

Impacts Of Changing Markets And The Housing Downturn On Hardwood Sawmills In Wisconsin

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Background: How we got here

Hardwood lumber production has been on a downward trend nationally since 1999, with two distinct downturns in production evident (Figure 1). In fact, there has been only one year – 2004 – in the last nine that saw an increase in production.

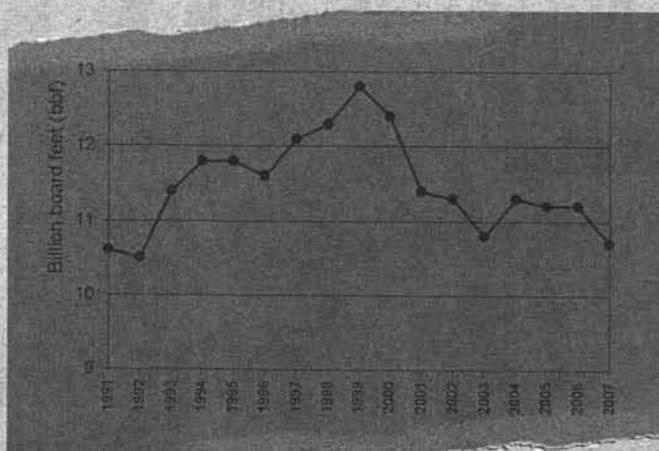


Figure 1. Eastern U.S. hardwood lumber production, 1991-2007. Source: W. Luppold, U.S. Forest Service, Princeton, WV (personal communication).

The first downturn, from 2000 to 2003, was largely associated with the decline of the furniture industry in the United States as manufacturing moved offshore to countries with lower cost structures, such as China and Vietnam. Today, nearly 60 percent of all wood household furniture sold in the United States is imported. This period also saw the beginning of a dramatic decline in employment in the U.S. furniture industry (Figure 2). Much of what remains of the domestic furniture industry is centered on production of higher end and customized products with relatively short lead times – that is, products that are difficult to source from more distant foreign locations.

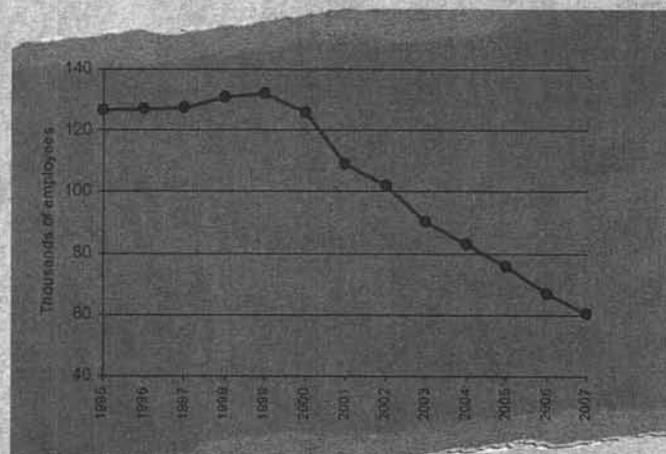


Figure 2. Employment in the U.S. wood household furniture industry, 1995-2007. Source: U.S. Bureau of Labor Statistics

A good example is the Amish furniture industries located in Ohio, Indiana, Pennsylvania, and elsewhere (Bumgardner et al. 2007).

Furniture manufacturing traditionally has dominated hardwood lumber use. However, the major appearance-based markets for hardwood lumber now are essentially equal in volume (Figure 3), meaning the furniture sector no longer exerts uneven influence over hardwood demand. In fact, construction-related products (i.e., cabinets, flooring, and millwork) surpassed furniture as a major market for hardwood lumber between 1992 and 1997 (Figure 4). Note, too, growth has been the most consistent in industrial markets (primarily pallets and railroad crossties) over time, and even today seems to have been less affected by the housing downturn. The bottom line is hardwood lumber demand, especially the demand for appearance grades, is increasingly reliant on the construction and remodeling markets.

The problem with that ...

This leads to the second and current downturn evident in hardwood lumber production, starting in 2007 (Figure 1). As most readers are aware, the housing market is in the midst of a considerable correction from its recent peak in 2005. As shown in Figure 5, spending on single-family housing dropped by 27 percent during a one-year period (2006 to 2007), and that figure likely will be even lower when data is available for 2008. Total housing starts (single and multi-family) will be down in 2008 by more than 50 percent from the peak in activity in 2005, dropping from more than 2 million to about 900 thousand (U.S. Census Bureau). Further complicating the housing picture is the large inventory of available houses on the market. As of October 2008, there was about a 10 month supply of existing homes for sale (National Association of Realtors). A "healthy" inventory is closer to 5 to 6 months. Thus, until the inventory of available homes comes down, it is unlikely that housing starts will begin to improve. This will continue to negatively impact demand for hardwood lumber. Brighter spots for construction-related sectors, at least through 2007, included the remodeling and nonresidential construction markets, which also make use of secondary hardwood products and thus hardwood lumber.

Some better news?

A possible implication of the shifts to housing and more customized products as the primary drivers of demand for grade hardwood lumber is that sawmills' customers will become smaller and more specialized. For example, it is estimated that there are nearly 500 Amish furniture manufacturers in a two-county area in and near Holmes County, Ohio, with a median firm size of four employees. While such clusters of small firms can create distributional challenges for lumber producers, the good news comes in knowing there is a viable model for domestic competitiveness in the furniture industry and thus a potential source of demand for hardwood lumber into the future.

Another example of the growing importance of smaller companies was evident in a recent study of the impacts of the housing downturn on the secondary hardwood industry (based on a survey of subscribers to *Modern Woodworking* magazine; see Buehlmann et al. [2008] for study details). It was found that the firms most likely to have increased

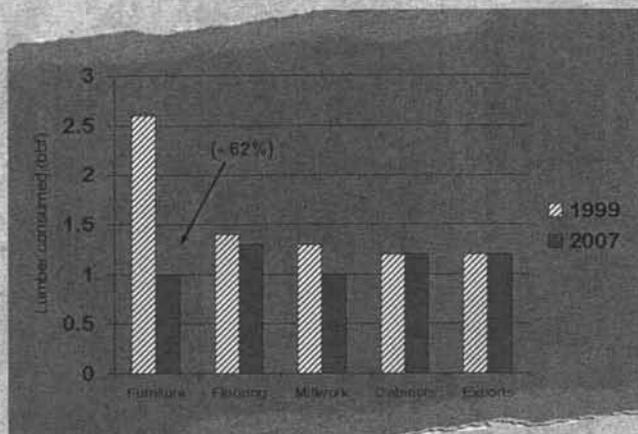


Figure 3. Estimates of volumes of hardwood lumber consumed by various appearance-based sectors, 1999 and 2007. Source: *Hardwood Market Report, 2008*

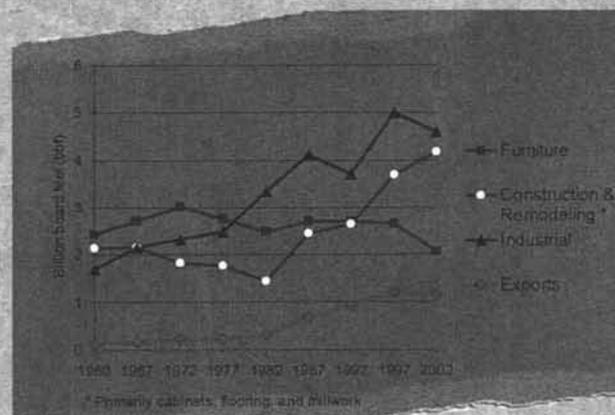


Figure 4. Hardwood lumber consumption trends by major sector, 1963-2002. Source: *Luppold and Bumgardner, 2008*

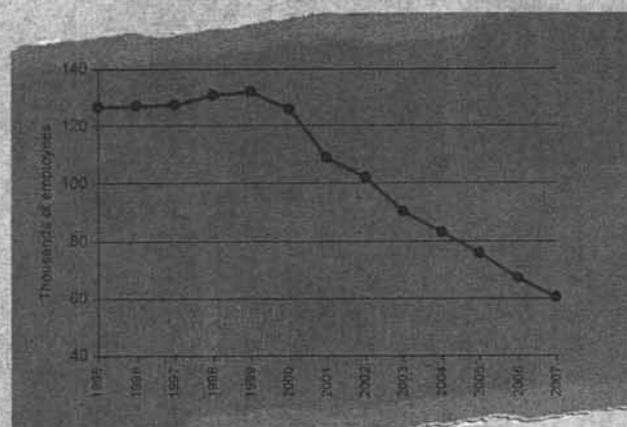


Figure 5. Value of private construction for various sectors in the United States, 2003-2007.

Sources: U.S. Census Bureau, Tables C30 and C50

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sales volume in the face of the housing downturn from 2006 to 2007 (see Figure 5) were small (less than 20 employees and with less than \$1 million in annual sales) and mostly produced fully made-to-order products for their customers. The good news here is that there exists a segment of the hardwood industry that can remain viable, even in the midst of severe housing downturns, by maintaining a focus on their customers' specific wants and needs. Again, while likely more difficult for lumber suppliers to reach such small firms individually, collectively they are becoming important users of hardwood lumber. Gone are the days of sending truckloads of lumber to furniture plants in North Carolina or Virginia. Now, portions of a single truck load of lumber might go to multiple customers, and as a sawmill owner recently noted, "... and each one needs something different." Perhaps this is why a recent study showed that sorting hardwood lumber for length, width, and color is increasingly important to larger hardwood sawmills, as is development of proprietary grades for specific customers (Buehlmann et al. 2007).

Implications of changing markets for Wisconsin sawmills

Eventually, housing markets will recover, and with the recovery, demand will improve for hardwood lumber. Hardwood sawmills in Wisconsin will need to consider their customer mix carefully and try to diversify their markets. For example, as shown in Figure 5, nonresidential construction (e.g., restaurants, hotels, retail stores, etc.) and residential remodeling markets have held up well relative to new home construction, suggesting the importance of market diversification to hardwood sawmills. Paying greater attention to supply chains and distribution will become necessary to reach domestic markets within the United States. Such markets will rely more on new housing, nonresidential construction, and remodeling. Furthermore, the secondary industry increasingly will be characterized by smaller, more fully customized firms.

Although the current situation seems bleak, as incomes and population continue to increase in the



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United States over the longer term, so too will demand for wood products. Where will these products be manufactured, and from whose timber? The continued competitiveness of domestic manufacturers against imports in construction-based sectors, such as cabinets, flooring, and millwork, will be paramount. Hardwood sawmills will need to develop closer relationships with their customers, so that the more exacting lumber needs arising from changing markets are fully recognized and understood. ▲

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