# Asia-Pacific Research and Training Network on Trade

# Import tariffs and export subsidies in the World Trade Organization: A small-country approach

*By Tanapong Potipiti*

No. 119/September 2012

ARTNeT Working Paper Series

Asia-Pacific Research and Training Network on Trade (ARTNeT) is an open regional network of research and academic institutions specializing in international trade policy and facilitation issues. IDRC, UNCTAD, UNDP, ESCAP and the WTO, as core network partners, provide substantive and/or financial support to the network. The Trade and Investment Division of ESCAP, the regional branch of the United Nations for Asia and the Pacific, provides the Secretariat of the network and a direct regional link to trade policymakers and other international organizations.

ARTNeT Working Paper Series
No. 119/September 2012

# Import tariffs and export subsidies in the World Trade Organization: A small-country approach

*By Tanapong Potipiti**

Please cite this paper as:
Potipiti, Tanapong, 2012. Import tariffs and export subsidies in the World Trade Organization: A small – country approach. ARTNeT Working Paper No. 119, September, Bangkok, ESCAP. Available from www.artnetontrade.org.

* Tanapong Potipiti, is a Lecturer in Economics at Chulalongkorn University, Bangkok, Thailand. The author is grateful to Robert Staiger, Yeon-Cho Che, John Kennan, Bijit Bora, Kiriya Kulkolkarn and the partic¬ipants in the WTO seminar for their helpful comments. The author also thanks WTO for its financial support. The opinion, figures, and estimates are the responsibility of the authors and should not be considered as reflecting the views or carrying the approval of the United Nations. Any remaining errors are the responsibility of the author, who can be contacted by e-mail at Tanapong.P@chula.ac.th .

# Contents

# Import tariffs and export subsidies in the World Trade Organization: A small-country approach

*Tanapong Potipiti*

## Abstract

This paper develops a simple small-country model to explain why the World Trade Organization (WTO) prohibits export subsidies but allows import tariffs. Governments choose protection rates (import tariffs/export subsidies) to maximize a weighted sum of social welfare and lobbying contributions. While transportation costs decrease due to the progress of trade liberalization and lower transportation costs, import-competing sectors decline but export industries grow. In the growing export industries, the surplus generated by protection is eroded by new entrants. Therefore, the rent that governments gain from protecting the export sectors by using export subsidies is small. On the other hand, in the import-competing sectors, capital is sunk and no new entrants erode the protection rent. Therefore, governments can get large political contributions from protecting these import-competing sectors. This paper shows that under fast capital mobility, governments with a high bargaining power are better off than with a trade agreement that allows import tariffs but prohibits export subsidies.

**JEL code:** F13, F53

**Key words:** Export subsidy agreement, import tariff, WTO

# 1. Introduction

Since 1948, GATT Article XVI has called for contracting parties to avoid export subsidies on primary products and to abolish export subsidies on other goods. The WTO Agreement on Subsidies and Countervailing Measures built on the Tokyo Round subsidies code (issued in 1979) defines export subsides and prohibits them on non-primary products. As pointed out by Bagwell and Staiger (2001), the prohibition of export subsidies presents a puzzle to trade economists; it contradicts predictions made by the standard theories of trade agreements which find that the role of a trade agreement is to solve the prisoner's dilemma problem driven by terms-of-trade externalities.[1] In the non-cooperative equilibrium, large countries exploit their market power to maximize their welfare by using import tariffs and export taxes to decrease the prices of imports and increase the prices of exports. As a result, import tariffs and export taxes are higher than their efficient levels, and the volume of trade is less than its efficient level. These countries can improve their welfare if they agree to decrease import tariffs and export taxes, thereby promoting trade.

The standard theories fail to explain why governments use export subsidies policies in the absence of a trade agreement. According to the standard theories, governments lose their terms of trade and national income by employing export subsidies. The standard terms-of-trade theories thus fail to even rationalize the use of export subsidies. A way to solve this puzzle is to allow governments to be motivated by both national income and distributional concerns. If a government is highly concerned with the welfare of its exporting sectors, that government will choose export subsidies. This approach has the following implication: when a government subsidizes exports, the world price of the export good falls and foreign consumers receive a positive externality from the subsidy policy. Under a cooperative trade agreement, this positive externality is internalized, encouraging export subsidies. However, this result contradicts the WTO rule prohibiting export subsidies.

Another relevant strand of literature concerns strategic trade policy. In the seminal paper by Brander and Spencer (1985), export sectors compete in a Cournot fashion within a model with two large exporting countries and one importing country. Export sectors compete in a Cournot fashion. They show that in the non-cooperative equilibrium export subsidies are optimal for governments of the exporting countries. However, the welfare of the two exporting countries improves when both agree to limit export subsidies. Bagwell and Staiger (2001) studied a model similar to that given in Brander and Spencer (1985) in a standard partial-equilibrium setting; they found the same result under the condition that exporting governments' political concerns weighed heavily on producer surplus. Furthermore, they showed that although an exporting government gained when limiting export subsidies, the

[1] Among the representatives of the standard theories are: Johnson, 1954; Grossman and Helpman, 1995; Levy, 1999; and Bagwell and Staiger, 1999.

outcome was inefficient from a global perspective. In the efficient outcome, export subsidies should be promoted and the importing country should transfer income to the exporting countries.

The studies discussed above are based on large-country models. Trade agreements are instruments to solve externality problems among the governments of large countries. Another strand of literature argues that trade agreements can be used as a commitment device to help a government enhance its credibility and solve domestic time-inconsistency problems (see, for example, Staiger and Tabellini, 1987, Tornell, 1991, Maggi and Rodriguiez-Clare, 1998, and Mitra, 2002). These models provide a rationale for the government of a small country to commit to a free trade agreement and to eliminate tariffs and export subsidies.

Maggi and Rodriguiez-Clare (2005a and 2005b) developed a model in which trade agreements were motivated both by terms-of-trade and domestic commitment problems. Their model is novel in the following aspects: (a) they allow the agreement to be incomplete and may specify only tariff and export subsidy ceilings rather than the exact levels of tariffs and export subsidies;[2] and (b) lobbying occurs in two stages - when the agreement is designed[3] (ex-ante lobbying), and when tariff and export subsidy rates are selected by each government subject to the restrictions imposed by the agreement (ex-post lobbying). In this model, they show that if the ex-post lobbying is stronger than the ex-ante lobbying, the optimal trade agreement is incomplete, and it limits both import tariffs and export subsidies.

The existing models have succeeded in explaining various aspects of trade agreements. However they fail to account for the following asymmetric treatment of import tariffs and export subsidies in WTO. In WTO, a country may choose its own tariff binding level in exchange for concessions. On the contrary, export subsidies are completely prohibited with few exceptions. In this paper, a simple small-country model is proposed, using the commitment approach to explain this asymmetry.

[2] An agreement is considered complete if it specifies the exact levels of tariffs and export subsidies.

[3] For example, if the agreement is incomplete at this stage, special interest groups might lobby for the values of the tariff and export subsidy ceilings.

The paper is organized as follows. Sections 1 and 2 describe the basic story and the basic model, respectively. Section 3 studies how a government values a tariff prohibition agreement and an export subsidy prohibition agreement differently, and under what conditions it is optimal for a government to join an agreement that prohibits only export subsidies. Section 4 provides the conclusion.

**Table 1. United States import-competing and export manufacturing industries, 1992-1997**

| **Industries (Ind.)** | **Annual growth rates of no. of plants (%)** | **Number of industries** |
|---|---|---|
| Import-competing industries | | |
| Ind. with $m/s > 15\%$ | -0.63 | 176 |
| Ind. with $m/s > 20\%$ | -0.45 | 15 |
| Ind. with $m/s > 25\%$ | -0.01 | 120 |
| Export industries | | |
| Ind. with $x/s > 15\%$ | 0.37 | 155 |
| Ind. with $x/s > 20\%$ | 0.41 | 105 |
| Ind. with $x/s > 25\%$ | 0.32 | 77 |
| All manufacturing | 0.37 | 387 |

*Notes*: $x$, $m$, s denote the volumes of exports, imports and shipments, respectively. Shipment and number of plant data are from the 1997 United States. economic census. Manufacturing industries are classified according to the 1987 4-digit SIC. Import and export data are from Feenstra, Romalis and Schott (2002).

## 2. Basic story

In order to explain the asymmetric treatment of export subsidies and import tariffs in WTO, this paper incorporates dynamics into the model. The main dynamic force in the model is decreasing transportation costs that have asymmetric effects on export and import-competing sectors. As a result, countries trade more and become more specialized in the goods in which