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Tiivistelmä-Referat-Abstract

The level of forest conservation has a significant impact on the competitiveness of the forest industry. This is because active forest conservation involves harvesting constraints, which increase the costs of using timber in production. On the other hand, the production costs are also determined by the investment behavior of the forest industries. Because of the imperfect competition in the international markets for forest products the investments can labeled as strategic investments, since by choosing the level of investments the forest industries also control the strategic behavior of the rivals in the international markets.

The present study explores the effects of forest conservation policy on the forest industries' investment behavior, and develops the implications of strategic trade theory for forest conservation policy. The first part of the study explores the cost effects of higher harvesting constraints on the strategic investments in forest industry and the government's incentives to distort the conservation policy so as to protect the domestic industry. Secondly, we consider the strategic behavior of the industries and the government when, in addition to prices, the demand for the forest products is determined by "green image' of the products. The green image demand is induced by the fact that the customers of forest industries prefer the products produced in a country where the forests are actively conserved by mandatory harvesting constraints.

The interaction between the industries (home - and foreign industry) and home government is modeled as a game in three stages: In the first stage the home industry imposes the mandatory harvesting constraints for the home forest industry. In the second stage the industries choose the level of cost reducing investments and subsequently export to a third country export market based on price competition.

In the first model we establish as a benchmark case that in response to tighter harvesting constraints, the home industry increases the level of cost reducing investments so as to alleviate the increased production costs, while the foreign industry decreases its investment level. Thus, the home government has an incentive to impose excessively tight harvesting constraints, since active forest conservation in home forests tends to relax the price competition in the third country export markets. The optimal strategic conservation policy result might, however, be reversed in the presence of green image demand for the reason that remarkably strong demand effect may trigger tougher price competition in the last stage of the game. This result implies that under Bertrand competition the usual strategic environmental policy recommendations may not be applicable when the green image demand for the product is determined by the government's environmental policy.

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