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THE U.S. WOOD HOUSEHOLD FURNITURE INDUSTRY:  
ADAPTING TO CHANGING TIMES

Brian A. Doherty and Steven H. Bullard<sup>1</sup>

ABSTRACT

The U.S. wood household furniture industry has adapted to change in many ways in recent years. The industry has grown steadily since the 1982 recession, and has been shifting to the U.S. South and Southeast. Although California has also become prominent in furniture production, many recent factors indicate geographic shifts away from the state, particularly in wood furniture production. The household furniture industry has also adapted and continues to adapt to factors which have increased the globalization of trade in all products. Foreign competition has resulted in mergers and consolidation in the U.S. household furniture industry, and has also forced production to become more oriented toward non ready-to-assemble and upholstered furniture.

INTRODUCTION

Furniture is a broad term comprising a wide range of different products. Under the USDC Bureau of the Census Standard Industrial Classification (SIC) system, items like tables, beds, and shelving are arranged under the major product grouping "Furniture and Fixtures," (SIC 25). Furniture is generally distinguished from fixtures in that furniture is movable, while fixtures are attached to a wall or floor (USDC International Trade Administration 1985). Furniture and fixtures are categorized into industry groupings (three-digit SIC) according to end use--for example, household, office, or public building furniture. Industry groupings are further classified into individual industries (four-digit SIC) by types of structural raw materials used, such as wooden, upholstered, or metal furniture.

The wood furniture category includes furniture primarily from the Household (SIC 251) and Office (SIC 252) industry groupings. The Household industry grouping consists of six industries producing furniture, bedding, wood TV and radio cabinets, and other products using structural raw materials such as wood, metal, glass, and plastics. The scope of this discussion is limited to two of these industries: Wood Household Furniture, Except Upholstered (SIC 2511) and Wood Household Furniture, Upholstered (SIC 2512); these two industries will hereafter be referred to as wood furniture and upholstered furniture, and together as the wood household furniture industry.

The furniture industry is the largest industrial user of wood products in the U.S. (Bullard et al. 1988). Although a great number of tree species can be used in furniture, a limited number, mainly hardwoods, have natural properties that make them superior to others (Luppold 1987). Furniture

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manufacturing accounts for a relatively small percentage of softwood lumber used in the U.S., but accounts for over 25 percent of all hardwood lumber--a percentage that has been nearly constant for the last 30 years (Cardellichio and Binkley 1984). The household furniture industry is by far the greatest user of quality hardwoods in the U.S. One need only review recent editorials in the Weekly Hardwood Review or the "Trends" section in the National Hardwood Magazine to realize the importance of U.S. furniture markets to the hardwood industry.

#### ADAPTATIONS TO CHANGE

Just as biological organisms adapt to changing physical environments, industries adapt over time to changing social, legal, and economic conditions. The wood household furniture industry in the U.S. has adapted, and is continuing to adapt, to changing times in several ways. We discuss past and present trends in the industry, including the geography of U.S. production and the industry's international setting. Many changes have also been occurring in furniture markets and demand relationships, including trends in the industry's use of wood-based materials.

#### Geography of Production

Like many industries in the United States, the wood household furniture industry was originally located in the Northeast. As the eastern forests were gradually depleted of quality hardwoods, the center of wood household furniture production moved to Michigan, attracted by the region's abundant supply of hardwoods. High transportation costs of shipping bulky furniture from the eastern plants to the westward-spreading population also encouraged development of the industry in the Midwest.

By the beginning of the twentieth century, the center of the wood household furniture industry began to shift from Grand Rapids to the Southeast. The industry was drawn to the South by the availability of hardwood lumber, lower labor costs, growing regional population, and the large national market for low-priced furniture (Skinner and Rogers 1968).

During the last 60 years, the U.S. wood household furniture industry has been characterized by further shifts to the South, and to California, following the general migration of the American population. Important market centers have developed in Atlanta, Dallas, and the West Coast, although the furniture mart at High Point has maintained North Carolina's leadership in the national market (Wisdom and Wisdom 1983). Just as North Carolina currently leads all other states in producing wood household furniture, the Southeast currently leads all other U.S. regions in the industry. The region contains three of the top four states in both wood and upholstered furniture production. North Carolina, Virginia, and Tennessee accounted for 50 percent of U.S. employment in the wood furniture industry in 1982. Similarly, North Carolina, Mississippi, and Tennessee accounted for 56 percent of the 1982 employment in the upholstered furniture industry (USDC Bureau of the Census 1985).

Due to phenomenal recent growth, the Mississippi upholstered furniture industry, and in particular its low-priced "promotional" segment, has risen to national prominence. Employment in the industry, primarily based in Tupelo and the surrounding northeastern communities, has grown by more than a third since 1982 (Mississippi Employment Security Commission 1988). Although up-to-date detailed production statistics are not available, Mississippi has recently received significant recognition in trade journals and other, popular media as the nation's leading volume producer of upholstered furniture.

Besides the Southeast, California is the other prominent wood household furniture production area. Drawing from California's significant markets, both the state's wood and upholstered furniture industries rank third among U.S. states in value of shipments.

Although wood household furniture manufacturers are now found in all but a few states, the industry still tends to be concentrated, as one would expect, in those areas containing the "ingredients" needed for efficient, low-cost production. Wood household furniture manufacturing is a labor intensive process whose raw material inputs have a relatively low value-to-weight ratio and whose finished production usually has a low value-to-bulk ratio; given these characteristics, producers locate plants in areas with abundant, low cost labor, nearby sources of raw materials, nearby markets, and with adequate railroads and highways for long distance transportation (USDC International Trade Administration 1985).

In the upholstered furniture market segment, where production is largely a handcrafted operation, available inexpensive labor is a dominant concern. The Mississippi upholstered furniture industry, particularly its low-priced promotional upholstery segment, has been gaining market share primarily due to its superior labor advantages. In a survey conducted by Upholstery Manufacturing, the overwhelming response to the question "What attracted your company to Mississippi?" was the experienced, available labor supply (Anonymous 1988). Mississippi's labor advantages for upholstered furniture production are readily seen by comparing wage rates for the typical upholstery worker in Mississippi in 1985, \$6.21 per hour, to the \$9.56 per hour earned by similar workers in North Carolina (Evans 1987). In addition, upholstery workers are more readily available in Mississippi than North Carolina, which faces increasing competition from other industries and an unemployment rate less than half of Mississippi's (USDC Bureau of the Census 1987).

The furniture industry continues to adapt geographically to changing economic, social, and legal conditions. Recent issues of Furniture Today include several examples, some of which involve geographic movement of industries and markets. In California, for example, new air quality requirements are forcing several wood furniture producers to move their plants out of the state, while others that stay in California will change product lines, or will increase their imports of finished parts and products from the Far East (Herrin 1989). Compared to eastern U.S. states, California producers also face a higher minimum wage and higher charges for workmen's compensation insurance.

Changing legal requirements also include the new flammability standards being imposed in many markets (see McKee 1989a), and the new wood dust standards recently published by the U.S. Department of Labor (McKee 1989b).

The new standard, which took effect March 1, 1989, places a maximum permissible level of 5 milligrams per cubic meter of air for worker exposure over an eight-hour period. The new standard may have a geographic impact on U.S. furniture production, although the standard will affect furniture subindustries differently. Products which require wide-belt sanding, such as table tops and other case goods, for example, may become less competitive with foreign-manufactured products and parts.

International Setting

One of the greatest changes to occur in recent years in the U.S. furniture industry has been the increased importance of imports (Figure 1). Dramatic increases in furniture imports, of course, parallel the increases experienced in many U.S. industries in recent years.

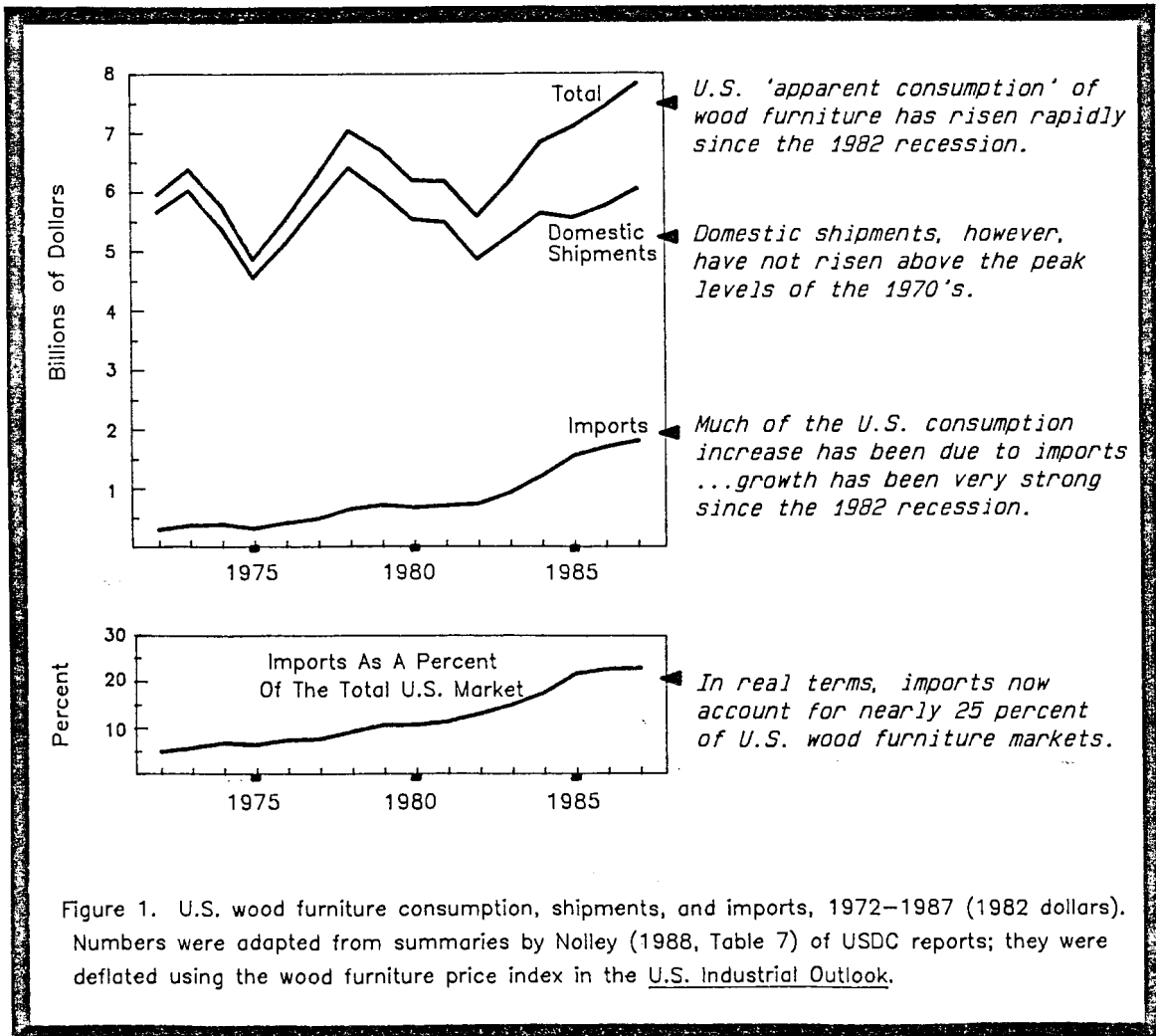


Figure 1. U.S. wood furniture consumption, shipments, and imports, 1972-1987 (1982 dollars). Numbers were adapted from summaries by Nolley (1988, Table 7) of USDC reports; they were deflated using the wood furniture price index in the U.S. Industrial Outlook.

Imports in general have increased for many reasons--some of the most often cited reasons are higher U.S. wages, lower safety and environmental regulations abroad, the U.S. budget deficit and the relative value of the dollar, the size of U.S. markets compared to other world markets, "level playing field" arguments for access to foreign markets, the often adversarial relationships between U.S. industry and government agencies, the short-term outlook of U.S. firms, the less than optimal allocation of many public and private production resources, and relatively low personal savings rates in the U.S. A recent report by the Domestic Policy Association (1987), The Trade Gap: Regaining the Competitive Edge, discusses most of the above issues.

While these issues apply to furniture production in general, changes have also been occurring that have specifically influenced global patterns of furniture production and trade. A Competitive Assessment of the U.S. Wood and Upholstered Furniture Industry (USDC International Trade Administration 1985) summarizes factors that have influenced the recent globalization of trade in furniture. The report stresses imports of wood household furniture (non-upholstered); imports represented 23 percent of the wood household furniture market in the U.S. in 1987--a five-fold increase in 15 years (Figure 1). The wood household furniture industry has been dramatically affected by exchange rates, wage rate differences, and by the development of "knock-down"<sup>2</sup> furniture technologies which have lowered the shipping cost disadvantages of foreign suppliers. The short-term profit-seeking actions of U.S. firms has also been extremely important, however. U.S. wood furniture manufacturers have in many cases "farmed out" production of furniture parts to low-wage foreign countries. Areas such as Taiwan and Singapore, for example, were taught and given the technology and quality standards for producing parts for U.S. furniture firms. U.S. companies initially benefitted from the specialization, but foreign manufacturers later used the acquired knowledge, technology, and profits from parts manufacturing to move into full-scale furniture production of their own (Epperson 1986), particularly in knock-down or ready-to-assemble furniture. One of the most important adaptations to the changing international setting in furniture production has been a trend toward mergers among U.S. companies. Vertical integration and consolidation is a recent trend that is expected to continue--in part to help attain the purchasing, production, and marketing efficiencies necessary to compete with foreign producers.

Upholstered furniture manufacturers in the U.S. have been relatively insulated from foreign competition; imports in 1983, for example, represented less than 1 percent of "apparent consumption" (USDC International Trade Administration 1985). Upholstered pieces are relatively expensive to transport, and are often produced on order rather than for inventory, greatly increasing the delivery time for foreign producers. Although knock-down techniques have also been introduced for upholstered furniture (see Plantz 1988), disadvantages such as potential fabric destruction and longer delivery times should continue to insulate U.S. producers. Canadian producers are an

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<sup>2</sup>"Furniture which is shipped in knocked-down form and in container loads can be delivered to the United States at very reasonable costs. Some types of wooden furniture do not knock down well, e.g. chests of drawers, and high transportation costs still protect those market segments" (USDC International Trade Administration 1985, p. 24).

exception, of course, but imports from Canada have not become a significant share of the U.S. market. Because of the advantages inherent to upholstered production and marketing, U.S. adaptation to foreign competition in domestic furniture markets has included increased emphasis on producing upholstered furniture.

#### DISCUSSION

The U.S. wood household furniture industry has been adapting to changing times that are influencing, and will continue to influence, all U.S. industries. Major changes are expected throughout the U.S. economy in the near future, as recently outlined by the Congressional Office of Technology Assessment (OTA) in a 500-page report titled Technology and the American Economic Transition: Choices for the Future (OTA 1988). OTA identified four broad factors which are expected to result in a "major transformation" in the U.S. economy during the next 20 years: new technologies, particularly information and communications technologies; the "loss of U.S. preeminence in international markets;" the possibility that energy and other resource prices may increase sharply by the turn of the century; and significant changes in U.S. consumer and labor markets.

Change is inevitable, and those companies and industries which adapt most readily to change, whether new environmental regulations, varying exchange rates, or trends in consumer preferences, will be the most successful in coming decades. Although the U.S. wood household furniture industry has proven to be adaptable in the past, future success will be much more dependent on flexibility and adaptability in production and marketing.

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