

# 1 introduction

The budget for the World Trade Organization totaled roughly \$217,504,702.00 in 2013, the most recent year on record. There are currently 149 cases in consultations, including 4 in limbo since 1995. a further 43 cases are awaiting the composition or decision of a panel. This includes one case filed by the US against Argentina in 1999 over footwear and a Canadian case against the EEC over duties on imports of cereals. 160 states are members or observers, which accounts for roughly 82 percent of extant states. Adjudication, not to mention accession, is costly, often slow and bears no legal status beyond what the member states attribute to it. The question then is, why bother?

In a world of complete information, we would expect bilateral bargaining to provide a resolution that is strictly Pareto superior to any resolution reached through a costly mechanism. Although Fearon discusses war, the logic goes through for any model where the alternative imposes a cost. Fairly standard reasoning then, would lead us to conclude that the dispute settlement mechanism must impart some value over standard bargaining. Theories of adjudication often lead from the observation that democratic states utilize the mechanism more often than nondemocratic states. This has been explained through various incentives that democratic institutions create. Specifically, the three broad schools of thought conclude that the pressures of divided government, the incentives created by open elections or the values inherent in democratic systems are ultimately responsible for this empirical regularity.

# 2 contribution

This paper makes two broad contributions to the substantive literature on WTO adjudication by addressing two issues related by the presence of non-random action. The first issue is the data available for quantitative analysis. In her analysis of the democratic propensity to adjudicate, Christina Davis utilizes count data to model the propensity to adjudicate for WTO members. While useful, this exhibits a problematic yet subtle issue. For  $Y_{it} \geq 1$  observations in the data accurately reflect adjudicated cases, which necessarily implies a *prima facie* trade dispute exists. However,  $Y_{it} = 0$  is a thornier issue. In fact in this case, it is not well defined. A zero may indicate that there were no potential trade disputes to adjudicate in a dyad year, or it may indicate that no dispute was selected for adjudication, however these are not equivalent. One possible solution is the use of a Zero-Inflated Poisson model (ZIP), however with deeper data, we can directly study the initiation of adjudication from a set of *potential* WTO disputes directly.

In part, event count models, and in particular ZIP/ZINB models mentioned above are abandoned because of the novel dataset constructed. The other reason directly relates to the characteristic primacy of strategic interaction in the nature of international politics. Making use of the dispute settlement mechanism is not an automatic process that varies stochastically with exogenous regressors. The decision is made by an individual <sup>1</sup> in response to a choice problem. If this were a choice problem solved in a vacuum, then standard statistical models might still apply. In this case however, it is almost certainly the case that actions are chosen based on the expected probabilities over other players actions. In short, this is a problem of strategic action. Signorino and Yilmaz show that using a standard statistical model when strategic interaction is present is equivalent to accepting omitted variable bias " where the omitted variables are nonlinear higher-order terms associated with expected utility calculations." (citation). Using a non-strategic model can lead the analyst to directly opposite inferences than their strategic brethren when strategic interaction occurs.

Bearing this warning in mind, I offer an analysis utilizing strategic backwards induction on an improved dataset which contains the universe of potential disputes for a certain type of temporary trade barrier. Each observation is a potential Anti-Dumping trade dispute, whether or not it became a WTO dispute. The combination of data and method should allow for more precise results regarding the determinants of strategic

<sup>1</sup>While these decisions are often made by groups, the problem becomes almost completely intractable when viewed this way. Decisionmaking bodies and responsibilities vary wildly across states, most internal documents are not easily accessible etc. For the purposes of this paper, we will impose the unitary actor assumption standard in IR literature.

interaction at the WTO.

The first stage of the SBI model examines the determinants of panel formation once a dispute is filed. Keeping in mind that nearly 90% of panel rulings favor the plaintiff, expected probabilities are derived. These probabilities are then included in a model of adjudication initiation with surprising and novel results. Both the model and the results will be discussed in more detail later in the article.

## **2.1 data**

Any quantitative analysis of the WTO dispute settlement mechanism will face some idiosyncratic challenges. The data ranks first and foremost among these issues. The observation that there are more WTO disputes filed by democracies, does not necessarily imply that WTO violations against democracies are more likely to be brought to the WTO.

### **2.1.1 identifying potential cases**

Potential WTO cases here are those that arise in The Temporary Trade Barrier Database, compiled by Chad Bowen. [1].

## **2.2 the method**

## **References**

[1] Chad Bowen. Global antidumping database, 2014.