



Featured Topic

Cyclical Fluctuations in Europe's Sawnwood Market 1970–2007

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More than half of Finland's sawnwood production is exported, and more than half of the sawmilling industry's export income is from markets in the European Union. The United Kingdom, France and Germany have long been key export markets for Finnish sawnwood, and in 2006 these three countries accounted for altogether one third of the sawmilling industry's export income. Although exports outside Europe have increased, dependence on European markets means that the Finnish sawmilling industry is still vulnerable to demand and price fluctuations in Europe.

Since the introduction of the euro and with it the euro area, of which Finland is part, the fluctuations in the unit price of sawnwood exports have been smaller, although cyclical fluctuations do still occur. A cyclical swing in euro area sawnwood prices occurred in 2006, for instance, which also led to a rise in Finnish sawnwood export prices. The average export price in July 2007 was 33% higher than a year earlier. The price of sawnwood was last at this level in real terms just before the 1997 Asian financial crisis, which was followed by a downturn in the world economy.

In the past 40 years, a number of cyclical swings have occurred in Europe's economies that have been strongly reflected in the Finnish sawmilling industry. Direct comparison of these cycles is difficult, however, because various factors related to economic structure, capital mobility and economic integration have changed at different times in both the Finnish economy and its export market economies, and these factors individually and collectively have affected sawnwood demand and supply. Nevertheless, we examine below, in general terms, the cyclical sensitivity of Europe's sawnwood market, the cyclical fluctuations that have occurred and the background factors affecting these in the period 1970–2007.

Cyclical Sensitivity of the Sawnwood Market

Sawnwood prices and volumes exchanged on the international market are determined on the basis of demand and supply. If demand exceeds supply, the market price will rise, and if supply exceeds demand, the price will fall, assuming that no change occurs in other market factors. The magnitude of these changes will, in turn, depend on the price elasticity of demand and supply and the scale of production. The demand for sawnwood is a derived demand, which means that fluctuations in this demand will be linked to cycles in the end uses for sawnwood, particularly in housing construction.

Strong dependence primarily on a single end use adds to the cyclical sensitivity of the sawnwood market. Moreover, this dependence is linked via the construction sector to the fundamental forces at play in the economy. Private-sector housing construction is very sensitive to changes in interest rates and the disposable income and assets of consumers, whereas public-sector construction projects can be used as a means to balance out general cyclical fluctuations in the economy. These fundamental economic realities are generally governed by national economic policies, the openness of the country's foreign trade and the extent of its integration with the world economy. Separately or in combination, changes in these factors will affect sawnwood demand and prices.

Price fluctuations are also influenced by competition between sawnwood and substitute materials and between producers. Although the degree of concentration in sawnwood production in Europe has grown in the past few years, it is less than in the paper industry, for example, where price fluctuations, at least in recent times, have been relatively small. In earlier years, competition in Europe

was also fuelled by the increasing supply of Canadian sawnwood following a drop in demand and prices in its main market, the United States. However, during the current downturn occurring in the US construction sector, US producers have increased supply to Europe.

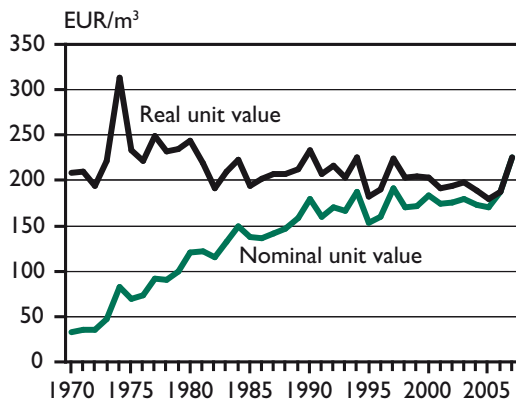
An important factor exacerbating sawnwood cycles in Europe has been the increase in market supply as a result of producers' rising price expectations for sawnwood. Although investment in additional capacity can take a couple of years or so, sawmilling can be increased quickly and significantly in response to a rise in demand by introducing further shifts to increase output. Large increases in output have usually led to a situation of oversupply, followed by a rapid fall in sawnwood prices. A critical factor in determining sawnwood supply in the long term is the level of sawlog reserves in the forests and the potential for their economic utilisation. In the short term, disturbances in the availability of sawlogs may also contribute to cyclical fluctuations in the sawnwood market. In a booming economy, the sawlog price can rise by more than average as demand grows, for example because of seasonal factors. In 2006, the price of sawlogs was pushed up in many European countries because of wood harvesting problems associated with weather conditions. In Finland, the change in the forest taxation system (which increased the supply of sawlogs during the transition period) led to a drop in supply in 2006 just after the end of the transition period. In Sweden and in Central Europe, roundwood supply, especially that of spruce, increased at the start of 2007 because of significant storm damage. With roundwood harvesting focusing on storm-damaged trees, the price of

pine sawnwood rose on the European export market as the diminished availability of pine sawlogs limited the amount of pine for sawmilling.

Sawnwood Exports and Price Fluctuations Follow the General Economic Cycle

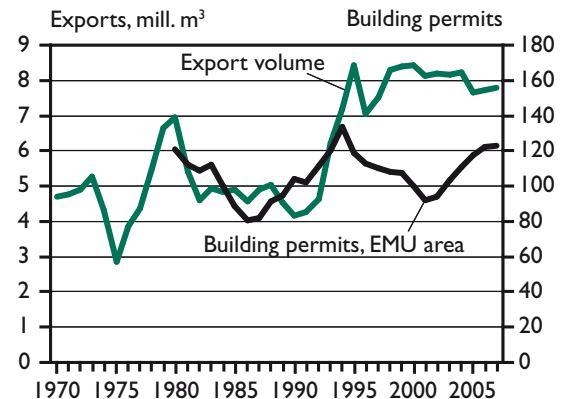
The total volume and unit prices of Finnish sawnwood exports have reflected fluctuations in sawnwood demand that have occurred in line with the general economic cycles in export markets (Figures 1 and 2). The oil crises of the early 1970s and 1980s were preceded by an increase in sawnwood demand in response to GDP growth, and this led to a rise in prices and production costs. In 1974, the export price of Finnish sawnwood rose in nominal terms by 76% and then fell the next year by 16%. Due to inflation, the drop was even greater in real terms: 26%. At the same time, export volumes declined. The gradual liberalisation of capital markets in Finland and many Western European countries that began in the mid-1980s led to a growth in housing construction as loans were easier to obtain, and the consequent increase in sawnwood demand meant that unit prices of exports began to rise gently.

From the 1970s until the early 1990s, Finland operated an active exchange rate policy with which it attempted to counter changes in export price competitiveness in buyer countries. After the first oil crisis, the devaluation in 1977 boosted export volumes of sawnwood considerably, and the 1982 devaluation had a moderate impact on sawnwood export growth too. The effects of the currency revaluations made in 1979, 1984 and 1989 are all evident



Source: National Board of Customs

Fig 1. Nominal and real (at 2006 prices) unit values in the Finnish sawnwood exports, 1970–2007.



Sources: National Board of Customs, Finnish Forest Research Institute

Fig 2. Finnish sawnwood exports, 1970–2007, and building permits in EMU area (index 2000=100).

as a distinct downturn in sawnwood exports in subsequent years. Following the creation of the euro area, the impact of exchange rates in trading among the euro countries has of course disappeared and thus the price trend has been much steadier.

The sharp increase in sawnwood exports since the early 1990s cannot, however, be explained merely in terms of the devaluations made at the time. Although exports increased as a result of improved competitiveness and it was therefore possible to compensate for the decline in domestic construction at the time of a major recession, there were also significant changes occurring on the supply side. For example, the collapse in Russia's exports in the early 1990s created space on the Western European market. When sawnwood production capacity was later increased in Finland, this was aided by an increase in softwood sawlog imports from Russia and the Baltic countries. The various price agreement periods governing the domestic roundwood market also affected the supply and price of sawlogs. The Asian financial crisis of 1997–1998 affected the entire world economy and also had a clear impact, through lower demand, on both the unit prices and volume of Finnish

exports. The 20% rise in the nominal price of sawnwood exports in 1997 was followed by an 11% fall in 1998.

Before the present decade, price fluctuations on the sawnwood market in Europe appear to have been largely demand-driven. However, the upswing of 2006–2007 has been affected by changes in sawnwood supply, due more than ever before to fluctuations in raw material supply. Sawnwood production capacity in Europe, which has grown by about one third in the past 10 years, has boosted the demand for sawlogs to a significantly higher level than before. At the same time, use of the forests has become more diverse, and pressures to protect forests and to increase the production of bioenergy have increased, which has brought new demands on forest use. The threat of a reduction in imports of Russian roundwood will add further pressure to intensify the utilisation of Western Europe's forests. Even though Europe has an abundance of wood and despite the FAO statistics confirming that forests are being used at a sustainable level, the relatively rapid growth in raw material demand has evidently risen to a level at which disturbances in roundwood supply can bring about even rapid changes on the sawnwood market.