shifted their orientation in favor of protectionist measures in an effort to cushion the blow of the crisis to their national economies. Measures such as import restrictions, export subsidies, anti-dumping measures, and state aid, to name a few, are examples of "beggar-thy-neighbor" policies adopted by states that undermine the liberal global trading system. However, while many countries have appealed to such measures, not all have done so, and the patterns of state choices inform the main question underlying this paper: what explains the trade policy choices of countries during the current global economic crisis?

In addressing this question, this paper investigates the role of international institutions, through an empirical analysis of countries' joint memberships in international organizations (IGOs). We focus not only oneconomic IGOs, but also on non-economic IGOs and trade agreements. The extensive network of international institutions spanning a wide range of issues is a distinct feature of the political landscape of the last century since the Great Depression, and it is important for understanding the modes of governance in this globalization era. Drawing from the existing literature on international trade, we advance the argument that international economic institutions mitigate the uncertainty inherent in sustaining liberal trade. The uncertainty problem is likely to be especially acute in a time of crisis such as the present one. In

these "hard times," institutions are important for providing information and transparency of state behavior and for locking in states' commitments to maintaining liberal trade policies.

We employ joint membership in IGOs as a proxy for the information provided by international institutions about state behavior. The use of joint IGO membership offers an appropriate test of the informational function of international institutions. In the absence of available data that measure thedegree or quality of information provided by individual IGOs, the number of joint memberships is indicative of the informational pool available to states. We also examine the effects of joint membership in non-economic international organizations, that is, in political, social, and cultural organizations. Extending the work of Ingram, Robinson, and Busch (2005) that finds that joint membership in non-economic international organizations expands trade among members, this paper examines the effect of non-economic international organizations on states' trade policies during a time of economic crisis. To examine the impact of commitments, or lock-in effects, through international institutions, the analysis employs joint membership in preferential trade agreements (PTAs), which are specifically geared toward promoting trade between members and also contain enforcement mechanisms. We thus develop and test the hypothesis that countries with extensive memberships in international institutions are likely to have fewer incidences of protectionist trade policies.

We carry out a quantitative analysis using data provided by Global Trade Alert (GTA), which provides real-time information on government measures that are likely to affect international trade. We analyze the impact of membership in IGOs on the intensity of protectionism, controlling for a host of political and economic factors. The analysis also examines the impact of a small set of the most prominent economic IGOs, including the World

Trade Organization (WTO), the Organization for Economic Cooperation and Development (OECD), the International Centre for Settlement of Investment Disputes (ICSID), and PTAs as a specialized IGOfor trade. The analysis overall finds strong support for the role of international institutions, especially as enforcement mechanisms and social environments for producing cooperation, in preventing protectionism. Results of the analysis also show that extensive joint membership in economic IGOsand non-economic IGOsreduces the frequency of protectionist state measures. This effect of economic IGOs is non-linear, in which protectionism decreases once countries advance beyond a threshold number of joint memberships. Among the individual international institutions of interest, membership in the WTO, in particular, exerts a strong downward push on protectionist measures. Memberships in PTAs, the OECD, and ICSID are also effective in preventing protectionism by member states.

Immediately below we provide the theoretical framework of our paper, including the main hypotheses to be tested in the empirical analysis. The research design section discusses case selection, model specification and data, and the subsequent section reports the findings of the analysis. We conclude with a discussion of the implications of the study for understanding trade policy choices during the current economic crisis.

International Institutions, Information, and Trade Policy

Institutions are one type of international regime, defined in the classic volume on the subject as "principles, norms, rules, and decision–making procedures around which actor expectations converge in a given issue-area" (Krasner 1983, 1). In the area of commercial exchange, institutions transform trade from a single-play prisoner's dilemma to an iterated game

in which the "shadow of the future" figures strongly in the behavioral choices of actors. Across historical periods, international institutions have also been effective in providing information that supports or undermines the reputation of states, separating the "lemons" from reliable trading partners (Tomz 2007, 239-40).[1]In doing so, institutions reduce uncertainty about the behavior of participating actors and the risks of making agreements.

Institutions reduce uncertainty by providing information about participant behavior and preferences. Indeed, as a mechanism to redress market-failure problems, Keohane (1984) emphasizes that the most important of an institution's functions may informational (92), providing transparency regarding the preferences and behavior of participating actors. The informational function of institutions enables countries to pursue reciprocity strategies when cheating occurs and to enforce institutional rules (Oye 1986). It is often also accompanied by formal legal procedures and rules that "lock in" state commitments and create strong expectations about future behavior. By providing mechanisms for resolving disputes, formal channels of communication and consultation, and rules for decision-making, institutions allow for greater communication among participants, making it difficult to renege on institutional obligations without incurring great political costs.

Institutions also create transgovernmental "connections, routines, and coalitions" that promote the continuity of state policies consistent with institutional obligations and generate institutional "spillover" that may reinforce policy orientations outside an institution's particular scope (Ikenberry 2001, 66-68). Social and cultural IGOs, for example, may create "bilateral

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[1]Tomz cites the function of LexMercatoria, or Law Merchant, that facilitated the conduct of commerce in medieval Europe by keeping track of merchants that "cheated" in transactions and those that remained "reliable" (239-240).

sympathy, understanding and affinity, and interpersonal connections" across borders that have economic benefits such as the expansion of trade between members (Ingram, Robinson, and Busch 2005, 831). Similarly, international institutions, seen from a constructivist angle, are important social environments that promote cooperation and propagate norms (Finnemore and Sikkink 1998) through the key mechanisms of persuasionand social influence(Johnston 2001).

In the current economic crisis, international institutions have indeed taken on an important role in providing information and monitoring states' trade policies. The Group of 20 (G-20) countries, for example, pledged publicly in November 2008 to "refrain from raising new barriers to investment or to trade in goods and services, imposing new export restrictions, or implementing WTO-inconsistent measures to stimulate exports" (in Gregory et al. 2010, 10). They reiterated their pledge to "resist protectionism and promote global trade" in summits in April and September 2009. They also mandated the WTO, the OECD, and the United Nations Conference on Trade and Development (UNCTAD) to provide monitoring functions to ensure their adherence and "to report publicly" on their trade and investment activities.[2] These public pronouncements comprise valuable pieces of information for other actors in the global economy, as they express the continued commitment of the world's largest and most important economies to liberal trade during these uncertain times and their intention not to adopt protectionist policies.

In response to the request of the G-20 countries, the WTO, OECD, and UNCTAD have provided on a regular basis their "Report on G-20 Trade and Investment Measures."[3] The report

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[2]http://www.oecd.org/document/41/0,3343,en_2649_34887_44939305_1_1_1_1,00.html.
Accessed 1 September 2010.

[3]See
http://www.wto.org/english/news_e/news09_e/trdev_14sep09_e.htm;http://www.wto.org/english

released in June 2010 found that the G-20 countries continued to adhere to their commitment not to raise restrictions on trade and investment.[4] The WTO for its part, as the most important international institution devoted to trade governance, issued in November 2009 at its Seventh WTO Ministerial Conference (Geneva) its annual "Overview of Developments in the International Trading Environment," which highlighted the impact of the global economic crisis on trade and trade-related developments in 2009.[5] The report is a survey prepared by the WTO Secretariat that provides a descriptive analysis of key trade and trade-related measures of all its member countries.[6] As did the joint report by the WTO, OECD, and UNCTAD, the WTO report found that "no WTO Member has retreated into widespread trade restriction or protectionism," and that for the most part, the global economy remains as open as it was at the start of the crisis (3). Through the Trade Policy Review Body, the WTO also issued several reports specifically on the global economic crisis and trade-related developments.[7]In addition to these official multilateral organizations, other unofficial entities such as the Global Trade Alert (GTA), with ties to the Centre for Economic and Policy Research (CEPR) and the World Bank and is the organization from which we draw the data for this study, also provide important monitoring activities to detect and provide information about "defections" from the current trade regime.

/news_e/news10_e/igo_04nov10_e.htm and
http://www.wto.org/english/news_e/news11_e/igo_24may11_e.htm. Accessed 22 August 2011.

[4]http://www.oecd.org/document/41/0,3343,en_2649_34887_44939305_1_1_1_1,00.html.
Accessed 1 September 2010.

[5] WT/TPR/OV/12 (18 November 2009).

[6] The report includes sections tariffs, trade remedy measures, sanitary and phytosanitary (SPS) measures, technical barriers to trade (TBT), measures affecting trade in services, trade policy reviews, and regional trade agreements.

[7]As of this writing, five reports have been issued since the onset of the crisis, the latest in June 2011 (WT/TPR/OV/W/5). See also previous reports: WT/TPR/OV/W/1-4.

Among other prominent international organizations, UNCTAD regularly issues an annual *Trade and Development* report, whose 2010 issue was devoted to the impact of the economic crisis, especially on developing countries. UNCTAD also issued a more specialized report on *International Trade after the Economic Crisis: Challenges and Opportunities*," a detailed analysis of trade restrictions that surfaced in the wake of the economic crisis and the challenges they pose to trade governance.[8] For the developed countries, the OECD has published reports such as *Trade, Policy, and the Economic Crisis* and *Trade and Economic Recovery: Why Open Markets Matter* that noted that member countries by and large had successfully resisted protectionism during the crisis and emphasized the need to maintain momentum on multilateral trade liberalization through the WTO.[9]

In this paper, we argue that institutions prevent protectionism by reducing uncertainty about preferences and behavior. First, institutions act as conduits of information and thus enhance the transparency of preferences and behavior of participants. In the case of non-economic international organizations, institutions are also social environments that promote cooperation in areas beyond the organization's main scope. Second, institutions, as they "lock-in" particular policies, tend to exhibit "stickiness," making it difficult for sudden policy changes to occur. Memberships in PTAs and in the WTO, which commit states to the liberalization of trade policies, are especially important in preventing protectionism. We test our argument on the information, socialization, and lock-in functions of institutions by analyzing the impact of membership in international organizations on trade policies during the current global economic crisis.

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[8]http://www.unctad.org/en/docs/ditctab20102_en.pdf. Accessed 29 March 2011.

[9]http://www.oecd.org/document/62/0,3746,en_2649_37431_45289662_1_1_1_37431,00.html; http://www.oecd.org/dataoecd/58/57/45293795.pdf.Accessed 29 March 2011.

International Organizations and Information

IGOs comprise a category of international institutions that "meet regularly, are formed by treaty, and have three or more states as members" (Pevehouse, Nordstrom, and Warnke 2003). We utilize the classification provided in Ingram, Robinson, and Busch to distinguish between IGOs according to function and structure.[10] The analysis, detailed in the sections to follow, includes not only economic IGOs but also non-economic IGOs, including political, social, and cultural international organizations.[11] Though IGOs across the board gather and convey information to members, we do expectthat economic IGOs, in particular, are more likely to gather information on trade policy relative to non-economic IGOs. Thus they are more relevant as information-gathering institutions during an economic crisis, and overall more effective in preventing the adoption of protectionist trade policies.[12] However, we also expect that high levels of joint membership in non-economic IGOsalso have a role to play in preventing protectionism through a socialization mechanism that promotes cooperation more broadly.

We hypothesize that the number of IGOs to which two countries share joint memberships reflects the extent of information provided about their preferences and behavior. Admittedly IGOs vary widely in the quality of information that lends transparency to state actions;

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[10] The authors are grateful to Paul Ingram for sharing data on IGOs for analysis in this paper. IGOs are classified as i) general purpose; ii) military/political; iii) economic; and iv) social and cultural (Ingram et al. 2005, 854)

[11] We exclude IGOs on standardization and harmonization as they are not directly relevant to protectionism. The analysis includes economic IGOs such as the following (among others): the European Patent Office, the East Caribbean Currency Area, the East African Common Market, the Caribbean Development Bank, the Indian Ocean Commission, the International Wheat Council, the International Pepper Community, and the Inter-American Federation of Cotton.

[12] For a similar distinction, see Mansfield and Pevehouse (2008).

nonetheless, we argue that the "thickness" of a country's institutional affiliations are indicative of the degree to which a country's actions are visible outside its borders and amenable to information-gathering on the part of the IGOs. Our main hypothesis is that countries with more memberships in IGOs are less likely to enact trade politics that "defect" from liberal trade.

We also expect that the functional form of the relationship between joint economic IGO memberships and the frequency of protectionism is non-linear. At low levels of joint economic IGO membership, countries are significantly more likely to resort to protectionism than those with high levels of institutional integration through economic IGOs. The nonlinear formulation also lends itself to a "threshold" interpretation, whereby as countries accumulate joint IGO memberships beyond a certain (high) number, they are also less likely to adopt unfair trade practices against fellow member states.

Hypothesis 1: the higher the number of joint memberships IGOs, the lower the frequency of protectionist trade policies between member states. This relationship is nonlinear, holding at high levels of joint membership.

The WTO, PTAs, and "Lock-in" Effects

Second, institutions have "lock-in" effects that make policies difficult to reverse once they have been undertaken. As Dreher and Voigt (2011) argue,membership in international organizations, especially the more prominent ones, represents a delegation of competence to an outside authority. As such, participation in international institutions enhances the credibility of prospective members, especially for those countries with weak domestic institutions that make

policy commitments difficult in the first place. Once countries accede to international organizations and fulfill their policy commitments, such policies are difficult to reverse as they entail the costs of reneging on institutional obligations. Such institutions therefore "lock-in" states' commitments to liberal(ized) economic policies and makes these policies difficult to reverse, even in times of crisis.

As economic international organizations that are tailored to forging commitments to liberal(ized) trade, memberships in the WTO and/or in PTAs, which we utilize as the key variables for testing this hypothesis, are especially appropriate.. They "tie the hands" of governments with respect to trade policy, and thus function much like bilateral investment treaties (BITs), their equivalent in the investment sector (Tobin and Rose-Ackerman 2011).These institutions "lock-in" policy commitments through their very substantive provisions and the legal obligation that attends them. As trade agreements that have the force of law, participation in the WTO and in PTAs carries, to varying degrees, legal obligation on the part of participants to abide by agreement terms and eschew protectionist trade policies that violate their policy commitments:

Hypothesis 2: Membership in PTAs and/or the WTO lowers the frequency of protectionist trade policies between participant states.

Model and Case Selection

To test our hypothesis that the network of international organizations decreases the frequency of protectionist trade policies, we implement a cross-sectional analysis using a newly-compiled dataset of 158 countries for which data are available. Our unit of analysis is the directed-dyad, so we include both the pairs*ij* and *ji*. The first country in the dyad is the "initiator"

of protectionist trade policies, whereas the second country in the dyadis the "target."The sample of analysis includes 25,103 dyads.

Dependent variable

Our dependent variable, *Protectionism,*is a count of the number of protectionist measures taken by country *i* against country *j*.[13]Data were obtained from Global Trade Alert (GTA), which is coordinated by the *Centre for Economic Policy Research*, an independent academic think-tank based in London, UK. GTA monitors a large number of countries in the world, drawing upon expertise from independent research institutes in seven regions. In addition, GTA identifies those trading partners that are likely to be harmed by protectionist measures, as well as the type of measures implemented, e.g., bail out measures, export subsidies, among others. Moreover, these data are up-to-date, since GTA provides real-time information, and are freely accessible.[14]

We utilize data on protectionist measures that were implemented between January 2008 and the 26th of December 2009. The sample includes 604 protectionist measures and 1,811 dyads that implemented at least one protectionist policy during this period.[15]The dependent variable captures every protectionist measure reported by the GTA with nationalistic provisions that distort the market and harm trading partners, exporters, investors, and workers. For instance, in December 2009 the Canadian government announced that it would provide up to 173 million

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[13] Note: the majority of protectionist policies affect more than one country. Accordingly, these multilateral protectionist policies are broken down to the dyadic level. See the literature on trade agreements for a similar approach (Mansfield et al., 2002).

[14] Data are available at www.globaltradealert.org.

[15] GTA marks each measure in *red* if it certainly discriminates against foreign commercial interests; in *amber* if it is likely to discriminate against foreign commercial interests; in *green* if it involves liberalization. We do not include greenmeasures in the analysis.

Canadian dollars in loans to Bombardier, Inc., to complete and deliver an order to Sweden's Scandinavian Airlines.[16] This measure affected several of Bombardier's competitors in Brazil, France, Germany, Japan, Spain, United Kingdom, and the US. Similarly, in September 2008, Germany announced that it would provide rescue aid for DelitzscherSchokoladen GmbH, a company active in the manufacture and trade of cocoa, chocolate, and sugar confectionery.[17] This measure discriminates against the foreign commercial interests of the other EU member countries.

Figure 1 shows the five countries that implemented the largest number of unfair trade practices in our sample. There are three main considerations to take into account here. First, the biggest countries are the most frequent initiators of protectionist measures. This is not surprising since big countries have a large number of trade partners, operate commercially in almost every sector, and often have a high level of bargaining power internationally. Second, large developing countries take the lead in unfair trade practices. BRIC countries, in particular, are responsible for almost a third of the total number of measures implemented during the period under investigation. This result is a testament to the increasing power of these states. Third, and somewhat surprisingly, European countries recorded fewer incidences of protectionism than other large and powerful states in this new round of protectionism. Germany is the only European country placed in the first ten positions (ranking 10th).[18] Finally, these three features

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[16] Bombardier Inc. is Canada's largest aircraft producer and the third-largest civilian aircraft producer in the world. It employs approximately 17,000 people in Canada.

[17] DelitzscherSchokoladen GmbH was originally established in 1894 and its main customers are numerous German food retail chains as well as European and international trade companies.

[18] Italy and UK are in the 19th and 20th positions, respectively. However, they are below countries such as Kazakhstan, Australia, Turkey, South Africa, Japan, and South Korea.

are consistent with trade-damaging measures tracked by the WTO, and thus contribute to the reliability of our dependent variable.[19]

[FIGURE 1 ABOUT HERE]

Figure 2 shows the five countries that are the most frequent targets of unfair trade practicesin our sample. In line with Figure 1, large countries are more often a target for protectionism. However, in contrast to the large developing country initiators noted above, developed countries are more often targeted by protectionism. Indeed, the top targets are predominantly European countries or the US. China is the only developing country that appears among the top 15 targets.

[FIGURE 2 ABOUT HERE]

As Figure 3 shows, the majority of unfair trade policies consists of anti-dumping measures. Specifically, countries impose definitive antidumping duties on imports to protect strategic sectors. This finding is in keeping with the trade literature. As Prusa argues, "anti-dumping laws have nothing to do with economically harmful practices; rather, anti-dumping is just a cleverly designed form of protectionism" (2005: 683-684). Tariff increases, safeguard measures, and state aid to troubled industries represent, respectively, 23, 16, and 10 percent of the total number of measures. Surprisingly, there are only five cases of subsidies granted to sectors that face difficulties: i) subsidies for the fruits and vegetables sector (France); ii) wage subsidies for firms in financial distress (Poland); iii) interest rate subsidies for the construction

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[19] See *The Economist*, January 2nd-8th 2010, page 26.

sector (UK); iv) subsidies for electric cars and batteries (US); v) and "black liquor" subsidies to the paper industry (US).[20] Finally, it is important to note that several of these protectionist policies are only weakly related to trade policies*strictosensu*. Indeed, there are also cases of visa restrictions, modification of standards, among others. Thus, it is the whole international system that is likely to be affected by these policies.

[FIGURE 3 ABOUT HERE]

Main Explanatory Variables

The independent variable of interest is the number of joint memberships in IGOs between country *i* and country *j*. IGO membership captures the amount of information available to each state during the current crisis as well as the level of socialization between countries. Data were obtained from the International Governmental Organization (IGO) Data (Pevehouse, Nordstrom, and Warnke, 2004), with updated data available up to 2005. The total number of IGOs in our sample is 354. European states are the most integrated in IGOs (Pevehouse et al. 2004, 113). Among the countries in our sample, France, Spain, Italy, Germany, and the Netherlands have the largest number of joint economic IGO memberships and thus share the largest number of joint dyadic memberships in IGOs. Conversely, the countries least integrated into the IGO network are either small, autocratic developing countries or controversial states, such as Taiwan, whose independence is contested in diplomatic circles.

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[20] Several measures are categorized by GTA as "state aid in the form of direct grants, loans, interest rate subsidies, and guarantees." In drawing Figure 3, we include them in the category "state aid."

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In order to test the impact of IGO membership on protectionist policies, we differentiate between types of IGOs. Building upon the classification in Ingramet al.(2005), we divide IGOs into two groups: economic IGOs and non-economic IGOs. There are 122economic IGOs in the sample, which include general economic organizations such as the IMF as well as organizations that deal with cooperation and development.[21] Note: since we have a separate variable for trade agreements (see below), we do not include them in this category. There are 232non-economicIGOs that cover political,military, environmental, and research and education issues.

The distribution of the IGO variable raises concerns about the nonlinearity of the relationship between IGO membership and protectionism. On the one hand, small countries that are marginal in the international system are very unlikely to implement protectionism since they are also commercially marginal. On the other hand, countries that are members of several IGOs, i.e., they are at the center of the international political system, are also the countries that are more likely to implement protectionist policies since they are at the center of the international economy. Countries like Bhutan and Sierra Leone, for example, are members of very few IGOs (and so they also share a small number of joint dyadic memberships) - compared to the EU countries, for instance - and are also less likely to implement protectionist policies against other countries due to their limited trade relevance. This raises the need to distinguish between countries with an average number of IGO membership and countries with a very large number of IGO membership. In other words, we expect that there is a threshold above which the impact of IGO membership on protectionism becomes significant. Thus, both the linear and quadratic terms of the variable IGO (and both the economic and non-economic categorizations of this

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[21]We took a conservative approach in designating economic IGOs. For instance, in contrast to other studies (Cao, 2009), we do not classify as economic IGOs organizations devoted to rules on standardization or industry-specific IGOs.

variable) are included in our models.We also examine the impact of membership in several

prominent economic IGOs (Dreher and Voigt, 2011), including the WTO, the OECD, and

ICSID. Thevalue for each of these variables equals one if both countries in the dyad are

members.[22]

To assess the "lock-in" effect of international institutions devoted to trade cooperation,

we take into account membership in preferential trade agreements (PTAs). PTAs are bilateral

and plurilateral arrangements among countries that agree to lower trade barriers and promote

trade liberalization and expansion. Examples of PTAs include the European Union, NAFTA, and

the ASEAN Free Trade Area, among others. During the past 20 years, PTAs have dramatically

proliferated. They are currently among the most important instruments of international economic

policy (Limao, 2007). Due to their emphasis on trade liberalization and their enforcement

mechanisms, participation in PTAs is an appropriate measure for the "lock-in" effect of

international institutions. Participation in a PTA equals 1 if country i and country j are members

of the same agreement in 2007, and 0 otherwise.[23] Data on PTAs were obtained from Baccini

and Dür (2010).

Control variables

In order to control for other factors that influence the frequency of protectionism that are

also correlated with the IGO measures of interest, we include several economic and political

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[22]Though other, perhaps even more prominent, economic IGOs exist, such as the IMF, the World
Bank, and UNCTAD, these organizations are international organizations with virtually world-
wide membership. As a consequence, there is little to no variation in the membership variable for
these organizations, which renders them less useful for empirical analysis.

[23] Some dyads form more than one PTA mainly because member countries deepen an existing
agreement, e.g., the EU. Our coding does not capture this event, i.e., our operationalization is
strictly dichotomous.

variables.[24] For all the control variables, the analysis includes separate terms for the initiator and target countries. The economic variables include *per capita GDP* to measure the level of development of a country. The more developed a country is, the easier it should find dealing with a crisis without relying on protectionist policies. Indeed, a developed country is in a better position to compensate societal groups that face losses arising from the economic downturn. These data are collected by the IMF (2009). We also include *GDP Growth* (IMF, 2009) to control for the magnitude of the crisis in each country. The analysis also includes (the logarithm of) bilateral trade flows between country i and country j(*Trade*). Our expectation is that the demand for protectionism arises only in the actual presence of trade with the targeted countries. Thus, we expect a positive sign for the coefficient of this variable. Furthermore, we include the variable *Floating Exchange Rate*, a dichotomous indicator that equals 1 if country i has a floating exchange rate regime, and 0 otherwise. According to Eichengreen and Irwin (2009), countries that were free to devalue their currencies were less likely to implement protectionist policies during the Great Depression. Data were obtained from Reinhart and Rogoff (2004).

The extent to which the information and "lock-in" functions of international organizations are effective in preventing the rise of protectionism is also strongly shared by the domestic politics of trade policy, in which governments are subject to pressures for protection from special interest groups. This pressure is likely to be especially acute in times of crisis, as sectors suffering from the effects of the economic crisis have incentives to lobby the government for protection. The analysis captures the domestic politics of trade policy by including regime type, veto players, and government effectiveness among the control variables.

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[24] We use Ehrlich's model (2007) as the baseline model.

The analysis employs the Polity IV (2009) scale to measure the type of regime of each country (*Regime*). The advantage of Polity IV over others is that it covers all of the countries in our dataset and provides values for up to and including 2008.[25] This variable controls for the claim that democracies behave differently from autocracies in the international system (Fearon, 1997; McGillivrayand Smith, 2008). We also control for the number of veto players (Henisz, 2000) that has been found to be an important determinant of trade policy during economic downturns (Henisz and Mansfield, 2006). Finally, the analysis includes the variable *Government Effectiveness* to capture the capacityof a government to abide by commitments to international treaties and regulations. *Government Effectiveness*is thus an indicator in line with the arguments of the managerial school of compliance (Chayes and Chayes 1996).We expect that high levels of government effectiveness should increase the capability of executives to deal with the crisis and therefore decrease the need to implement unfair policies.The data were obtained from Kaufmann, Art, and Mastruzzi (2006).[26]Univariate summary statistics and sources for all of these variables are available in Table 1.

[TABLE 1 ABOUT HERE]

Methodology

The distribution of the dependent variable has two important features (see Figure 1 in the Appendix).[27]It shows that (i) in a large number of dyads, no protectionist policies were adopted in the period under investigation; (ii) protectionism is over-dispersed, i.e., the variance is much

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[25] Results do not change if we replace Polity IV with data from Freedom House, another widely used indicator of the type of regime.

[26] Data are available up to 2009.

[27]The Appendix is available at this journal's website.

larger than the mean.[28] As a result, OLS regression is not appropriate since the count data are highly non-normal. Moreover, ordinary Poisson and negative binomial models are not suitable due toover-dispersion and excess zeros. To take into account these issues, we use zero-inflated negative binomial regression for the analysis. This estimation technique predicts first the existence of excess zeros using a logistic regression and then predicts the number of events of interest using a negative binomial estimation. Put differently, the zero-inflated negative binomial regression generates two separate models and then combines them. First, a logit model is generated for the "certain zero" cases, predicting whether or not a dyad would be in this group (in our case the group of no protectionist policy). Then, a negative binomial model is generated predicting the counts for those dyads who are not certain zeros (i.e., for these dyads with at least one incidence of protectionist policy).[29]

[FIGURE 4 ABOUT HERE]

In addition to our main independent variables, we use the natural logarithm of *GDP* (IMF, 2009) and the exchange rateto predict the zeros. Indeed, the economic salience and size of the country, as well as its monetary policy, are expected to be good predictors of the probability of initiating a protectionist trade policy.[30] Then we estimate the number of protectionist trade policies implemented by countries including all the aforementioned explanatory variables.This estimation strategy takes into account the possibility of selection effects, i.e., unobserved factors

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[28] The *nbvargr* test (STATA 11) shows that over-dispersion is statistically significant at the 99 percent level.

[29] The zero inflated negative binomial regression is seldom used in political science. For an application in economics, see Lambert (1992).

[30]As one reviewer recommended,ideally we would like to control for countercyclical macroeconomic policies such as discretionary fiscal stimulus relative to GDP or the short-term interest rate. However, these indicators are available only for a small number of countries.

that control whether or not a country implements "unfair trade policies", which could introduce systematic bias. The sample of unfair trade practices is not random if there is a selection process that predetermines whether countries take these practices in the first place. Finally, since the data are organized as a cross-section, to control for potential heteroskedasticity across countries, we employ robust (Huber-White) standard errors for every estimation.

Main Results

Table 2 shows the main results from the analysis. Quadratic terms are hard tointerpret. As shown by Ai and Norton (2003), the significance and the sign of the interaction term cannot be interpreted in a non-linear model. For ease of interpretation of the quadratic termswe plot in Figures 5 and 6 the marginal effect on protectionist policies as the number of joint memberships in economic and non-economic IGOs, respectively.[31] As we expected,for a low number of joint memberships, the impact of IGOs on protectionism is positive, i.e.,such countries implement protectionist policies more frequently. Then, as the number of joint memberships increases, the effect of IGOs on protectionism becomes negative, i.e., countries implement fewer protectionist policies. Looking at the graphs we can see that the threshold for Economic IGO is 24 joint memberships and the threshold for non-economic IGOs is 40 joint memberships.

[TABLE 2 ABOUT HERE]

[FIGURES 5 and 6ABOUT HERE]

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[31]We hold the rest of the right-hand side variables constant at their median. The STATA 11 command *margins* was used to calculate these effects.

Beside the quadratic terms, joint membership in the WTO strongly reduces the frequency of both initiating and being the target of protectionist policies. Indeed, the coefficient on WTO is negative and statistically significant at the 99percent level in two of the three models in which WTO is included. This result does not come as a surprise. Indeed, when countries are WTO members, we might expect that they would refrain from initiating protectionist policies either because countries share information about each other's trade policies or because they fear retaliation, or both. Similarly, countries that are members of the same PTA pursue beggar-thy-neighbor policies less frequently. The coefficient of the variable PTA is negative and statistically significant at the 99 percent level in every model in which PTA is included. In sum, these results support our hypothesis that shared membership in international economic institutions reduces the frequency of protectionist policies. We also find evidence that membership in prominent economic IGOs, including the OECD and ICSID, are successful in preventing protectionism.[32]

The effects of our main variables of interest are not only statistically significantbut also substantively large. We focus on the main variables whose impact is not shown in the figures. The expected number of protectionist policies for two countries that are members of a PTA is 0.82 [exp(-0.20)] times, or approximately four-fifths the expected number of protectionist policies for countries that are not members of a PTA. Even more, the expected number of protectionist policies for a country that share membership in the WTO is 0.73 [exp(-.32)] times, or less than three-fourths the expected number of protectionist policies for a country that is a non-member. Finally, the expected numbers of protectionist policies for a country pair that shares membership in the OECD and ICSID are, respectively, 0.61 [exp(-0.50)] and 0.64 [exp(-0.44)] relative to those that are not members.

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[32]As noted earlier, OECD and ICSID are not included among the Economic IGOs, and their effects are estimated separately.

Regarding the control variables, the estimates for GDPpc, Trade, and Government Effectiveness are statistically significant in the expected direction, adding plausibility to our results. The estimates for Regime are not statistically significant, indicating that democracies are neither more nor less protectionist than non-democracies. This result may well reflect the argument that democratic leaders are subject to pressures from interest groups and voters who lobby for protection during an economic downturn (Henisz and Mansfield, 2006). Furthermore, *Veto Player* is positive and statistically significant. Finally, the coefficient for *Floating Exchange Rate*, indicating a floating exchange rate regime, is positive though not statistically significant across the board. It does suggest, however, that Eichengreen and Irwin's (2009) argument does not hold strongly during the current crisis.

Regarding the first-stage logistic regression predicting whether or not a country is in the zero-group, large economies are less likely to initiate and to be the target of anyprotectionist policies. Indeed, the coefficient for GDP is negative and statistically significant at the 99 percent level in predicting zeros. This result is highly expected.Similarly, countries with a free floating exchange rate regime are generally less likely to protect, though this variable is not always statistically significant. Finally, the results demonstrate the superiority of the zero-inflated negative binomial model over an ordinary Poisson or conventional negative binomial models. The analysis shows that the dispersion parameter alpha is significantly different from zero, which indicates that our data are over-dispersed and calls for the use of a negative binomial model. The Vuong test, which is statistically significant at the 99 percent level, indicatesthat our zero-inflated model is a significant improvement over a standard negative binomial model.

Additional Evidence

To further investigate the effect of IGOs and PTA on protectionism, we implement other analyses. In particular, we make an effort to pin down the causal mechanism suggested by our theory, testing the impact of the information argument versus the enforcement argument. Moreover, we investigate whether the effect of IGOs during this crisis was substantively different from the effect of IGOs in normal times. Finally, we implement both instrumental variables and matching to better identify our models.

Information versus Enforcement

Analyses presented in the previous section showed that joint memberships in IGOs and PTAs substantially reducedthe incidences of protectionism during the current economic crisis. Disentangling the role of information from the role of enforcement is, however, a tricky task. Here PTAs provide a window of opportunity to pin down which mechanism is driving the results. Our test is divided into two parts.

First, we include on the right-hand only those PTAs that were signed during 2009. Table 3 shows the list of these PTAs. What is the logic of looking at PTAs signed in 2009? If the information argument holds, these PTAs should be the best candidates to capture it. Indeed, in order to sign a PTA in 2009, negotiations were likely held also at the very beginning of the crisis, if not earlier. Since negotiations typically involve several meetings in which parties discuss which sectors and provisions to include into the treaties, in such venues countries are likely to have a convenient and effective way to exchange information and to communicate trade policies to trade partners.

The India-ASEAN PTA elucidates our argument. India and ASEAN countries started negotiating a FTA for goods in Bali on the 3rd of October, 2003. In June 2005 they started negotiating on services as well. A PTA in goods was finally signed in Bangkok on August 13th, 2009.[33] Meetings took place frequently and regularly during 2008 and 2009. For instance, at the end of May 2009 the parties were still finalizing the last details of the agreement. In April 2009 the ASEAN Summit took place in Bangkok where Indians negotiators were also invited. The economic turmoil was one of the core issues during the last two years of negotiation. For one, the agreement was supposed to be signed at the 14th ASEAN Summit held at the end of February 2008 in Thailand. However, the economic crisis led parties to postpone the signature of the PTA and the reduction of tariffs in some sensitive sectors.[34]

Moreover, and importantly for our test, these PTAs have not come into force, yet. For instance the India-ASEAN PTA came into force only in January 2010. Thus, if we find that shared PTA membership has an effect in reducing protectionist policies, we can infer that such an effect is led by the role of information rather than enforcement, since the latter requires that the PTA be in effect. Table 4 (Model 4) shows that PTAs signed in 2009 have no effect in reducing the incidences of protectionism. If anything, the coefficient is positive though not statistically significant. Results for Economic IGO are similar to those presented above and are reported graphically in the Appendix. This result does not come as a surprise given the large number of protectionist policies implemented by several PTAs listed in Table 5.

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[33]http://www.bilaterals.org/spip.php?rubrique159. Accessed 20August 2011.

[34]http://fta.icrindia.org/india-ftas/asean-india-fta.html. Accessed 20August 2011.

Second, we also know that there is a great deal of variation among PTAs. Some PTAs include escape clauses that allow defection in tough times. Conversely, few PTAs do not include any safeguard provisions. Moreover, some PTAs tightly constraint member countries through strong dispute settlement (DS) mechanisms. Similarly, some PTAs limit the use of trade remedies. Conversely, other PTAs allow countries to defect without imposing any sanctions. To test the importance of the design of PTAs and of the enforcement argument, we include on the right-hand side only these PTAs that include escape clauses, that prohibit AD measures, and that include a dispute settlement mechanism. Data come from Baccini et al. (2011). Since the correlation between PTAs with escape clauses and PTAs with AD provisions and DS mechanisms is very high (rho=.87), we include PTAs with escape clauses in a separate model. Table 4 (Models 5 and 6) shows that PTAs that include escape clauses and DS mechanism are both negative and statistically significant at the 90 percent level. Conversely, there is no evidence that provisions out-ruling AD measures included into PTAs constrained their use. Therefore, we can infer that the design of PTAs, in particular escape clauses and enforcement mechanisms such as a strong dispute settlement mechanism, matters in reducing the number of protectionist policies during this crisis.Again, results for Economic IGO are similar to those discussed above and are reported graphically in the Appendix.

Defection in Tough Times versus Defection in Normal Times

A possible objection to our finding is that countries that share a large number of joint memberships in IGOs and that are members of the same PTA cooperate always more than countries without joint memberships or without a PTA. Addressing this objection is admittedly

difficult due to data constraints. Specifically, the collection of GTA data starts with the beginning of the crisis, so we do not have observations on the dependent variable before that. However, we provide suggestive evidence on the comparison between tough times and normal time using the Temporary Trade Barriers Database (TTBD)collected byBown (2010). In particular, we compare the number of AD measuresbefore the beginning of the crisis (2005-2007) with the number of AD provisions during the crisis (2008-2010).

A few caveats hold. First, the sample of countries is dramatically reduced, since the TTBD monitors only 31 countries. Second, the EU appears as a single country in the dataset. Third, TTBD monitors only WTO members so we drop this variable from the analysis. Fourth, we look only at AD measures. This is to say that a real comparison between this analysis and the previous ones needs to be taken very cautiously. Results are shown in the Appendix. The effects for the variables Economic IGO and Economic IGO^2disappears. In addition to the limitations explained above, this result might be also explained by the fact that the variation in the Economic IGO variable is greatly reduced. Indeed, the countries included in this sample are high-income countries and middle-high income countries. As such, they are often members of the same economic IGOs, e.g., the minimum value of this variable is 10 in this reduced sample (whereas it is 3 in the entire sample) and its mean is 15 (whereas it is 11 in the entire sample).

Conversely, the variables Non-Economic IGO maintains the same effect as that showed in Figure 5, though the level of significance shrinks due to the low number of observations (i.e.,only 113 non zero events). Finally, PTA is negative and statistically significant at the 95 percent level only during the period of crisis, whereas it is not statistically significant during normal times. Thus, taking into account all the aforementioned limitations, this analysis confirms

that non-economic IGOs and PTAs may well play an important role in reducing protectionism during tough times. The same role is not played by non-economic IGOs and PTAs in normal times.

[TABLE 6 ABOUT HERE]

Matching

To further check the robustness of our findings, we implement the coarsened exact matching (CEM) method. Matching procedures allow us to accomplish a counterfactual comparison by ''trimming down'' the sample of states so that the ''control'' (i.e., non- PTA and WTO members) and ''treatment'' (i.e., PTA and WTO members) groups are balanced on all other covariates in the model, e.g., the distribution of GDP among the treatment group should be very similar to that of the control group (Ho et al. 2007) in the matched sample. We utilize this matching technique to assess the effects of joint membership in PTAs and the WTO, since they are the only treatments, i.e., dummy variables, among our main covariates.

Using CEM, we evaluate the robustness of our previous results in four steps. First, we select the covariates that we use to balance the treatment group and the control group. Specifically, we use Trade,GDPpc, GDP Growth, and Regime. Moreover, we group the continuous covariates according to the quintiles, where the observations in the first 20 percentile of the distribution of each variable were grouped together, as were observations falling in the second 20 percentile, and so on. Regime was "coarsened" into two bins, i.e., lower than or equal to 7 and higher than 7. Second, using the command CEM in STATA, we identify observations that contain at least one treated and one control unit and we drop all the others. It should be noted

that although we lose only a small number of observations, the reduction of the unbalancing between treatment group and control group is substantively large (see Figure 2 in the Appendix).[35]Third, we again run estimations on this subsample including all the control variables and the region fixed effects (by initiator). Since with coarsening some imbalances remain in the matched data, we include also the variables that we use to balance the treatment group and the control group.Our main findings remain unchanged and are shown in the Appendix.c

[FIGURE 7 ABOUT HERE]

[TABLE 7 ABOUT HERE]

Reverse Causality

Our statistical results show that countries that share a large number of memberships in economic IGOs and that are members of the WTO and of the same PTA are less likely to implement beggar-thy-neighbor policies. These results are robust with checks for selection bias as well. However, it may be argued that reverse causality biases our results. Could it be that countries that more likely to cooperate in the first place tend to join the same IGO or be members of the same PTA? To tackle this concern we implement an empirical strategy that uses instrumental variables. A good instrument should be a good predictor of the endogenous explanatory variable, but it should not be correlated with the dependent variable. We identify five powerful instrumental variables for Economic IGOs, Non-Economic IGOs, the WTO, and PTAs.

To describe our instruments, it is necessary to introduce the notion of spatial correlation in regards to joining an international organization. In our dataset, positive spatial clustering

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[35] Figure 7 shows the balance of covariates when PTA is the treatment. Results are similar when WTO is the treatment.

arises if countries that share a large number of IGO memberships and form a large number of PTAs are located within a single region. The idea behind using this index is that countries that are located in a region in which neighboring countries join several IGOs and PTAs are more likely to do the same to avoid being marginalized and excluded both politically and economically. The G-statistic (Ord and Getis 1995) allows us to measure the spatial context of the spread of IGOs membership by indicating the extent of localized clustering around each observation. The G-statistic for any variable x is defined as follows:

$$G_i'(d) = \frac{\sum_{j=1,j}^{N} w_{ij}(d)x_j - \bar{x}\sum_{j=1,j}^{N} w_{ij}(d)}{S\sqrt{\left[N\sum_{j=1,j}^{N} w_{ij}^2(d) - (\sum_{j=1,j}^{N} w_{ij}(d))^2\right]\Big/(N-1)}}$$

where the spatial matrix w(d) is a binary matrix of contiguities, so that each cell scores 1 if and only if the distance between the two countries does not exceed 950 kilometers. Variable x measures the number of joint IGO memberships [G(IGO)] and the number of PTAs [G(PTA)]. The value returned by G is a z-value and may be used as a diagnostic tool. High positive (negative) values indicate the possibility of a local cluster of high positive (negative) values of the variable being analyzed. Specifically, if G > 1.96, there is a local cluster of high or low values of joint IGO memberships and PTAs at the 95 percent level of statistical significance. We use the G-statistic of IGO as an instrument for Economic IGOs, Non-Economic IGOs, and the WTO. Similarly, we use the G-statistic of PTA as an instrument for PTA. Figure 3 in the Appendix provides distributions for the G-statistic as instruments for IGO and PTA memberships. These variables are a good predictor of the probability of joining the same IGO, the WTO, and PTA, e.g.,the correlation between G(IGO) and Economic IGO is 0.2, but a poor predictor of implementing protectionism, e.g.,the correlation between G(IGO) and protectionist

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policies is 0.003 and correlation between G(PTA) and protectionist policies is -0.01. For the PTA variable, we use the total number of PTAs signed by each country in the dyad. This captures how a country reacts competitively to other agreements that are being signed. This variable is also a good predictor of PTA formation, the correlation being r = 0.3, but a poor predictor of protectionism, r = -0.02.

In addition to the spatial terms, we include the number of embassies located in a country as analternative instrument for Economic IGOs and non-Economic IGOs, as in Dreher and Voigt (2011), which employs the number of embassies and participation in UN missions as proxies for political integration. Thus, these variables are likely to affect membership in international organizations, but are unlikely to affect the probability of implementing protectionist policies. Moreover, for PTA we include a dummy that equals one if two countries are members of the same BIT. Indeed,Baccini and Dür (2011) show that BITs are a good predictor of the formation of PTAs (rho=.43), but are unlikely to be correlated with protectionism (rho=.1).[36]

We implement two types of analyses. First, we run a linear 2SLS model in which we instrument all our main variables at the same time. In addition to checking for endogeneity, it allows us to test for the relevance of the instrument. The Kleibergen-Paap test shows that our models are not under-identified (p=0.00), while the Hansen test does not reject the full specification of model 13 and 14 presented in Table 8 at the conventional level, i.e., our instruments are uncorrelated with the error terms. If we include GDP in the main model, the Hansen test still does not reject the full specification of model 15 (Table 8), whereas for model 16 (Table 8) the Hansen test rejects the full specification at the 90 percent level. In any case, the

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[36]The Breusch et al. (1999) test rejects the hypothesis that our instruments are redundant (p=0.00).

sign of our main variables does not change if we instrument them. Thus, this is preliminary evidence that endogeneity does not bias our findings. Note: we report the graphical effects of the quadratic variables in the Appendix.

To use the zero inflated negative binomial model, we implement the instrumental analysis in two separate stages. First, we calculate the probability that two countries in any given dyad (i) share memberships in Economic IGOs and Non-Economic IGO; (ii) share membership in the WTO; (iii) form a PTA using the two instruments described above. We use an OLS regression for Economic IGOs and a logistic regression for the WTO and PTAs. Second, we use the predicted probability obtained in the first stage to estimate the impact of Economic IGOs, Non-Economic IGOs, the WTO, and PTAs (all instrumented) on the probability of implementing protectionist policies. Even implementing the 2SLS estimation "by hand", results continue to hold as is showed in the Appendix, though the effect of Non-Economic IGO is weaker.

[FIGURE 8 ABOUT HERE]

[TABLE 8 ABOUT HERE]

Robustness Checks

To further check the robustness of the empirical results, we made a series of changes in models specifications. We estimated the models excluding India and United States from the analysis to check if our results are driven by these two countries, which are responsible for some of the largest numbers of protectionist measures. Moreover, we use region fixed effects for bothinitiator and target countries. Furthermore, we use both initiator fixed effects and initiator and target fixed effects. Note: since several countries implement no protectionist policies, we are unable to use the zero inflated negative binomialmodel, which loses half of the observations and

does not converge. Thus, we run an OLS estimation. However, these findings need to be taken cautiously, since 1) several countries are omitted due to collinearity; 2) the selection bias is not corrected; 3) the dependent variable is a count and not a continuous variable. Finally, we estimate the previous models using a poisson-logithurdle regression and a negative binomial-logit hurdle regression. We report the results of the former regression.[37]All these results, which are similar to the ones reported above, are available in the Appendix. Note: we do not report the graphical effects of the quadratic termssince for all these checks the effects are similar to the ones shownin Figures 4 and 5 (available upon request).

Conclusion

There is an emerging consensus that the outbreak in protectionism feared at the beginning of the crisis has been avoided so far (Calì, 2009; Evenett, Hoekman, and Cattaneo, 2009; Foletti, Fugazza, Nicita, and Olarreaga 2011). To be clear, protectionism did increase since the beginning of the crisis, as shown by Evenett (2009), but not as much as expected. In this paper, we advanced the claim that the presence of a thick network of IGOs characterizing the current international system decreases uncertainty among countries. In turn, this helpsstates to solve the collaboration problem surrounding trade that is particularly severe during such an economic downturn. Specifically, by receiving assurance that other countries are not going to defect, each state has a low incentive to implement beggar-thy-neighbor policies in the first place, making cooperation possible even in tough times.

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[37] We report the results of the poisson-logit hurdle regression, which are similar to the negative binomial-logit hurdle regression.

In this respect, our argument is similar in spirit to the one developed by Helen V. Milner (1988) in *Resisting Protectionism: Global Industries and the Politics of International Trade*. Comparing trade policy formulation in 1920s and 1970s, Milner argues that the growth of economic ties among firms reduces their interest in protection by increasing its costs. Similarly, we developed the *macroversion* of this claim. We argued that the presence of IGOs generates ties among countries and in turn, decreases their interest in protectionism by raising the quality and the quantity of information available to states. The empirical analysis carried out in this study supports this claim.

Moreover, this study presents significant refinements to the existing scholarship on the relationship between international institutions and trade. On the role of PTAs in international trade, we find empirical support for their functions as mechanisms of information and commitment during crisis times. This finding is an important complement to the findings in Mansfield and Reinhardt (2008), which find that PTAs ameliorate the volatility of trade between members and maintain stable expectations on the part of signatories. Together, these studies advance the debate well beyond the long-standing dynamic time-path question of trade-creation and trade-diversion effects of PTAs, by identifying other avenues through which these international institutions may sustain liberal trade.

In addition, our finding that membership in non-economic IGOs also reduces the frequency of protectionism, in addition to membership in economic IGOs, corroborates and complements the findings in Ingram, Robinson, and Busch (2005). While they find that such memberships in non-economic IGOs increase trade among members, this study finds that they may well be equally successful in preventing protectionism during an economic crisis. Taken

together, the studies provide empirical support for the constructivist view of international institutions as key venues of socialization, irrespective of their substantive domains.

Our aim in this paper was to apply theories that are firmly grounded in the international relations literature, i.e., international institutions increase information among states, provide lock-in mechanisms, and ease socializationamong countries (Abbott and Snidal, 1998; Beckfield, 2010; Ingram et al. 2005; Keohane and Nye, 1977; Morrow, 1994), to an extreme case, i.e., a very serious economic crisis, to see if these were any evidence that the theory holds. It did and that is good news for the global economic system. In developing and testing the hypotheses on the role of international institutions in times of economic crisis, we also took account of important domestic political variables, including democracy, veto players, and government effectiveness.

The take away point from this study is that globalization that is often, and often rightly, blamed for every disease of the world economy is a double-edged sword for crises. On the one hand, globalization, through interdependence, makes crises more frequent and makes the diffusion of crises faster and wider.[38] On the other hand, globalization, through the presence of international organizations, produces ties among countries and may well help to prevent the rise of protectionism during these "hard times."

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[38] The crisis problem was one of the dominant features of the 1990s: the EMS crisis of 1992-3, the Tequila crisis of 1994-5, the Asian crisis of 1997-8, the Brazilian crisis of 1998-9, and the Russia-LTCM affair.

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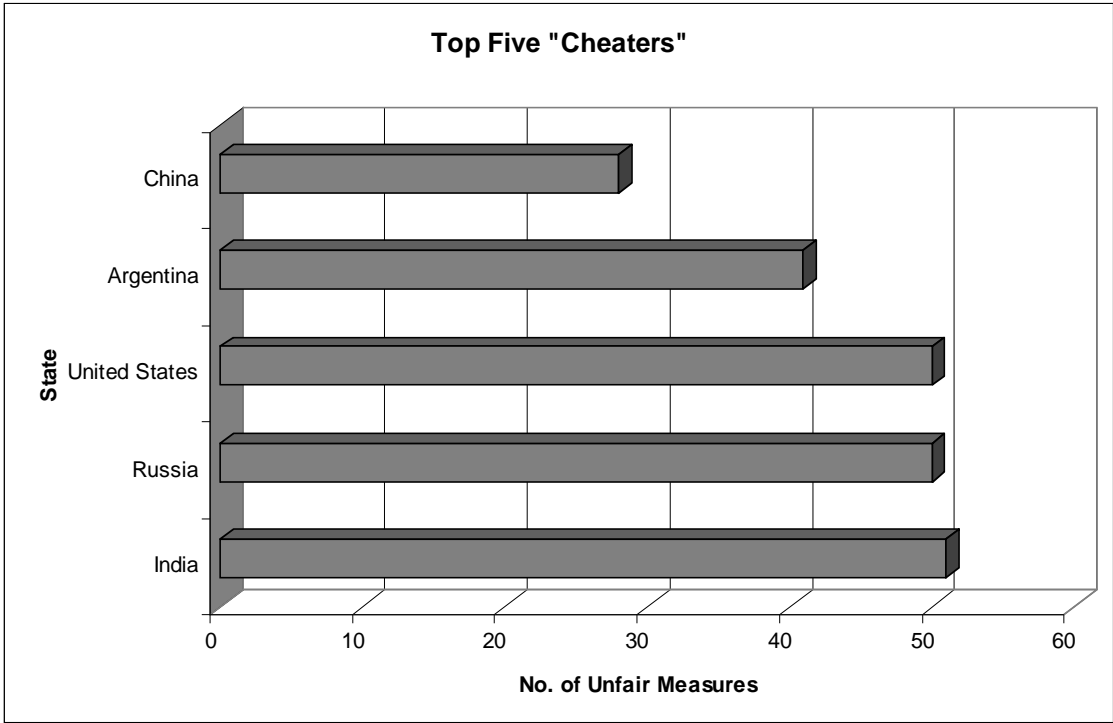
Figure 1 Countries with the largest number of protectionist measures implemented during the current crisis.
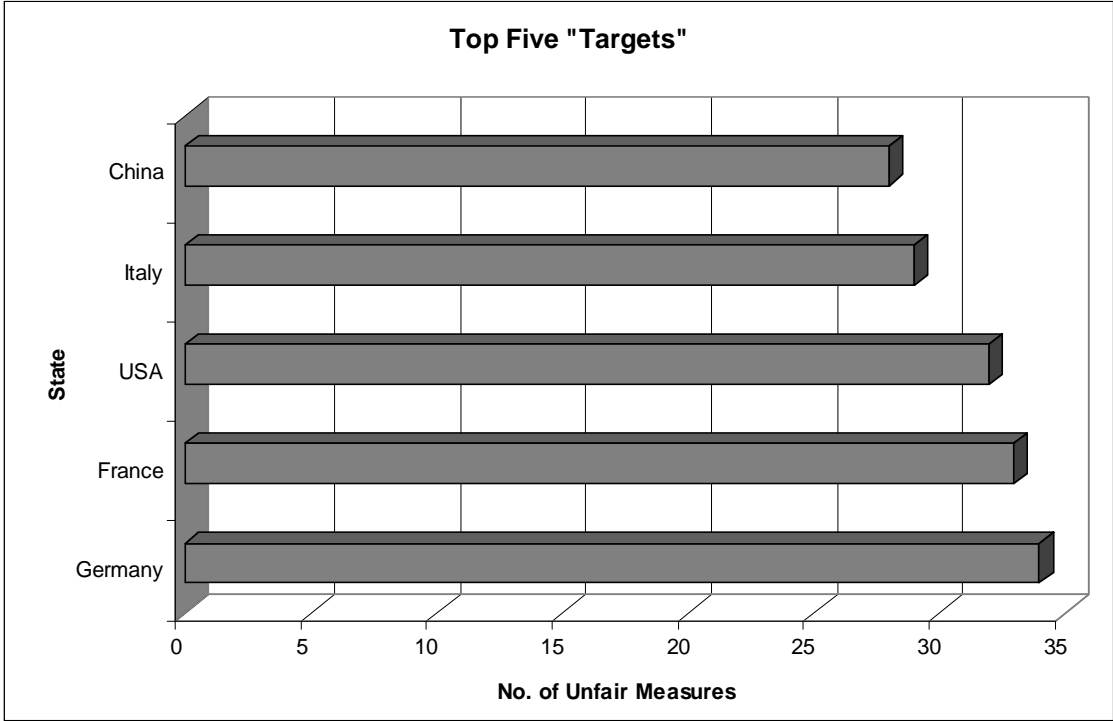
Figure 2 Countries targeted by the largest number of protectionist measures during the current crisis.

Type of Measures

- antidumping
- safeguard
- subsidies
- tariff
- aid

50%
10%
23%
1%
16%
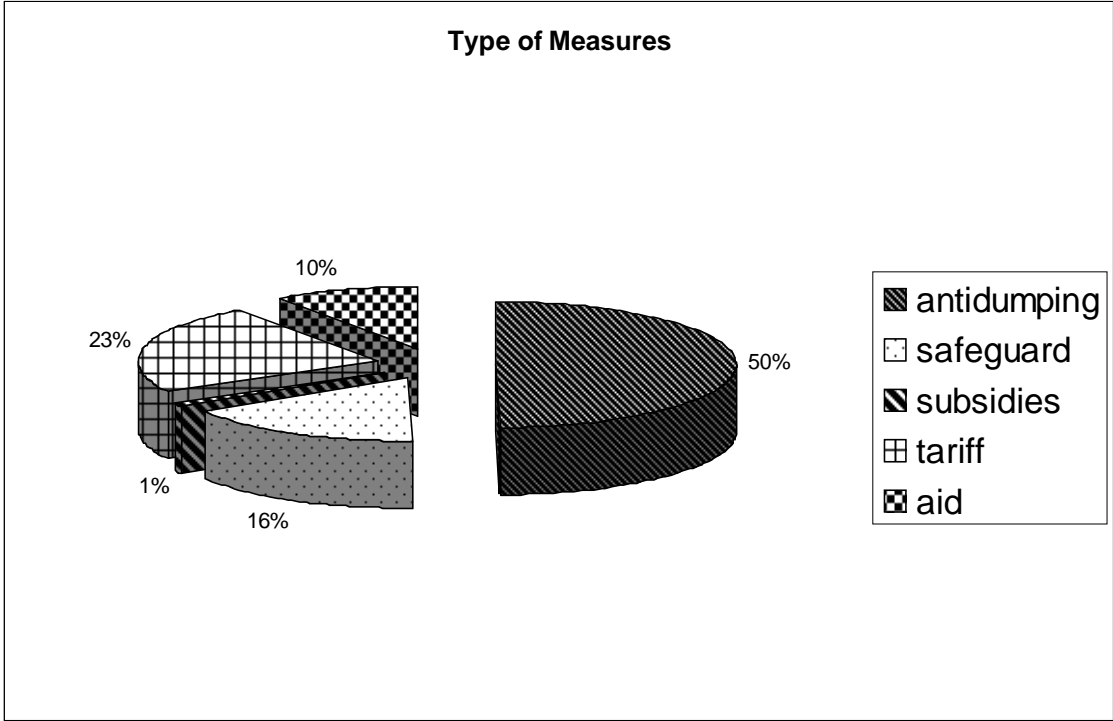
Figure 3 Type of protectionist measures 2009.

Figure 4.Marginal effect of Economic IGO (quadratic term) on the probability of implementing protectionist policies.
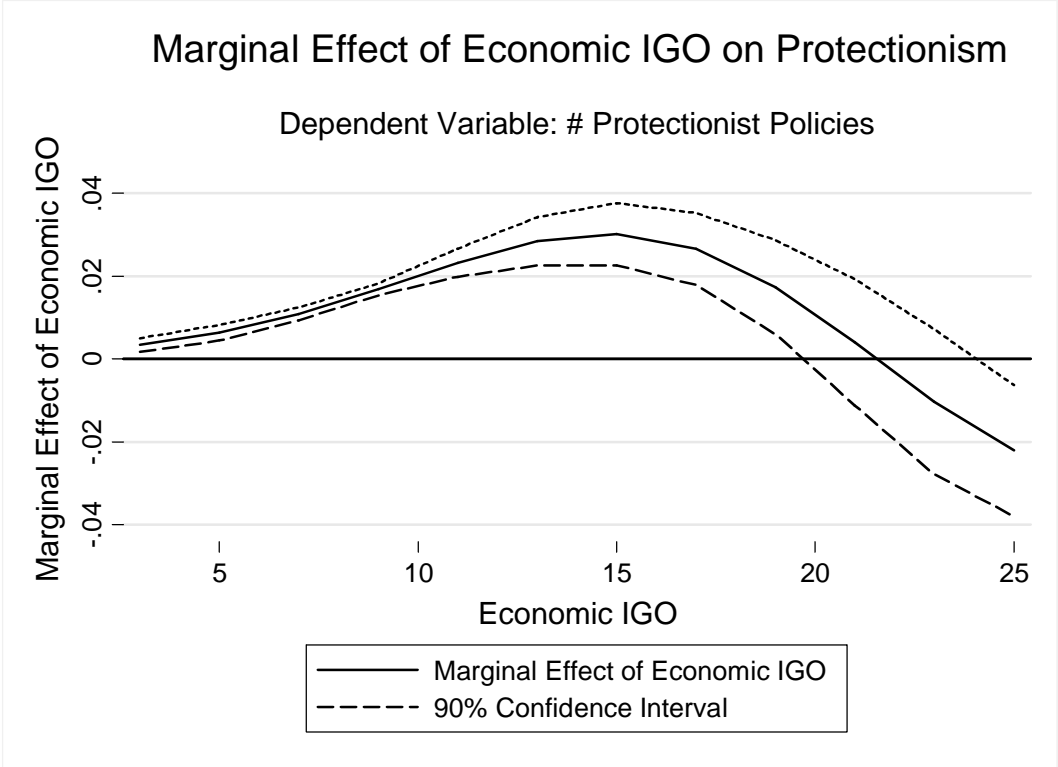
Figure 5.Marginal effect of Non-Economic IGO (quadratic term) on the probability of implementing protectionist policies.
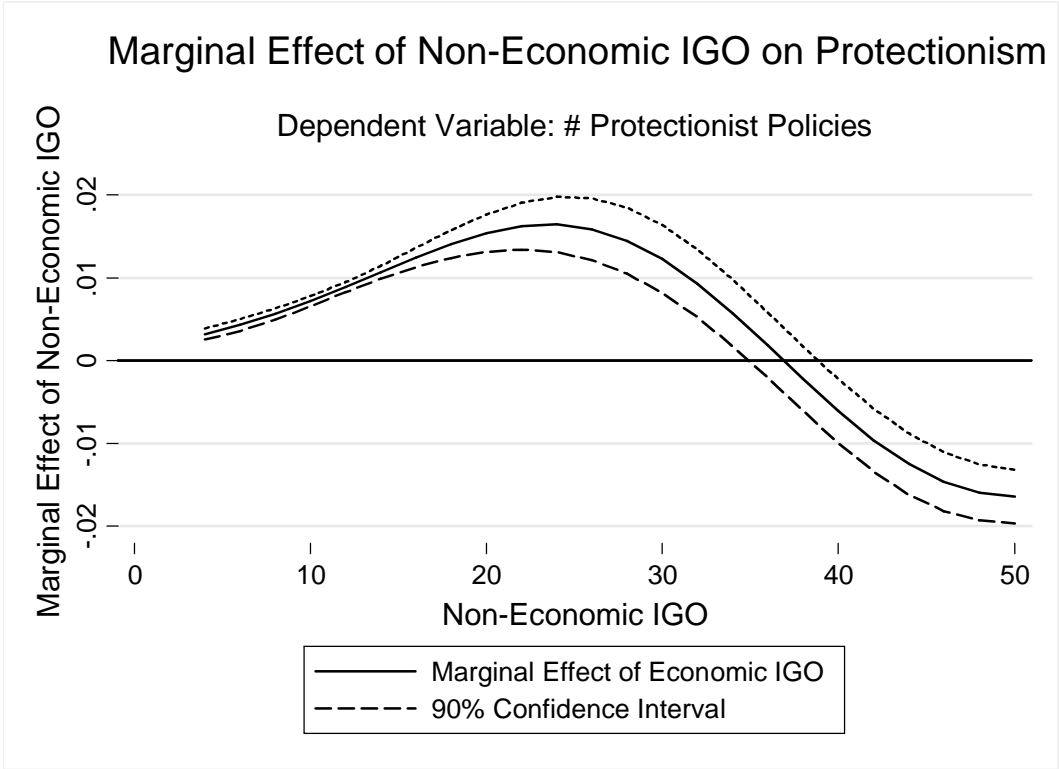
| Variable	Mean	Std. Dev.	Min.	Max	Source
Dyadic Protectionism	.17	1.09	0	34	(1)
Log(GDP)	4.23	3.67	-14.055	16.395	(2)
Distance	8.67	0.78	2.44	9.89	(3)
Log(GDPpc)	1.68	1.19	.10	4.51	(2)
Trade	3.07	2.61	0	12.67	(2)
Economic Globalization	64.23	15.75	29.96	96.67	(4)
Floating Exchange Rate	.48	.50	0	1	(5)
GDP Growth	4.23	3.67	-14.055	16.395	(2)
Regime	5.39	4.06	0	10	(6)
Veto Player	.29	.21	0	.71	(7)
Govern. Effectiveness	2.46	.97	.29	4.7	(8)
IGO	28.50	10.33	5	98	(9)
Economic IGO	4.37	2.00	0	19	(9) (10)
PTA	.16	.36	0	1	(11)
WTO	.69	.46	0	1	(11)
OECD	0.03	.17	0	1	(9)
ICSID	0.69	0.46	0	1	(9)

Table 1 Descriptive statistics of the control variables in the dataset. Sources: (1) GTA (2009); (2) International Monetary Fund (2009); (3) CEPII (2005); (4) KOF (2009); (5) Reinhart and Rogoff (2004); (6) Polity IV; (7) POLCON (Henisz, 2010); (8) Quality of Governance (Kaufmann et al. 2010); (9) International Governmental Organization (IGO) Data (Pevehouse et at., 2004); (10) Ingram et al. (2010); Baccini and Dür (2011).

VARIABLES	(1) ZINB		(2) ZINB		(3) ZINB	
	NB	Logit	NB	Logit	NB	Logit
EconomicIGO	0.46***		0.44***			
	(0.09)		(0.08)			
EconomicIGO^2	-0.01***		-0.01***			
	(0.00)		(0.00)			
Non-EconomicIGO					0.21***	
					(0.02)	
Non-EconomicIGO^2					-0.003***	
					(0.00)	
WTO	-0.32***		-0.14		-0.35***	
	(0.09)		(0.10)		(0.09)	
PTA	-0.20***		-0.23***		-0.13*	
	(0.07)		(0.07)		(0.07)	
ICSID			-0.44***		-0.34***	
			(0.07)		(0.06)	
OECD			-0.50***		-0.22**	
			(0.10)		(0.09)	
Trade	0.22***		0.21***		0.22***	
	(0.02)		(0.02)		(0.02)	
GDPpc (initiator)	-0.17***		-0.12***		-0.11***	
	(0.03)		(0.03)		(0.03)	
GDPpc (target)	0.01		0.05**		-0.00	
	(0.02)		(0.02)		(0.02)	
GDPGrowth (initiator)	0.05***		0.04***		0.05***	
	(0.01)		(0.01)		(0.01)	
GDPGrowth (target)	0.02**		0.01		0.01	
	(0.01)		(0.01)		(0.01)	
Regime (initiator)	-0.01		-0.02		-0.00	
	(0.02)		(0.02)		(0.01)	
Regime (target)	-0.01		-0.01		-0.01	
	(0.01)		(0.01)		(0.01)	
VetoPlayer (initiator)	0.65***		0.88***		0.70***	
	(0.18)		(0.19)		(0.17)	
Veto Player (target)	0.31*		0.21		0.17	
	(0.18)		(0.17)		(0.17)	
Government Effectiveness (initiator)	-0.47***		-0.50***		-0.48***	
	(0.04)		(0.04)		(0.04)	
Government Effectiveness. (target)	0.23***		0.26***		0.32***	
	(0.04)		(0.04)		(0.04)	
Floating Exchange Rate (initiator)	0.35***	-0.24	0.20*	-0.36**	0.01	-0.56***
	(0.11)	(0.15)	(0.11)	(0.15)	(0.10)	(0.13)
Floating Exchange Rate (target)	-0.02	-0.19	-0.08	-0.24**	-0.05	-0.23**
	(0.07)	(0.12)	(0.07)	(0.12)	(0.07)	(0.11)
GDP (initiator)		-0.79***		-0.78***		-0.77***
		(0.03)		(0.03)		(0.03)
GDP (target)		-0.41***		-0.40***		-0.42***
		(0.03)		(0.03)		(0.03)

	(1)	(2)	(3)	(4)	(5)	(6)
Constant	-5.88***	6.66***	-5.59***	6.61***	-4.37***	6.96***
	(0.67)	(0.24)	(0.64)	(0.24)	(0.30)	(0.22)
Alpha		-0.31**		-0.35***		-0.51***
		(0.12)		(0.12)		(0.12)
Initiator Fixed Effects		yes		yes		yes
Observations		25,103		25,103		25,103

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 2.Main models. Zero inflated negative binomial with robust standard errors.

PTA	# Directed Dyads	# of Protectionist Policies
Albania EFTA	6	0
Association of Southeast Asian Nations Australia New Zealand FTA	26	13
Association of Southeast Asian Nations India	8	24
Canada Jordan	2	0
Chile Turkey	2	0
China Pakistan Services	2	4
China Peru	2	0
EFTA GCC	36	1
India Korea	2	12
India Nepal	2	1
Japan Switzerland	2	1
Jordan Turkey	2	0

Table 3. PTAs signed in 2009.

VARIABLES	(4) ZINB NB	Logit	(5) ZINB NB	Logit	(6) ZINB NB	Logit
EconomicIGO	0.47***		0.47***		0.48***	
	(0.09)		(0.08)		(0.09)	
EconomicIGO^2	-0.01***		-0.01***		-0.01***	
	(0.00)		(0.00)		(0.00)	
WTO	-0.34***				-0.29***	
	(0.09)				(0.09)	
PTA-Negotiated (2009)	0.25					
	(0.15)					
PTA with AD provisions			0.36			
			(0.30)			
PTA with DSM			-0.31*			
			(0.16)			
PTA with EC					-0.49***	
					(0.10)	
Trade	0.22***		0.22***		0.21***	
	(0.02)		(0.02)		(0.02)	
GDPpc (initiator)	-0.16***		-0.15***		-0.16***	
	(0.03)		(0.03)		(0.03)	
GDPpc (target)	0.02		0.02		0.01	
	(0.02)		(0.03)		(0.02)	
GDPGrowth (initiator)	0.05***		0.06***		0.06***	
	(0.01)		(0.01)		(0.01)	
GDPGrowth (target)	0.02**		0.02**		0.02*	
	(0.01)		(0.01)		(0.01)	
Regime (initiator)	0.00		-0.00		-0.01	
	(0.01)		(0.01)		(0.02)	
Regime (target)	-0.00		-0.01		-0.01	
	(0.01)		(0.01)		(0.01)	
Veto Player (initiator)	0.60***		0.50***		0.60***	
	(0.18)		(0.18)		(0.18)	
Veto Player (target)	0.29*		0.29		0.31*	
	(0.17)		(0.18)		(0.18)	
Government Effectiveness (initiator)	-0.48***		-0.52***		-0.50***	
	(0.04)		(0.04)		(0.04)	
Government Effectiveness (target)	0.24***		0.22***		0.23***	
	(0.04)		(0.04)		(0.04)	
Floating Exchange Rate (initiator)	0.31***	-0.28**	0.41***	-0.23	0.42***	-0.21
	(0.11)	(0.14)	(0.10)	(0.14)	(0.10)	(0.15)
Floating Exchange Rate (target)	-0.04	-0.22*	0.00	-0.19*	-0.00	-0.18
	(0.07)	(0.11)	(0.07)	(0.12)	(0.07)	(0.12)
GDP (initiator)		-0.79***		-0.79***		-0.80***
		(0.03)		(0.03)		(0.03)
GDP (target)		-0.41***		-0.41***		-0.41***
		(0.03)		(0.03)		(0.03)
Constant	-5.88***	6.69***	-6.10***	6.66***	-6.09***	6.64***
	(0.67)	(0.24)	(0.66)	(0.24)	(0.68)	(0.24)
Alpha	-0.31**		-0.24**		-0.25**	
Initiator Fixed Effects	(0.12)		(0.11)		(0.11)	

Observations	yes	yes	yes
EconomicIGO	25,103	25,103	25,103

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4. Models with PTAs signed in 2009 and with antidumping (AD) provisions, dispute settlement mechanisms (DSM), and escape clauses (EC). Zero inflated negative binomial with robust standard errors.

VARIABLES	(7) IVREG	(8) IVREG	(9) IVREG	(10) IVREG
EconomicIGO (instrumented)	2.29***		4.03***	
	(0.46)		(1.07)	
EconomicIGO²(instrumented)	-0.07***		-0.13***	
	(0.02)		(0.04)	
NonEconomicIGO (instrumented)		0.74***		0.86***
		(0.10)		(0.17)
NonEconomicIGO²(instrumented)		-0.01***		-0.01***
		(0.00)		(0.00)
WTO (instrumented)	-3.20***	-4.75***	-5.35***	-5.01***
	(0.45)	(0.66)	(1.29)	(1.08)
PTA (instrumented)	-2.82***	-3.08***	-4.92***	-3.54***
	(0.34)	(0.37)	(0.99)	(0.62)
Trade	0.07***	0.11***	0.10***	0.14***
	(0.02)	(0.02)	(0.03)	(0.03)
GDPpc (initiator)	-0.01	-0.10***	0.06**	-0.10***
	(0.01)	(0.02)	(0.03)	(0.02)
GDPpc (target)	-0.07***	-0.12***	0.04	-0.07***
	(0.02)	(0.02)	(0.03)	(0.02)
GDPGrowth (initiator)	-0.00	-0.00	0.00	-0.00
	(0.00)	(0.00)	(0.01)	(0.01)
GDPGrowth (target)	-0.02***	-0.02***	-0.02**	-0.01***
	(0.00)	(0.01)	(0.01)	(0.01)
Regime (initiator)	0.05***	0.05***	0.05***	0.05***
	(0.01)	(0.01)	(0.01)	(0.01)
Regime (target)	0.04***	0.03***	0.05***	0.03***
	(0.01)	(0.01)	(0.01)	(0.01)
Veto Player (initiator)	-0.14	-0.03	-0.00	0.03
	(0.09)	(0.11)	(0.15)	(0.12)
Veto Player (target)	0.01	0.20*	0.15	0.33**
	(0.09)	(0.11)	(0.14)	(0.14)
Government Effectiveness (initiator)	0.10***	0.24***	0.33***	0.31***
	(0.04)	(0.05)	(0.11)	(0.09)
Government Effectiveness (target)	0.20***	0.40***	0.48***	0.53***
	(0.03)	(0.05)	(0.10)	(0.10)
Floating Exchange Rate (initiator)	-0.15***	-0.18***	-0.23***	-0.21***
	(0.04)	(0.05)	(0.07)	(0.06)
Floating Exchange Rate (target)	-0.20***	-0.28***	-0.15**	-0.23***
	(0.04)	(0.07)	(0.06)	(0.07)
GDP (initiator)			-0.24***	-0.05
			(0.08)	(0.03)
GDP (target)			-0.35***	-0.15***
			(0.09)	(0.04)
Constant	-14.03***	-7.04***	-24.57***	-8.03***
	(2.71)	(0.98)	(6.41)	(1.61)
Hansen J Statistics	0.103	0.223	0.121	0.082
Observations	25,103	25,103	25,103	25,103

Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 9. IVREG with robust standard errors.