## The Roles of Rules of Origin in the Free Trade Agreement

## - An Empirical Study of Japan-Singapore FTA -

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## Abstract

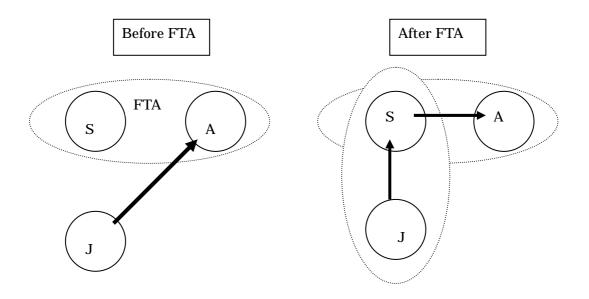
In this paper, we study the roles of rules of origin (ROO) in the free trade agreement (FTA) using the case of Japan-Singapore FTA as an example. A ROO relating FTA limits the use of inputs from outside the preferential trade member countries. A government in FTA can make use of preferential ROO in order to achieve national welfare maximization, promote national technological development, raise the domestic employment and so on. However, until recently, little attention has been paid to the importance of ROO in FTA although the ROO has become the important tool of international trade policies.

We construct a simple ROO model with three-country, one final good. Basic idea of the model can be described in the following diagram;

There are three regions, Japan (J), Singapore (S), and other Asian countries (A). Before forming an FTA between J and S, J exports goods to directly A with tariffs levied by country A. After the FTA, however, J has an alternative to export goods to A via S which has been a member of another FTA with country A and becomes a hub of the three countries. The firm in J chooses to export using S as a relay point rather than direct export to A if the profit in the former case is higher than the latter. Introducing the ROO in S, the contents of ROO for the FTA between S and A are also important for decision of firm in country J and country S can control the intermediate inputs imports from J to S.

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By simplifying this story with both Bertrand and Cournot duopoly models, we derive the conditions that FTA with ROO is beneficial to J's firm. The derived condition tells that if the tariff before the FTA is high, the benefit after FTA becomes greater, and that if the marginal cost of J is high, then the exports via S becomes more profitable. We then apply these conditions to trade data to verify the change of trade flow before and after the Japan-Singapore FTA and investigate the roles of ROO in the FTA arguments.

Our study on ROO clarifies not only the trade strategy of a firm but also its FDI strategy, and helps understand the economic motivations of the firms involved in the FTA even though the FTA seems to be jointed politically such as Japan-Singapore FTA.