

Two Eras of Globalization and Hardwood Sawtimber Demand

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In the early 1970s, the adoption of floating exchange rates resulted in more fluid transfers between international currencies and spurred increased international demand for hardwood lumber produced in the United States.

Initially, Germany was the most important European customer for U.S. products while Japan was the most important Asian customer. The consumer cultures in both countries were quality oriented, requiring high-grade hardwood lumber and veneer; however, the major consumer of hardwood lumber remained the domestic furniture industry, which required long and wide mid-grade boards.

This combination of quality-oriented international markets and a large board-oriented domestic market resulted in new technology that obtained maximum value yield from high-quality logs. As a result, the demand for and subsequent value of high-grade hardwood sawtimber surged while prices of mid and lower grade sawtimber stagnated.

Since the late 1990s, China and India have become major players in the global economy while the influence of European and Japanese markets has diminished. Furniture production in the U.S. has decreased as a result of Chinese imports, but hardwood demand by the domestic flooring and cabinet industries has increased.

In this second global era, factors such as price and service have replaced quality and board size as market drivers. Emphasis on cost has caused individual mills to reexamine production and marketing processes and to

Industry	1977	1987	1991	1999	2004
Furniture	2753	2547	2198	2600	1300
Millwork	620	912	789	1300	1200
Cabinets	489	1085	955	1200	1500
Flooring	304	476	526	1400	1600
Exports	240	688	850	1200	1300
Pallets	2313	4513	4704	4500	4000
Railroad Ties	735	781	600	700	900
Total	7454	11002	10622	12900	11800

Table 1. Actual and proportional hardwood lumber consumption by major industry groups 1977, 1987, 1991, 1999, and 2004

1. Source: Luppold 1993, with 75, 20, and 5 percent of dimension assigned to furniture, cabinets and millwork, respectively.
2. Source: Luppold 1993, with 55, 30, and 15 percent of dimension assigned to furniture, cabinets and millwork, respectively.
3. Hardwood Market Report. 2006.

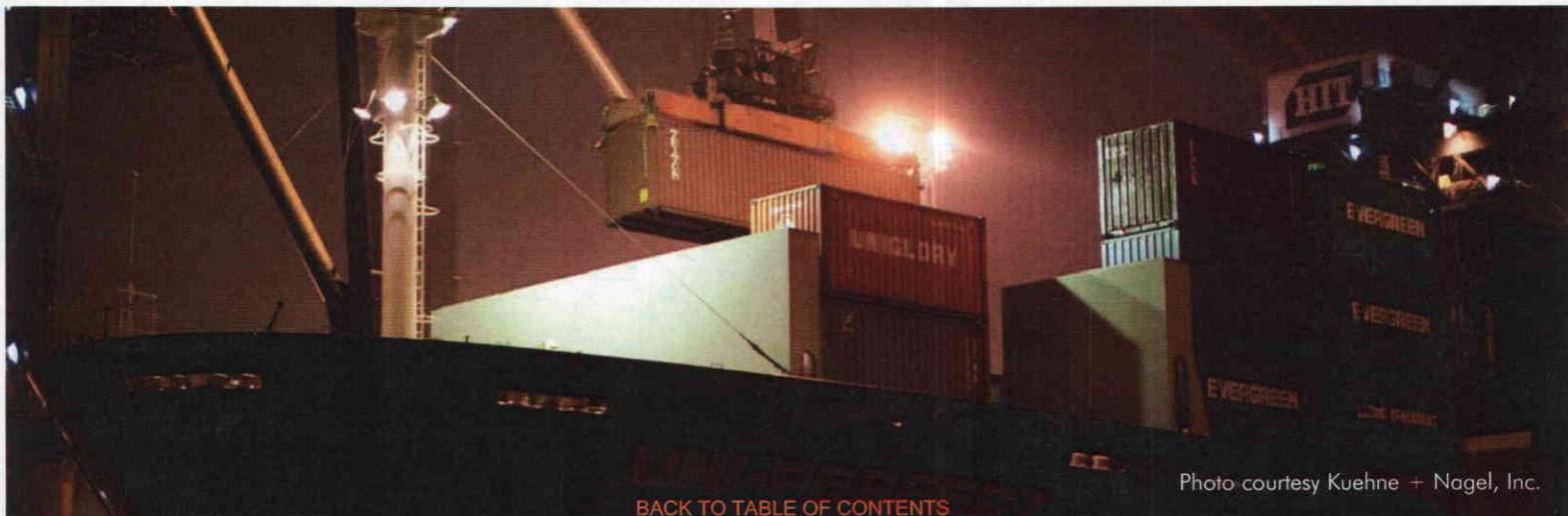
reevaluate the use of low and mid-value sawtimber. These changes have major implications for the future value and management of hardwood timber.

THE FIRST ERA OF GLOBALIZATION: 1975 TO 1999

Published reports show the first apparent change in the hardwood market that resulted from the implementation of floating exchange rates began in 1975 as exports to Europe increased and price premiums for shipments of First and Seconds red and white oak lumber were implemented. Between 1975 and 1979, lumber exports to Europe increased by 600 percent while overall exports increased by 70 percent. This

change in export demand provided the sawmilling industry with a profitable market for high-quality lumber; however, as indicated in Table One, the furniture industry consumed nearly 12 times more lumber than was exported in 1977 and 65 percent more lumber than all other appearance uses (exports, millwork, cabinets and flooring) combined. Unlike the export market, domestic furniture manufacturers primarily purchased green or air-dried lumber and refused to purchase short boards.

High interest rates and stagnant economic growth caused lumber demand and production to decline in 1981; however, exports of hardwood lumber continued to increase as Japan and Taiwan began to



import U.S. lumber. Concurrent with increased international demand were increasing demand by the cabinet, millwork and flooring industries that raised total demand for hardwood lumber to 11 billion board feet in 1987. The hardwood lumber industry was able to supply increased volumes of oak because sawtimber supplies were increasing as trees that regenerated prior to 1930 matured; however, lumber demand by the furniture industry decreased between 1977 and 1987 (Table One) even though the value of shipments were similar (Figure Two) due to the increased use of particleboard and importation of furniture parts.

A PERIOD OF TRANSITION: 1999 TO 2004

Between 1999 and 2004, consumption of lumber by the furniture industry declined by 50 percent as imports from China and other countries displaced domestic furniture production (Figure Two). Pallet producers also reduced lumber consumption because of the continual recycling of pallets and pallet parts. Use of hardwood lumber by the millwork industry also declined slightly. Exports increased slightly but exports to China increased by 150 percent. Italy and Spain became the most important markets while exports to Germany and Japan declined. While the average value per thousand board feet of exported lumber increased for Europe and Japan, the unit value of exports to China decreased by eight percent.

THE SECOND ERA OF GLOBALIZATION: 2005 AND BEYOND

Since the emergence of the Chinese furniture industry, there has been increased emphasis on pricing and costing of U.S. hardwood products at every market level. Chinese plants have been built to produce high volumes of furniture at a low cost. This price leadership business model extends to reducing the cost of raw material, which ultimately has caused China to seek out the lowest cost material. This has led to the development of new supplies of hardwood lumber and logs from Central Asia and Eastern Europe.

In the future it will be crucial to identify the extent of alternative timber sources available to Asian manufacturers and to monitor their sustainability to access the potential impact of alternative lumber species. It also will be necessary to understand the level of acceptance by U.S. consumers of products made from this timber. This suggests that lower priced imported species can be introduced successfully to the U.S. market. Promotion of U.S. species will continue to be

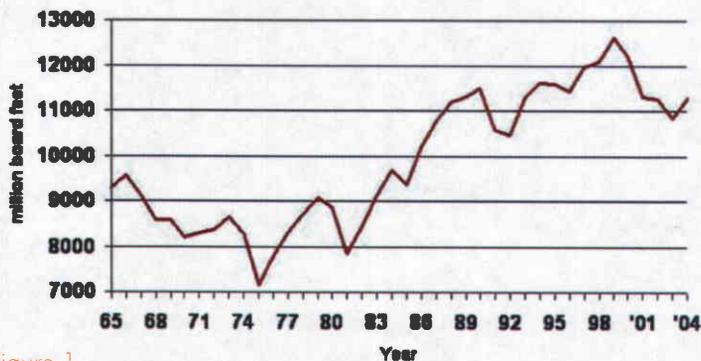


Figure 1

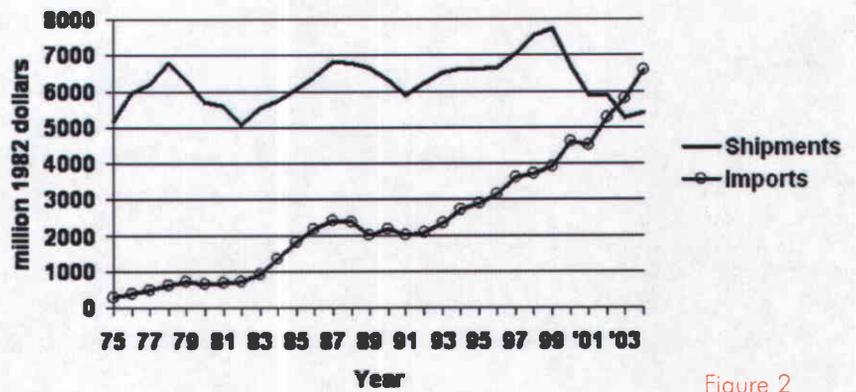


Figure 2

important both in pushing the advantages of domestic species to offshore manufacturers and developing pull demand from U.S. consumers.

The high cost of timber and timber processing in the U.S. makes it difficult for domestic hardwood sawmills to compete in this new global era. Providing additional customer services could increase profitability for both hardwood lumber producers and customers. At the producer levels value will be inherently linked to the separation of lumber in a manner that will reduce the cost of production and/or increase the profit margin of wood purchasers. This may include better color sorts that allow secondary processors to use less costly finishing systems to length and width separations that result in a higher yield of lumber into dimension; however, the probability that markets will continue to evolve means that hardwood lumber producers must be sufficiently flexible to react to continual change with a continual emphasis on reducing cost.

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