Analysis of China's Plywood Market

Abstract

Minli Wan, Anne Toppinen and Riitta Hänninen

China has become a major player in the global forest products market both as a producer and a consumer. China’s wood-processing industry and wood-consuming sectors have experienced rapid growth especially in recent years. Plywood is the most important primary wood product in China in terms of consumption, production and exports. One of China’s most important export destinations is the United States.

The purpose of the study was to provide new macro-level information by analysing the development of China’s woodworking industry and by estimating the factors affecting the demand, supply and exports of plywood since 1993. Due to limited availability of reliable time series data, the Chinese woodworking market has been scarcely studied so far. In the analysis, the development of China’s plywood industry is presented and elasticities of demand, supply and exports of plywood are estimated. The econometric models used annual time-series data from 1993 to 2007.

Fig. China's production and trade of plywood from 1993 to 2007
The results obtained from the Engle–Granger error-correction models suggest that most of the growth in China’s domestic plywood demand was primarily driven by the growth in consumer income, the income elasticity being roughly unitary, while an increase in product price had only a small negative effect on demand. In the case of China’s plywood supply, a change in raw material price had a most important effect, the elasticity being -1.67, while the change in the end-use sector activity were less than unitary. This result reflects dependence on imported logs of the China’s plywood industry production. The growth in China’s plywood exports was dependent on the consumer income growth in its main export market, the USA.

Apart from the economic factors included in the models, there are naturally many other factors that may affect China’s demand for and supply of plywood. However, no suitable data is available for estimation, for example, by different plywood grades. The market elasticities in the study may serve as a useful reference for foreign and domestic wood products companies that plan their investments, as well as government agencies and public authorities that plan economic and forest policies.

This abstract is based on the article published in 2010 in *Forest Products Journal* 60(7/8): 679–687.

Additional information:
Dr. Riitta Hänninen, riitta.hanninen@metla.fi