

The World's Largest Open Access Agricultural & Applied Economics Digital Library

## This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<a href="http://ageconsearch.umn.edu">http://ageconsearch.umn.edu</a>
aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

## Scandinavian Forest Economics No. 44, 2012



Proceedings of the Biennial Meeting of the Scandinavian Society of Forest Economics Hyytiälä, Finland, May 2012

Anne Toppinen, Heimo Karppinen & Kati Kleemola (eds.)

## The evaluation of sectoral competitiveness on the basis of external trade, based on the example of Estonian forest management and logging sector

Sirgmets, R., Kaimre, P., and Teder, M.

Institute of Forestry and Rural Engineering, Estonian University of Life Sciences, Kreutzwaldi 5, Tartu, 51014 Estonia, <u>risto.sirgmets@emu.ee</u>

One of the key issues of Estonian Forest Development Plan 2020 is to maintain and increase the competitiveness of Estonian forest sector. For the maximum effect for the sector (also for the whole country in wide perspective), all parts of the sector should operate competitively. In 2004 the competitiveness of Estonian forest industry sector was analyzed, using the competitiveness indices of external trade. Until now the competitiveness of the Estonian forest management and logging sector has not been studied. Since there is no commonly accepted definition of sectoral competitiveness among economic theorists, different approaches can be found in the literature, which are mainly based on productivity or external trade. In the current paper the suitability of competitiveness indices based on external trade in evaluating sectoral competitiveness are tested, using Estonian forest management and logging sector as an example. The competitiveness of Estonian forestry and logging sector is evaluated using:

- 1. the changes of market shares of Estonian roundwood in main export markets;
- 2. competitiveness indices based on external trade revealed competitiveness advantage (RCA) and relative trade advantage (RTA) in vis-a-vis comparison with the main competitors.

The external trade data from UN COMTRADE and EUROSTAT databases are used for the calculations. The market share of Estonian roundwood in the main export markets (Sweden and Finland) has increased during the period 2002 - 2011, respectively about 1% in Finland and 10% in Sweden, but at the same time the volumes have decreased. The calculated indices of RCA and RTA in vis-a-vis comparison with Latvia are indicating Latvia to be more competitive in exporting roundwood, during the period 2002-2011. On the other hand, Estonian annual felling volume has increased about 40% in 2011 compared to 2002 and domestic consumption of roundwood has increased about 70% during that period. The export volume of roundwood has decreased 17% and import volume 47%, which indicates the structural change in Estonian forest sector external trade. Due to the development of Estonian forest industries, most of the roundwood (sawlogs) is consumed domestically. Since Estonia has a limited demand for pulpwood, which forms about 20% of the total felling volume, it is the main export article (to Scandinavia) of forest management and logging sector.

To sum up, using only the indices of external trade for evaluating the competitiveness of Estonian forest management and logging sector is not sufficient for the fundamental conclusons of the competitiveness of the sector, since most of the product (roundwood) is oriented to the local market, which decreases the share of roundwood (roundwood is the output of forest management and logging sector) in total export of Estonia. For this reason, in the comparison with the countries or group of countries which are more oriented to exporting raw material instead of consuming it domestically (the share of roundwood is higher in total export) lower rankings are obtained.

**Keywords:** competitiveness, revealed competitive advantage, relative trade advantage, market share, external trade