

# LINKING TRADE POLICY TO NON-TRADE ISSUES: SELECTED SURVEY OF THE LITERATURE

Paola Conconi  
Université Libre de Bruxelles (ECARES), CEPR and CESifo

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## 1 Introduction

In recent decades, increasing economic and social interdependence between nations has intensified the need for international policy cooperation. Advances in information and communication technology and falling trade barriers have led to the emergence of global value chains. The resulting fragmentation of production processes across countries magnifies the negative impact of trade barriers on trade flows (e.g. Yi, 2003), increasing the need for international cooperation of trade and investment policies: On the environmental front, awareness about the threats posed by transboundary pollutants and climate change have also increased the need for international cooperation. International efforts to cooperate on trade and the environment have led to agreements like the General Agreement on Tariffs and Trade (GATT) and the Kyoto Protocol on Climate Change. There have also been cooperation efforts in other policy areas (e.g. security, health, human rights) characterized by significant non-pecuniary international externalities (e.g. security externalities, epidemics, psychological/moral externalities), which have led to the creation of institutions such as the North Atlantic Treaty Organization (NATO), the World Health Organization (WHO) or the International Labor Organization (ILO).

International relations involve multiple dimensions of interaction. Even when these dimensions are not directly interdependent – in the sense of the effects of choices along one dimension being dependent on choices along the others – there can still be cross-issue linkages: by exchanging concessions across different policy dimensions, two countries may be able to achieve cooperation in situations where there would otherwise be no scope for mutual gains to be attained. One of the key insights of economics is the idea of Coasian bargaining. This is the notion that, whatever the initial distribution of legal rights, the interested parties can arrive at a mutually advantageous

(and economically efficient) exchange of concessions through bargaining – as long as the pattern of concessions is unconstrained. If multiple issues are on the table, then efficient bargaining may involve exchange of concessions across different issues.

Based on this insight, we would expect the process of international cooperation to consist of a single, all-embracing negotiation covering multiple issues. In reality, a number of practical considerations prevent this idealized outcome from materializing. To begin with, the number of channels through which countries can affect each other is limited, which in turn limits the possibility of finding mutually advantageous forms of exchange; direct cash payments could, in principle, overcome such limitations, but are in practice rarely used. Negotiations also entails transactions costs, which become more significant the more complex negotiation is with respect to both the number of parties involved and the number of issues covered; as a result, more limited forms of cooperation may be preferred to broader agreements.

Although international negotiations, agreements and institutions are usually focused on one policy issue at a time, we can find several examples in which different issues are linked. In this paper, I will focus on linkages between trade and other policies (e.g. rules on intellectual property rights and investment, labor and environmental standards). I will first describe examples of these linkages in multilateral/regional trade agreements or in unilateral trade policies. I will then discuss alternative theoretical explanations for issue linkage. In particular, I will review the explanations provided in the economics and political economy literature.<sup>1</sup>

## 2 Linking Trade Policy to Other Policy Issues

### Multilateral Rules

The GATT agreement was signed in 1947 by 23 trading nations and has now more than 160 members. As its name suggests, the main goal of this multilateral agreement is to reduce tariffs and other trade restrictions among member countries.

The GATT agreement does recognize the importance of a sovereign nation being able to pursue certain non-trade goals, even when such action otherwise conflicts with various obligations relating to international trade. Article XX permits the use of otherwise GATT-inconsistent protectionist measures when they are “necessary to protect human, animal or plant life or health” (XX(b)), relate

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<sup>1</sup>Issue linkage has also been the focus of a large literature in international relations and political science. Various studies emphasize that the simultaneous discussion of two or more issues for joint settlement is a key instrument by which states can secure an agreement. In the words of Putnam (1988, p 446), “the possibility of package deals opens up a rich array of strategic alternatives for negotiators”. There is also a more negative view, according to which issue linkage involves broad, symbolic statements with little substantive meaning (Moravcsik, 1998) and undermines the effectiveness of agreements (Morrow, 1991). A few studies have examined whether issue linkage affects the probability that negotiating countries reach an agreement (Poast, 2012a) and the credibility of the agreement (Poast, 2012b). Others discuss the linkage between trade policy and non-trade issues such as labor standards or human rights (e.g. Vogt, 2015; Hafner-Burton, 2005). These studies are not directly relevant for the purposes of this paper, in which I focus on formal theories of issue linkage.

to “the conservation of exhaustible resources if such measures are made effective in conjunction with restrictions on domestic production or consumption” (XX(g)) or to “the product of prison labor” (XX(e)). However, Article XX establishes that trade measures should not be “applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction to international trade”.

GATT rules also allow member countries to take measures necessary for the protection of essential security interests, as well as those taken in pursuit of obligations under the United Nations Charter for the maintenance of international peace and security. Article XXI explicitly allows trade measures to be imposed whenever a government considers this “necessary for the protection of its essential security interests,” either in time of war or in the case of “other emergency in international relations.”

In the Uruguay Round of GATT negotiations, which led to the establishment of the World Trade Organization (WTO), members include in the agenda not only the reduction of tariffs and other trade barriers, but also policy areas that go well beyond traditional trade policy, such as rules for the protection of investment and intellectual property rights. Differently from previous GATT trade liberalization rounds, it was decided at the outset that the bulk of the multilateral agreements negotiated had to be accepted as a whole. As a result, the “single undertaking” of the Uruguay Round includes, among others, the the agreement on Trade-Related Investment Measures (TRIMS) and agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs).

## Regional Trade Agreements

The theoretical literature on issue linkage overviewed in Section 3 points to the potential Pareto gains of linking negotiations on different issues. One of the drawbacks of linkage is the increased complexity of negotiations. As argued by Koremenos *et al.* (2001) and Horn and Mavroidis (2014), among others, the presence of bargaining costs and contracting costs can help explain why issue linkage is not very frequent. Having more issues to discuss on the table increases transaction costs and delays in the process of negotiating an agreement. Increasing the dimensionality of a contract makes it harder and more time-consuming to bargain.

Transaction costs become more significant the more complex negotiation is – with respect not only to the number of issues covered, but also the *number of countries* involved. This can explain why issue linkage is observed more at the regional than at the multilateral level.

Recent decades have seen a proliferation of regional trade agreements, preferential agreements among pairs of groups of countries. There are currently almost 280 of these agreements in force, with several more being under negotiation.<sup>2</sup> Many of these agreements include provisions covering

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<sup>2</sup>In the WTO, regional trade agreements are defined as reciprocal trade agreements between two or more partners. They include free trade agreements and customs unions. As of 1 May 2018, 287 of these agreements were in force. These correspond to 459 notifications from WTO members, counting goods, services and accessions separately (WTO

policy areas that go well beyond traditional trade policy, such as services, intellectual property rights protection, investment, and competition policy, among others.

Various researchers have tried to measure the extent to which PTAs cover non-trade issues. Horn *et al.* (2010) examine the provisions contained in 14 trade agreements negotiated by the European Union (EU) and 14 agreements negotiated by the United States (US), comparing them to already existing multilateral commitments. They divide the provisions included in these agreements into two categories:

“WTO plus” (*WTO +*): commitments building on those already agreed to at the multilateral level (e.g. further reduction in tariffs, provisions on intellectual property and investment).

“WTO extra” (*WTO X*): commitments dealing with issues going beyond the current WTO mandate altogether (e.g. on labor or environmental standards). Horn *et al.* (2010)

examine to what extent these provisions are legally enforceable. They find that the EU and the US have chosen markedly different strategies for including provisions in their RTAs: the 14 agreements of the EU contain almost four times as many instances of *WTO X* provisions as the 14 US agreements. However, EU agreements are characterized by considerable “legal inflation,” i.e. contain many obligations that are not legally enforceable. Most enforceable provisions deal with areas related to existing WTO agreements, such as investment, capital movement, and intellectual property.

More recently, Hofmann *et al.* (forthcoming) build on the methodology developed by Horn *et al.* (2010), collecting information on the inclusion of 52 policy areas and their legal enforceability in 279 PTAs among 189 countries. Some novel stylized facts emerge from the analysis of their dataset. First, more than half of the agreements in the database include legally enforceable regulations in some policy areas that fall under the current mandate of WTO. These *WTO +* provisions include areas such as customs regulations, export taxes, anti-dumping, countervailing measures, technical barriers to trade, or sanitary and phytosanitary standards, among others. Provisions outside the WTO mandate cover rules related to environmental protection and nuclear safety, among others. Legally enforceable *WTO X* provisions are included in more than one-third of PTAs.

Dür *et al.* (2014) code 587 trade agreements with 3,318 (initial) members for a total of 10 broad sectors of cooperation, encompassing market access, services, investments, intellectual property rights, competition, public procurement, standards, trade remedies, non-trade issues, and dispute settlement. Using this dataset, they re-visit the questions if and to what extent PTAs impact trade flows. They show that on average PTAs increase trade flows, but that this effect is largely driven by deep agreements. Moreover, provisions that tackle behind-the-border regulation matter for trade flows.

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Secretariat).

## GSP Preferences

Multilateral trade rules contain a number of provisions granting Special and Differential Treatment (SDT) to developing countries. One of the key components of SDT is the Generalized System of Preferences (GSP), which grants developing countries better access to developed countries' markets. The "Enabling Clause" adopted in 1979 provides that, under certain conditions, "contracting parties may accord differential and more favorable treatment to developing countries, without according such treatment to other contracting parties." This clause is a derogation to the non-discriminatory principle of Article I of the GATT.

GSP preferences are determined unilaterally and can be removed by the granting country if it deems that the beneficiary has attained a sufficient level of progress. For example, in 1998 the EU graduated three countries (Hong Kong, the Republic of Korea and Singapore) from its GSP scheme.

Granting countries often use GSP tariff preferences as a "carrot and stick" mechanisms to achieve non-trade objectives: to be eligible, developing countries are expected to make efforts to improve domestic trade and investment conditions, strengthen their labor and environmental regulations, and better protect human rights.<sup>3</sup> For example, there are elements of both negative and positive conditionality in the GSP programs of the EU:

Negative conditionality: the EU can withdraw trade preferences in case the beneficiary country fails to comply with certain non-trade conditions (e.g. violates ILO conventions 29 and 105 on forced labour).

Positive conditionality: eligible countries may gain additional trade preferences by complying with certain non-trade conditions. This GSP+ scheme benefits vulnerable countries that have ratified a number of conventions in the areas of human rights, labor rights, and the protection of the environment and that accept to be monitored for their effective implementation of these conventions.

## 3 Economic Explanations

A series of studies have developed theoretical models to understand the benefits and costs of issue linkage. These studies are reviewed by Maggi (2016), who distinguishes between three forms of linkage considered in the literature: enforcement, negotiation, and participation linkage. Enforcement linkage refers to the use of cross-issue punishments, meaning that a violation in one issue area is met by punishment in other issue areas. Participation linkage refers to the threat of sanctions in

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<sup>3</sup>Conconi and Perroni (2012) show that conditionality in GSP preferences can also help developing countries to enhance the credibility of their own trade policies, in the presence of a domestic commitment problem as in Maggi and Rodríguez-Clare (1998).

one issue area to induce participation in an agreement in another issue area. Negotiation linkage occurs when governments negotiate policies in different issue areas simultaneously within a single negotiation. In what follows, I outline some of the key studies related to each form of linkage.

## **Enforcement Linkage**

It is often argued that, in the absence of a supranational authority with autonomous powers of enforcement, international agreements are not directly binding and must be sustainable in light of the dynamic incentives that countries face vis-à-vis each other. The literature on self-enforcing agreements shows that international cooperation can be sustained if countries engage in long-term relationships and the temptation associated with the short-run gains of deviating from the agreement is weaker than the the threat of long-term punishment triggered by unilateral defections (e.g. Bagwell and Staiger, 1997; Ederington, 2001)

The literature on enforcement linkage examines whether linking trade policy to environmental policy (or other issues with non-pecuniary externalities) promotes more cooperation in both policies, or whether cooperation in one are is strengthened at the expense of the other. In Following Maggi (2016)’s classification, there is “enforcement linkage” if a violation of an agreement in area A is punished with sanctions (also) in area B.

Enforcement linkage was first considered in the industrial organization literature by Bernheim and Whinston (1990) and Spagnolo (1999), who examined whether firms colluding over several markets can sustain higher profits. Bernheim and Whinston (1990) showed an important irrelevance result. Rephrased in terms of international cooperation, this results implies that, if governments are symmetric and payoff functions are symmetric and separable in the two issue areas, there are no gains from enforcement linkage. The intuition is that linkage increases both the temptation to cheat from the agreement and the punishment of defecting, with no overall effect on cooperation incentives. Bernheim and Whinston (1990) also show that strict gains from enforcement linkage can emerge if there are asymmetries across issues or if there are structural interactions between them (non-separabilities). Spagnolo (1999) points out that gains from enforcement linkage can arise even in the absence of asymmetries, if payoff functions are non-separable across policy areas. He considers an oligopoly model where each firm’s objective function is concave in its total profits, which implies that the prices charged by a firm in different markets are substitutes, and shows that in this case enforcement linkage allows firms to collude more effectively than unlinked enforcement. The insight here is that, when there are structural interactions between issue areas, under some conditions linkage allows beneficial creation of enforcement power.

Limão (2005) and Ederington (2002) consider the implications of enforcement linkage for trade and environmental agreements. Limão (2005) describes a two-country model characterized by terms-of-trade externalities and cross-border pollution externalities. Governments are symmetric,

but the trade cooperation problem and the environmental cooperation problem are asymmetric in nature, and the two policy issues may interact with each other. In this setting, linked enforcement always allows governments to achieve a strictly higher payoff relative to unlinked enforcement. If policies are independent in the governments' objective functions, linkage promotes cooperation in one policy area at the expense of the other, by reallocating enforcement power across issue areas. However, if policies are complements in the governments' objective functions, linkage can create enforcement, leading to more cooperation in both policy areas. Limão (2005) shows that this only happens if cross-border pollution externalities are strong and governments place relatively little weight on import-competing lobbies.

Ederington (2002) examines the potential gains from linkage between trade and environmental agreements, but focuses on a scenario where pollution externalities are purely local (i.e. they do not cross national borders), so that the only international externality is through terms of trade. He shows that, if the punishment strategy takes the form of a permanent reversion to the static Nash policies, then there are no benefits from linked enforcement.

## **Negotiation Linkage**

As mentioned in the introduction, a key implication of the idea of Coasian bargaining is that linking multiple issues in the same negotiation offers potential Pareto gains relative to unlinked negotiations. Some studies have considered the implications of "negotiation linkage", when agreements in policy areas A and B are negotiated jointly (i.e. in the context of a single bargain), as opposed to separate bargains.

Limão (2007) describes a regional trade agreement between a large and a small country. The large country offers tariff reductions to the small country in exchange for its cooperation on non-trade issues (labor and environmental standards, intellectual property rights), which are modeled as regional public goods. Negotiation linkage can be beneficial to both countries, allowing them to exchange on trade and non-trade issues. However, Limão shows that this type of agreement can lead members to raise their external tariffs, thus hurting countries outside the agreement. The intuition for this result is simple: when the small country makes a non-trade concession, the large country offers a reduction of the tariff below the external tariff that it applies to non-members; increasing the external tariff raises the preference margin that the large country can offer in the regional agreement and thus the level of non-trade concession it can extract.

Copeland (2000) points out that, in the presence of interdependences across issues, negotiation linkage can have important distributional consequences, so that some countries may oppose such linkage. He focuses on the negotiation of trade and environmental agreements, and compares two bargaining protocols: a linked negotiation over trade and environmental policies and an unlinked scenario where trade negotiations occur before environmental negotiations. When pollution is

global, countries may disagree on linkages between trade agreements and environmental agreements: countries importing pollution-intensive goods have an incentive to try to link trade agreements with environmental agreements, while countries exporting pollution-intensive goods have an incentive to try to obtain a binding commitment to free trade prior to negotiations over global pollution. The intuition for this result is that, if countries make a prior commitment to free trade, the exporter of pollution-intensive goods will have a better threat point in the environment negotiation, because free trade indirectly commits this country to pollute more. By contrast, the other country will prefer to negotiate trade and pollution levels simultaneously.

## Participation Linkage

Another form of issue linkage concerns the participation in negotiations on different policy issues. In the classification of Maggi (2016), there is “participation linkage” if the incentives to join an agreement in policy area A are used to encourage participation in policy area B.

Multilateral cooperation on some policy issues (e.g. environment) is hindered by individual countries’ incentive to *free ride* on other countries’ cooperation efforts, while multilateral cooperation on other issues (e.g. trade) is undermined by the incentives to *exclude* some countries. It has been suggested that linking cooperation on “public goods” – which suffers from severe free-riding problems – with cooperation on “club goods” – where the benefits from cooperation are largely excludable – could help to achieve more cooperation on all issues.

The idea trade policy can be used to encourage participation in international environmental agreements has first been formalized by Barrett (1997), who formalizes participation linkage as trade sanctions imposed exogenously against non-participants to environmental agreements, without modeling the endogenous choice of trade policy by governments or the formation of trade agreements.

Conconi and Perroni (2002) describe a model that features both negotiation and participation linkage, in which countries can enter into selective and separate agreements with different partners along different policy dimensions and all policies are endogenously chosen. They focus on an application of their model in which countries are linked by trade flows and transboundary pollution. International relations are modeled as a two-stage game, in which agreements are formed in the first stage and policies are selected in the second stage – cooperatively among countries participating in an agreement and non-cooperatively between countries belonging to separate agreements. To accommodate for the possibility of individual countries belonging to multiple agreements, they define the equilibrium concept of “stable agreement structure.” They emphasize the distinction between agreements – arrangements that determine the payoff structure in the last stage of the game – and blocking coalitions – subsets of players that can make objections to a proposed configuration



of agreements in the first stage.<sup>4</sup>

Conconi and Perroni (2002) use this model to examine how the stability of the “joint global agreement” (JGA), the agreement structure in which all players jointly cooperate over all strategic dimensions, is affected by the imposition of a *tie-in* rule – the requirement that agreements must span multiple dimensions of interaction. They show that whether such restriction helps or hinders multilateral cooperation depends on the payoff structure of the underlying non-cooperative game. In some cases, making cooperation on trade conditional on environmental cooperation can facilitate multilateral cooperation on both issues, by limiting the set of feasible objections to the JGA. In other cases, however, it can constitute an obstacle to multilateral cooperation, as it removes counter-objections that could be put forward, out of equilibrium, in order to support issue trading in equilibrium. Negotiation tie-in is more likely to facilitate multilateral cooperation in situations where the environmental policy stakes are small relative to the welfare effects of trade policies and when partial environmental coordination is preferred to no cooperation by all countries involved, implying that outsiders can free-ride effectively on partial environmental agreements. On the other hand, when the costs of environmental compliance are high but the ability to free-ride on partial environmental agreements is limited, tie-in can hinder multilateral cooperation by making it both attractive and viable for a single country to remain outside of any agreement.

## 4 Political Economy Explanations

As discussed in Section 2, trade agreements increasingly encompass provisions that go beyond traditional trade policy. Provisions in areas related to existing WTO agreements (e.g. investment, intellectual property rights) are usually enforceable, while provisions in other areas (e.g. environmental and labor regulations) are usually not enforceable (Horn *et al.*, 2010).

The literature reviewed in the previous section provides some theoretical explanations for “deep” trade agreements. In line with the broad idea of Coasian bargaining, this literature suggests that linkage can facilitate cooperation across countries, allowing them to exchange concessions across different policy issues. These studies also highlight potential costs of some forms of linkage (e.g. which can make it harder to sustain global cooperation on multiple issues, or can hurt countries excluded from an agreements).

An alternative explanation comes from a more recent literature in political economy, which

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<sup>4</sup>Much of the literature on international policy cooperation has separately examined cooperation over trade policies and over environmental policies. Riezman (1985), Krugman (1991), and Yi (1996), among others, have focused on trade agreements, while Carraro and Siniscalco (1993), Barrett (1994), and Chander and Tulkens (1992), among others, have focused on International Environmental Agreements. Consistently with the single-issue nature of the problem it studies, this literature has built upon theories of coalition formation, whereby members of a coalition coordinate all of their actions with other members. Conconi and Perroni (2002) argue that simply extending the concept of coalition structure to a multi-issue framework can be misleading, because it does not account for the fact that countries can (and often do) form selective arrangements with different partners over different issues.

emphasizes the role of large firms. As mentioned in the introduction, one of the key trends of the last few decades in the emergence of global value chains (GVCs). Technological progress and falling trade barriers have allowed made it easier for firms to retain within their boundaries and in their domestic economies only a subset of activities. Research and development, design, production of parts, assembly, marketing and branding, previously performed in close proximity and within the same firm, are increasingly fragmented across the globe and across firms. As a result, trade in intermediate inputs now accounts for as much as two-thirds of international trade (Johnson and Noguera, 2012). Various studies emphasize selection effects in GVC participation. For example, Bernard *et al.* (2007) shows that US importers are on average more than twice as large than non-importers. According to a study by UNCTAD (2013), up to 80% of GVC-related flows are linked to the activity of multinational corporations.

Baldwin (2011) points out that, when firms set up production facilities abroad – or form long-term ties with foreign suppliers – they can gain from trade agreements not only through the elimination of tariffs, but also through the inclusion of provisions that help to protect their tangible and intangible assets in foreign markets. This argument is formalized by Antràs and Staiger (2012), who develop a theoretical model showing that in the presence of offshoring of intermediate inputs deep integration is necessary to achieve internationally efficient policies.

Rodrik (2018) argues that deep trade agreements are “the result of rent-seeking, self-interested behavior on the part of politically well-connected firms – international banks, pharmaceutical companies, multinational firms.” Concerns about the influence of powerful multinational corporations have also stirred strong public opposition to recent trade agreements such as the Transatlantic Trade and Investment Partnership (TTIP) and the Comprehensive Economic and Trade Agreement (CETA).

Notwithstanding the heated academic and policy debates, there is no systematic empirical evidence on whether the non-trade provisions contained in trade agreements reflect the interests of large corporations. More generally, little is known about the role firms play in shaping the political economy of deep RTAs. This is partly due to the fact that the workhorse model in the political economy of trade agreements (Grossman and Helpman, 1995) considers trade agreements that only cover trade provisions and focuses on the role of industries rather than firms. In this model, industry lobbies promise binding campaign contributions to the government as a function of potential trade policies; the The focus on industries is at odd with the literature on firm heterogeneity in trade, which shows that firms have different trade policy interests, even within narrowly defined sectors (e.g. Bernard and Jensen, 1999; Melitz, 2003).

A recent study by Blanga-Gubbay *et al.* (2018) we departs from the standard framework, studying lobbying on trade agreements by heterogeneous firms, both empirically and theoretically. First, using detailed information from lobbying reports available under the Lobbying Disclosure Act (LDA), they construct a unique dataset on firms? lobbying expenditures on free trade agreements

(FTAs) negotiated by the US.<sup>5</sup> To obtain additional information about lobbying and non-lobbying firms, they match the dataset with Compustat.

Using this dataset, Blanga-Gubbay *et al.* (2018) uncover new facts about firms lobbying on trade agreements. First, in virtually all (99.25 percent) of the cases, lobbying firms are in favor of FTAs. Second, firms lobbying on FTAs are larger than non-lobbying firms. Third, firms that lobby on FTAs are more likely to be engaged in international trade than non-lobbying firms. These facts cannot be explained by the existing literature on the political economy of trade agreements. As mentioned above, the workhorse model by Grossman and Helpman is focused on industries rather than firms. Moreover, the decision to lobby is exogenous: it is simply assumed that some industries are organized, while others aren't. Finally, contributions are paid ex-post (i.e. after the incumbent government has decided whether or not to ratify the agreement), while we observe lobbying expenditures ex-ante (before the ratification of the agreement).

To rationalize these facts, Blanga-Gubbay *et al.* (2018) develop a theoretical model in which heterogeneous firms lobby to affect the probability of ratification of a proposed RTA. The political structure of the model is characterized by two key features. First, lobbying expenditures are paid before the policy outcome is realized. Firms decide whether and how much to lobby in favor or against a proposed FTA, anticipating the impact of their lobbying expenditures on the probability that their preferred outcome is realized. Second, in both countries, legislators deciding on the ratification of the FTA may be biased in favor or against it, and there is some uncertainty about this political bias. In terms of economic structure, explaining lobbying by individual firms requires a model with “granular” firms, which have positive mass and can thus affect both market and policy outcomes. Our benchmark model features the coexistence of a few large firms and a continuum of small firms. Large firms are oligopolistic, and thus internalize the effect of their production choices on total supply in their industry. They can gain from a FTA through two channels: improved access to foreign consumers, due to the elimination of tariffs on their final good by FTA partners; and improved access to foreign suppliers, due to the elimination of domestic tariffs on inputs imported from FTA partners.

This model delivers predictions about the intensive margin of lobbying. In line with these predictions, they find that larger firms spend more supporting the ratification of trade agreements. Individual firms spend more supporting when US congressmen are less likely to favor ratification.

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<sup>5</sup>The LDA requires individuals and organizations to provide information on their lobbying activities at the federal level. Such activities generally encompass all efforts to influence the thinking of legislators or other covered federal officials for or against a specific cause. They include lobbying contacts and efforts in support of such contacts, including preparation and planning activities, research and other background work. Starting from 1996, all lobbyists have to file semi-annual reports to the Senate's Office of Public Records (SOPR), listing the name of each client (firm) and the total income they have received from each of them. All firms with in-house lobbying departments are required to file similar reports. When filing its report, a (lobbying) firm has to choose from a list of 76 general issues specified by SOPR (trade being one of them) and can also indicate specific issues (e.g. ratification of a particular trade agreement). Semi-annual lobbying reports can be found on the website of the Center for Responsive Politics (CRP) and in the SOPR.

Firms also spend more in support of trade agreements that generate larger gains. In particular, their lobbying expenditures increase with i) the extent to which the FTA reduces the tariffs they face to export their final good and to import their intermediate inputs; ii) the importance of the FTA partners in terms of their export and sourcing potential; iii) the depth of FTAs, measured using the data from the World Bank (Hofmann *et al.*, 2018) and the DESTA project (Dür *et al.*, 2018). Also consistent with the model’s predictions, firms spend more lobbying in support of FTAs when legislators are less likely to be in favor of ratification.

More work is needed to shed light on the role played by firms in shaping the *content* of trade agreements. Going back to Baldwin (2011)’s argument, firms that set up production facilities abroad or source inputs from foreign suppliers, they expose their tangible and intangible assets to risks. We would then expect them to advocate for the inclusions of deep provisions in trade agreements (e.g. on investment and IPR), to protect their assets and facilitate the smooth functioning of their supply chains. Anecdotal evidence suggests that large corporations may indeed be able to “buy” favorable provisions in trade agreements. For example, in the first quarter of 2012, GlaxoSmithKline spent \$2,120,000 lobbying on the Trans-Pacific Strategic Economic Partnership Agreement (TPP) - provisions related to intellectual property”, among other issues. Other pharmaceutical companies spent considerable amounts lobbying on this agreement. The text of the TPP agreement seems to reflect these lobbying efforts, since it contains various provisions that are particularly favorable to drug manufacturers (e.g. strengthening patent exclusivity, providing protections against bulk government purchasing).

## 5 Conclusions

In the two sections above, I have presented two sets of explanations why trade policy is often linked to non-trade issues (and why in some cases linkage may not be desirable). The first relies on the idea that linkage can facilitate cooperation across countries, allowing them to exchange concessions across different policy issues. The second is based on the idea that firms with global supply chains lobby governments to reduce tariffs and to include in trade agreements provisions to protect their tangible and intangible assets.

Political economy explanations can help to explain why issues that are of interest to multinational firms (e.g. protection of investment and intellectual property rights) are included in both multilateral and regional trade agreements (and are usually enforceable), while provisions on other non-trade issues (e.g. on labor and environmental standards) are only included in some regional agreements (and are usually not enforceable). They can also help to explain why issue linkage in trade agreements has become more frequent in recent decades, during which many firms have expanded their operations in foreign markets.

It should be noted, however, that the two sets of explanations are not necessarily in contrast

with each other: “deep” trade agreements may reflect both the desire of countries to exchange concessions across different policy issues and political pressure by firms that try to facilitate the smooth functioning of their supply chains. It should also be stressed that lobbying by multinationals is not necessarily detrimental:<sup>6</sup> firms that have operations in many countries can help to facilitate policy cooperation among the government of these countries, helping them to internalize trade and other externalities.

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<sup>6</sup>This point was made in a different setting by Gawande Krishna, and Robbins (2006), who show foreign lobbying may be beneficial as a country’s trade policy as a counter-pressure to domestic interests.

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