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**Reference:**

Van Ommeren Emile, Poletti Arlo, De Bièvre Dirk.- The European Union and the political economy of enforcing international trade rules  
European Union politics - ISSN 1465-1165 - 22:3(2021), p. 377-400  
Full text (Publisher's DOI): <https://doi.org/10.1177/14651165211001514>  
To cite this reference: <https://hdl.handle.net/10067/1771270151162165141>

# **The European Union and the political economy of enforcing international trade rules**

*Forthcoming in European Union Politics*

Emile van Ommeren, Department of Political Science, University of Antwerp  
Arlo Poletti, Department of Sociology and Social Research, University of Trento  
Dirk De Bièvre, Department of Political Science, University of Antwerp

## **Abstract**

The European Commission keeps track of foreign trade barriers through its Market Access Strategy. In this study, we examine some of the key political-economic conditions under which the European Union decides whether and how to address these trade issues. Drawing on an original dataset of (allegedly) illegal foreign trade barriers faced by European Union businesses, we show that industries dominated by a few large companies are more successful in gaining the support of the Commission to challenge these foreign trade barriers. Moreover, we find that the European Commission's strategy depends on the economic power relationship with the trading partner: the European Union privileges negotiations when seeking to enforce international trade rules against economically weaker states, while it prefers to use litigation against stronger trading partners.

## **Keywords**

Dispute settlement, enforcement, European trade policy, lobbying, World Trade Organization

## Introduction

The European Union's (EU) pivotal role in international trade relations is undisputed. The EU is the world's largest trading bloc, ranking first both as a trader of manufactured goods and services and as source of, and destination for, international investments. Two factors have crucially contributed to making the EU such a pivotal international trade player. First, placing trade policy under supranational competence provided the European Commission (EC) the authority to elaborate, negotiate and enforce trade relations with the rest of the world. Second, the rise of the EU as a 'great trade power' was facilitated by the existence of a set of multilateral trade rules – the General Agreement on Tariffs and Trade (GATT) - which proved very successful in channelling and furthering the interests of powerful European exporting constituencies by providing them predictable and non-discriminatory access to nearly all foreign markets (De Bièvre and Poletti, 2013).

As tariff barriers declined worldwide, continuing to effectively promote the interests of EU exporters required expanding the functional scope of the multilateral trade regime to a wide array of new regulatory issues. In turn, this required effective enforcement mechanisms that could be eventually activated to restore compliance with these new multilateral regulatory commitments. The EU confronted this challenge in two ways. For one, it sponsored, together with the United States (US), the creation of a quasi-judicial mechanism of enforcement of rules, which materialized with the creation of the World Trade Organization (WTO) in 1995. In parallel, in 1996 the EU adopted a new Market Access Strategy (MAS), strengthening its administrative capacity to keep track of foreign trade barriers and enabling it to take full advantage of such an institutional innovation at the WTO level (Poletti et al., 2016).

Despite the fact that the enforcement of WTO rules plays such a central role in both the rhetoric and practice of EU trade policy, we know surprisingly little about the political and economic factors underlying it. In particular, the EU trade policy literature has so far remained largely silent on two key issues. First, under what conditions can European exporters count upon EU policymakers' support with respect to their demands to seek the removal of foreign trade barriers? Existing works explaining cross-national variations in observed propensity to enforce WTO rules as a function of the legal capacity and resources of WTO members (Brutger, 2017; Guzman and Simmons, 2005) suggest that the EU may be better equipped than less resource-rich trade actors in this regard. Over the years European firms have reported many instances in which they were confronted with (allegedly) illegal barriers to trade in foreign countries, and yet only a small subset of these cases have prompted action by EU policymakers. This means that, as in other political systems, EU policymakers act as gatekeepers for the demands of domestic exporters seeking the enforcement of international trade rules, which begs the obvious question why they do respond to some of these demands, while in other instances they refrain from taking action against its trade partners' protectionist measures (Hoekman et al., 2017). Uncovering the logic that underlies how policymakers select among the various exporters' demands is key to understand whether, and eventually in what ways, access to enforcement of international trade rules is systematically biased in favour of particular subsets of domestic constituencies in the EU.

Second, when EU policymakers do respond to exporters' demands, what factors affect the precise course of action that they then choose? One obvious way through which the EU can seek the enforcement of multilateral trade rules is by initiating formal WTO disputes as complainant. Yet, while judicial dispute settlement is used in some of these cases, in many other instances EU policymakers seek the removal of foreign trade barriers using instruments such as diplomatic missions, sending letters and raising matters in bilateral negotiations. Shedding light on the determinants of how EU policymakers choose among these alternatives is crucial to understand the EU's role in international trade politics as it has the potential to

illuminate the conditions under which we can expect the EU to continue upholding a rules-based global trading system.

Drawing on an original dataset on foreign trade barriers reported by European exporters, this study addresses both questions. More specifically, we rely on the set of trade barriers as reported by European businesses and recorded by the EC services in the EC's Market Access Database (MADB) after a preliminary screening of their actionability under international trade law. This database includes information on the type of measures, the country in which they were encountered, the product category and thus the sector which alerted public authorities about the foreign trade barrier, as well as a description of what the EU is doing to remove the barrier. We use these data to subject to empirical scrutiny a number of factors explaining the political power of European businesses and the strength of the EU's bargaining position *vis-à-vis* the relevant trading partner. We thus provide the first systematic analysis of *potential* cases out of which the EU selects and prioritises the issues that lead to *actual* trade policy decisions.

Our findings support two main hypotheses. First, we show that EU policymakers are more likely to cater to demands to enforce international trade rules when these come from industries dominated by a few large companies. Second, we provide evidence in support of the hypothesis that EU policymakers prefer to seek the enforcement of international trade rules via legal means, i.e. acting as complainant in WTO dispute settlement, when the relevant trading partner is economically strong, whereas they privilege more informal negotiations when dealing with relatively weak states.

Our article makes several contributions. First, we contribute to filling an important gap in the EU trade policy literature as we offer the first attempt to explain whether and how the EU acts as an enforcer of international trade rules. We thus contribute to the literature on the politics underlying the enforcement of international trade rules within other political systems and from a cross-national perspective (Davis, 2012; Kim and Spilker, 2019; Sattler and Bernauer, 2011; Yildirim et al., 2018). Second, rather than focusing on peculiar or unique characteristics of the EU's trade policymaking process, we embed the study of EU trade policy in the broader literature on the political economy of trade policy (Dür et al., 2020). We show that the political-economic logics underpinning the enforcement of multilateral trade rules in the EU are not dissimilar to those found at play in the US and other political systems. Third, our findings inform real-world relevant debates about the future of the global trading system, and the EU's role within it, in the face of rising protectionist sentiments and policies across the globe. Since the financial crisis of 2008, there has been a rise in the number of trade restricting measures around the globe (Hoekman et al., 2017). The world-wide coronavirus crisis and the ensuing trade restrictive measures only add to the urgency of the question under which conditions the EU is likely to consistently act as a fervent advocate of the rules-based trading system.

## **The EU and the enforcement of international trade rules: Process and hypotheses**

The multilateral trade regime evolved from a typical case of intergovernmental international cooperation where states retain near-full control over decisions to an institution where enforcement powers are partially delegated to third party bodies (Poletti and De Bièvre, 2016). To reap the benefits of the increased judicialization of the global trade regime, the Directorate-General (DG) for Trade of the EC engaged in a process of institutional reform through the adoption of the MAS in 1996. This strategy was aimed at easing the path to enforcing international trade rules by creating more performant information gathering processes and market access investigation procedures. The reform culminated in the creation of the Market Access Unit, the Trade Barriers Regulation Unit, and the WTO Division. In this new

institutional constellation, the Market Access Unit is entrusted with the task of processing information stemming from EU businesses about foreign trade barriers, which in turn supports the Trade Barriers Regulation Unit and the WTO Division in defending the rights of EU exporters in litigation processes or in negotiations. The most important responsibility of the Market Access Unit is the management of the MADB, an online-available computer database on export formalities, WTO bound tariff levels, and existing barriers to trade. Since its creation, the MADB represents the informational backbone of the EU's strategy of enforcement of international trade rules, establishing a systematic and centralized source of information on market access barriers encountered by EU industry, actionable under multilateral and bilateral trade law – a capacity until then dispersed in the different services of the Commission.

Disposing of this institutional armour, EU policymakers face two key political choices when it comes to enforcing international trade rules. First, they have to decide whether to act upon the many complaints that are brought to their attention by European exporters. As in other WTO members disposing of formal or informal mechanisms of market access investigations, EU policymakers act upon information provided by organized domestic exporters, who represent the key enforcement constituency of international trade rules. However, only a small fraction of the foreign trade barriers officially reported by European exporters to be (allegedly) in violation of international trade rules in the MADB prompt action by the EC (Figure 1), which makes the politics of multilateral trade enforcement akin to that of the US and other political systems where similar patterns have been observed (Brutger, 2017; Davis, 2012; Yildirim et al., 2018) and begs the question of what determines this political choice.

[Figure 1]

Second, once EU policymakers have selected among the multiple demands they confront, they also have to make a decision on the most effective strategy to enforce international trade rules. The EU, in particular its Market Access Advisory Committee, basically has two options from which it can choose: negotiations or litigation. While the literature on the enforcement of international trade rules has so far focused on the drivers of WTO dispute onset (Kim and Spilker, 2019; Ryu and Stone, 2018; Yildirim et al., 2018), this exclusive focus on legal enforcement obscures that policymakers can also use other political tools, such as engaging in various kinds of formal and informal negotiations with its relevant trading partners. Policymakers do not solely rely on litigation as an enforcement strategy but often do opt for less formal political negotiations to convince trade partners to remove their trade barriers (Figure 2), begging the question as to why.

[Figure 2]

We therefore advance a number of hypotheses on the determinants of states' strategies regarding the enforcement of international trade rules and distinguish between the decision whether to take action (stage 1) and the choice of strategy – i.e. the type of action (stage 2).

#### *Stage 1: Choosing to take action*

Existing research on the US has illuminated the role of domestic exporting constituencies demanding that policymakers act to remove foreign trade barriers (Brutger, 2017; Davis, 2012; Kim and Spilker, 2019; Ryu and Stone, 2018; Yildirim et al., 2018). These political-economy approaches of trade policy suggest that policymakers' choice to act to remove foreign trade barriers can be viewed as a bottom-up process largely determined by the political influence of domestic exporting constituencies. According to this perspective, policymakers' decision to

act on behalf of these exporters' demands, either via legal or political means, can be viewed as a signalling device to demonstrate their resolve to defend the interests of domestic exporting constituencies that can provide a number of crucial resources that are instrumental to increasing their chances of being re-elected or re-appointed.

Drawing on this body of work focusing on the US, we conceive of EU policymakers' choice to act to remove foreign trade barriers as a function of the political influence of the relevant domestic constituencies demanding the enforcement of international trade rules. This choice does pose some empirical challenges. For one, grasping the political influence of trade-related constituencies in the US context may have proven relatively straightforward due to the public availability of data on their financial contributions (Davis, 2012; Ryu and Stone, 2018; Yildirim et al., 2018). However, such data are not available in the EU and, moreover, the connection between interest group resources and political influence is much less straightforward in the EU system of interest representation (Stevens and De Bruycker, 2020). We therefore rely on alternative empirical strategies drawing on a number of arguments that allow us to derive expectations about the likely sources of exporters' influence on EU trade policy making.

First, the scope for collective action has been approximated by the extent to which an industry is dominated by a few large companies. Scholars working with trade models that account for firm heterogeneity show that there are large intra-industry differences in export ability (Melitz, 2003). In some industries, only a few large and competitive firms are capable of selling their products abroad. Echoing Olson (1965), producers in such 'oligopolistic industries' need to coordinate their actions with fewer firms, which suggests that they can more easily overcome the collective action problem. For instance, the multinational aerospace corporation Airbus – by far the largest manufacturer and exporter of aircraft in Europe – has no chance to free ride on the lobbying efforts of other companies and can be expected to autonomously develop a strategy to maximise pressure on relevant political actors. In contrast, when a sector consists of many small and medium-sized enterprises (SMEs), such as the textile and clothing sector in the EU, the impact of one company will be negligible, so companies will be less inclined to contribute to their collective good. In other words, when sales are skewed towards a small number of successful companies, or 'superstar exporters', the potential for cooperation is relatively high (Osgood et al., 2017).

*H1: EU policymakers are more likely to respond to demands to enforce international trade rules when these come from sectors characterized by industrial concentration.*

Second, industrial clusters may well reap the economic and political benefits of agglomeration (Busch and Reinhardt, 1999; Krugman, 1991). Examples include clusters, such as Silicon Valley as the world's high-tech centre in the US and the ARRRRA cluster (Antwerp-Rotterdam-Rhine-Ruhr Area) as the largest petrochemical hub in Europe. Such concentration of industrial activity lowers communication and transportation costs, which may make it easier to establish close links between companies within the region, while physical proximity may enable face-to-face interaction among businesspeople and create opportunities for information exchange, political knowledge-sharing and the development of a group identity - all related to increases in the level of cooperation (Ostrom, 1998). Moreover, denser social networks may allow industry members to observe each individual's contribution toward the collective effort and it is generally understood that low monitoring costs and repeated interaction significantly reduce the chances of defection (Axelrod, 1981). As argued by Busch and Reinhardt (1999), geographically concentrated sectors should be better able to articulate common preferences, to lobby government officials and to influence trade policy decisions than dispersed sectors. Evidence from the US confirms that close-packed industries, such as manufactures of oilfield

equipment, are much more politically mobilised and are relatively successful in gaining trade protection (Busch and Reinhardt, 1999; McGillivray, 1997). In Europe, a key collective actor from the ARRA cluster, the German federation of the chemical industry VCI, has repeatedly stated that the WTO ‘dispute settlement system is a successful instrument and should be used more intensively by the EU to tackle non-WTO compliant practices’ and that the ‘Market Access Strategy is a good framework for tackling non-tariff trade barriers in countries outside Europe’ (VCI, 2010).

*H2: EU policymakers are more likely to respond to demands to enforce international trade rules when these come from geographically concentrated sectors.*

A third line of research suggests that a broad representation of sectoral interests across member states is needed to engender sufficient political support (Pincus, 1975), which would run counter to the logic of geographical concentration. However, the key finding of Busch and Reinhardt (1999) for the US is that geographically concentrated *but politically dispersed* sectors are most likely to see their demands fulfilled. When sectoral constituents that share a common economic interest are spread out over multiple member states, their issues can become salient and relevant in the minds of several political leaders. In other words, politically dispersed sectors enjoy greater ‘political clout’ (Rogowski et al., 1999). In the EU, all member states are represented in the main trade policy advisory committees of the EC where they submit opinions on the measures to be taken.<sup>1</sup> If foreign trade restrictions cause strain on businesses that are active in many member states, such as manufacturers of food products, then this might put strong pressure on the EC to take action.

*H3: EU policymakers are more likely to respond to demands to enforce international trade rules when these come from politically dispersed sectors.*

### *Stage 2: Choosing a strategy*

Once the decision is made to follow up on a business complaint, the EC needs to determine the most effective strategy for addressing the trade barrier. This process involves a further investigation into the nature of the trade barrier and broadly entails a choice between the legal route, i.e. initiating formal dispute settlement procedures, and the negotiation route, i.e. beginning formal or informal negotiations with the relevant trading partners. We purposefully dichotomize this choice into one between negotiations and litigation although the latter is a process that unfolds in several discrete steps. When one or more WTO members file a formal complaint on specific trade policy measures taken by another member, the process begins with consultations taking place as confidential negotiations between the parties, and only when the two parties fail to reach a political compromise at this stage then the proper legal process begins with the establishment of a panel of experts, the issuing of a ruling and, potentially (and until recently), the appeal phase where the standing Appellate Body (AB) further reviews the dispute. Hence, WTO litigation itself does include a phase, i.e. consultations, in which parties can negotiate diplomatically. Understanding why certain WTO disputes escalate from consultations to panel stage is important and has received due consideration in the literature (see Guzman and Simmons 2002). Yet, for our purposes here, we treat litigation as one category for two reasons. First, the ‘shadow of WTO law’ generates systematic incentives for disputants to negotiate differently during consultations than in purely inter-governmental negotiations (Busch and Reinhardt 2001; Poletti et al. 2015). Second, the decision to initiate a dispute brings about significant financial and administrative burdens, and potential negative diplomatic externalities irrespective of whether it escalates or not (Davis 2012). In short, the

strategic incentives that actors face during the consultation phase of litigation are more similar to those of subsequent phases of litigation than to those characterizing pure inter-state political negotiations outside it.

Existing studies suggest the choice of strategy can depend on the power relationship between the complainant and the defendant. For instance, Sattler and Bernauer (2011) argue that countries are more likely to engage in bilateral negotiations when there are large economic power asymmetries. The implicit assumption underpinning this argument is that, whenever possible, countries prefer obtaining the removal of foreign trade barriers via negotiations rather than via WTO litigation. We deem such an assumption plausible for three reasons. For one, as argued above, initiating a WTO dispute entails administrative and financial burdens that are significant even for WTO members least constrained by legal knowledge and resources (Brutger, 2017) and potential negative diplomatic externalities (Odell 2000). In addition, litigation is also characterized by a high level of uncertainty, both because of its slow timeline and because of the intrinsic difficulty of anticipating the likelihood of a successful ruling (Davis 2012). Moreover, potential complainants can anticipate that, by increasing visibility of the contested issue, initiating a WTO dispute can increase trade partners' audience costs and therefore make it more difficult to obtain the desired concessions (Poletti et al., 2015).

The probability of obtaining a favourable outcome in negotiations is higher when power asymmetries are high. On the one hand, powerful states will try to obtain concessions through negotiations by effectively threatening to impose great costs on less powerful states. Small economies are generally more vulnerable to market closure of the EU than vice versa, which gives these countries a relatively weak bargaining position. The EU might exploit its position as the world's largest trading bloc by threatening with countermeasures – like tariffs or regulatory restrictions – if the foreign trade barriers remain in place. In turn, small economies facing (potential) retaliation or reprisals may succumb to European pressure by opting for an early 'out-of-court' settlement. On the other hand, economic coercion will be less effective when power differentials are small. The leverage of the EU to induce a concession from the US or the Chinese government will be substantially lower than vis-à-vis small countries such as Armenia or Ecuador. When the EU is not able to exert enough influence to achieve a favourable outcome in bilateral negotiations, the EC might be more willing to take the costly hurdle of filing a dispute at the WTO. This leads us to formulate our fourth hypothesis:

*H4: EU policymakers are more likely to choose litigation rather than negotiations when economic power asymmetry is small.*

## **The model**

To test our hypotheses, we rely on an original EU dataset of foreign trade barriers encountered by EU exporters. We examine foreign trade barriers reported by EU businesses in the period between 1995 and 2018. We do not consider barriers that are identified more recently because the EC needs a reasonable amount of time to determine an appropriate strategy. Our dataset includes 520 observations of trade issues with 61 partner countries reported by 13 European sectors. This section sets out the model we use to explain the likelihood of the EU action and, subsequently, the choice of strategy in removing foreign trade barriers. In addition to our variables of interest, we include a set of control variables typically incorporated in models of trade disputes.

### *Dependent variable*



For the construction of our dependent variable, we draw upon the recorded business complaints in the EC's MADB. While we cannot exclude that some businesses refrain from filing complaints in the first place due to limited organizational resources or expectations that their lobbying effort will not trigger any reaction by EU policymakers, the MADB offers the most comprehensive existing source of information to get a grasp of the universe of potential cases EU policymakers can select upon when deciding whether and how to enforce international trade rules. The MADB gives information on the type of restrictive measures, the country in which they were encountered and the product category. These restrictive trade policies range from simple tariff changes, administrative burdens, protectionist measures through non-tariff policies such as standards and technical regulations to the suspension of imports. What is crucial for our analysis, however, is that the MADB also provides a description of what the EU is doing to remove each barrier. We use these descriptions, in combination with other sources, to code our dependent variables.

First of all, the EU has several instruments to address market access barriers. Hoekman et al. (2017) provide a list of possible actions the EU could take to resolve a trade issue: (1) send letters of request to third party authorities, (2) organise discussions with foreign officials, (3) table the matter in a special committee, (4) send diplomatic missions, (5) offer technical or financial assistance, (6) address the issue in ongoing trade negotiations, (7) raise the matter in a WTO committee or (8) in a WTO accession process, (9) resort to dispute settlement within the context of a bilateral trade agreement or (10) initiate a WTO case. For each trade barrier in our dataset, we scrutinize whether the EU has used (at least) one of these instruments in an attempt to resolve the issue. When the Commission states, for example, that it has 'frequently raised its concerns in bilateral meetings',<sup>2</sup> our dependent variable takes the value of 1 in the first stage of our analysis. If the MADB makes no reference to any of the actions identified, the dummy is assigned a 0 value.

In a next step, we distinguish between two broad strategies the EU uses to remove trade barriers. First, the category 'negotiation' consists of actions in which the EU addresses demands and makes proposals to the trading partner with the purpose of informally reaching an agreement. From the above list of actions, (1) to (8) can all be considered as attempts to find a negotiable solution, although in case of (5), 'technical or financial assistance', the problem to be solved might also be practical rather than political. This instrument, however, is not used in our estimation sample. Second, the category 'litigation' consists of instances in which the EU decides to follow the judicial route to remove a trade barrier. Instruments (9) and (10), initiations of legal disputes, fall under this category.<sup>3</sup> If the EU initiates litigation, our dependent variable takes the value of 1 in the second stage of our analysis, and 0 otherwise. We primarily draw on the MADB to observe whether the EU has filed a legal case against another country, but we always cross-check this information with data from the EC's and the WTO's websites (see the Online appendix).

### *Independent variables*

In the first stage of our analysis, we focus on the link between several types of concentration and the probability of EU action. To explain the choice of strategy, we direct our attention to economic power asymmetry. We describe the measurement of our variables of interest in this section.

The measure for industrial concentration (*INDCON*) represents the proportion of export sales ( $r$ ) in a sector ( $i \in \{1, 2, \dots, n\}$ ) accounted for by the largest producers:

$$INDCON_i = \frac{\sum_h r_{iph}}{\sum_h r_{ih}} \left( 1 - \frac{\sum_h c_{iph}}{\sum_h c_{ih}} \right), \quad (1)$$

where the largest producers ( $p$ ) are the ones with more than 250 employees. *INDCON* will be relatively high when the large producers constitute only a small fraction of the total producer population in a given EU industry ( $c_i$ ). Because there are no EU-level data on export sales by enterprise size, we aggregate the available member state ( $h$ ) level data to construct *INDCON*.<sup>4</sup> Our hypothesis holds that the probability of EU action increases when exports sales are skewed towards a few successful producers. In other words, the coefficient of *INDCON* should have a positive sign.

We quantify the geographical concentration (*GEOCON*) of a sector with a decreasing function of distance in kilometres ( $d_{jk}$ ) between EU regions ( $j, k \in \{1, 2, \dots, m\}$ ) in which companies ( $c_{ij}$ ) are active. As recommended by White (1983), we use the inverse of distance to make sure that extreme distances do not receive undue weight, which makes it a measure of concentration rather than dispersion (see also Busch and Reinhardt, 1999). We multiply the inverse distance between regional pairs with the share of companies (of the total sector) that are active in the respective regions, such that:

$$X_{ijk} = \frac{c_{ij} + c_{ik}}{c_i \cdot d_{jk}} \quad \text{where } c_i = \sum_{j=1}^m c_{ij} \quad (2)$$

To measure *GEOCON*, we take the sum of all the regional pairs  $X_{ijk}$  and divide by a degree of inequality in the distribution of firms across regions. More specifically, we calculate the ratio of firms within each region ( $c_{ij} / c_i$ ) and then sort the regions based on the resulting values in ascending order. We use a continuous cumulation of this ratio ( $q_{ij}$ ) – i.e. the cumulative proportion of firms in the respective regions – to derive the ‘concentration area’ ( $a_i$ ) in the following way:<sup>5</sup>

$$a_i = \frac{1}{2} - \frac{1}{2} \cdot \sum_{j=1}^m (q_{ij} + q_{i,j-1}) \left( \frac{1}{m} \right) \quad \text{where } q_{ij} = \text{cumulative proportion of firms} \quad (3)$$

$$GEOCON_i = \frac{\sum_{k=1}^{m-1} \sum_{j=k+1}^m X_{ijk}}{1 - a_i} \quad (4)$$

By means of the denominator, we give additional weight to industries that are concentrated in fewer EU areas. Our measure of *GEOCON* has a number of advantages compared to other estimates of proximity. First, this measure explicitly captures the spatial relationship between geographical units, in contrast to measures such as the (alternative) Gini coefficient (Krugman, 1991) and the Ellison-Glaeser index (Ellison and Glaeser, 1997), which is important to test our theoretical argument about the possibility of face-to-face communication in industrial clusters. Second, our measure attaches an especially high weight to industries that are geographically concentrated (numerator) in relatively few regions (denominator), thereby eliminating the problematic element in other models that cannot appropriately discriminate between dispersion and concentration in a couple of distant places (e.g. Busch and Reinhardt, 1999). Third, *GEOCON* is a relatively simple and intuitive measure to calculate geographical concentration in the EU using available NUTS2-level data.<sup>6</sup> The data, retrieved from Eurostat, provide information on the number of enterprises (or parts thereof) in 272 EU regions on a disaggregated NACE industry-level.<sup>7</sup> We use the same source for regional data on agricultural

sectors. This allows us to analyse the patterns of geographical concentration in a more precise manner than scholars that have used EU member state level data (e.g. Brühlhart, 2001).

To measure political concentration (*POLCON*), we calculate a Herfindahl-Hirschman index for each NACE industry, based on employment statistics from EU member states.

$$POLCON_i = \sum_h \left\{ l_{ih} / \sum_h l_{ih} \right\}^2, \quad (5)$$

where  $l_{ih}$  is the number of employees in sector  $i$  in member state  $h$ . An increase in the Herfindahl-Hirschman index indicates that a larger share of the sector's workforce is concentrated in fewer EU member states. In contrast to *GEOCON*, we expect this variable to be negatively related to the probability of EU action.

All sector-level statistics come from Eurostat (see the Online appendix). The NACE data covers the 2008-2016 period, whereas the agricultural data is only available for the years 2005, 2007, 2010, 2013 and 2016. Linear interpolation between two known points is used to increase the temporal coverage of agricultural data. In other years, if data were not available, we used the closest available data.

We measure economic power asymmetry (*ECOASY*) as the difference between the (log) gross domestic product (GDP) of the EU and the (log) GDP of the partner country that has introduced the trade barrier (Guzman and Simmons, 2005; Sattler and Bernauer, 2011). A positive value shows that the EU has more economic power than its trading partner – a negative value means the opposite. A value of zero indicates that the states are equally powerful. The data are gathered from the World Development Indicators.

### *Control variables*

We also add a set of control variables to the analysis. In stage 1, we account for the fact that there has been a rise in potential disputes after the financial crisis (Hoekman et al., 2017), which may have forced the Commission to be more selective in addressing trade barriers. For this reason, we introduce a dummy variable (*P-CRISIS*) that takes the value of 1 for the trade barriers that are reported since 2008. We also add a dummy for trade barriers in the agricultural sector (*AGRICU*) as trade in agricultural products is often regarded as particularly sensitive in Europe (see Davis, 2003). Moreover, we include a dummy variable for WTO membership of the partner country, because the WTO offers several formal and informal structures (committees, dispute mechanism) to address trade issues, which may increase the probability of EU action.

In stage 2, we consider the trade balance (*TBALANCE*) between the EU and its trading partner as an alternative dimension of trade power (calculated as the log of exports minus the log of imports). A sizable bilateral trade deficit can increase the capacity to retaliate and offers credible means to impose economic costs on the trading partner by raising import barriers. When the potential for retaliation threats is high, a more favourable outcome might be achieved in negotiations rather than via litigation. Second, we control for the political system of the partner country (*DEMOCR*) using the Polity IV index. Allee (2004) finds that democratic countries are more likely to resolve their disputes in a legal manner. Third, the legal capacity of the trading partner, as proxied by GDP per capita (*GDPCAP*), is added to the model (Guzman and Simmons, 2005). We include this variable because the EU might be more reluctant to initiate formal disputes against countries that have strong institutional, financial and human resources to (successfully) defend their case. Fourth, we add a dummy for the existence of a preferential trade agreement (*PTA*) between the EU and the trading partner as PTAs are often concluded between countries with strong diplomatic ties (Plouffe and Van der

Sterren, 2016). This may in turn increase the probability that issues are resolved politically rather than legally.

In both stages, we also add the control variables of the other stage to the analysis. The descriptive statistics on all of the variables are given in the regression tables. An overview of the data sources is provided in the Online appendix.

## Results

In this section, we present an analysis of our two-stage model of EU enforcement policy. The first part considers different ‘concentration hypotheses’ to explain the probability of EU action, and in the second part, we test whether the EU’s choice of strategy to remove trade barriers is in line with our ‘trade power hypothesis’.

### *Action or no action*

Table 1 sets out the results of the probit regression estimating the probability of EU action. The pseudo  $R^2$  and the percentage of correctly predicted values are reported at the bottom of the table. In Model I, we include our variables of interest as well as the controls that are likely to be associated with EU Action. Models II and III examine the same relationships along with the control variables that are considered to be particularly important in the second stage of our analysis, but which, nonetheless, might (also) play a role in the Commission’s decision to follow up on a business complaint in the first place. As some variables – *DEMOCR* and *GDPCAP* – contain missing data on the level of the trading partner, we include these variables only in Model III.<sup>8</sup>

[Table 1]

Turning to the regression models, we note that the coefficients on many of the variables have the signs we expected based on the existing literature. Our primary interest is in the values of the parameters representing the different concentration ratios. First of all, we find support for the hypothesis that lobbying power is positively related to industrial concentration. In Models I and II, the coefficient of *INDCON* is positive and statistically significant at the 5% level. The observed effect, however, is slightly lower when more controls are added to the specification. Still, the finding is quite striking in substantive terms: on average, a 10 percentage points increase in *INDCON* is associated with a 5.9 percentage points increase in the probability of EU action (in Model III).<sup>9</sup> Second, the coefficients of *GEOCON* do not lend support for the argument that geographically concentrated sectors are more successful in gaining the support of the Commission to remove foreign trade barriers. Third, the table also reveals that *POLCON* does not have a statistically significant effect on the probability of EU action. This means that politically dispersed industries do not seem to have a stronger voice in European trade politics.

Looking at the control variables, we observe that exporter complaints filed after the financial crisis have a lower probability of being acted upon by the Commission than cases that are registered pre-2008. Moreover, we find that agricultural interests tend to be well-represented in EU enforcement policy for reasons that are not fully captured by other explanatory variables in the model. However, this could still be well understandable: although the production of agricultural commodities is relatively dispersed among many farmers, the next step in the supply chain is characterised by far higher degrees of concentration in the form of concentrated agribusinesses. Furthermore, the probability of EU action is relatively high when the trading partner is a member of the WTO or a signatory of a bilateral treaty with the EU. This implies that the Commission uses the formal and informal structures (committees,

dialogues, dispute mechanisms) of these agreements to address trade issues. Lastly, the partner country's GDP per capita is positively related to the probability of EU action.

In sum, from our three variables of interest, only *INDCON* is consistently found to increase the likelihood of EU action. This result suggests that industries dominated by a few large companies (e.g. manufacturers of motor vehicles and chemicals, see the Online appendix) are better able to form a powerful lobby that can influence EU trade policy.<sup>10</sup> Contrary to our expectations, geographical and political concentration do not seem to have an impact on EU action.

### *Litigation or negotiation*

Table 2 shows regression results concerning the EU's choice of strategy – i.e. litigation or negotiation. The number of observations is lower at this stage, because all cases in which the Commission undertook 'no action' are removed from the estimation sample. In addition, all trading partners in the remaining sample are members of the WTO, so this variable (*WTO*) is excluded from the estimation models. The dependent variable takes the value of 1 if the EU has filed a legal case against the trading partner to resolve the trade barrier ( $L = 1$ ), and 0 otherwise.

[Table 2]

To focus on our variable of interest, we find that economic power asymmetry (*ECOASY*) between the EU and the trading partner is negatively related to the choice to start legal proceedings. In other words, litigation becomes less likely when power differences between the EU and the trading partner are large. This result is consistent with the idea that powerful states will try to obtain concessions through negotiations by effectively threatening to impose great costs on smaller economies (Sattler and Bernauer, 2011).

Next, we note that *GDPCAP*, our proxy for legal capacity, is indeed negatively related to the prospect of litigation (Guzman and Simmons, 2005). The coefficient of *DEMOCR* confirms Allee's (2004) finding that democratic countries tend to resolve their disputes through legal institutions. Moreover, the EU is more likely to negotiate rather than litigate about agricultural trade barriers, which corresponds to earlier findings by Busch and Reinhardt (2003). They observe that agricultural cases, relative to other disputes, are often settled bilaterally without going through the adjudication process of the GATT/WTO. This suggests that EU policymakers anticipate the greater escalation risk for agricultural disputes (e.g. the defendant does not accept the ruling) and, therefore, decide to resolve these issues out of court (see Sattler et al., 2014).

To sum up, our results lend support to the hypothesis that the EU is more likely to negotiate rather than litigate when economic power asymmetry between the EU and the trading partner is large. As anticipated, we show that equal powers, such as the EU and the US, will sooner resort to a legal dispute settlement mechanism, probably because neither side has the leverage to induce a concession from the other.

### *Robustness*

As a robustness check, we also evaluate our hypotheses using alternative estimators that take potential selection effects into account. If the decision to take action (stage 1) is influenced by the choice of strategy (stage 2), or vice versa, the error terms in both stages may be correlated, which in turn can lead to biased estimates. To control for this possibility, we employ a probit

version of the Heckman (1976) selection model as well as Leemann's (2014) strategic selection estimator.

Table 3 reports the results of the Heckman (1976) probit model with sample selection. In this two-step model, the corrected version of the second stage equation includes an additional regressor – the inverse Mills ratio – that is estimated from the initial selection process. In the first column, we show the regression results based on a parsimonious set of variables that maximises the number of observations. We find a negative relationship between economic power asymmetry and the initiation of formal dispute settlement procedures, which is consistent with our previous findings. The coefficient on *ECOASY* is statistically significant at the 1% level. In columns 2 and 3, we add our sectoral variables and we also check whether our results hold when using an alternative measure for the distribution of economic resources among EU businesses (industry value added, *INDVAD*). Our main findings remain unchanged: industrial concentration, in terms of size and resources, increases the probability of EU action while economic power asymmetry affects the choice of strategy. Moreover, we note that the null hypothesis of the Wald test of independent equations cannot be rejected (errors are *not* correlated), which means that both equations could also be estimated using two separate probit models.

[Table 3]

Table 4 presents the results of Leemann's (2014) strategic selection estimator. In contrast to the Heckman (1976) model, this estimator accounts for strategic behaviour (anticipation) in the first stage, meaning that the Commission weighs the expected probability of using a particular strategy to resolve a trade issue when deciding whether to take action. There are three possible outcomes in this model: No Action (NA), Negotiation (N) or Litigation (L). The overlap between the sets of variables for both stages should not be too large and, therefore, the first-stage equation does not include all (second-stage) control variables. The coefficients on the explanatory variables show the direct effects on the utility for the Commission from pursuing a certain outcome. When looking at the second-stage outcomes, we see that, as expected, the EU is more likely to litigate when economic power asymmetry is small. The utility of negotiation, however, does not appear to increase when economic power differences become larger. This suggests that the choice to start negotiations may actually be driven by an indirect effect – i.e. it follows from the decision *not* to litigate. Turning to the first-stage results, the negative coefficient on *INDCON* indicates that industrial concentration reduces the EU's utility of No Action, which is in line with our expectations. Yet, the coefficient is only statistically significant at the 10% level. This diminished effect of *INDCON* – compared to previous estimates – suggests that strategic anticipation plays a role in the decision to act upon exporters' complaints. This adds an important nuance to the understanding of the representation of concentrated interests in EU trade policy: the Commission is more likely to respond to demands coming from large exporters, not only due to lobbying strength, but also in anticipation of the next stage in which the EU may need the (financial) support of these rich and powerful firms to resolve a trade issue.

[Table 4]

## Conclusion

Our overarching aim was to uncover the political-economic factors that drive the EU's enforcement of international trade rules, investigating both when and how it acts upon exporters' demands to remove foreign trade barriers. Our analysis supports two broad sets of

arguments. First, as in other political systems, EU policymakers are very likely to act as enforcers of international trade rules in response to demands emanating from sectors characterized by industrial concentration. By contrast, our findings do not lend support to the argument that the interests of geographically concentrated and politically dispersed industries are well-represented in EU trade policy. These findings have important implications for our understanding of the politics of trade in the EU. In other areas of trade policymaking such as trade negotiations the autonomy of the EC is severely constrained by formal rules providing veto power to a wide array of actors - the European Parliament, the member states, and even national parliaments – which increase the odds that political preferences that are dispersed across sectors and member states will weigh in the policy process. Our findings suggest that, on the contrary, when the EC enjoys a high degree of autonomy, EU trade policymaking may end up being more systematically biased in favour of concentrated business interests.

Second, we find support for the hypothesis that the EU chooses different enforcement strategies depending on the economic power of its trading partners, privileging political negotiations with economically weaker states, while preferring to use litigation with stronger trading partners. The way in which EU policy makers respond to industry demands petitioning the enforcement of international trade rules thus seems to crucially depend on the characteristics of its trading partners.

While this study has a much broader empirical scope than studies that have focused only on actual trade disputes, the analysis of recorded business complaints still has its limitations. Even though there might be no obvious biases apparent, there can be instances in which exporters choose not to report trade barriers to the publicly accessible MADB, either because they are reluctant to reveal their problems to a wider audience or because they deem it unlikely that they will get the attention of EU policymakers. We cannot rule out that our dataset suffers from selection bias, yet we believe our empirical strategy allows us to obtain a comprehensive view of the universe of potential cases EU policymakers can select from when deciding whether and how to enforce international trade rules.

Especially now that the multilateral trading system is under heavy strain, it will remain key to conduct further research on the conditions under which states do, or do not, choose to mutually enforce and re-enforce their trade commitments. By showing that EU policymakers tend to privilege concentrated interests when it comes to deciding whether to uphold international trade rules, our work underscores that the political-economy underpinning international trade enforcement in the EU displays important similarities with respect to that of the US and other political systems. While there are little doubts that the EU is a peculiar political system, this means that EU trade policy research had better not cast itself away from broader political-economy debates as it will benefit from applying general theories of trade policy.

At the same time, our article also underscores there is ample room for future research to exploit the potential of comparative designs that can cast light on whether, and how, differences across political systems produce systematic differences in enforcing and upholding international trade rules. For one, as highlighted by our null finding concerning the political concentration hypothesis, the electoral incentives for collective action on trade policy may well be quite different. Single-member districts in the US may encourage cooperation across voting districts and parallel lobbying, whereas the EU's proportional representation system prevalent at the national level may do so to a far lesser extent. Second, with regard to the actual use of the WTO as an enforcement institution, the outgoing Trump administration has engaged in a relentless campaign of obstruction aimed at paralyzing the WTO and its dispute settlement body by dismembering its appeals instance. Also, the possible further rise of go-it-alone trade policies in a post-coronavirus-crisis world economy might pose enormous challenges to the active maintenance of that open world trade order. The EU, however, despite the rise of

populist leaders and parties advocating protectionist policy platforms in numerous member states, has so far proven immune to this anti-WTO rhetoric. All in all, the EU remains firmly committed to the multilateral trading system and its mechanisms of resolution of trade disputes, suggesting that something in the EU's political system has so far contributed to taming the anti-globalization popular backlash's potential to affect trade policymaking.

### Acknowledgements

For many helpful comments and suggestions, we thank Gabriele Spilker, Peter Bursens, Lucas Leemann, as well as three anonymous reviewers and the editors. A special thanks goes to Aydin Yildirim for sharing his expertise during the early stages of this project.

### Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek Vlaanderen, FWO) [grant number G057018N] as well as the Special Research Fund (BOF) of the University of Antwerp.

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Figure 1. Trade barriers reported to the Commission, No Action or Action (1995-2018).

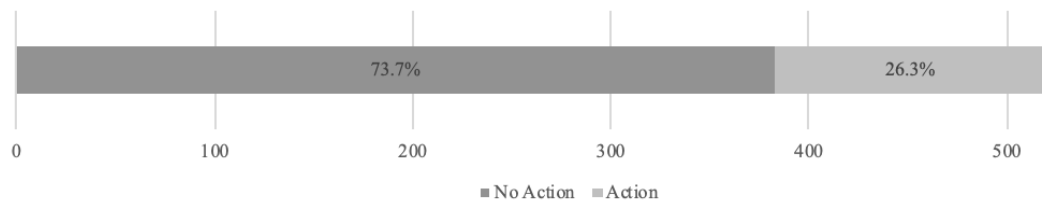


Figure 2. Trade barrier removal actions by the Commission, Negotiation or Litigation (1995-2018).



Table 1. Probit regression: Stage 1

|        | Model I                                | Model II           | Model III         | Mean ± SD<br>Min–Max       |
|--------|----------------------------------------|--------------------|-------------------|----------------------------|
|        | <i>Action or No Action, Prob (A=1)</i> |                    |                   | 0.329±0.471<br>0–1         |
| INDCON | 2.187**<br>(1.040)                     | 2.104**<br>(1.063) | 1.844*<br>(1.090) | 0.524±0.207<br>0.220–0.793 |
| GEOCON | 3.248<br>(5.941)                       | 3.783<br>(5.804)   | 3.631<br>(5.675)  | 0.353±0.030<br>0.256–0.498 |

|                         |                      |                      |                      |                               |
|-------------------------|----------------------|----------------------|----------------------|-------------------------------|
| POLCON                  | -4.728<br>(5.488)    | -4.038<br>(5.410)    | -4.030<br>(5.344)    | 0.118±0.028<br>0.077–0.176    |
| P-CRISIS                | -1.012***<br>(0.267) | -0.966***<br>(0.271) | -1.103***<br>(0.285) | 0.892±0.311<br>0–1            |
| AGRICU                  | 1.203**<br>(0.483)   | 1.236**<br>(0.489)   | 1.066**<br>(0.499)   | 0.350±0.478<br>0–1            |
| WTO                     | 1.072**<br>(0.503)   | 1.172**<br>(0.462)   | 0.950*<br>(0.485)    | 0.948±0.223<br>0–1            |
| PTA                     |                      | 0.335**<br>(0.164)   | 0.398**<br>(0.172)   | 0.416±0.494<br>0–1            |
| TBALANCE ( <i>log</i> ) |                      | 0.053<br>(0.295)     | -0.167<br>(0.327)    | -0.001 ±0.300<br>-0.738–1.213 |
| DEMOCR                  |                      |                      | -0.020<br>(0.013)    | 4.143±6.369<br>-10–10         |
| GDPCAP ( <i>log</i> )   |                      |                      | 0.177**<br>(0.085)   | 9.081±1.076<br>6.090–11.291   |
| _cons                   | -2.750<br>(1.994)    | -3.274*<br>(1.952)   | -4.248**<br>(2.057)  | -<br>-                        |
| No. of observations     | 296                  | 293                  | 286                  | -                             |
| % correctly predicted   | 71.3                 | 71.3                 | 71.0                 | -                             |
| Pseudo-R <sup>2</sup>   | 0.085                | 0.097                | 0.107                | -                             |

*Note:* Robust standard errors in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . INDCON: Industrial concentration; GEOCON: Geographical concentration; POLCON: Political concentration; P-CRISIS: Post-crisis. AGRICU: Agricultural sector; WTO: World Trade Organization; PTA: Preferential trade agreement; TBALANCE: Trade balance; DEMOCR: Democracy index; GDPCAP: GDP per capita.

Table 2. Probit regression: Stage 2

|                         | Model I                                      | Model II             | Model III            | Mean ± SD<br>Min–Max         |
|-------------------------|----------------------------------------------|----------------------|----------------------|------------------------------|
|                         | <i>Litigation or Negotiation, Prob (L=1)</i> |                      |                      | 0.189±0.394<br>0–1           |
| ECOASY ( <i>log</i> )   | -0.621***<br>(0.194)                         | -0.622***<br>(0.194) | -0.834***<br>(0.222) | 1.352±0.711<br>-0.061–3.196  |
| TBALANCE ( <i>log</i> ) | 0.650<br>(0.526)                             | 0.640<br>(0.537)     | 1.054<br>(0.683)     | -0.018±0.250<br>-0.493–1.201 |
| DEMOCR                  | 0.039*<br>(0.020)                            | 0.040*<br>(0.021)    | 0.063**<br>(0.026)   | 4.284±6.599<br>-10–10        |
| GDPCAP ( <i>log</i> )   | -0.331**<br>(0.129)                          | -0.333**<br>(0.131)  | -0.337**<br>(0.159)  | 9.247±1.110<br>6.094–11.045  |
| PTA                     | -0.569*<br>(0.298)                           | -0.573*<br>(0.299)   | -0.129<br>(0.381)    | 0.495±0.503<br>0–1           |
| P-CRISIS                |                                              | 0.044<br>(0.305)     | -0.497<br>(0.427)    | 0.779±0.417<br>0–1           |
| AGRICU                  |                                              |                      | -0.983**<br>(0.391)  | 0.453±0.500<br>0–1           |
| _cons                   | 3.160**                                      | 3.149**              | 3.847**              | -                            |

|                       |         |         |         |   |
|-----------------------|---------|---------|---------|---|
|                       | (1.298) | (1.294) | (1.511) | - |
| No. of observations   | 134     | 134     | 95      | - |
| % correctly predicted | 79.9    | 79.1    | 86.3    | - |
| Pseudo-R <sup>2</sup> | 0.134   | 0.135   | 0.196   | - |

*Note:* Robust standard errors in parentheses. \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1. ECOASY: Economic power asymmetry; TBALANCE: Trade balance; DEMOCR: Democracy index; GDPCAP: GDP per capita; PTA: Preferential trade agreement; P-CRISIS: Post-crisis. AGRICU: Agricultural sector.

Table 3. Heckman probit selection model.

|                                 | Model I                                                    | Model II             | Model III            |
|---------------------------------|------------------------------------------------------------|----------------------|----------------------|
|                                 | <i>Second stage: Litigation or Negotiation, Prob (L=1)</i> |                      |                      |
| ECOASY (log)                    | -0.620***<br>(0.194)                                       | -0.893***<br>(0.248) | -0.895***<br>(0.268) |
| TBALANCE (log)                  | 0.659<br>(0.556)                                           | 1.382*<br>(0.731)    | 1.293<br>(0.859)     |
| DEMOCR                          | 0.038*<br>(0.021)                                          | 0.043<br>(0.027)     | 0.047*<br>(0.025)    |
| GDPCAP (log)                    | -0.330**<br>(0.130)                                        | -0.375**<br>(0.153)  | -0.380**<br>(0.152)  |
| PTA                             | -0.567*<br>(0.299)                                         | 0.035<br>(0.354)     | 0.023<br>(0.367)     |
| _cons                           | 3.203**<br>(1.406)                                         | 3.749**<br>(1.556)   | 3.558*<br>(1.850)    |
|                                 | <i>First stage: Action or No Action, Prob (A=1)</i>        |                      |                      |
| INDCON                          |                                                            | 2.321**<br>(1.181)   |                      |
| INDVAD (log)                    |                                                            |                      | 0.678**<br>(0.297)   |
| GEOCON                          |                                                            | 3.763<br>(6.308)     | 4.913<br>(6.217)     |
| POLCON                          |                                                            | -4.803<br>(5.972)    | -3.499<br>(5.522)    |
| P-CRISIS                        | -0.667***<br>(0.171)                                       | -1.019***<br>(0.279) | -1.014***<br>(0.298) |
| AGRICU                          |                                                            | 1.234**<br>(0.491)   | 0.649**<br>(0.315)   |
| WTO                             | 0.830**<br>(0.355)                                         | 1.074**<br>(0.501)   | 1.092**<br>(0.499)   |
| _cons                           | -0.869**<br>(0.389)                                        | -3.016<br>(2.120)    | -9.716**<br>(4.277)  |
| No. of observations             | 517                                                        | 293                  | 293                  |
| Wald $\chi^2$                   | 21.35<br>[0.001]                                           | 16.13<br>[0.006]     | 15.93<br>[0.007]     |
| Wald test of indep. eqns.       | 0.01<br>[0.942]                                            | 0.09<br>[0.764]      | 0.00<br>[0.992]      |
| Pseudo-R <sup>2</sup> 1st stage | 0.041                                                      | 0.083                | 0.087                |

*Note:* Robust standard errors in parentheses, p-values in square brackets. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . ECOASY: Economic power asymmetry; TBALANCE: Trade balance; DEMOCR: Democracy index; GDPCAP: GDP per capita; PTA: Preferential trade agreement; INDCON: Industrial concentration; INDVAD: Industry value added; GEOCON: Geographical concentration; POLCON: Political concentration; P-CRISIS: Post-crisis. AGRICU: Agricultural sector; WTO: World Trade Organization.

*Table 4.* Strategic selection estimator.

|                         | <i>Second stage: Litigation or<br/>Negotiation</i> |                     | <i>First stage: Action<br/>or No Action</i> |
|-------------------------|----------------------------------------------------|---------------------|---------------------------------------------|
|                         | $U_L$ (Litigation)                                 | $U_N$ (Negotiation) | $U_{NA}$ (No Action)                        |
| ECOASY ( <i>log</i> )   | -0.527**<br>(0.250)                                | -1.840<br>(1.406)   |                                             |
| TBALANCE ( <i>log</i> ) | -0.068<br>(0.289)                                  | -2.207<br>(2.590)   |                                             |
| DEMOCR                  | 0.050*<br>(0.027)                                  | 0.127<br>(0.097)    |                                             |
| GDPCAP ( <i>log</i> )   | -0.325**<br>(0.156)                                | -0.376<br>(0.448)   |                                             |
| PTA                     | -0.499**<br>(0.247)                                | -0.656<br>(1.939)   |                                             |
| INDCON                  |                                                    |                     | -2.768*<br>(1.592)                          |
| GEOCON                  |                                                    |                     | -6.127<br>(6.997)                           |
| POLCON                  |                                                    |                     | 7.691<br>(6.931)                            |
| P-CRISIS                | 0.001<br>(0.305)                                   | 0.455<br>(1.235)    | 1.368***<br>(0.509)                         |
| AGRICU                  | -1.068***<br>(0.323)                               | 2.819<br>(1.930)    | 0.679<br>(1.612)                            |
| WTO                     |                                                    |                     | -1.212**<br>(0.606)                         |
| Constant                | 3.712**<br>(1.669)                                 | -0.241<br>(4.199)   | 1.184<br>(2.795)                            |
| No. of observations     | 286                                                |                     |                                             |
| Log-Likelihood          | -194.16                                            |                     |                                             |
| $\rho$ (errors)         | -0.485<br>[0.240]                                  |                     |                                             |

*Note:* Standard errors in parentheses, p-values in square brackets. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . ECOASY: Economic power asymmetry; TBALANCE: Trade balance; DEMOCR: Democracy index; GDPCAP: GDP per capita; PTA: Preferential trade agreement; INDCON: Industrial concentration; GEOCON: Geographical concentration; POLCON: Political concentration; P-CRISIS: Post-crisis. AGRICU: Agricultural sector; WTO: World Trade Organization.

## Notes

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<sup>1</sup> Trade policy committee and Market access advisory committee.

<sup>2</sup> Market Access Database (barrier id 10787).

<sup>3</sup> In this category, by far the most frequently used instrument is WTO litigation, whereas the EU has only sporadically initiated disputes under bilateral trade agreements.

<sup>4</sup> In some cases, export sales by enterprise size are confidential, meaning that the measurement is based on a subset of member states. Therefore, we also use the value added of each industry as an alternative measure (*INDVAD*) for the distribution of economic resources among EU businesses.

<sup>5</sup> Note that the ‘concentration area’ ( $a_i$ ) is equivalent to the area between the line of equality and the Lorenz curve.

<sup>6</sup> Nomenclature of Territorial Unit for Statistics (NUTS).

<sup>7</sup> Nomenclature of Economic Activities (NACE).

<sup>8</sup> Most of the missing values are from Hong Kong, Iran and Taiwan.

<sup>9</sup> These percentages are not reported in Table 1. The marginal effects are calculated for each observation in the data and then averaged.

<sup>10</sup> Our results hold when using an alternative measure for the distribution of economic resources among EU businesses, *INDVAD* (see the Online appendix).