



Market Shifts: Assessing Changes In Hardwood Demand

Hardwood lumber production has trended downward nationally since 1999 as marginal mills have closed and others have consolidated in response to market conditions. Still, forests throughout Ohio continue to provide multiple benefits to landowners and all Ohioans. Important changes are taking place in hardwood markets, both domestically and abroad. With a knowledge of these changes, landowners can better understand economic factors that influence the value of their timber.

Market shifts

Globalization of production is a major factor in the current forest products economy. Today, more than 60 percent of all wood household furniture sold in the United States is imported, up from about 20 percent in the early 1990s (Figure 1). Although furniture traditionally has dominated hardwood lumber use, this segment now trails flooring and

Figure 1 – Furniture manufacturing, once the leading use of appearance-grade hardwood lumber, has declined in the United States

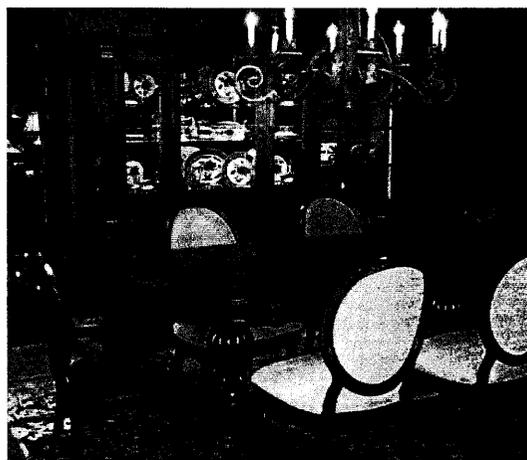


Photo credit: The New Oak Partnership (www.thenewoak.com)

cabinets as the major market for hardwood lumber. Thus far, the U.S. cabinet and flooring sectors have maintained their competitiveness in the global economy and have benefited from strong housing markets. Figure 2 shows that the major appearance-based markets (excluding pallets and rail ties) for hardwood lumber are essentially equal in volume, that is, the furniture sector no longer exerts uneven influence over hardwood demand.

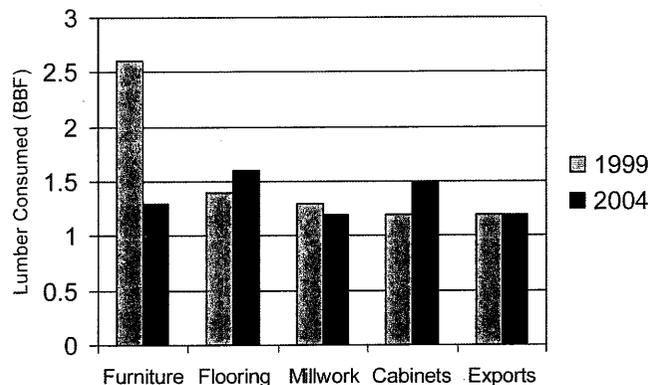
Table 1 - Volume and average price of hardwood lumber exported to China, Germany, and Japan, 1999 and 2005.

Country	1999		2005	
	Volume (MMBF)	Price (\$/MBF)	Volume (MMBF)	Price (\$/MBF)
Germany/Japan combined	61	1,451	37	1,633
China	40	1,005	102	923

Data source: USDA Foreign Agric. Serv. 2006.

There are quality implications with these changes. The flooring sector has traditionally demanded lower grade lumber than the declining furniture and millwork sectors. Also, as China becomes the dominant importer of furniture to the United States, lumber export markets will shift from being based on higher values and grades (e.g., Japanese and German markets) to being based on cost (Table 1). Chinese plants have been built to produce high volumes of furniture at a low cost, part of a business model that extends to reducing the cost of raw material. This model has led to development of new supplies of hardwood lumber and

Figure 2 – Hardwood lumber use by the major appearance-based sectors (in billions of board feet), 1999 - 2004



Source: Hardwood Mark. Rep. 2005

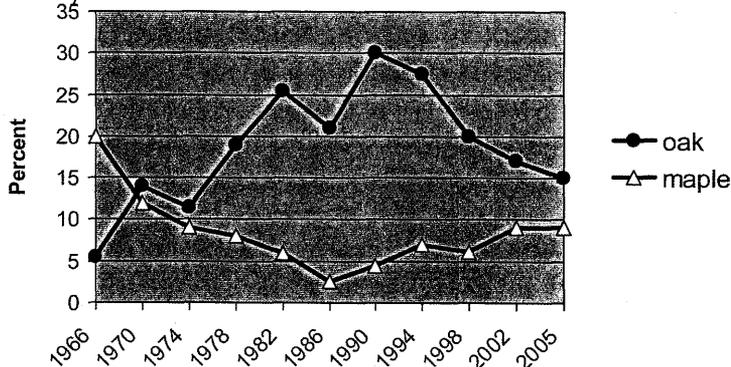
logs from central Asia and Eastern Europe, and will result in increased global competition in export markets. This is one reason why overall hardwood lumber export volumes from the United States have been flat since 1999 (Figure 2). Beyond the loss of domestic furniture manufacturing to overseas producers, there are no guarantees that this difference will be made up in hardwood lumber exports

to these new manufacturing centers. As real (inflation adjusted) income and population increase in the United States, so too will demand for wood products. So where will these products be manufactured and from whose timber?

Your woodlot as a fashion statement

Another factor to consider is the relative popularity of the species growing in your woods. Many landowners do not fully realize the role that fashion plays in determining the ultimate value of their timber. Style trends as determined by designers, retailers, and consumers influence the furniture and cabinet looks in high demand, and thus species popularity and price. Oak has been declining in popularity while cherry and maple have increased in popularity as closed-grain looks have become more in vogue. Figure 3 shows historical species movements at the High Point (North Carolina) Furniture Market, the major

Figure 3 - Percentage of oak and maple furniture featured at the High Point Furniture Market, 1966-2005. The data include all species of oak and maple.



Source: Luppold and Bumgardner 2006.

furniture trade show in the United States. Note that oak has not always been a popular furniture wood. In fact, its popularity peaked in the late 1980s as the sawtimber that regenerated in the early 1900s was maturing.

As shown in Figure 4, these fashion trends translate into hardwood lumber prices. Between 1961 and 1985, real prices of FAS and No. 1 Common red oak increased as oak became fashionable for furniture and cabinet production. While the price of No.1 Common and FAS red oak increased, the price of No. 2 Common red oak declined during this period due to reduced

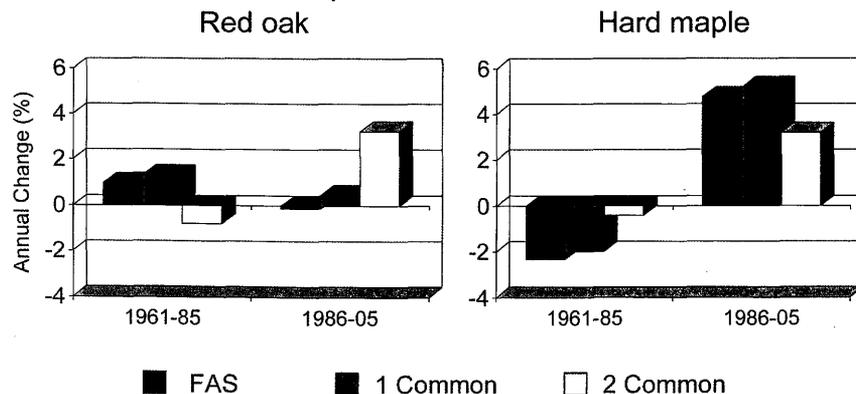


Figure 4 - Price changes by grade for red oak and hard maple lumber for periods 1961-1985 and 1986-2005.

Source: Luppold and Bumgardner 2006.

demand from the flooring sector. Since 1986, FAS and No.1 Common red oak prices have shown little growth as oak fashion has declined; however, No. 2 Common prices have increased in association with the resurgence in demand from the flooring industry. For hard maple, prices declined on an annual basis for all grades through 1985 but have risen at rates approaching or exceeding five percent per year since as fashion trends have favored maple. These relatively large increases in price for maple also may be influenced by the lower sawtimber volume of maple species; this caused supply to be more inelastic and thus required a greater increase in price to satisfy demand compared to increases in oak prices during the peak in oak's popularity.

Fortunately for oak markets, the cyclical nature of fashion suggests that styles favoring open-grained woods will regain popularity at some point. The lower prices and relative availability of oak likely will attract a "bold" designer who will successfully incorporate oak looks once again. But given the increasing influence of red maple in Ohio's forests, the focus on maple markets will only intensify in the future.

What do consumers know about your trees?

While you might know and appreciate the differences between an oak tree and a maple tree standing in the woods, the end consumer might exhibit far less knowledge and appreciation. Consider the supply chain for a typical hardwood product (Figure 5). You know the species and the sawmill operator knows the species, but does the retailer on the showroom floor? And what about the consumer? The point is there are many processing steps and market players between you and the final consumer. Studies have shown that most consumers cannot correctly identify maple and cherry wood, two of the most expensive domestic hardwoods, with identification rates often less than 20 percent. Even for oak, wood identification rates hover around 50 percent.

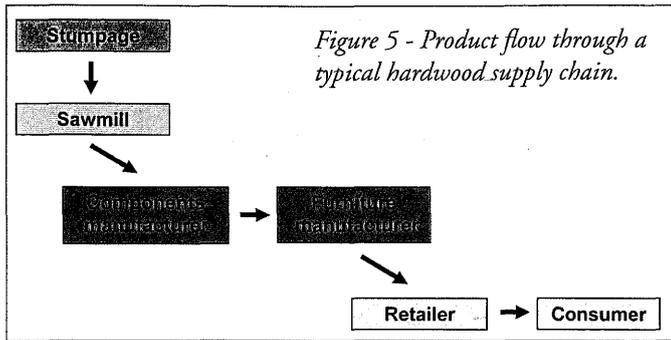


Figure 5 - Product flow through a typical hardwood supply chain.

An important ramification of this knowledge gap is the influx of imported species that compete directly with U.S. species for many applications. For example, rubberwood (also known as *Hevea brasiliensis*), a species common to products imported from Southeast Asia, accounted for six percent of the showings at the 2005 High Point Furniture Market. This figure was up from just one percent in 2000 (Appalachian Hardwood Manuf. 2002, 2005), suggesting that lower value imported species can be introduced successfully into the U.S. market. Further, the use of trade names such as "Asian oak" for rubberwood, which biologically is not an oak species, can create confusion among consumers. Researchers are attempting to understand the role of species labeling in influencing consumer preferences for cabinet and furniture products. Clearly, education and promotion will become increasingly important to sustaining the value of domestic hardwood species.

Implications for forest management

Demand drivers for the hardwood lumber markets that are growing (flooring and cabinets sectors) include home building, remodeling, and construction. Thus, attention to economic indicators such as interest rates and housing starts can provide clues to the future movements of hardwood markets. The continued global competitiveness of domestic manufacturers in these sectors is paramount. The U.S. hardwood industry is diverse and decentralized, which often allows for creative ideas to evolve and competitive solutions to develop. However, the U.S. furniture sector likely will continue to decline as an outlet for hardwood lumber.

Although there have been shifts in domestic and export markets that favor demand for mid-grade and mid-value hardwood lumber, quality will always have a place. High-quality timber will continue to be in demand by many secondary manufacturers because consistent product quality can be achieved with a minimum of production effort. Given the transitory nature of species popularity in

the marketplace, managing for hardwood quality and species diversity makes the most sense for the long term. Studies have shown that regional lumber production can be influenced by broad style trends and the predominate species growing in the region. Lastly, do not overlook opportunities to educate others about the beauty and sustainability of wood produced from the species growing in Ohio's forests.

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