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Abstract

It has been long recognized that in the presence of market power, positive import tariffs can be optimal. The rationale is that higher tariffs reduce import demand, which in the presence of inelastic export supply from the rest of the world allows the importing country to increase its terms of trade. Indeed, there is empirical evidence suggesting that countries often set tariffs to exploit their market power when they have policy space to do so. However, optimal tariff-setting often results in a negative externality for trading partners. Such externalities create incentives for trading partners to cooperate within a negotiating framework such as the World Trade Organization (WTO) or regional trade agreements. Indeed, there is large empirical evidence suggesting that WTO negotiations do facilitate cooperation in tariff-setting by providing a negotiating table to internalize terms-of-trade externalities.

This paper empirically explores whether any cooperative behaviour in tariff-setting extends beyond the WTO accession process. In principle, the possibility of further cooperation is provided by the presence of policy space in regard to tariffs within the WTO framework. Indeed, a key aspect of the WTO process is the negotiation of bound tariffs, rather than applied tariff levels. WTO members can apply tariffs below the bound, if they choose to do so. The difference between the tariff that a country applies at the border and the country's commitments to other WTO members is referred to as "tariff water", or "binding overhang". In principle, tariff waters provide the policy space for country to set their tariff at non-cooperative levels.

The findings of this paper suggest that countries do cooperate both during the accession process and beyond it. However, non-cooperative tariff-setting is observed in the presence of sufficiently large amounts of tariff water. We find that in the absence of tariff water, importing countries' market power tends to be negatively correlated with applied tariffs, which is consistent with a cooperative tariff-setting. On the other hand, in the presence of tariff water, the relationship between importers' market power and tariffs tends to become positive, suggesting a tendency towards non-cooperative tariffs. However, the positive correlation between importers' market power and tariffs is only observed when levels of tariff water are above 20 percentage points. In the presence of moderate levels of tariff water, WTO members tend to set their tariffs cooperatively. One possible explanation for setting tariffs at non-optimal levels in the absence of legal constraints is the fear of retaliation from trading partners. We show that WTO members that have little to lose from retaliation tend to set tariffs non-cooperatively within their tariff waters, while WTO members that may have more to lose in case of retaliation are more likely to set tariffs cooperatively within their tariff waters.

Keywords: Export supply elasticities, WTO cooperation, tariff water

JEL Classification: F1

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1. INTRODUCTION

It has been long recognized that in the presence of market power, positive import tariffs can be optimal (Edgeworth, 1894). Higher tariffs reduce import demand, and the more inelastic is export supply, the larger is the improvement in the terms-of-trade of the importer. There is empirical evidence suggesting that non-members of WTO set tariffs to exploit their market power (Broda et al., 2008). However, by definition, these optimal tariffs generate a negative externality to other trading partners, which creates incentives for cooperation within a negotiating framework such as the WTO (Bagwell and Staiger, 1999). Indeed, recent empirical evidence suggests that WTO negotiations do facilitate cooperation in tariff-setting by providing the means to internalize terms-of-trade externalities, resulting in new members' tariff schedules that no longer not their market power in international markets (Bagwell and Staiger, 2011).

A key aspect of the WTO process is the negotiation of tariff caps, or bound tariffs, rather than applied tariff levels. WTO members can apply tariffs below bound rates if they choose to do so. The difference between the tariff that a country applies at the border and the country's commitments to other WTO members is referred to as "tariff water", or "binding overhang". In principle, the absence of tariff water indicates cooperation in tariff-setting, as the importing country is bound by its commitments to other trading partners. On the other hand, the presence of tariff water provides WTO members with the opportunity to set tariffs that reflect their market power.[1]

In this paper we empirically explore the extent of tariff cooperation to internalize terms-of-trade externalities in the presence and absence of tariff water. To guide our empirical work, we consider a two-country model in which tariffs are driven by a terms-of-trade rationale, as well as political economy forces. Governments put an extra-weight on the profits of firms in import-competing sectors, but also on exporters' profits. Countries can set tariffs cooperatively depending on the trade-off between the benefits and costs of cooperation. When the costs of cooperation are relatively high in a specific tariff line of a WTO member, we assume that a sufficiently high exogenous tariff bound is imposed, allowing the importing country to implement a non-cooperative tariff within its tariff waters. In the presence of cooperation, the negotiated tariff maximizes the joint political function of the two countries, and no tariff water will be observed. This dichotomy seems to fit well with the different manners in which developed and developing countries have so far participated in multilateral agreements as discussed in Croome (1995) and Hoekman and Kostechi (2009).

The model predicts that in the absence of cooperation, one should observe the positive textbook relationship between the importers' market power and tariffs. On the other hand, in the presence of cooperation, the importing country's tariffs are inversely related to its market power. To understand the latter, note that exporters' profits have an extra weight in the government's politically motivated objective function. Thus, the incentives for exporters to negotiate tariff reductions are stronger the larger the importer's market power. Indeed, the tariff reduction will have a larger impact on the exporter's profits the more inelastic is its export supply.

This second prediction is new, and we use it to identify the presence of cooperation in