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THE GLOBAL WOODEN FURNITURE INDUSTRY: AN EMPHASIS ON THE PACIFIC RIM

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P. M. Smith and H. O. Ma

CENTER FOR INTERNATIONAL TRADE IN FOREST PRODUCTS
UNIVERSITY OF WASHINGTON
COLLEGE OF FOREST RESOURCES AR-10
SEATTLE, WASHINGTON 98195

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INTRODUCTION

Today, one of the most important issues confronting firms is international competition (Porter 1988). The growing importance of international competition should be well recognized in terms of understanding competitors and formulating competitive strategy.

The wooden furniture industry of the United States is facing growing competition from abroad. In the past, U.S. furniture manufacturers have enjoyed competitive advantages through superior production capabilities, a surplus of raw materials and favorable market proximity, knowledge and access. However, in recent years, these advantages in wooden furniture have been diminished by Pacific Rim furniture manufacturers, among others.

It is the purpose of this paper to explore competitive factors, through the identification of key issues, in wooden furniture trade within the Pacific Rim. Of particular interest are: the U.S., as the largest furniture market in the world, Taiwan as the largest furniture exporter to the U.S., and South Korea as a potentially large player in the future.

The objectives of the study are as follows:

1) to review the trade trends of furniture by major importing/exporting countries in global markets and

2) to analyze structural changes and identify key issues in the wooden furniture industry within the Pacific Rim countries.

OECD FURNITURE TRADE

International trade in furniture has grown rapidly since 1972 as the industry has become more international. This rapid growth reflects the comparative advantage in furniture production which some nations and regions enjoy (U.S. Dept. of Commerce 1985). In general, the two major factors affecting most furniture trade can be viewed as price and style. In the past, these two factors generally restricted trade to neighboring countries due to transportation costs and similar living-styles (Smith, Youn and Schreuder 1989; U.S. Dept. of Commerce 1985). Even so, in recent years, penetration of world wooden furniture markets has been increased by developing countries which do not have advantages in distance and living-styles.

On a worldwide scale, useful furniture data in international trade are found in the annual report (Foreign Trade by Commodities) of the Organization for Economic Cooperation and Development (OECD) dealing with member countries. In this chapter, international furniture trade trends based on the above report will be discussed.

As shown in Table 1, the OECD countries, which account for the bulk of world furniture imports and exports, are indicators of the changing trends in world furniture trade. The furniture imports of the OECD countries increased from $1.2 billion in 1972 to $14.4 billion in 1986, representing an increase of 12 times.

During the world economic recession in 1982, imports of the OECD countries declined by $1 billion from the 1980 figure. With the gradual progress of the world economy after 1983, imports of the OECD have increased gradually from $8 billion in 1982 to $14.4 billion in 1986 (Figure 1).

Historically, the major furniture importing countries among the OECD are, in order of importance, the U.S., West Germany, France, the U.K. and the Netherlands. These five countries accounted for about 70 percent of the total furniture imports of the OECD countries in 1986 (Table 1 and Figure 2). The U.S., the largest furniture market in the world, imported $4.5 billion worth of furniture, accounting for 31 percent of the total OECD furni-

Table 1. Furniture Trade of the OECD Countries.

	(US$ million)									
	1980					1986				
	Exports	%	Imports	%	Balance	Exports	%	Imports	%	Balance
Canada	191	2.1	223	2.5	(32)	587	4.8	369	2.6	218
United States	521	5.7	1,219	13.4	(698)	684	5.6	4,478	31.1	(3,794)
Japan	154	1.7	226	2.5	(72)	193	1.6	431	3.0	(238)
Australia	10	0.1	95	1.0	(85)	19	0.2	160	1.1	(141)
Belgium-Lux.	725	7.9	712	7.8	13	757	6.2	597	4.1	160
Denmark	473	5.2	149	1.6	324	794	6.5	217	1.5	577
France	650	7.1	1,308	14.4	(658)	817	6.6	1,741	12.1	(924)
West Germany	2,048	22.5	1,683	18.5	365	2,714	22.1	1,765	12.3	949
Italy	2,180	23.9	136	1.5	2,044	2,900	23.6	187	1.3	2,713
Netherlands	347	3.8	1,026	11.3	(679)	486	4.0	910	6.3	(424)
United Kingdom	556	6.1	658	7.2	(102)	522	4.2	1,138	7.9	(616)
Austria	165	1.8	362	4.0	(197)	242	2.0	432	3.0	(190)
Sweden	510	5.6	326	3.6	184	699	5.7	346	2.4	353
Switzerland	136	1.5	532	5.8	(396)	215	1.7	782	5.4	(567)
Other OECD	456	5.0	667	4.9	88	667	5.4	835	5.8	(168)
Total OECD	9,122	100	9,099	100	24	12,296	100	14,388	100	(2,092)

Note: 1. ( ) is negative
2. Total OECD includes other 10 OECD countries (New Zealand, Greece, Ireland, etc.) in the OECD
3. Furniture includes Standard International Trade Classification (SITC) 821

Source: OECD, Foreign trade by Commodities, 1980 and 1986.

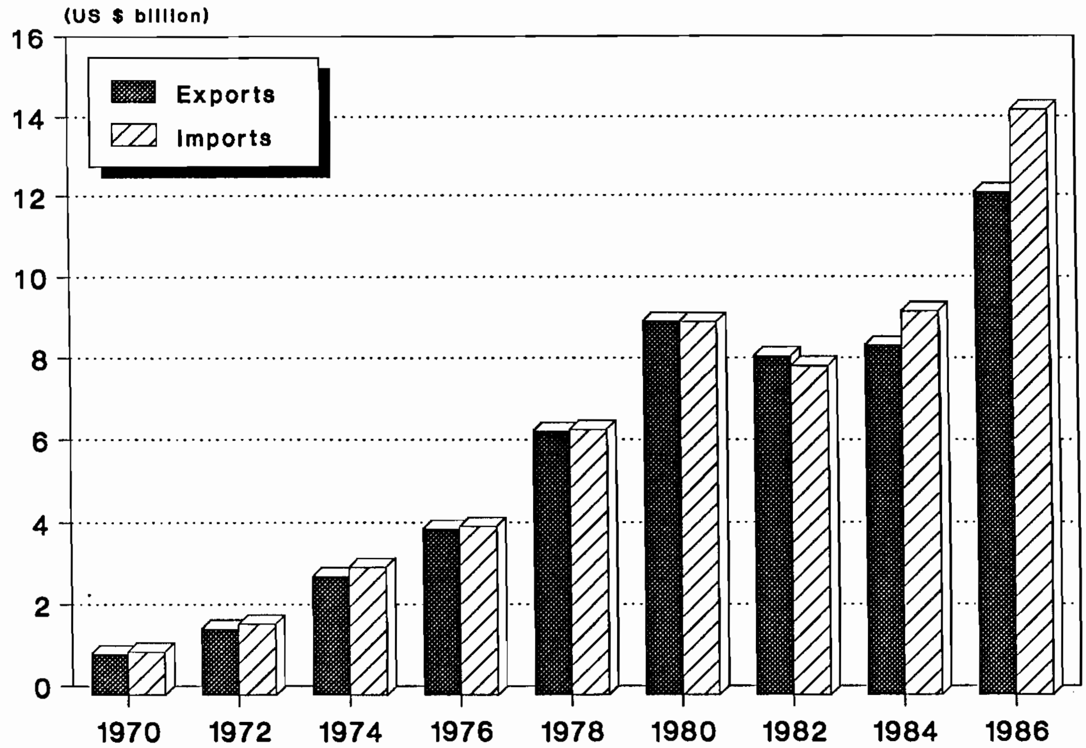


Figure 1. Furniture trade in the OECD countries, 1970-1986.

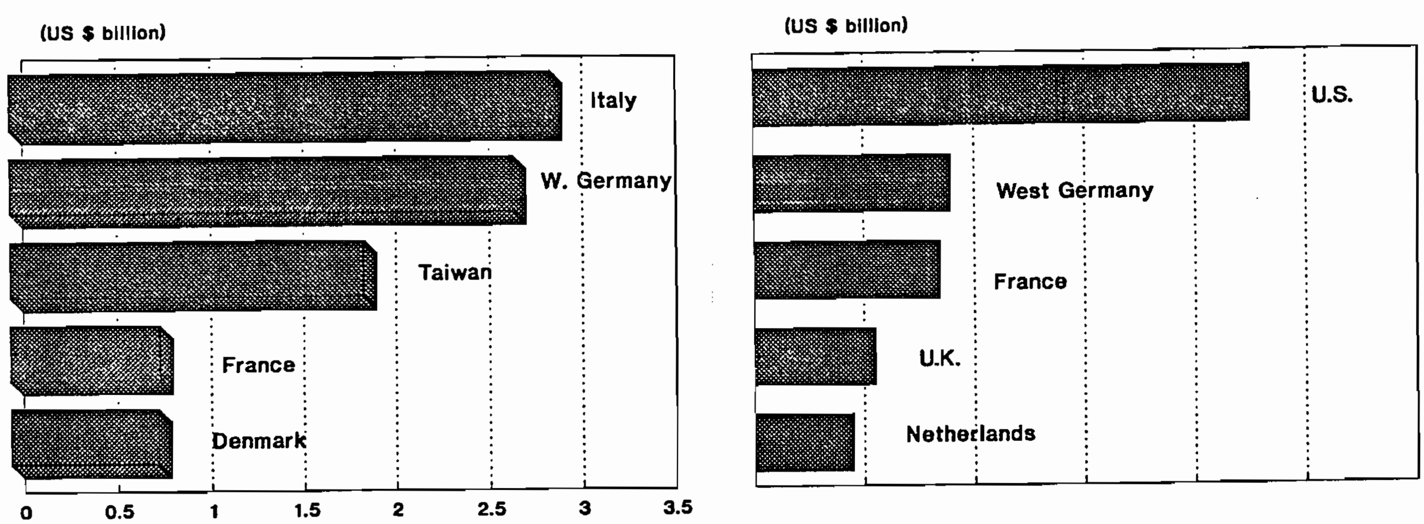


Figure 2. Major furniture exporting and importing countries in 1986.

ture imports that year. Furniture imports into West Germany and France accounted for 12.3 percent and 12.1 percent of the total OECD imports in 1986, respectively, followed by the U.K. (7.9 percent), the Netherlands (6.3 percent), Switzerland (5.4 percent), Belgium/Luxembourg (4.1 percent) and Japan, the second largest furniture market in the world, imported for only $431 million or 3.0 percent of all OECD imports.

On the export side, Italy, with a trade surplus of almost $2.9 billion in 1986, has positioned itself as the largest furniture exporting country in the world, followed closely by West Germany ($2.7 billion) (Table 2 & Figure 2). France ranked third ($817 million) in terms of OECD furniture exports, trailed by Denmark ($794 million), Belgium-Luxembourg ($757 million), Sweden ($699 million), the U.S. ($684 million) and Canada ($587 million).

The trade in furniture for the total OECD countries in 1986 recorded an overall deficit of $2.1 billion. Developing countries, that is, non-OECD countries, have increased exports by 23.3 percent from $0.8 billion in 1980 to $3.4 billion in 1986 to the OECD countries.

Value per person of the major OECD furniture import countries in 1986, ranked in decreasing order, are: Switzerland, the Netherlands, France and West Germany. The U.S. with the highest value of total imports in the world showed a relatively low furniture import value per person. Japanese furniture import value per person was low, reflecting the level of total furniture imports (Figure 3).

Table 2 shows that Taiwan represented 42 percent of developing countries' furniture exports to OECD countries in 1986 with shipments of $1.4 billion. Other significant developing country suppliers that year included: Mexico, the Philippines, South Korea, Hong Kong and Thailand. Most exports from developing countries to the OECD are wooden furniture such as living room, dining room furniture and rattan furniture (ITC 1982).

INTERNATIONAL FURNITURE INDUSTRY

World furniture production can be divided into North America, South America, European Economic Community (EEC), Scandinavian, and Asia. According to this regional breakdown, the general situation of the furni-

Table 2. Major Developing Countries' Exports to the OECD in 1986.

	US$ million						
	Taiwan	Mexico	Philippines	China	South Korea	Others	Total
Canada	44	0	3	3	1	75	126
United States	1,109	242	90	50	61	1,980	3,532
Japan	182	0	5	32	40	304	563
Australia	26	0	4	5	1	58	94
Belgium-Lux.	1	0	1	1	0	28	30
Denmark	2	0	2	0	0	20	24
France	11	0	3	6	1	198	219
West Germany	13	0	2	6	1	336	358
Italy	0	0	0	5	0	29	34
Netherlands	2	0	2	1	0	59	64
United Kingdom	22	0	5	1	0	181	209
Austria	1	0	0	0	0	24	26
Sweden	2	0	2	1	0	60	65
Switzerland	2	0	0	1	0	25	28
Total OECD	1,419	242	122	118	107	3,365	5,373
Percentage	42	7.2	3.6	3.5	3.2	40.5	100

Note: 1. Total OECD includes other countries in the OECD not listed
2. Others include all other non-OECD countries

Source: OECD, Foreign Trade by Commodities, 1986.

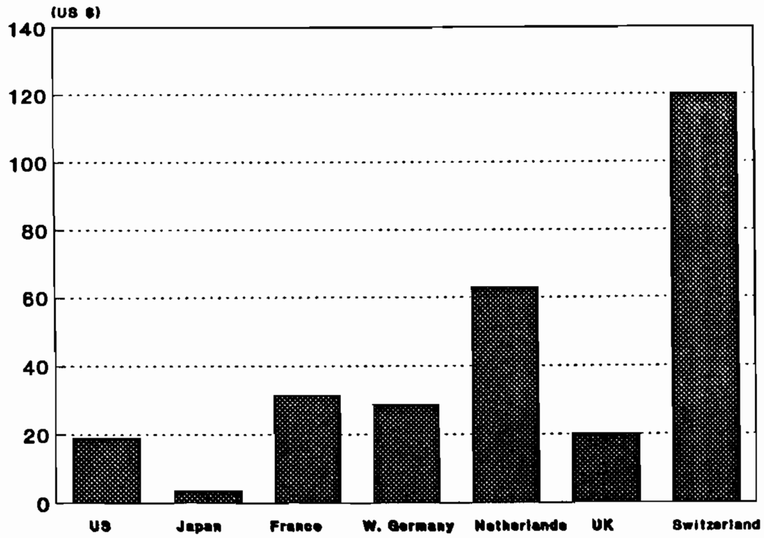


Figure 3. Furniture import value per person of the major OECD countries in 1986.

Table 3. Forecast of Wooden Furniture Shipments.

	1989	1990
Shipments ($ billion)	7.91	8.08
percent changes from the previous year	3.8	2.2
Inflation adjusted change (%)	1.1	-1.0

Source: *Furniture/Today* Dec. 5, 1988.

ture industry of major countries will be addressed in this chapter. The U.S., Taiwan and South Korea will be metioned in detail in later chapters.

North America

Canada

The Canadian furniture industry is characterized by a high degree of dependence on domestic markets. There were about 1,665 establishments in furniture manufacturing sectors, employing approximately 45 thousand people in 1984 (Ministry of Supply and Service 1989a). Most of these establishments were small with 67 percent employing fewer than 19 workers. In 1988, Canada exported $223 million worth of its furniture products to the U.S. market, which accounted for 96 percent of its total exports (Ministry of Supply and Service 1989b). Other export markets for Canadian furniture in 1988 were Japan (0.7 percent) and the U.K. (0.5 percent). The major sources of Canadian imports in 1988 were the U.S. (36.7 percent), Taiwan (16.4 percent), Italy (16.1 percent) and Sweden (4.6 percent) (Ministry of Supply and Service 1989c).

The Canadian furniture industry has enjoyed some advantages in the U.S. market such as geographic location and similar styles that U.S. and Canadian consumers share compared to overseas European and Asian manufacturers (U.S. Dept. of Commerce 1985). Moreover, a favorable exchange rate, resulting from the strengthened U.S. currency against the Canadian unit, as well as close proximity to Northeastern and North Central U.S. markets, provides advantages to Canadian producers (U.S. Dept. of Commerce 1985). With these geographical advantages, Canadian upholstered furniture manufacturers are the dominant source of imported upholstered furniture into the U.S. (U.S. Dept. of Commerce 1985). In addition, relatively high Canadian tariffs on furniture imports (current rate; Canada = 15 percent level, U.S. = 3-5 percent level) have protected the domestic furniture industry against U.S. furniture manufacturers (James 1989b).

The major disadvantages the Canadian furniture industry faces include more expensive raw materials and smaller, less efficient plants (U.S. Dept. of Commerce 1985). Due to these disadvantages, the Canadian household furniture industry is considered to be vulnerable to the Canada-U.S. Free Trade Agreement (FTA) signed October 1987; currently a top issue between these two countries (James 1989b).

Mexico

Mexico's furniture industry is rapidly maturing and has increased its presence among world furniture producers (Kaufman 1986). In 1985, there were more than 5,000 wood furniture companies in Mexico and by 1988, it was the fourth largest source of furniture imports for the U.S. market with $187 million worth of furniture (McKee 1989; Kaufman 1986). Of these Mexican exports to the U.S., wooden furniture accounted for 55 percent of the total. Mexico's market penetration into the U.S. has been increasing due to cheap labor costs and geographic proximity to the U.S. market. In 1986, the average salary of workers in furniture factories was about $100 a month, one of the cheapest labor costs of the major furniture manufacturing countries (Kaufman 1986). By pushing these advantages, it is anticipated that Mexico will become an emerging furniture exporter to the U.S.

South America

Brazil and Chile

Brazil's and Chile's furniture industries are growing but are still in the infancy stage (Christianson 1986). Furniture exports of these two countries are relatively small and their major export market is the U.S. Most of their exports are the ready-to-assemble variety (Christianson 1986). Two strong advantages of these countries are plentiful raw materials and a skilled, cheap workforce. These two countries, with rapidly developing wood industries, have the potential to become large exporters in the future.

EEC

Italy

The Italian furniture industry is characterized by a high level of fragmentation relative to the size of firms (Ligasacchi and Johnson 1988). In 1985, there were about 1,466 furniture & fixture establishments, employing 72,000 people (Anonymous 1986). Italian firms have increased both the volume and value of their exports by 50 percent since the beginning of the decade (Ligasacchi and Johnson 1988). The major furniture export market is in Europe, where Italy held a 39 percent market share in 1986; North America accounted for 8.1 percent of total furniture exports that year (Ligasacchi and Johnson 1988).

The main advantages of the Italian furniture industry, the largest furniture exporter in the world, are technology and design. At the beginning of the 1970s, the Italian furniture industry increased operational capacity by investment in streamlining the manufacturing process, the introduction of computer numerically controlled lines and other computer based manufacturing techniques (Ligasacchi and Johnson 1988). Furthermore, Italian furniture manufacturers have responded positively to life-style changes by adapting designs and materials to non-traditional households (single, young and divorced) (Ligasacchi and Johnson 1988). These advantages, combined with an old tradition in furniture manufacturing, can be viewed as key factors of Italian success. From 1987 to 1988, Italian furniture exports to the U.S. increased 7 percent to $431.6 million, representing the third largest source of U.S. furniture imports (U.S. Dept. of Commerce 1989).

West Germany

West Germany's furniture industry consists of about 1,200 factories and employs nearly 125,000 people (Kaar 1987; Naumann 1986). Between 1984 and 1985, wooden furniture production decreased by 5.5 percent while imports and exports remained at a relatively high level (Kaar 1987). In 1985, of the total furniture shipments of 15 billion Deutsche Marks, exports accounted for 20 percent while imports accounted for 16 percent (Kaar 1987). The main furniture export markets were numbers of the EEC, representing 80 percent of the total. The largest source for West Germany's furniture imports was Italy (Kaar 1987).

Scandinavia

Most Scandinavian furniture products are recognized as attractive and well-made (Gura 1986). In recent years, the U.S. market has become a target of many Scandinavian furniture manufacturers for exporting their contract furniture. They have developed overseas subsidiaries for distribution (Gura 1986). IKEA, a Swedish furniture retailer with 77 stores in the U.S., offers inexpensive ready-to-assemble furniture with its own design and is renowned for its quality (Arbose et al. 1985). Among Scandinavian countries, Denmark is a dominant country for furniture exports to the U.S. Between 1987 and 1988 Denmark accounted for 4-5 percent of the total U.S. furniture imports (U.S. Dept. of Commerce 1989).

Pacific Rim

Japan

The furniture industry in Japan has long been characterized by the production of traditional "furniture without legs" such as the tatami (floor mat) and the zatabu (low table) whereby Japanese remove their shoes and sit on the tatami (JETRO 1986; Yates 1986). In 1986, there were about 12,000 wooden furniture manufacturers, employing a total of 126,000 people. Of these manufacturers, about 78.5 percent were small and medium-sized companies employing less than 9 people (Anonymous 1987).

Between 1981 and 1985 Japanese wooden furniture shipments had kept at a very stable level of 1,500 billion Yen (Anonymous 1987). In 1987, the wooden furniture shipments showed a growth rate of 5 percent over 1986. The increase in demand is tied to strong housing markets stimulated by increased personnel income (U.S. $15,770 per capita GNP for 1987) (Sugimoto 1988).

The strong yen has helped reduce the cost of imported goods. The growth rate of imported furniture from 1981 to 1986 was less than 5 percent. However, wooden furniture imports in 1987 amounted to 52.4 billion yen, and rattan furniture 22.4 billion yen showing an increase over 1986 of 44 percent and 14 percent, respectively (Figure 4) (Sugimoto 1988).

Major sources of wooden furniture imports to Japan in 1986 were Taiwan (28.2 percent), Italy (13.6 percent), West Germany (12.1 percent) and Korea (10.4 percent) (Figure 5) (Anonymous 1987).

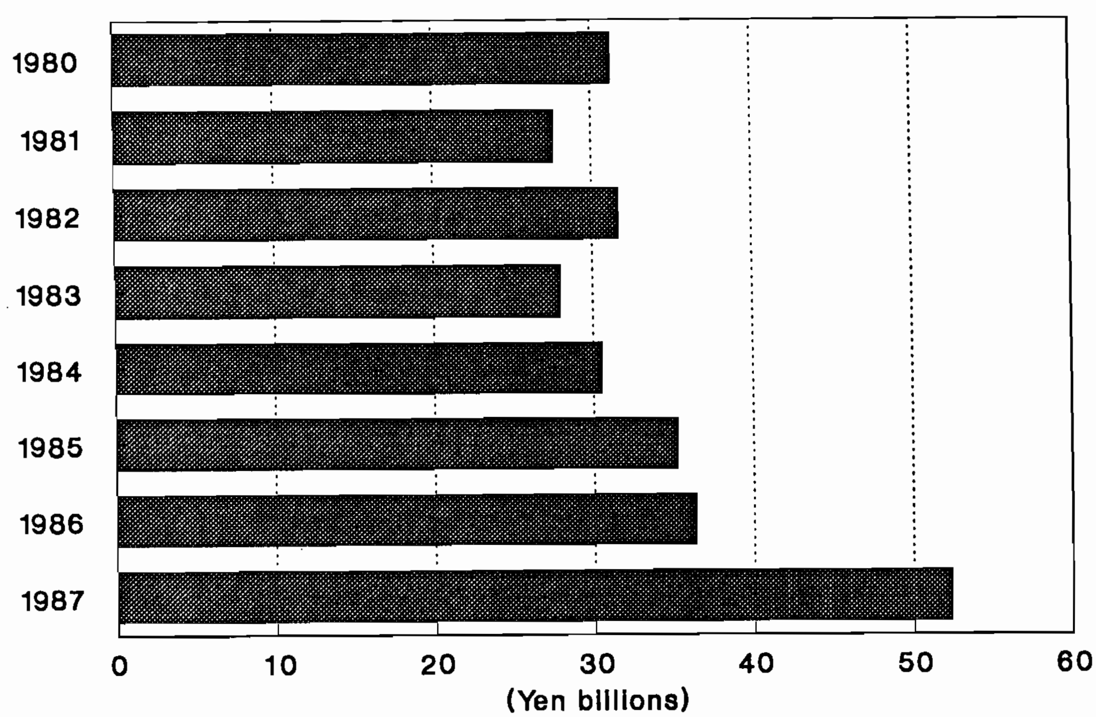


Figure 4. Japanese wooden furniture imports, 1980-1987.

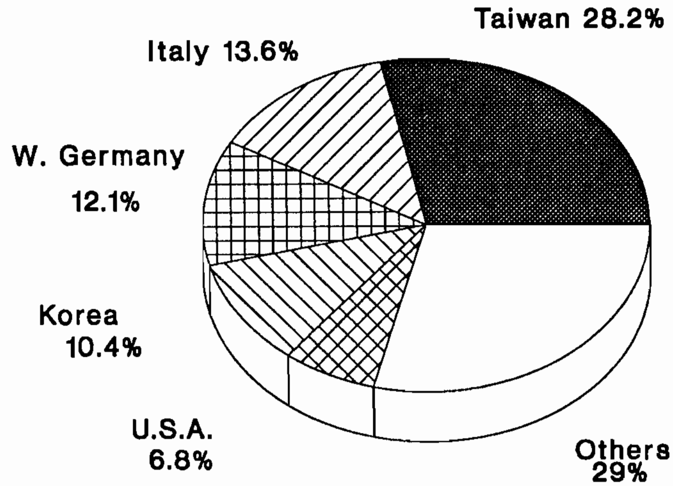


Figure 5. Major source for Japanese wooden furniture imports in 1986.

Compared to other industrialized countries such as the U.S., Canada and the U.K., Japan has a low import rate of wooden furniture, a notable traditional trend, that has remained at less than 3 percent since 1980. However, furniture imports are expected to increase rapidly in the future.

The recent rapid internationalization of the furniture industry in Japan and the continuing strong yen is expected to further increase the market share of imported furniture (Sugimoto 1988). Four factors that are propelling this internationalization are as follows (Sugimoto 1988):

1) insufficient raw material supply,
2) price differences between home and overseas products,
3) expensive labor costs, and
4) changing consumer tastes and needs.

Malaysia

The Malaysian furniture industry can be characterized as a potential player in furniture trade due to vast forest resources and strong support by the government (Yates 1986). These plentiful forest resources make it possible to use a variety of wood species in furniture manufacturing and other wood products. The primary wood species are red meranti, merbau, nyatoh, sepetir, rubber wood, ramin and meranti (Yates 1986). The Malaysian Timber Industry Board (MTIB) is encouraging Malaysian furniture exports in several ways including tax breaks for furniture exporting, tariff reductions on products used by the industry, and free trade zones (International Trade Report 1988a). In addition, MTIB is increasing its publicity campaign to gain more investment from European nations (International Trade Report 1988b). In 1987, Malaysian furniture exports amounted to $56.4 million, representing an increase of 105 percent over 1986. Wooden furniture accounted for over 80 percent of the total furniture exports in 1987. Major export markets in 1987 were Singapore, the U.S., and the U.K. (International Trade Report 1989b).

Thailand

Thailand's furniture industry has developed using its abundant forest resources such as teak and rosewood which are readily available only in Thailand (Yates 1986). The major furniture export markets for Thailand in 1987 were the U.S., Japan, and France, representing 60 percent of the total furniture exports (International Trade Report 1988). Singapore and Hong Kong both play important roles as re-exporters (Yates 1986). From 1987 to 1988, Thailand increased exports to the U.S. by 177 percent to $68 million (U.S. Dept. of Commerce 1989).

Philippines

In the Philippines furniture industry, larger, export-oriented furniture manufacturers are located in metropolitan Manila and Cebu due to an efficient supply of raw materials from surrounding islands and good shipping facilities (Yates 1986). In 1984, the Philippines exported $88.3 million worth of furniture. Rattan furniture accounted for 68 percent of the total furniture exports while buri accounted for 19 percent and wood furniture accounted for about.7 percent (Yates 1986). The major foreign markets in 1984 were the U.S. (61 percent), Australia (8 percent), Japan (6 percent), Canada (5 percent) and Sweden (5 percent) and the U.K. (5 percent). (Yates 1986). The remarkable development in the rattan furniture industry may be attributed in part to the ban of unprocessed rattan exports by the government (Yates 1986). However, in recent years, the Philippines rattan furniture industry has faced dwindling local supplies of rattan (Timm 1987).

THE U.S. WOODEN FURNITURE MARKET AND INDUSTRY

The U.S. Wooden Furniture Market

Wooden Furniture Market Segments

The U.S. furniture market is the largest and most diverse in the world although the European Economic Community, as a whole, is nearly as large (Kaufman 1986; U.S. Dept. of Commerce 1985; ITC 1982). In general, the U.S. furniture market can be divided into three categories according to raw material: wooden furniture, upholstered furniture, and metal furniture. By end-use, this market also can be separated into household furniture and office furniture. According to U.S. Department of Commerce Standard Industry Classification (SIC), furniture products belong to the SIC 25 group. Wooden household furniture has long been the largest segment among household furniture, accounting for 43.6 percent of the total household furniture shipments by value in 1988 (Figure 6) (U.S. Dept. of Commerce 1989).

Demand Factors

The key factor measuring market activity in the household furniture sector is personal consumption or retail sales (U.S. Dept. of Commerce 1985; ITC 1982). According to the Department of Commerce (1989), expenditures for furniture, which made up about 1 percent of total personal consumption outlays in 1987, rose 5.1 percent that year, to $32.2 billion. Retail furniture sales totaled $27.6 million in 1987, up 6.1 percent from the $26.0 million in 1986.

The U.S. housing market is a leading indicator of consumer demand for furniture. New housing construction normally proceeds furniture demand by approximately one year (Howard 1988b; U.S. Dept. of Commerce 1985). Additional factors in determining future demand for furniture include the sale of existing homes, level of repair and remodeling activity and the replacement of either worn out or out of date furniture fashions (U.S. Dept. of Commerce 1985). Figure 7 shows that, in recent years, housing starts were not a dominant influence on wooden furniture shipments although they are closely related to the furniture demand. A more significant factor on furniture demand looks like repair/remodeling expenditures and the sale of existing single family homes.

New housing starts in 1989 are expected to drop to 1.4 million and to gain back 1.5 million in 1990 while new housing starts in 1988 were 1.5 million units according to industry experts (Howard 1988b). The sale of existing single family home will maintain 3.5 million unit level until 1990. In addition, real GNP and personal disposable income are expected to slowdown in 1989 and 1990 (Howard 1988b).

In the U.S. the primary purchasers of furniture are households headed by persons aged 25-44 (U.S. Dept. of Commerce 1985). These consumers prefer high quality goods and spend a higher percentage of their income on household furniture over the long term. In 1990, this consumer group is expected to grow, rapidly increasing the demand for furniture (Figure 8) (U.S. Dept. of Commerce 1985). This market growth will continue to translate

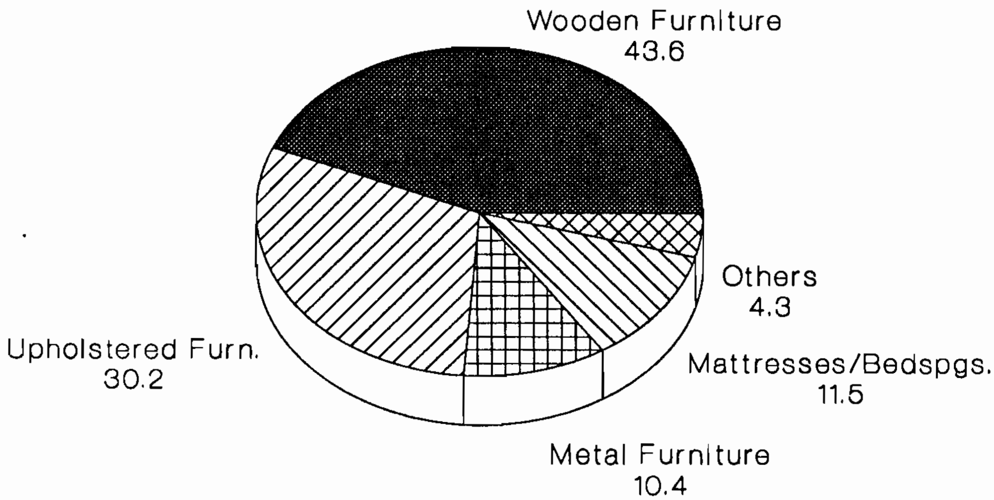


Figure 6. U.S. household furniture shipments.

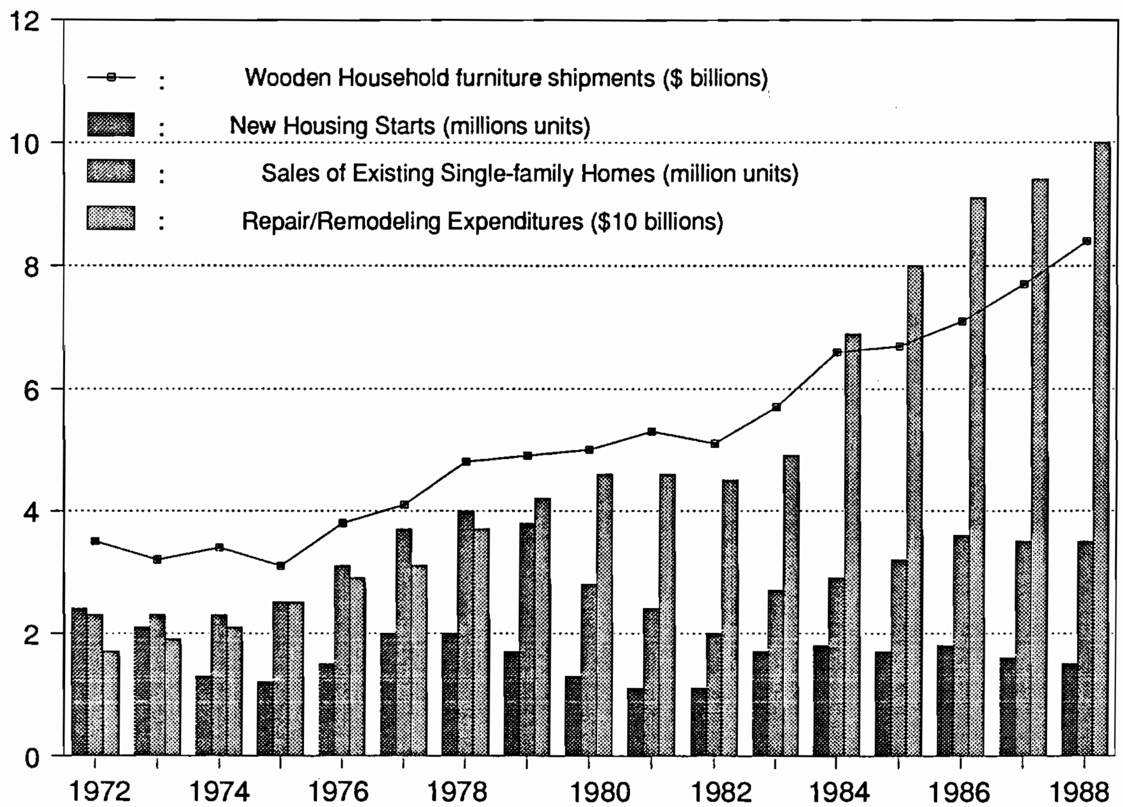
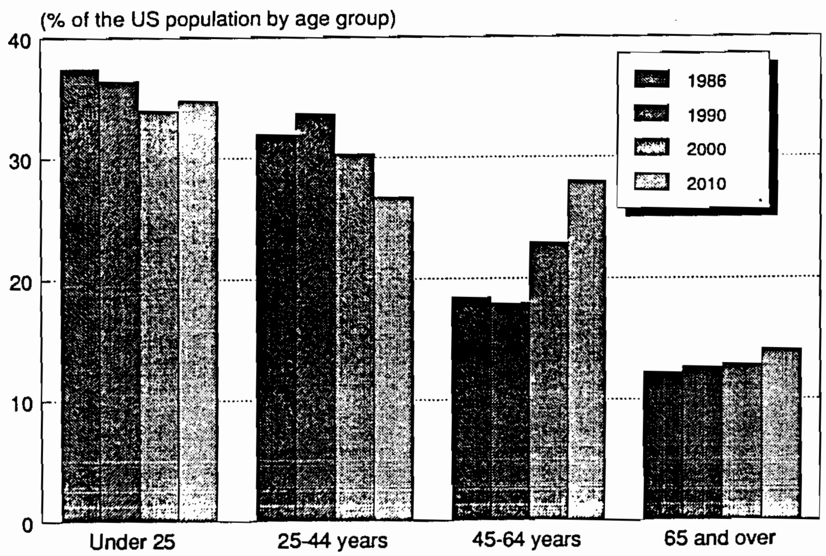
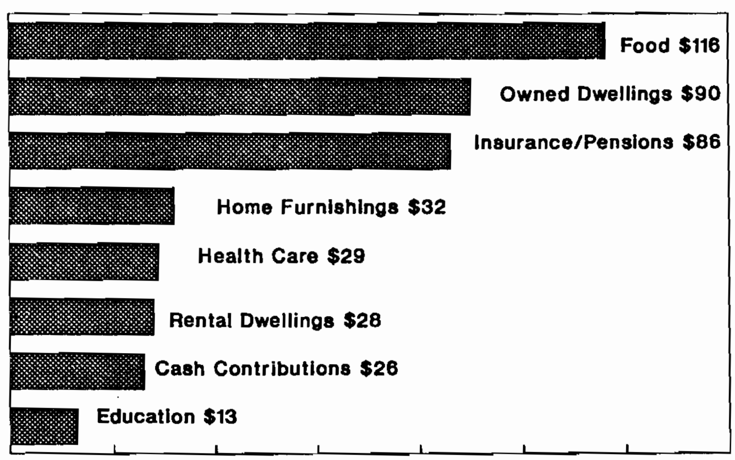


Figure 7. U.S. wooden household furniture shipments and housing market, 1972-1987.





(In billions of 1986 dollars)

into both increased U.S. furniture production and increased furniture imports through the mid-1990s (Engardio 1986; U.S. Dept. of Commerce 1985).

The value of household furniture shipments in 1988 was $16.08 billion, representing a 4.7 percent increase (0.6 percent after inflation) (Howard 1989). According to a consensus forecast by *Furniture/Today* (Howard 1988b), industry experts projected that household furniture shipments will rise to $16.3 billion in 1989 and to further $17.1 billion in 1990. In addition, wooden furniture shipments are projected to rise 3.8 percent in 1989 to $7.9 billion and to further rise 2.2 percent in 1990 to $8.08 billion (Howard 1988a).

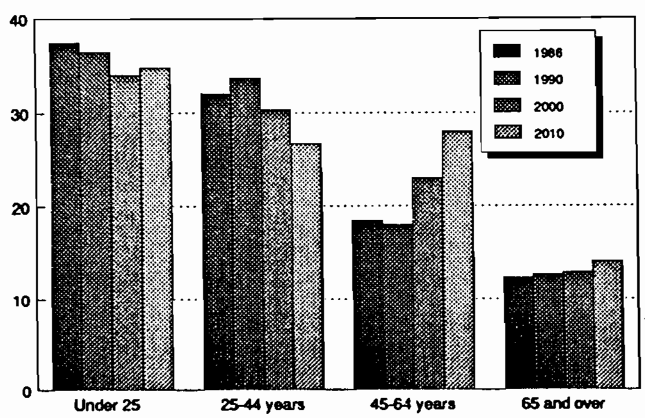
U.S. Consumer Buying Patterns

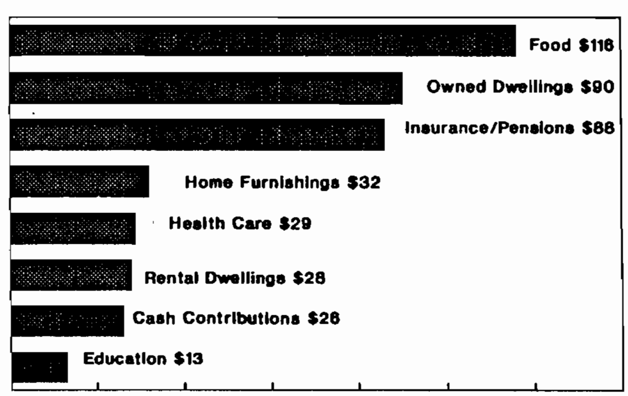
A survey conducted by *Better Homes and Gardens* magazine in 1988 shows the changing patterns of consumer furniture purchases. Thirty-four percent of the respondents preferred traditional style as opposed to the 31 percent who liked country style. Twenty-one percent liked eclectic style and 14 percent preferred contemporary (Figure 9) (Anonymous 1989d).

In addition, the survey indicated that comfort, construction and durability were top priorities in terms of buying influences for consumers. Style/design and price were the next priorities, in that order (Figure 10). Brand names seemed to be a low priority in the decision making process (Anonymous 1989d).

The recent consumer survey conducted by the Department of Wood Science & Forest Products at Virginia Polytechnic Institute and State University shows an increased interest in RTA furniture over assembled furniture (Stureson and Sinclair 1988). All respondents believe that the quality of RTA furniture has improved in recent years. Almost one-third of the consumers chose RTA over assembled furniture when making their most recent purchase decisions. The primary reasons for RTA purchasing were to replace existing furniture and to store new equipment such as televisions. In RTA furniture style, contemporary was preferred by over 40 percent of the consumers covered in the survey (Stureson and Sinclair 1988).

In upscale market, which is the top-income quartile of the U.S. population (22.7 million households, 26.1 percent of the U.S. population), the most important factor for furniture purchasing was quality, followed by fashion innovation, service/information and selection (Anonymous 1988b).





A. The Graying Population (% of the US population by age group)

B. Consumer Expenditures in the year 2000 (in billions of 1986 dollars)

Source: Adopted from Wall Street Journal

Figure 8. American population and consumer expenditure projections.

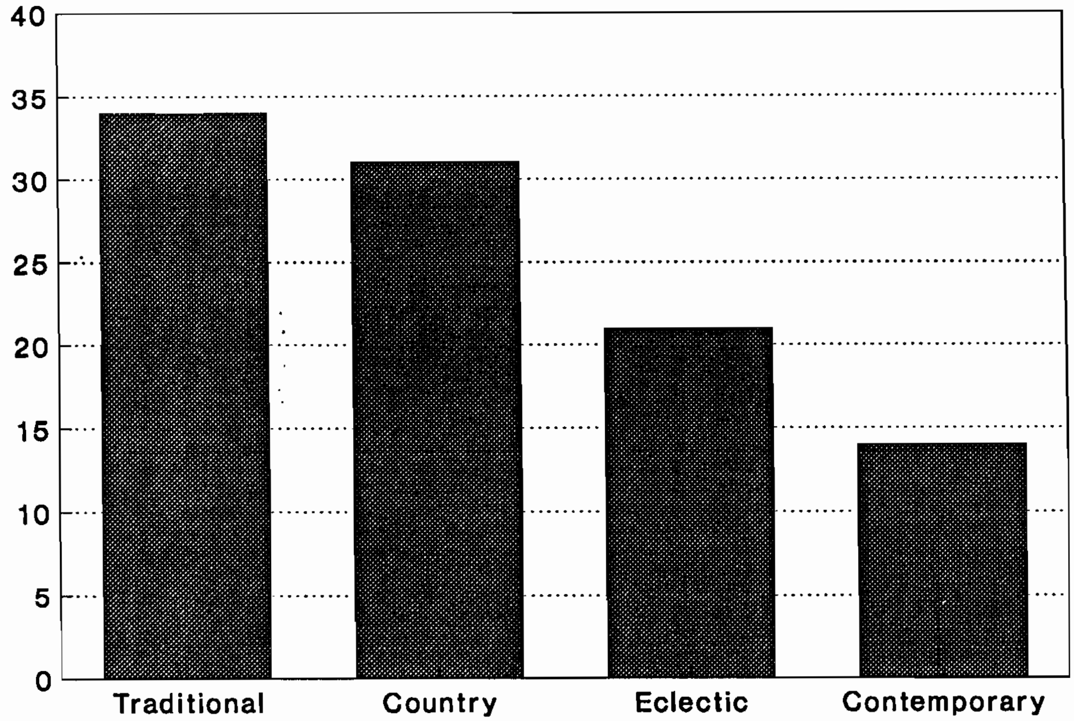


Figure 9. Style preferences.

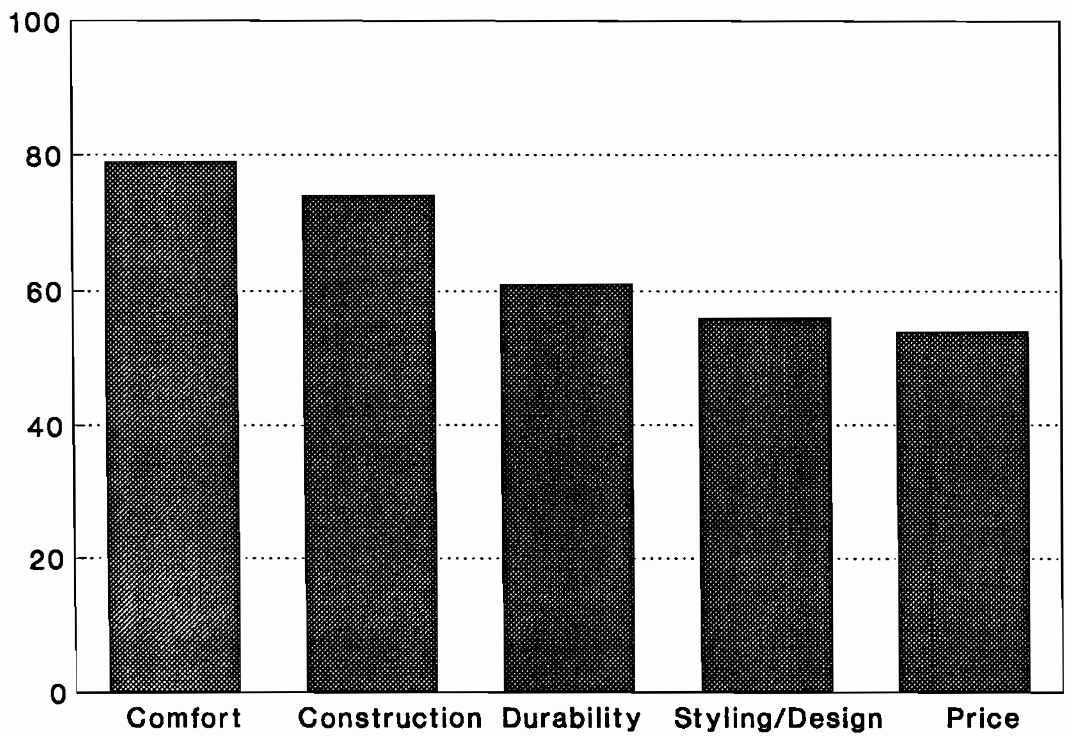


Figure 10. Buying influences.

Retail Sales

Retail sales in furniture stores in 1988 amounted to $29.4 billion, an increase of 4.7 percent over 1987 according to U.S. Bureau of the Census (1989). Department stores in 1988 accounted for an increase of 5.1 percent over the previous year (Anonymous 1989a).

General furniture stores were the major outlets preferred by 62 percent of the respondents of a recent *Better Homes and Gardens* survey (Anonymous 1989d). Department stores and store with brand-name furniture each counted for 31 percent of the respondents (Table 4).

By far, the largest U.S. furniture retailer in 1988 was Levitz, a quality furniture discounter, with sales of nearly $1 billion (Culter 1989). Seaman Furniture was the 2nd largest retail furniture chain followed by Pier 1 Imports and Rhodes (Cutler 1989). Top 10 furniture retailers in 1988 accounted for 11.3 percent of the total reported furniture sales and increased their revenues by 9.9 percent, to $3.3 billion (Cutler 1989, Table 5).

The U.S. Wooden Furniture Industry

Industry Structure

The U.S. wooden furniture industry has always been characteristically fragmented (U.S. Dept. of Commerce 1989). There were 2,453 establishments in the wooden household furniture industry in 1985. Large establishments—those units with at least 250 workers—accounted for 56.2 percent of employees in the wooden household furniture industry in 1985. Plants with less than 10 employees represented 51.9 percent of all establishments (Table 6).

Wooden furniture manufacturing is a labor-intensive process characterized by high material and transportation costs. Producers therefore, will tend to locate near an inexpensive, plentiful labor supply with an abundant source of raw materials and in an area that is well served by efficient transportation systems (U.S. Dept. of Commerce 1985). North Carolina was the leading producing state for three out of five categories of wooden household furniture production in 1982. North Carolina in 1982 produced about 30 percent and Virginia produced about 14 percent of the total U.S. wooden household furniture.

Leading Manufacturers

The largest U.S. furniture manufacturer in 1988 was Interco, who acquired the Lane company in 1987 and exceeded $1 billion in annual sales for the second year in a row (James 1989a). Masco, the 2nd largest furniture manufacturer that year, started as a manufacturer of kitchen and bathroom furniture and moved into the furniture business in 1986 (Liscio 1987). La-Z-Boy, providing primarily motion chairs and convertible units kept its number 3 ranking (Cahill 1986). Universal Furniture Ltd. jumped from number 6 in 1987 to number 4 in 1988 (James 1989a). This rank of top 10 is precarious, however, due to the myriad of recent acquisitions which have

Table 4. Major Outlet Type for Furniture.

Type	Percent (%)
General furniture store	62
Department stores	31
Store with brand-name furniture	31
Brand-named furniture galleries	24
Discount furniture stores	22
Mass merchants	21

Note:
1. Columns add to more than 100% due to multiple responses
2. Brand-name furniture galleries were defined as a store which carries only one brand of furniture, such as La-Z-Boy Showcase Shoppes & Ethan Allen stores
3. For discount furniture stores, the examples given was Levitz
4. For mass merchants, the example given were Sears and J.C. Penney

Source: *Furniture/Today* July 10, 1989.

Table 5. Top 10 U.S. Furniture Retailers.

Rank	Company	Home base	Sales ($ million)
1	Levitz	Boca Raton, Florida	921.0
2	Seaman Furniture	Uniondale, New York	268.1
3	Pier 1 Imports	Fort Worth, Texas	257.3
4	Rhodes	Atlanta, Georgia	245.0
5	Haverty's	Atlanta, Georgia	228.0
6	Wickes Furniture	Wheeling, Illinois	216.0
7	Heilig-Meyers	Richmond, Virginia	195.6
8	Value City	Columbus, Ohio	185.0
9	W.S. Badcock	Mulberry, Florida	182.8
10	Art Van	Warren, Michigan	180.0

Note: Ranked by sales of furniture, bedding and decorative accessories only

Source: *Furniture/Today* May 8,1989, p. 38.

Table 6. Wooden Household Furniture Plants by Employment Size, 1985.

	(Number of employees in thousands)					
	Total	under 10	10-49	50-99	100-249	over 250
No. of establishments	2,453	1,274	706	187	157	129
percentage(%)	100	52	29	8	6	5
No.of employees	132	4	16	13	25	74
percentage(%)	100	3	12	10	19	56

Source: U.S. Bureau of Census, County Business Patterns, 1985.

characterized the furniture industry. Currently, Masco who acquired Universal Furniture Ltd. in May 1989 is the largest furniture manufacturer and its sales are projected to reach $1.5 billion in 1989 (Anonymous 1989c).

The top 10 U.S. furniture manufacturers in 1988 shipped $5.1 billion, representing an increase of 14.3 percent over 1987, and 32.5 percent of total industry shipments that year (James 1989a).

Supply of Raw Materials

Traditionally, the major raw materials for the furniture industry are high grade hardwood lumber and hardwood veneer (Ackerman 1987). In addition, a large amount of softwood and composite materials such as particleboard and medium density fiberboard, have been increasingly substituted for traditional solid hardwood material over the last 30 years (Ackerman 1987).

The Census of Manufacturers by the U.S. Bureau of Census in 1987 collected information on materials supply for wooden furniture (Table 8). The cost of wood & wood products accounted for about 44.2 percent of the total material used in 1987.

Foreign Trade

Imports

The U.S. is the world's leading furniture importer. U.S. furniture imports reached $3.8 billion in 1988 from $3.6 billion in 1987, an increase of only 3 percent from 1987 as compared to an annual rate of 27 percent between 1983 and 1987 (U.S. Dept. of Commerce 1989) (Figure 11). One primary reason for this leveling off of imports is the decline in the value of the U.S. dollar from the beginning of 1985 (U.S. Dept. of Commerce 1989).

Table 7. Top 10 U.S. Furniture Manufacturers.

			(Revenues in $ million)	
Rank	Company	1988	% change	1987
1	INTERCO	$1,097	-0.8	$1,106
2	MASCO	$801	65.2	485
3	LA-Z-BOY	$550	2.2	238
4	UNIVERSAL	$499	110.5	237
5	BASSETT	$466	-1.9	475
6	ARMSTRONG	$433	19.9	361
7	MOHASCO	$409	-19.3	507
8	LADD	$380	-1.8	387
9	CHICAGO PACIFIC	$255	60.5	159
10	SAVDER WOODWORKING	$230	2.2	225
TOTAL		$5,120	14.3	4,480

Note: % change is computed with 1987 figures

Source: *Furniture/Today* 1989.

Another contributing factor may be the loss of duty-free status under the Generalized System of Preference (GSP) for Taiwan wooden furniture (U.S. Dept. of Commerce 1989; Urban 1987). In 1988, imports of Taiwanese goods fell by 10 percent, to $1 billion (McKee 1989).

The five leading sources of U.S. furniture imports in 1988 were Taiwan (29 percent), Canada (17 percent), Italy (12 percent), Mexico (5 percent) and West Germany (4 percent) (U.S. Dept. of Commerce 1989; McKee 1989). Together, they accounted for about 67 percent of total U.S. furniture imports that year (Table 9). Among the countries whose exports to U.S. increased as compared the previous year were Canada, Mexico, the Philippines, South Korea, and Thailand, who had a favorable exchange rate against the dollar and benefited from the rising prices of Taiwanese furniture (U.S. Dept. of Commerce 1989). The country with the greatest increases, by percentage, in furniture exports to the U.S. in 1988 was Thailand which increased their exports between 1987 and 1988 by about 177 percent (McKee 1989).

Much of the import growth is due to lower labor costs of foreign manufacturers (Smith, Youn and Schreuder 1989; U.S. Dept. of Commerce 1985). Figure 12 shows that in 1988, U.S. production workers' costs in manufacturing represented more than five times those of the Asian Newly Industrializing Economies (ANIE=Taiwan, Korea, Hong Kong, and Singapore) (U.S. Dept. of Labor 1989). These lower labor costs of ANIE provide a highly competitive position of overall cost leadership in the US furniture market. In addition, developing countries of the Pacific Rim have taken advantage of better packing and shipping techniques to reduce the relative cost of transporting wooden furniture to the U.S. market, much of which can be shipped partially assembled in ready-to-assemble or knocked-down form (Smith, Youn and Schreuder 1989).

Exports

Historically, U.S. furniture exports have been relatively small due to most furniture manufacturers' concern with the huge domestic market (Bennington 1985). After declining steadily throughout the early 1980s, however, U.S. furniture exports have increased with the U.S. dollar's recent weakness. In 1988, furniture exports rose $564 million, accounting for an increase of 35 percent over 1987 (McKee 1989). Despite two consecutive years of U.S. furniture export increases, the U.S. trade gap in furniture remains at $3 billion, and it is expected that the industry will continue to run a trade deficit for the foreseeable future (McKee 1989).

The five largest export markets for U.S. furniture in 1988 were Canada (28 percent), Mexico (10 percent), Japan (8 percent), United Kingdom (7 percent) and Saudi Arabia (6 percent) (U.S. Dept. of Commerce 1989). Some U.S. furniture manufacturers are beginning to look at the global market as a major growth opportunity (Bennington 1985). For example, with a favorable exchange rate, furniture exports to Japan climbed as a result of

Table 8. Cost of Materials Consumed in the Production of Wooden Household Furniture, 1982 and 1987.

	Delivered cost (million dollars)			
	1982		1987	
Hardwood lumber	299.5		414.9	
Softwood lumber	116.9		137.5	
Hardwood dimension and parts	147.0		243.9	
Softwood plywood	16.6		17.6	
Hardwood plywood	50.9		84.0	
Hardwood veneer	79.9		109.6	
Particleboard	88.5		226.2	
MDF	47.0		74.9	
Hardboard	26.4		39.4	
Furniture, frame wood	51.9		104.7	
Total wood	924.6	(44.4%)	1,452.7	(44.2%)
Other	1,157.4	(55.6%)	1,834.0	(55.8%)
Total (materials, parts & supplies)	$2,082.0	(100%)	$3,286.8	(100%)

Source: U.S. Dept. of Commerce, Census of Manufactures, 1987.

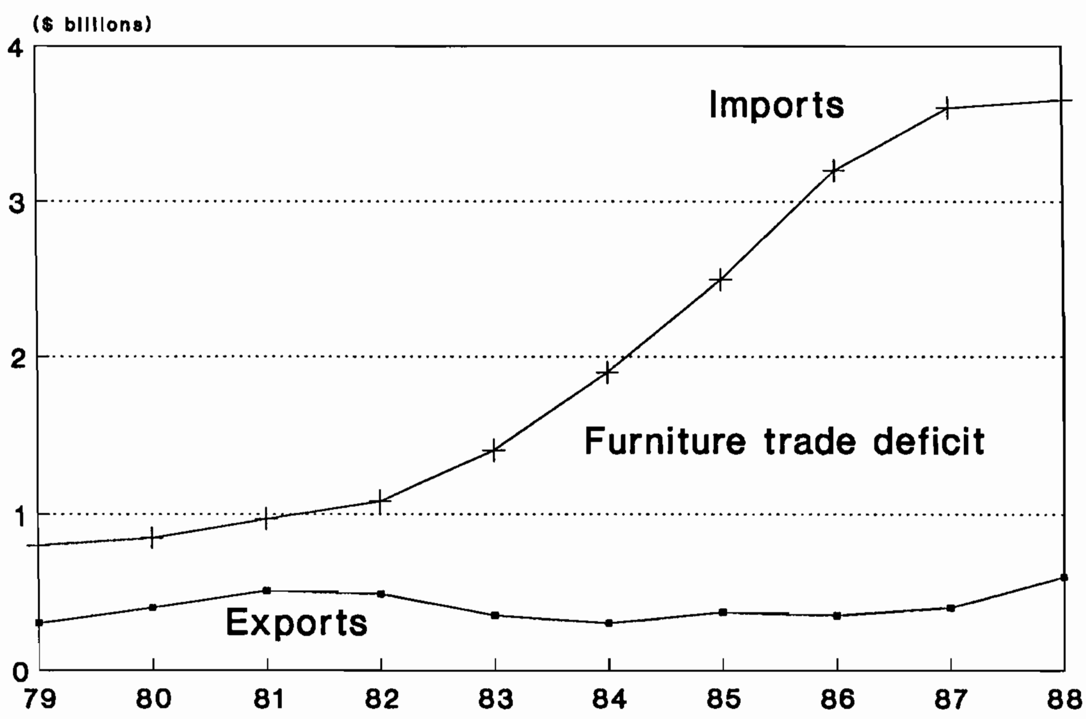


Figure 11. U.S. furniture trade deficit, 1979-1988.

new marketing initiatives by some U.S. firms. In 1988, furniture exports to the Japanese market increased significantly to $47 million, up 85 percent from the previous year (McKee 1989).

The two-year record of export expansion suggests that if the value of the U.S. dollar remains low, American manufacturers can find markets for their products abroad (McKee 1989; Smith, Youn and Schreuder 1989).

Table 9. U.S. Furniture Imports by Principal Source, 1987-1988.

(in millions of dollars)

Source	Value	1988 %	Value	1988 %
Taiwan	$1,062.70	29	$2,278.70	32
Canada	626.40	17	575.80	16
Italy	431.60	12	402.20	11
Mexico	187.20	5	133.50	4
West Germany	162.80	4	184.60	5
Denmark	138.40	4	166.50	5
Yugoslavia	36.80	4	148.80	4
Philippines	14.60	3	89.50	2
South Korea	84.10	2	75.60	2
Thailand	80.50	2	45.40	1
All other	654.30	18	652.10	18
Total	$3,679.40	100	$3,647.60	100

Source : U.S. Department of Commerce, 1987-1988

TAIWAN WOODEN FURNITURE INDUSTRY

Overview

The Taiwanese furniture industry began from family-type handicraft operations with simple traditional tools to produce wooden, bamboo and rattan products (TFMA 1987). In the early of 1970s, the industry expanded very rapidly and gradually started exporting as well. Since the early 1980s, the furniture industry has grown very rapidly in line with the remarkable expansion of exports which have played a very important role in terms of employment opportunities in added-value markets.

In 1988, Taiwan exported $2.4 billion worth of furniture, which made it the second largest exporter in the world (USDA/FAS 1988). This remarkable success reflects a strong comparative advantage in terms of a cheap and efficient workforce, which, in turn, has resulted in overall cost leadership in the global furniture markets (Urban 1987). Additional strategies contributing to Taiwan's success include (Urban 1987)

1) Streamlined factories to upgrade quality and equipment, and

2) development of good marketing channels in the U.S. furniture market.

The Furniture Industry

Industry Structure

In 1986, there were 3,000 licensed factories located throughout Taiwan with 45 percent in the Central area and 25 percent in the South (Anonymous 1988). Among them, half performed integrated production, 40 percent made furniture parts, and 10 percent were sub-contractors (Anonymous 1988).

According to a survey report by the Ministry of Economic Affairs (1985), factories with less than NT $5 million in capital represented 70 percent of the total 764 non-metal furniture factories in 1985. Only 6 factories with more than NT $100 million in capital were founded. Medium and large scale factories are generally located in Taipei, Kaohsiung, Taoyuan and Nantou counties. Small scale factories are mainly located in the central region.

Small scale factories with less than 50 workers represented about 80 percent whereas large scale factories with over the 500 workers represented only 7 percent of the total furniture industry employment in 1985 (Table 11).

Table 10. U.S. Furniture Exports by Principal Markets, 1987-1988.

(in millions of dollars)

	1988		1987	
	Market value ($)	%	Market value ($)	%
Canada	158.10	28	126.30	30
Mexico	59.10	10	38.00	9
Japan	46.60	8	25.20	6
U.K.	37.10	7	24.10	6
Saudi Arabia	32.80	6	25.60	6
West Germany	23.10	4	14.10	3
Bahamas	22.80	4	19.00	5
Hong Kong	14.30	3	7.10	2
France	13.20	2	10.00	2
Australia	12.60	2	7.20	2
All other	143.80	26	119.70	29
Total	$563.60	100	416.30	100

Source: U.S. Department of Commerce, 1987-1988.

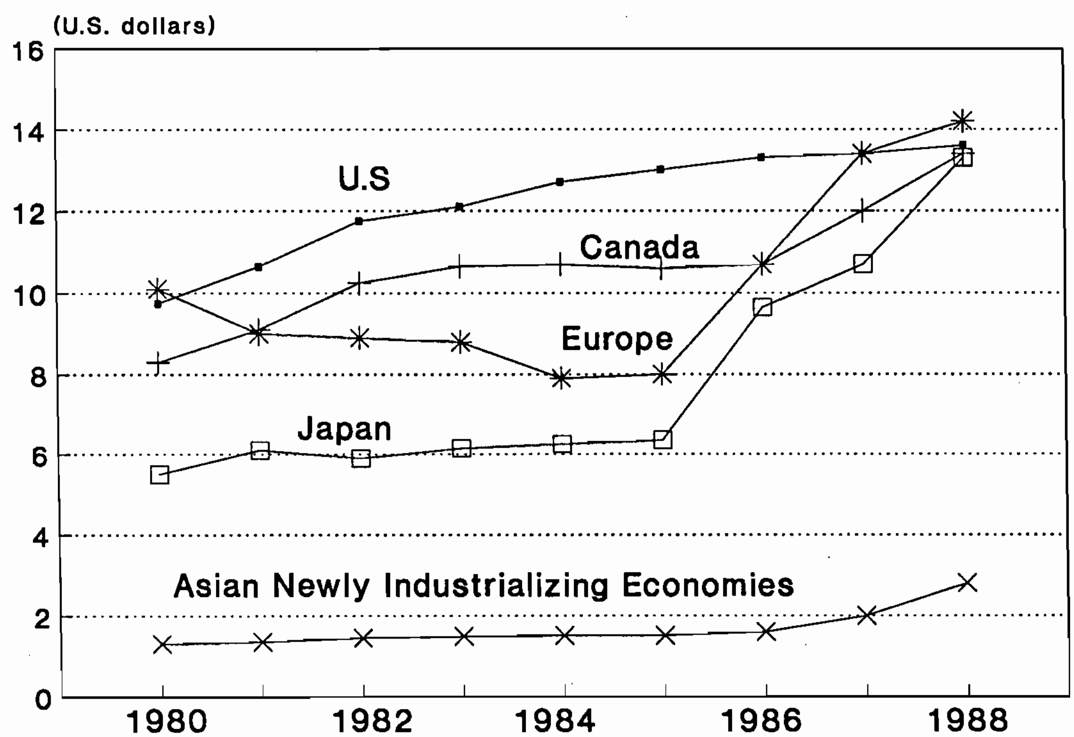


Figure 12. Hourly compensation costs for production workers in manufacturing, 1980-1988.

Table 11. Capital and Worker Scale of Taiwan Furniture Industry.

	Capital Scale (NT $10,000)							Worker Scale				
	over 30,000	30,000- 20,000	20,000- 10,000	10,000- 5,000	5,000- 1,000	1,000- 500	under 500	over 1,000	1,000- 500	500- 100	100- 50	under 50
Taipei City					4	3	3				1	9
Kaohsiung City	1			4	8	1	4	2	1	4	3	8
Taipei County					18	13	34			5	6	54
Taoyuan County			3	1	13	11	32		3	55	8	44
Hsinchu City					2	6	25			1	4	28
Taichung City				1	9	10	50			3	13	54
Taichung County	1			2	11	15	160			10	13	166
Nantou County	1				13	7	16			8	6	23
Changhua County				1	4	2	48			3	3	49
Chiaya County					5	3	24			2	5	25
Tainan County					5	7	26			5	2	31
Kaohsiung County				1	18	4	14		1	7	8	21
Other				1	16	10	93			8	16	106
Total	3		3	11	126	92	529	2	5	61	78	618

Source: Ministry of Economic Affairs, 1985.

Production

Figure 13 shows the furniture production trend of Taiwan from 1976 to 1987 (Ministry of Economic Affairs 1988). Wooden furniture production shows a dramatic increase whereas rattan and bamboo furniture production shows a very slow upward trend. Since 1985 the rapid expansion of wooden furniture production has been tied to increasing wooden furniture exports.

Table 12 presents the cost structure for Taiwan furniture manufacturing. The future of the furniture industry is closely related to a stable supply of raw materials because raw material costs consist of approximately 60 percent of the total (Tsou 1988).

Imports of Raw Materials

The raw materials for furniture manufacturing are logs, lumber, composite board (particleboard, MDF, hardboard, etc.), rattan, paints, glue and hardware. The furniture industry in 1987 used 6 million cubic meters of timber and 200 thousand tons of composite board (Tsou 1988).

Most raw materials for furniture must be imported from other countries due to lack of domestic raw materials (Tsou 1988; USDA/FAS 1988; Anonymous 1988). In recent years, imports of raw materials have become one of the big problems for the continuing development of the Taiwanese furniture industry, as the major log exporting countries of Southeast Asia have limited their exports for their self-development (Tsou 1988).

Imported raw materials represented about 88 percent of the total timber and composite board consumption Of that total, 60 percent of the particleboard and 100 percent of the fiberboard consumption is imported from other countries (Tsou 1988). Imports amounted to $319 million for lumber, $415 million for logs, and $50 million for rattan (Tsou 1988). The origins of raw materials are as follows (Tsou 1988):

1) North America: log & lumber of softwood or hardwood, particleboard, fiberboard, fancy veneer, hardware fittings, paints, glue, textiles, etc.

2) South America: log & lumber of softwood or hardwood, particleboard, fiberboard, leather, etc.

3) SE Asia: log & lumber of hardwood, rattan, plywood, particleboard, leather, etc.

4) Oceana (Australia, New Zealand, New Guinea): log & lumber of softwood or hardwood, particleboard, fiberboard, raw rattan, leather, etc.

5) Africa: log & lumber of softwood or hardwood, fiberboard, particleboard, leather, etc.

6) Europe: lumber of softwood or hardwood, fancy veneer, paints, glue, hardware fittings, textiles, etc.

7) Japan: lumber & fancy veneer of softwood or hardwood, paints, glue, hardware fittings, etc.

Traditionally, Taiwan has imported most of its wood from Southeast Asia, especially Indonesia and Malaysia. However, since the Indonesian log export ban in 1985, Indonesian exports to Taiwan in 1986 declined to 0.1 percent of the total log imports (USDA/FAS 1988). As a result, log imports from Malaysia (Sarawak region) have been increasing substantially, representing 87 percent of the log imports in 1986 (USDA/FAS 1988). Although Malaysia has not yet banned log exports, it is expected that, in the near future, Malaysia will take similar steps to restrict log exports.

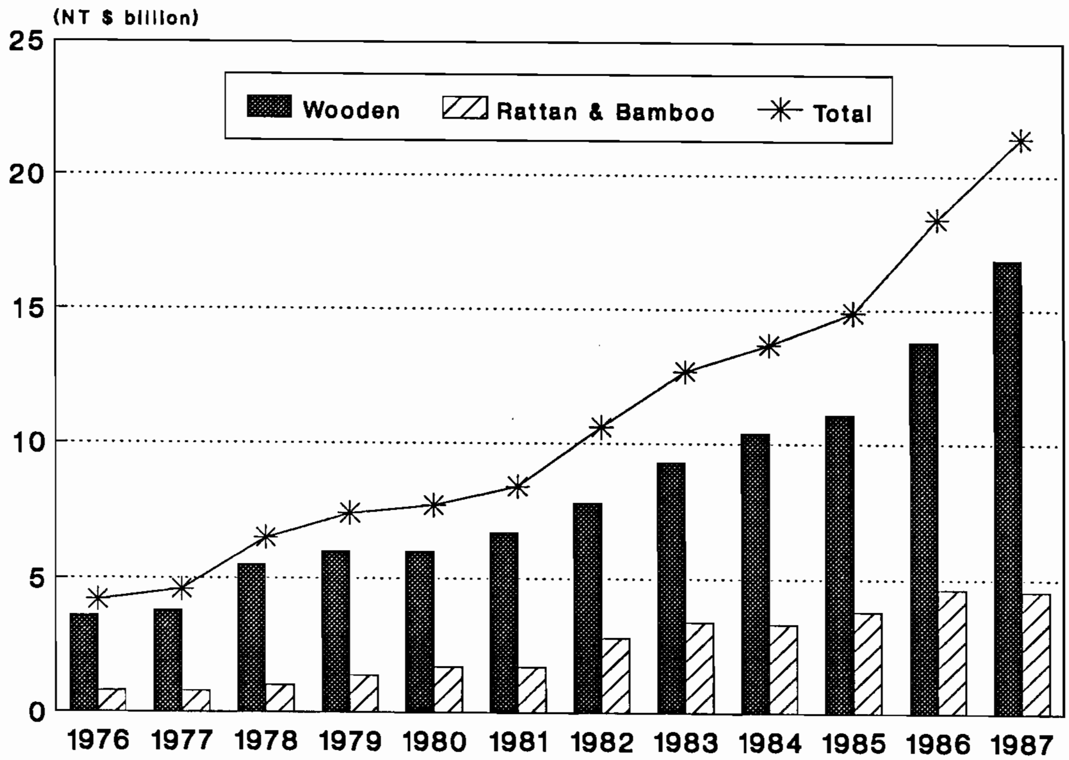


Figure 13. Taiwan wooden furniture production, 1976-1987.

Table 12. Cost Structure of Taiwan Furniture Manufacturing.

1) Direct materials	50-60%
2) Painting	5-12%
3) Personnel expense	15-20%
4) Sales & financial	15%
5) Manufacturing	8%
6) Profit before tax	5-10%

Source: Tsou 1988.

Figure 14 shows the recent import trends of major forest products in Taiwan (Gen 1989). Between 1983 and 1985, hardwood imports declined. This slowdown was the result of the Indonesian log export ban policy. However, hardwood imports have increased since 1986. It seems that American hardwoods have substituted for Southeast Asian hardwoods. The rapid increase of particleboard and wood-based panel imports is considered to relate with the boom of the furniture industry.

In 1987, Taiwan imported about $95 billion worth of hardwood logs, lumber, and veneer from the U.S. (U.S. Dept. of Commerce 1988). The order of importance of imports to Taiwan in 1987 was logs (18.3 percent), lumber (71.5 percent), and veneer (10.2 percent) in terms of value. The most important species imported from the U.S. was oak, which accounted for 83 percent in terms of total hardwood import value in 1987 (Araman 1987). Oak imported into Taiwan is used to manufacture furniture which is re-exported to the U.S. market to satisfy consumer preferences for oak furniture (Smith, Youn and Schreuder 1989; Araman 1987).

Export Trends

In 1988, total furniture exports were $2.4 billion, representing a 5.6 percent decline from 1987 while total furniture exports in 1987 represented a 30 percent increase from 1986 (Figure 15) (Asian Furniture 1989). The furniture export decline in 1988 resulted from an appreciating currency and rising labor costs (Asian Furniture 1989). About 58 percent of the total value of furniture exported in 1987 were shipped to the U.S., 19 percent to Japan and 10 percent to Europe. The current trend of the Taiwanese furniture export market reflects a shift from the U.S. to Japan and Europe (Christianson 1989).

In the U.S. market, Taiwanese furniture manufacturers have concentrated on producing high quality RTA and KD furniture in the low/medium price range (Urban 1987; Oh, Kim, and Park 1986). Most furniture exports to Japan were rattan. Taiwan accounts for about 90 percent of Japanese rattan furniture imports (Anonymous 1988). Due to the increase in demand and higher living standards in Japan, Taiwan is trying to develop high-priced/high quality furniture for this market (Tsou 1988). In addition to Japan, Canada, which shares similar furniture with the U.S., is a country targeted by Taiwan to increase furniture exports (Urban 1987).

In recent years, the Taiwanese furniture industry has been facing changing trends and new challenges. These problems have resulted from the shortage of raw materials, appreciation of Taiwan currency, and rising labor costs (Christianson 1989; Tsou 1988; Anonymous 1988; Urban 1987). Despite these problems, in the near future, Taiwan wooden furniture exports are anticipated to keep their current export level due to its traditional comparative advantage over the competitors (Urban 1987).

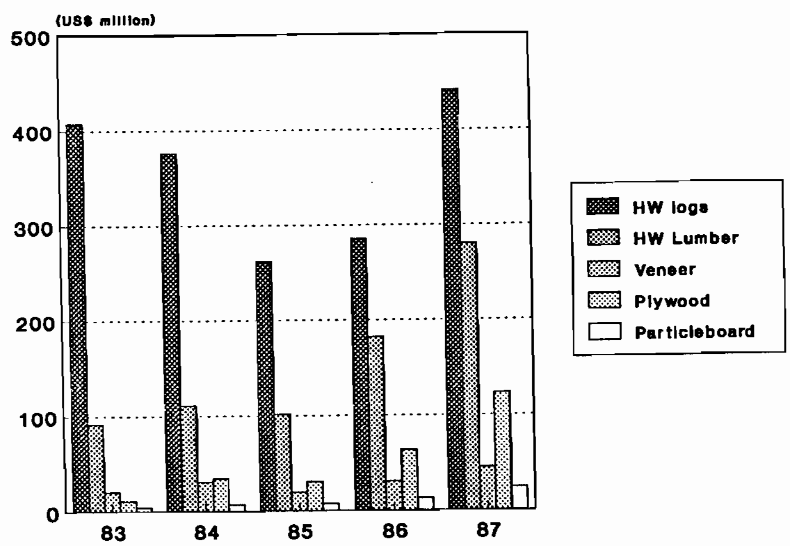


Figure 14. Major forest product imports in Taiwan, 1983-1987.

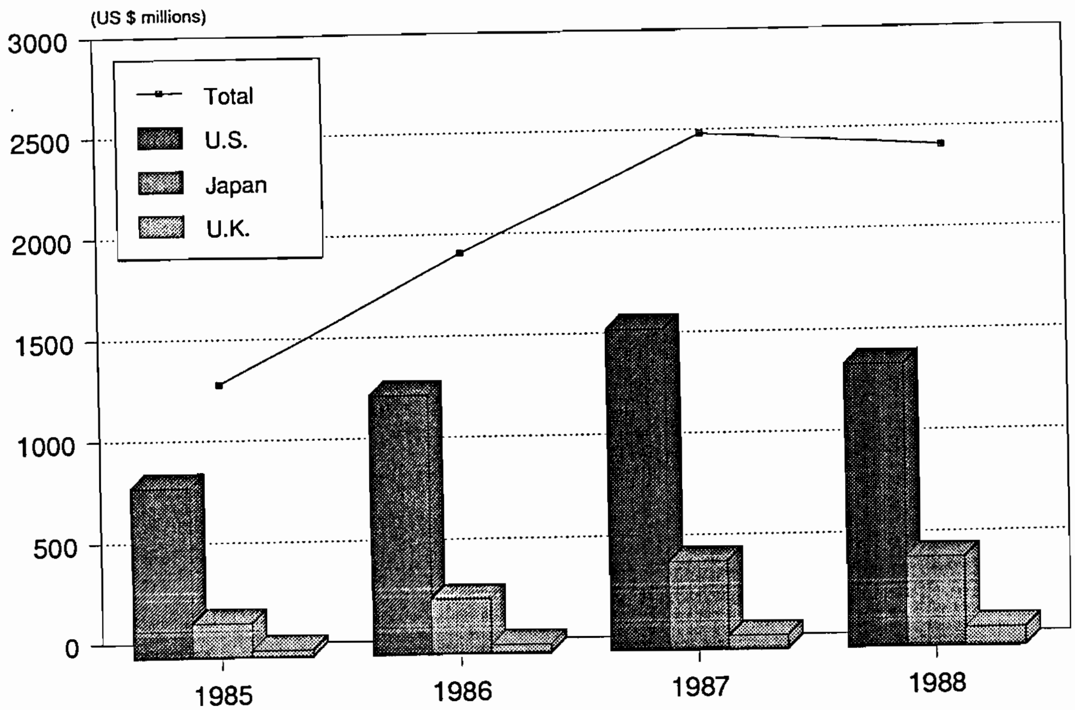


Figure 15. Major furniture export markets for Taiwan, 1980-1987.

KOREAN WOODEN FURNITURE INDUSTRY

Overview

Since the beginning of the 1970s, the Korean furniture industry has been rapidly industrialized with the introduction of modern facilities and the enlargement of the domestic market (KFFIC 1988). The Korean furniture industry, unlike Taiwan, has been developed as a domestic industry, focusing on the domestic market rather than exports (KFFIC 1988; Wee 1988; Oh, Kim, and Park 1987). Korean wooden furniture exports in 1987 accounted for about 16 percent of the total shipments while Taiwanese exports accounted for about 75 percent that year (Ministry of Trade and Industry 1987).

In recent years, the Korean furniture industry has tried to expand export markets through the improvement of products, the development and diversification of new products and opening new markets (KFFIC 1988; The Federation of Korean Industries 1988). Currently, the Korean furniture industry is growing rapidly and, with a more market-oriented industry with government supports, is anticipated to play an important role in Pacific Rim markets in the future (Govett, Blatner and Kim 1987). The Korean export furniture industry is stimulated by the government in several ways (KFFIC 1988; The Federation of Korean Industries 1988):

1) through export-oriented designs, overseas market information and technical assistance and
2) through an import tariff-rebate system for re-export wood products.

The Furniture Industry

Industry Structure

There were approximately 1,050 wooden furniture enterprises in 1985, employing a total of 29,000 people (EPB 1987). The Korean furniture industry consists of very few medium sized enterprise, many small enterprises and a few large enterprise groups (EPB 1987; Oh, Kim and Park 1986). Enterprises with less than 10 employees totaled 918 (93.2 percent) while those with 300 or more employees numbered 12 (1.2 percent) (EPB 1987). In terms of shipments, firms with less than 10 employees recorded 19.9 percent, compared with 57.3 percent recorded by enterprises with 300 or more employees.

Production

According to the Economic Planning Board (1987), wooden furniture shipments in Korea were valued at about 420 billion Wons (estimated U.S. $0.49 billion) in 1985. Since the late 1970s, wooden furniture shipments have increased very rapidly with the expansion of the domestic market.

Of the various product categories of wooden furniture production, chairs have the largest volume (EPB 1987; Jo 1988). Figure 16 shows that make-up stands, dining tables and wardrobes have increased rapidly while chairs have been relatively stable. This situation reflects the change of lifestyles due to a trend toward nuclear families, and a preference for apartments (Jo 1988). In the future, production of dining tables, beds and make-up stands is anticipated to increase with growing domestic demand.

Table 13 illustrates the cost structures of Borneo International Furniture Co. (BIF) and Huyndai Wood Co. in 1987; the two largest companies in the Korean furniture industry. These data show that raw materials accounted for the largest proportion, over 65 percent, while labor represented about 15-22 percent of the total costs. These data are almost identical to the Taiwan cost structure of furniture manufacture which represent 50-60 percent of raw material costs and 15-20 percent of labor costs (Table 12).

Imports of Raw Material

Due to the lack of forest resources and the poor quality of domestic timber species, Korea depends on imports for about 85 percent of their total wood consumption (Jo 1988; Forestry Administration 1987). In 1986, Korea imported approximately 50.9 million cubic meters of wood, of which about 80 percent was in lumber and 11 percent was in log form (Forestry Administration 1987). Before 1980, Indonesia was the major supply country. However, with the log export ban of Indonesia, the principal hardwood supply country has been shifted to Malaysia (Forestry Administration 1987). Like Taiwan, most hardwoods imported into Korea are manufactured and re-exported to overseas markets.

It is difficult to determine how much imported wood is consumed in furniture manufacturing. However, it is estimated that most wood used in furniture manufacturing is imported hardwoods (Jo 1988). According to a survey by the Forestry Research Institute (1982), the Korean furniture industry in 1981 imported about 98.5 percent of the hardwoods consumed in furniture manufacturing (Table 14). Korean domestic hardwoods supplied only 1.5 percent of the total hardwoods used in furniture manufacturing that year (FRI 1982).

Tropical hardwoods from Southeast Asia in 1981 supplied more than one-half of the total solid wood for the Korean furniture industry with lauan as the most popular species (ITC 1982). American oak and walnut have each traditionally accounted for a little more than 5 percent of the total solid wood used by the Korean furniture industry (Govett, Blatner and Kim 1987). American exports of maple, birch, beech, elm, ash, and cherry are consumed in lesser quantities (U.S. Dept. of Commerce 1987; Govett, Blatner and Kim 1987). In recent years, more American hardwoods have been substituted for Southeast Asian hardwoods and it is anticipated that this trend will continue due to the expansion plans of Korean wooden furniture exports to the U.S. (Araman 1987).

In 1987, Korea imported $20.8 billion worth of hardwood logs, lumber, and veneer from U.S. (U.S. Dept. of Commerce 1987) (Table 15). In order of importance, Korean imports in 1987 consisted of logs (49.4 percent), lumber (33.6 percent), and veneer (17 percent). The main species, in terms of imported value, from the U.S. in 1987 were oak (33.5 percent), walnut (29.8 percent), and maple (16.3 percent) (U.S. Dept. of Commerce 1987; Araman 1987). Taiwanese import patterns of U.S. hardwoods are quite different. Whereas Korea preferred more logs and a greater variety of various species, Taiwan's imports were concentrated on lumber (71.6 percent) and oak (85 percent) in 1987.

In recent years, the use of particleboard (PB) and medium density fiberboard (MDF) for furniture manufacturing has increased as a substitute for solid wood (Park 1988). Most PB and MDF used high quality furniture for subsequent export has been imported (Park 1988).

According to industry experts, one of the biggest problems for the continued development of the Korean furniture industry is a stable supply of raw materials (Jo 1988; Park 1988; Oh, Kim and Park 1988).

Table 13. Cost Structure of Korean Wooden Furniture Manufacturing.

	BIF Co.	Hyundai Co.
Raw materials	68%	65%
Labor costs	15%	22%
Expenses	17%	13%

Note: Expenses include energy costs, depreciation costs, consumption costs of suppliers and so on

Source: BIF Co. 1988; Hyundai Wood Co. 1988.

Exports

Traditionally, the Korean furniture industry has focused on the domestic market, however, exports have grown in recent years (Figure 17). Korean wooden furniture exports in 1987 accounted for about 20.7 percent of shipments and increased significantly to 87 million Wons, up 65 percent over the previous year (Ministry of Trade and Commerce 1987). A breakdown by region of export destination in 1987 shows that the U.S. accounted for over 50 percent of the total exports, followed by Japan (30.3 percent), Hong Kong (11 percent), France and U.K. (each with less than 1 percent) (Figure 18).

The EEC market remains relatively untapped by Korean furniture as reflected by Europe's distance from Korea and Korea's lack of market data in terms of style and design preference (Oh, Kim and Park 1987). In the near future, exports to the Japanese market are expected to increase due to the strong Yen, the similar cultural background shared by Japan and Korea and the geographic proximity of the two countries (Oh, Kim and Park 1987).

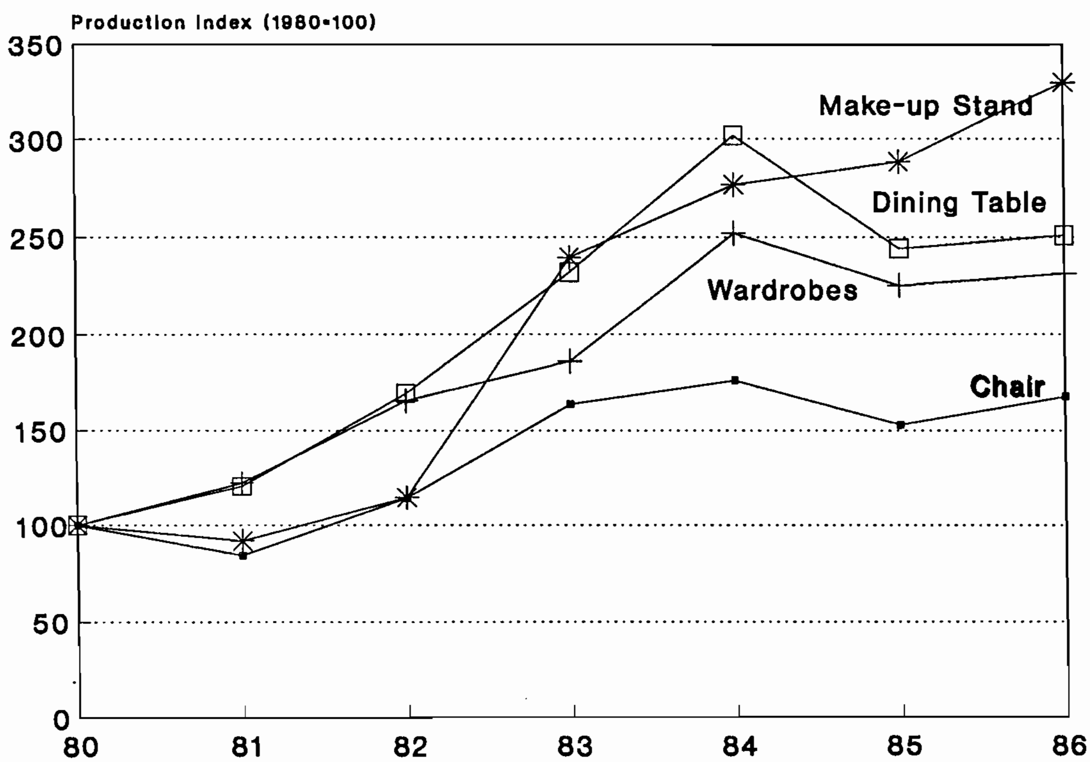


Figure 16. Korean furniture production trend by major item, 1980-1986.

Table 14. Species Consumed in Furniture Manufacturing in 1981.

Species	Composition ratio (%)
Laun	42.4
Sepetira	9.9
Hemlock	5.7
Walnut	5.4
Oak	5.4
Other imports	29.7
Korean domestic hardwoods	1.5

Source: Forestry Research Institute, Report of Research, 1982.

Taiwanese and Korean furniture industries differ in terms of their export strategies. Taiwan is often considered to have a "no brandname" strategy while the Korean strategy is a mass production with Korean brandnames. The Korean brandname "BIF" (Borneo International Furniture), which is known for its high-style Italian designed furniture, is famous in Asia and is becoming increasingly popular in the U.S (Wee 1988). According to the Wall Street Journal (1989), BIF has the greatest potential to be recognized by consumers as the Toyota or Honda of the furniture business and, furthermore, BIF was selected as one of 66 companies that will lead the world in the next decade. (Wall Street Journal 1989). On the other hand, most Taiwan companies (except Universal) tend to export more subcomponents and specified products (Tsou 1988; Urban 1987). This will be an interesting strategic issue for other developing countries.

ISSUES IN THE PACIFIC RIM WOODEN FURNITURE TRADE

The Changing Market

The world furniture market has become very complex and sophisticated. As a result, the U.S. marketplace of the 1990's will pose even harder tests for furniture manufacturers at home and abroad (James 1989c).

Most furniture analysts expect that the period between the 1980s to mid-1990s will be a golden age for furniture manufacturers with the growing demand of the U.S. baby-boomers. In the U.S., homogeneous buying tastes have been splintered into many different consumer groups by significant economic and social changes (Business

Table 15. U.S. Hardwood Logs, Lumber, Veneer Exports to South Korea in 1987.

	Logs		Lumber		Veneer	
Species	Quantity (MBF)	Value (M$)	Quantity (MBF)	Value (M$)	Quantity (MBF)	Value (M$)
Birch	42	14	in "Maple"	--	--	--
Maple	5,006	2,195	2,752	1,095	(103)	103
Red oak	976	577	2,644	1,838	10,869	676
White oak	1,853	1,847	1,026	805	8,673	1,216
Ash/Hickory	in "Other"	--	233	134	in "Other"	--
Walnut	1,615	3,739	1,908	1,118	7,384	1,321
Other	3,485	1,886	2,933	1,994	1,670	205
Total	12,997	10,258	11,496	6,984	28,699	3,521

Source: U.S. Department of Commerce, 1987.

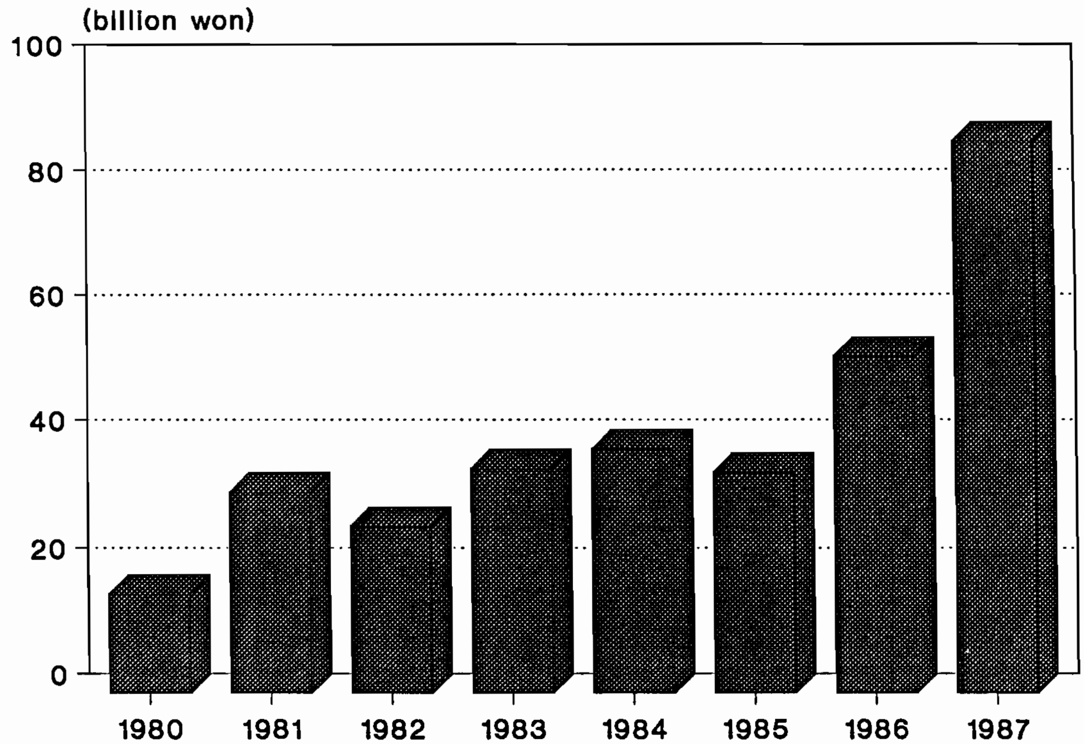


Figure 17. Export trend of Korean wooden furniture, 19809-1987.

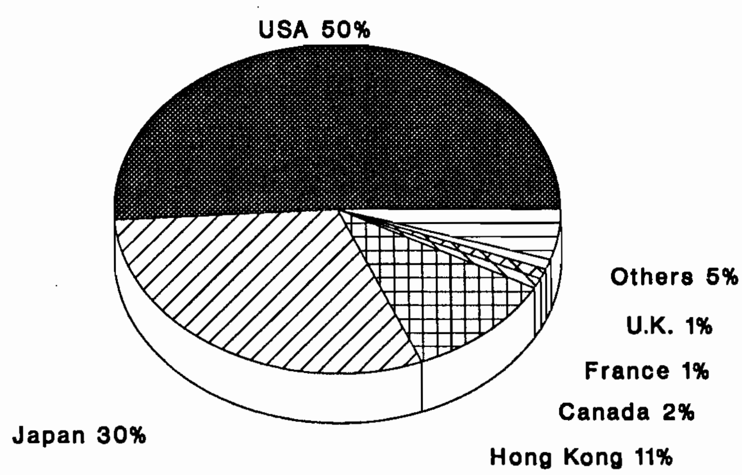


Figure 18. Major export markets for Korean furniture in 1987.

Week 1983). These consumer groups, each with special tastes and needs, are driving the furniture market and industry according to members of the Wood Machinery Manufacturers of America (Anonymous 1989). There is no question that understanding of the new consumer environment will be essential to furniture manufacturers.

Consumers have shown an increased interest in RTA furniture, indicating that RTA furniture is gradually replacing the existing types and points to opportunities for expansion of products at the RTA levels (Sturcson and Sinclair 1988). RTA furniture has been annually expanding at 20 to 25 percent in recent years (Perry 1988; Kleeman 1986). Furthermore, some furniture analysts expect that home office furniture will be the fastest growing furniture segment in the U.S. market as millions of Americans shift their work place from office to home (Kuhl and Arkush 1989; Perry 1988). According to Sauder, sales and marketing manager to Sauder Woodworking Co, Ohio, one of the strongest segments of the home office furniture is computer furniture (Kuhl and Arkush 1989). In addition, the RTA furniture industry is expected to diversify home office furniture (Kuhl and Arkush 1989).

The Japanese furniture market, the second largest market in the world in terms of per capita GNP (U.S. $15,770 in 1987), should increase furniture imports due to the continuing strong yen and the rapid internationalization of the furniture industry. However, in the Japanese furniture market, one of the reasons for the low penetration of imported furniture is the lack of market information on the part of export countries (Sugimoto 1988).

In 1992, the EEC will be the world's single largest market in terms of population through the elimination of all nontariff trade barriers for the European community's 12 member states (Milmo 1988). It will be a big challenge to prepare for the increased opportunities of the single EEC market in the international furniture trade. In order to achieve successful growth in global markets, furniture manufacturers or exporters need to pay attention to the changing market environment.

Exchange Rates and Labor Costs

In recent years, the appreciation of their currencies against the U.S. dollar and labor costs have been two major concerns of Taiwanese and Korean furniture manufacturers (Christianson 1989; Tsou 1988; Koening 1987).

The Taiwanese dollar has appreciated 44 percent against the U.S. dollar since the end of 1985. During the same time, the Korean won has gained 32 percent against U.S. currency (Business International 1989a; 1989b). This appreciation of currency means decreased export profits and increased cost pressures on furniture importers.

In addition to currency appreciation, the wooden furniture industry, like other manufacturing industries, faces rising operation costs due to sharply increasing labor costs. Labor costs in Korea have risen 15 percent to 29 percent a year over the past two years, and only a bit less in Taiwan (Business International 1989a; 1989b).

Trade Barriers

Historically, tariffs have been the most commonly used type of trade restriction. For instance, the Canadian furniture industry with a trade-weighted average 15 percent *ad valorem* import tariffs on furniture, has enjoyed protection against the U.S. which has only a trade-weighted duty 3-5 percent import tariffs (James 1989b).

Currently, the prime issue for the U.S. furniture manufactures is the U.S.-Canada Free Trade Agreement (James 1989b). Under this agreement, tariffs on furniture will be annually reduced by 20 percent beginning in 1989 until they are eliminated in 1994 (Urban 1987). Furniture manufacturers on both sides of the border are developing strategies for meeting the challenge posed by the free trade agreement (James 1989d). Industry experts forecasted that U.S. exports to Canada will increase from $158.1 million in 1988 to $1 billion in 1993 (James 1989b).

The Japanese import tariff rates on wooden furniture are only 3-5 percent. However, Japanese consumers must pay an additional 20 percent commodity tax when they purchase furniture (IDAFIJ 1987).

Raw Materials

Taiwan and Korea are facing a raw material supply problem because major supplying countries such as Indonesia have restricted exports (Tsou 1988; Oh, Kim and Park 1987). Due to this current uncertainty, Taiwan is seeking other stable supply sources in South/North America, Africa, Japan, and in the Asian-Pacific area (Tsou

1988). Also, Taiwan forestry agencies and many other research institutes are trying to introduce exotic tree and rattan species (Tsou 1988). The Taiwanese industry sectors have appealed to their government for subsidies such as low interest loans, to enable them to purchase necessary resources, including standing forests in the U.S. (Tsou 1988).

In Korea, overseas forest development programs are being considered in order to get a stable log supply. For example, Huyndai Wood Co. entered into Papua New Guinea and the Solomon Islands to develop timber harvest areas (Oh, Kim and Park 1986).

In general, U.S. hardwood exports are anticipated to increase, especially high quality hardwood lumber for the expansion of Taiwanese and Korean wooden furniture industries (Araman 1987; Govett, Blatner and Kim 1987).

Comparative Advantages

The globalization of the world economy requires that the U.S. and all its trading partners recognize increasing the competition in furniture trade. Factors determining comparative advantage have been changing. In effect, the "principle of comparative advantage" formulated about 200 years ago by economist David Ricardo, is no longer valid in international furniture trade. According to this principle, the country's advantage is restricted by its natural resource endowment (Yarbrough 1988). Today, however, countries are no longer limited by the natural constraints of Ricardo's time. Although Taiwan has poor raw material resources, they have shown impressive development in international furniture trade. Conversely, the U.S. comparative advantages such as a superior product, cheap labor, abundant raw materials, and a unique knowledge of the U.S. market, have been slipping over the past decade (U.S. Dept. of Commerce 1985). Taiwan and other developing countries of the Pacific Rim accounted for a growing proportion of the international furniture trade. In 1988, the U.S. imported 36 percent of total wooden furniture consumption from three developing countries of the Pacific Rim; Taiwan, Korea, and Thailand (U.S. Dept. of Commerce 1989).

Taiwan's furniture giant, Universal Furniture LTD, has upgraded its image from a low price to a medium and upper-medium priced product (Urban 1987). Universal now has showrooms in Dallas, Texas, Atlanta, Georgia and High Point, North Carolina (Urban 1987). In 1988, Universal became the fourth largest furniture manufacturer in the U.S. and has been cited as the leading source of imported furniture into the U.S. (Urban 1987).

Key factors in international furniture trade in the future are technology, the creativity to produce high quality and the ability to market the product effectively. To succeed in the decade ahead, each country must build new competitive strategies based on the strength of its resource base, technology and marketing.

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