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Timber Organization



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A review

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Review of wooden furniture markets in United States, Canada, China, Japan, Egypt, and selected countries in the European Union: France, Germany, Belgium, the Netherlands, Luxembourg, Spain, Italy, Denmark, and Sweden – for each country, provides overview of basic demand factors and market drivers, domestic furniture industry, market trends and developments, distribution channels, and market access conditions; deals with technical standards, as well as, international and national certification schemes in the furniture sector; identifies furniture networks and clusters; outlines strategy for developing wooden furniture sector in tropical countries; outlines step-by step value-added processing of wooden furniture in tropical countries, based on local conditions; includes statistical data, selection of German furniture standards, list of useful contacts in China, and list of members of the Global Forest and Trade Network.

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Foreword

Wooden furniture industries make a substantial contribution to development in tropical countries, producing important economic benefits and playing a significant role in promoting economic growth. As wood-processing industries such as the wooden furniture sector develop, they create employment (which in turn expands the tax base in the country), generate a trained workforce, and contribute to the development of physical and institutional infrastructure. These industries also contribute to foreign exchange earnings and stimulate investment in a range of secondary support industries.

With the publication of the joint ITTO–ITC report *Wooden Household Furniture: A study of major markets* in 1990, ITTO producer members fully recognized the potential of the wooden furniture sector in the context of sustainable development. However, given weaknesses in human resources and the absence of efficient processing technologies and marketing capacity in many tropical countries, it is not surprising that the current development of the wooden furniture sector remains less than optimal in many tropical countries.

The opportunities and challenges for the further processing of tropical timber were analysed in another joint ITTO–ITC report, *Tropical Timber Products: Development of further processing in ITTO producer countries*, which was published in 2002. The recommendations of that report included the production of a series of market research reports on wooden furniture in the main consumer markets of the United States, the European Union, Japan and elsewhere in order to promote the development of further processing timber sectors in tropical countries. The report also found a need to identify furniture networks and clusters for the creation of wider knowledge among the players involved and of the inter-linkages and synergies within the sector.

In order to update information on wooden furniture markets, ITTO commissioned ITC to conduct a further study in 2002. This report presents the results of that study. It provides a wealth of information including on the world's eight leading furniture markets: United States, Japan, Germany, United Kingdom, France, Canada, China, and Belgium, the Netherlands and Luxembourg, and the major furniture markets of Spain, Italy, Denmark, Sweden and Egypt.

This report also outlines a strategy for developing the wooden furniture sector in tropical countries. It predicts that the overall balance of furniture-making will move in favour of the southern hemisphere, where a green 'wall of wood' is maturing in the plantations of the tropics, while natural forests will continue to provide unique raw materials for the world's furniture industry. In order to make full use of the opportunity created by the coming availability of the plantation resources and the high-value niche markets for natural hardwoods, the report suggests that developing countries need to overcome several hurdles. These include changing economics of logistics, low productivity and efficiency, inadequate quality control and management systems, and the often low level of skills.

The value-added processing of wooden furniture in tropical countries will be developed step by step based on local conditions. Manufacturers should move from standardized, simple products towards originally designed products with higher value, and ultimately to branded products. It is hoped that this process can be accelerated through concerted local efforts and international partnerships.

We hope this report will assist tropical countries in fully realizing the potential that the wooden furniture industries offer for sustainable development.



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Note

Unless otherwise specified, all references to dollars (\$) are to United States dollars, and all references to tons are to metric tons. The term 'billion' denotes 1 thousand million.

The following abbreviations and acronyms are used:

AFMA	American Furniture Manufacturers Association
AIDIMA	Instituto tecnológico del mueble, madera, embalaje y afines
ANSI	American National Standards Institute
ASEAN	Association of Southeast Asian Nations
ASTM	American Society for Testing and Materials
BIFMA	Business and Institutional Furniture Manufacturer's Association
B2B	Business-to-business
B2C	Business-to-consumer
CAD	Computer-aided design
CBI	Centre for the Promotion of Imports from developing countries (Netherlands)
CEN	European Committee for Standardization
CEO	Chief Executive Officer
CIF	Cost, insurance and freight
CNC	Computer numeric control
CoC	Chain of custody
Confemadera	Confederación Española de Empresarios de la Madera
DMEC	Developing market economies and China
DIY	Do-it-yourself
EMAS	Environmental Management and Audit Scheme
EN	European Norm
EU	European Union
FSC	Forest Stewardship Council
GDP	Gross domestic product
GSP	Generalized System of Preferences
IDAFI	International Development Association of the Furniture Industry of Japan
ISO	International Organization for Standardization
IT	Information technology
ITC	International Trade Centre UNCTAD/WTO
ITTO	International Tropical Timber Organization
JETRO	Japanese External Trade Organization
JIS	Japanese Industrial Standards
LVL	Laminated veneer lumber
MDF	Medium-density fibreboard
METI	Ministry of Economy, Trade and Industry

NGO	Non-governmental organization
OBM	Original brand manufacturing
ODM	Original design manufacturing
OECD	Organisation for Economic Co-operation and Development
OEM	Original equipment manufacturing
PC	Personal computer
PEFC	Pan-European Forest Certification
PVC	Polyvinyl chloride
R&D	Research and development
RMB	Renminbi
RTA	Ready-to-assemble
RTD	Community Research and Technological Development
SARS	Severe acute respiratory syndrome
SESSI	Service des études et des statistiques industrielles (France)
SOHO	Small office/home office (furniture)
SME(s)	Small and medium-sized enterprise(s)
UEA	Union européenne de l'ameublement
UNCTAD	United Nations Conference on Trade and Development
UNSD	United Nations Statistical Division
VAT	Valued-added tax
WTO	World Trade Organization
XML	Extensible mark-up language

Other abbreviations:

kg	Kilogram
m	Metre
mm	Millimetre
n.a.	Not available
n.e.s.	Not elsewhere specified
sq. ft	Square foot

Executive summary

The world's furniture markets: status, trends and future prospects

Main consumers and producers

The estimated apparent consumption of all furniture (at trade prices) in the United States of America reached \$64.1 billion in 2001. About a third of that (\$23 billion) consisted of domestic factory shipments. The American market for wooden furniture was valued at \$22 billion.

The European Union (EU) was responsible for half of the world furniture output (\$73.6 billion) and consumption (\$74.5 billion). It encompasses some of the largest consumer markets (Germany, the United Kingdom, France) and the world's leading exporters (Italy, Germany).

Germany remains the leading EU consumer (at \$28.7 billion), producer and organized distribution power. However, imports and consumption have recently been negatively affected by an economic slowdown.

Italy's retail furniture market is estimated at \$10.1 billion. However, the country's furniture industry has an output valued at \$17.6 billion, making Italy a large net exporter.

Japan's apparent consumption of wooden furniture is estimated at between \$13 billion and \$14 billion. As the domestic output appears to be shrinking further, imports will play a more prominent role in consumption, helped by the infusion of 'foreign' styles into Japanese homes.

China is a major emerging player in the world furniture industry. Furniture is now one of the country's fastest growing export sectors. Production of furniture of all types and materials is estimated at \$14.5 billion which, with net exports of \$3.8 billion, suggests that apparent consumption is around \$10.7 billion. Imports remain negligible.

World trade

International trade in wooden household furniture has largely been liberalized, thereby increasing the import component of consumption. This has created more export opportunities for developing countries.

World trade in wooden household furniture and parts amounted to about \$32.1 billion in 2001, up from \$26.0 billion in 1997 (imports at current values). The trade had peaked in 2000 at \$33.0 billion, but then deteriorated as the major economies slowed down. Imports grew at an average rate of 5.4% between 1997 and 2001, faster than consumption in the major markets.

The trade in furniture parts of all materials amounted to \$4.5 billion in 2001. The trade in wooden household furniture was valued at \$27.5 billion in the same year.

Major importers

The member countries of the Organisation for Economic Co-operation and Development (OECD) accounted for 90% (\$25.5 billion) of the world's imports in a recent year. Around \$9.6 billion of the OECD imports originated from developing market economies and China (DMEC). This group of countries provided 38% of OECD imports.

World trade is fairly concentrated as eight countries each import more than \$1 billion worth of wooden furniture and parts (and Canada's imports fall just below that figure). The top eight importers accounted for \$24 billion or 75% of the world total in 2001.

The United States was by far the biggest market, with imports just below \$10.7 billion in 2001. The other major markets were Germany (\$3.3 billion), France (\$2.6 billion), the United Kingdom (\$2.3 billion) and Japan (\$1.9 billion). As far as trends go, Germany was exceptional, as it was the only market to have registered a consistent decline since 1998. Imports into all other major markets – France and the United Kingdom in particular – rose between 1997 and 2001.

In all major markets, furniture imports from the DMEC group have grown faster than overall imports. The influx of products from China is the single most important reason for this development. Deliveries from Southeast Asia have also been on a steady rise, as have imports from Mexico and Brazil.

Product trends

The biggest product group in global imports was 'other' wooden furniture (35% of the total), comprising living/dining room furniture, small/occasional furniture, shop furniture and other miscellaneous items. The average annual growth rate was 5.9% in 1997–2001.

Seats with wooden frames were the second largest imports (22%), with a yearly growth rate of 5.4%. Furniture parts of all materials (14%) and wooden bedroom furniture (13%) obtained the next largest shares. The trade in bedroom furniture expanded at the fastest pace (8.3% yearly). The rate for furniture parts was 4.7%.

Wooden office and kitchen furniture each held a 6% share in world imports. Low growth rates (3%–4% annually) were observed in these product groups.

The remaining 4% of trade was split between seats of cane, osier, bamboo, etc. (1%) and furniture of other materials like bamboo (3%). The seating sector performed negatively as imports declined 1.9% a year on average.

Consumer requirements

In mature markets, the growth of the furniture trade relies on shortening replacement cycles by stimulating consumers to buy new furniture before their existing furniture is worn out. The media, and television in particular, are playing a strong role as stimulator. TV specials are used, particularly in Europe, to prepare the market for new products by raising interest in home interior design and prompting more consumers to buy new furniture purely for design or fashion reasons. This has also increased demand for a wider variety of products than in the past.

Furniture purchases compete with other discretionary consumer spending and can easily be deferred as they are often not essential. As a result, the performance of the household furniture market is dependent on the general economy as a whole, the level of house building, household formation, and moving/renovation activity. Moving to a new house often triggers the purchase of replacement furniture, even from consumers who are not first-time buyers. Consumers setting up a home for the first time will usually purchase a wider range of household furniture than will movers.

The number of single-person households has increased rapidly in the major European markets. This is partly due to longevity, the decline in the number and postponing of marriages, and the rise in separation and divorce rates. Single-person homes are smaller than family homes, and may not have separate rooms for dining and other purposes. They therefore have different furniture needs, requiring multifunctional and space-efficient furniture.

The 'think cubic' promotional view of one major retailer for 2002–2003 is a case in point. Demand has risen for multifunctional and space-efficient furniture, while the market is declining for traditional three-piece suites and large dining tables. Another driving force has been demand created by new needs. For instance, demand for home office furniture for information technology (IT) applications has been rising with the increase in international and distance working.

Market and product opportunities

United States

In volume terms, the most important market for wooden household furniture is the United States, which has become more accessible for imported products. The opportunities are often described as 'endless' but, unless a supplier has the required design, manufacturing and finishing infrastructure, together with easy container shipping access and swift feeder transport, its chances for obtaining a strong market presence remain slim.

Countries once famous for exports (the newly industrialized Asian economies) are now experiencing a sinking market share. In contrast, China is rising as an exporter and is attracting strong investment activity from American companies. Growing outsourcing of semi-finished products and components by the United States furniture industry has been a key driver for this emerging trade.

United States imports have been growing fastest in wooden bedroom furniture. Imports of 'other' furniture (living/dining room, small/occasional, shop furniture), parts and components, and kitchen furniture (cabinets) have also recorded strong gains.

Demand is rising for occasional furniture (small tables, wall stands and accent pieces, etc.) offering new and unique looks. The market is dominated by imports, as this type of furniture is easy to ship in volume and can be made rapidly available in new designs.

The wider application of information technology and home/distance working calls for larger entertainment storage units and 'concealed' home office furniture as well as desks and shelving systems.

Europe

In Europe, the best product opportunities have been identified in the following types of furniture: ethnic-design furniture for bedrooms and living rooms and small accent items; various ready-to-assemble (RTA) products; home office furniture; small/occasional pieces; and specialized furniture for children and the elderly. Multifunctional, space-saving and flat-pack furniture are all likely to achieve a higher than average growth rate across the furniture ranges.

The home office sector is growing, spurred by changing working styles and the rise in home computer ownership. Wood is winning ground because 'concealed' personal computer (PC) storage is being tailored to match other household furniture. For example, in the United Kingdom the living room sector is performing well as the new home entertainment technology requires well-designed, good quality wooden storage solutions as a replacement for low-cost metal and plastic stands.

Furniture outsourcing activity has started to focus on Eastern Europe as an alternative for local networks. This has been one reason for lower import penetration from Asia and Latin America in comparison with the United States.

Japan

The continuing diversification of demand and imports has placed part of the Japanese furniture market well beyond the capabilities of the local industry. Import penetration is likely to grow, with the consumers becoming more discerning about quality rather than simply using price as the main criterion. Many Japanese consumers are now ready to accept pricing that is justified by quality.

Demand has become diversified and consumers seek products suiting individual lifestyles, as well as colour and design preferences.

Japanese homes have remained small, calling for small-sized furniture, corner furniture, legged furniture, and hanging storage like closets and dressers. On the other hand, the traditional simplicity found in the Japanese kitchen/dining area has given way to more diverse kitchenware and tableware. This is creating demand for larger tables and cupboards.

Networking for product and market development

Clustering and networking

The market outlook indicates that fashions in wooden household furniture will remain volatile: what is 'in' this year may vanish in the next. The basic problem is that while investments should be planned long-term, furniture markets and fashions move on a faster lane. New collections will have to be created in shorter intervals in order to keep pace with market opportunities. This essentially calls for flexibility of production, which can best be achieved through networking.

The world's wooden furniture manufacturing industry can demonstrate many types of successful networks and clusters. Most of the eminent exporters (such as Italy, Germany, Denmark, Brazil and Malaysia) have undergone an evolution of their own in organizing a competitive national furniture manufacturing base.

Approaches and practical industrial development patterns are varied and the simple copying of structures that have succeeded in other places will not be enough. This is why some industry restructuring and relocation into furniture zones and ‘imposed clusters’ have not borne fruit. Organic growth and subtle political support mechanisms appear to have enabled some of the leading clusters to become sustainable and truly beneficial for the industry as a whole.

A critical mass of operators in the furniture industry and among its suppliers is, however, required to achieve a locally sustainable production base. If the design and marketing elements are not part of the cluster, producers continue to risk losing their business when new lower-cost supply sources emerge.

Changing industrial concepts

In the face of the catch-all attitude and empowering scale of the Chinese furniture industry, the way forward for emerging tropical exporters will be to move away from the strategy of original equipment manufacturing (OEM) towards original design manufacturing (ODM) and ultimately to original brand manufacturing (OBM).

The development path can take the following steps:

- ❑ Low-cost furniture and components are typical OEM outputs, produced by high-speed automated and other high-technology machines with limited product design requirements. In these segments, production costs need to be pushed to the minimum (and maintained) in order to stay competitive.
- ❑ When this stage ends in the face of lower-cost competition from elsewhere, it will be necessary to design original products to move up the value chain. The copying of designs from competitors or from catalogues will no longer confer a lasting competitive edge. A shift to original design manufacturing will be warranted. ODM is currently taking hold in the furniture industries of the leading tropical exporting countries, such as Malaysia and Thailand.
- ❑ The final and third level of sophistication, original brand manufacturing, has remained an elusive target for most tropical countries. The marketing of branded furniture is, however, of growing importance in international markets, and foremost in the highest-value segments. Not surprisingly, these segments have continued to be the domain of domestic manufacturers in Europe and North America, where branding is part of the business philosophy and value creation.

Unless the above steps are taken, the risk of a race to the bottom will soon become obvious. Already today, several major tropical furniture exporters have embarked on efforts to escape falling returns in the low-cost segment, which seems doomed to be consigned to economies-of-scale competition. In such conditions, no matter how export volumes and market shares expand, the unit rate of return – and profitability along with it – diminishes. This phenomenon has been called by many furniture analysts the ‘immiserizing growth pattern’.

Strategic options for developing country suppliers

Development trends

In industrialized countries, the furniture industry has long been a successful manufacturing sector. This has occurred despite its being basically a labour-intensive business, with a low entry barrier and where fully automated processes or larger economies-of-scale benefits have often been difficult to

establish. In these countries, most furniture companies can still be classified as small and medium-sized enterprises (SMEs). The most competitive are usually linked within a broader production system through networks or specialized furniture production zones. This allows them to benefit from external economies; increased collective scale; efficiency in production and the procurement of raw materials, components and other supplies; and access to new technology and design.

Since the late 1980s and throughout the 1990s, the wooden furniture sector has been entering an era of globally competitive industries. Leading tropical producing countries – notably from Asia – have been able to move up the value chain and challenge domestic furniture makers in the key import markets, i.e. the United States, Europe and Japan. The globalized retail business and the outsourcing of the production of furniture (and parts thereof) have played an important role in strengthening the tropical countries' position in trade. The common driver behind both has been efficiency in supply chain management.

Competition has forced the industrialized countries to transform their manufacturing industries by extending their supply chains to cost-competitive regions like Asia and Latin America.

Increasing trade in wooden furniture creates new trade flows for primary processed products from the industrialized countries and tropical timber producers to developing countries that can sustain a potent, cost-efficient secondary processing industry with an export orientation, in spite of limited wood raw material supplies (e.g. Thailand, the Philippines, China). The contribution of wooden furniture to the forestry sectors of tropical countries will continue to grow rapidly in the coming years, with corresponding reductions in exports of primary tropical timber products.

The overall balance of furniture making is likely to move in favour of the southern hemisphere, where a green 'wall of wood' is maturing in the plantations of Asia, Latin America and Oceania. Natural forests will continue to provide unique raw materials for the world's furniture industry.

In order to capture the benefits of this opportunity, developing countries should overcome existing hurdles. These include the changing economics of logistics (vulnerability to transport costs), low productivity and efficiency, inadequate quality control and management systems, as well as the often weak quality (skills, retention) of labour. Too much of the export growth is masterminded by traders in the industrialized markets through outsourcing and the purchase of made-to-order furniture, which makes suppliers vulnerable to changes in production costs, exchange rates, etc.

Value-added processing (of furniture in particular) tends to develop in phases. Thus, manufacturers move from standardized products towards originally designed products with higher value, and ultimately to branded products. This process can be accelerated through concerted local efforts and international partnerships.

Because furniture manufacturing can thrive on low-level technologies, the development of this industry can take place in more and more developing countries that have adequate production conditions, particularly the availability of wood raw materials and skilled labour. It is possible to emulate the success of the leading Asian exporters in other countries, provided these have the preconditions for furniture manufacturing, i.e. the necessary factor endowments and industrial policies are in place.

Beyond the two initial phases (import substitution and export-oriented growth), the furniture industries' development strategies will have to focus on sustained growth, greater value addition, and product diversification through

continuous innovation, flexible manufacturing systems, networking and skilled designs. If they do not do this, furniture producers will tend to enter a race to the bottom. This means that, as more and more countries engage in export and increase their trade volumes on saturating markets, they will hit a falling revenue path, leading to immiserizing growth through lower salaries for the workforce.

Making use of market opportunities

Competitive prices, prompt deliveries and after-sales service are needed to enter the lower segments of furniture markets. This holds true particularly when supplying large volumes to buying groups or big chain stores. Increasingly, manufacturers are also starting to act as importers of made-to-order furniture.

Furniture sizes need to be matched to differing requirements in Japan, Europe and the United States. While furniture for the American consumer tends to be larger, smaller items for one- or two-person households may hold more realistic opportunities in Europe. In Japan, the living space per person has declined as more and more offspring continue to live with their parents. There is therefore a growing need for small, corner and occasional furniture.

Original designs are necessary for moving to higher price points. Design should provide real value added to the product. Most of the policies adopted by tropical countries are geared towards providing comparative advantage (in the form of low-cost production factors) to the furniture industry. Unless there is a government policy to encourage creativeness and continuous innovation through support to research and development (R&D), value enhancement is best undertaken by private initiatives, led by market forces.

Authenticity and knowledge of the materials should be made to work to increase the competitiveness of tropical furniture. Distinct handwork should serve as an added quality component rather than as an integral part of the furniture structure. Branding increases perceived value among consumers.

Value chain management

The identification and promotion of furniture clusters can form part of a sectoral strategy for national policies seeking to orient investment and R&D. Such a strategy will widen the knowledge of the players involved and create interlinkages and synergies between them.

In order to translate the cluster strategy into practical assistance to the industry, the most important value chains will have to be identified. Efficient value chain management is a core concept among successful furniture industries throughout the world.

Value chain analysis is a diagnostic tool for a step-by-step functional analysis of the furniture cycle. The steps would begin with primary wood products, and go on to intermediate products and then to furniture and its distribution, trade (wholesale, retail), marketing and finally its disposal or recycling after use.

Furniture firms have four ways of upgrading within their value chains:

- ❑ *Process upgrading*: adoption of state-of-the art computer numeric control (CNC) machinery, computer-aided design (CAD) systems, flexible manufacturing systems, just-in-time delivery, etc. The international transfer of best practice is a well-known process in the furniture industry.
- ❑ *Product upgrading*: moving into flat-pack or RTA products, material innovations, enhanced design management, fast evolution of collections, licensing deals, brand names, etc.

- ❑ *Functional upgrading*: changing the mix of activities performed in-house and those outsourced from more cost-efficient sources. This has become a widely applied method in the world furniture scene, particularly in the United States.
- ❑ *Chain upgrading*: moving into a completely new value chain as a result of identified marketing opportunities, such as home accessories, distribution, and repair and remodelling. As an example, China's wooden furniture firms are currently shifting to fabric or leather upholstered furniture to capture a larger market share.

All upgrading opportunities call for financial and human resource investments. In many situations, SMEs may find it more realistic to accumulate capability by operating in the domestic market first, and deploying export strategies only when they have become stronger over time. The search for foreign partners is a frequently applied short-cut measure to bridge the gap.

How to approach foreign investors

An objective and realistic assessment of the fundamental elements of what a developing country is offering should cover:

- ❑ The availability of raw materials of the required quality from reliable sources;
- ❑ The environmental aspects of wood production in the forest and throughout the logistic and processing chain up to furniture manufacturing;
- ❑ A skilled or trainable workforce with decent working conditions and recognized labour rules;
- ❑ Risks of downtime for weather or other external reasons;
- ❑ Competitive labour costs and productivity levels;
- ❑ Cost, availability and reliability of the energy supply;
- ❑ Infrastructure and planned improvements in investments;
- ❑ Easy and cost-effective inland transport linked to e-commerce systems;
- ❑ Access to good, cost-effective and regular container shipping with a facility for swift electronic response to customer inquiries;
- ❑ Expertise in management and a commitment to respond to customer needs based on a profitable exporting capability;
- ❑ Low transaction costs involving an efficient and supportive public administration and a developed commercial banking system;
- ❑ Tax breaks, other financial incentives and other public-sector support at central and local government levels.

These factors are typically considered by potential investors and buyers in target countries. The assessment or audit can be done at country, regional, town or industrial centre level. Information should be compiled into an easily usable and verifiable prospectus to be used in promotional efforts.

It is emphasized that retailers and outsourcing furniture firms may impose stricter codes of conduct on their suppliers than the national legal framework in tropical countries. In particular, the criteria for environmental and social accountability are increasingly monitored as part of the public relations and corporate image of furniture buyers.

Implications of quality standards and certification and labelling requirements for developing country exporters

Standards

The objective of standardization is to ensure that all furniture available on the market is safe to use and is of solid and strong construction. However, there is also a risk that standards may become a constraint to market access or put tropical producers at a disadvantage when the requirements are particularly difficult to meet. Manufacturers normally apply standards voluntarily in their product development, process control and marketing. Having a common language for test methods, dimensions, safety and strength characteristics is considered a major benefit of furniture standards.

There are over 140 furniture-related standards and labelling requirements in the United States and Canada. Most standards are voluntary but some are regulated by State or federal laws. The European Committee for Standardization (CEN) is responsible for harmonizing standardization in the European Union. Europe's EN (European Norm) standards on furniture are not meant to serve protectionist aims. They are proposed as a basis for wider international work on furniture standards under the ISO Technical Committee (TC 136) on Furniture. At the international level, harmonization is implemented by the International Organization for Standardization (ISO).

The national standards institutions in the producer countries of the International Tropical Timber Organization (ITTO) are either ISO members, ISO correspondents or ISO subscribers. Their capabilities for implementing ISO requirements remain mixed and are often weak. Only a few of these countries, for example, have certification bodies that can issue certificates of compliance with the ISO 7173:1989 standard entitled *Furniture – Chairs and stools – Determination of strength and durability*. The furniture industry in tropical countries should support efforts to establish adequate national standardization institutions and certification bodies.

Certification and labelling requirements

Considerations affecting individual buying decisions – whether institutional, industrial or private – are based on perceptions of the values of the supplying party. Certification and labelling may (or may not) provide information on such values.

Institutional buyers (public building and construction segment looking for furniture for public premises, offices, schools) often have procurement policies that include requirements on product quality, which may be institution-specific. In addition to laying out bidding procedures, these policies may impose special conditions on such matters as environmental load, packaging and transportation, and possibilities for repair and recycling. The required use of wood originating exclusively from legal and sustainably managed sources is being incorporated into public procurement policies and criteria.

Commercial and industrial enterprises dealing with building and construction projects, hotels, offices and shops are more likely to emphasize the safety, quality, functionality and design of furniture rather than the environmental or social aspects of furniture-making or its wood raw material supply chain. This is understandable, as these enterprises are more familiar with the day-to-day business aspects of avoiding product liability suits, for example, and obtaining new contracts.

Retailers in the consumer market (dealing mainly with household furniture, RTA furniture, small/occasional furniture, garden furniture), on the other hand, have become more sensitive to 'softer' values. In order to respond to their customers' concerns, some furniture chains have developed environmental management systems and, to a certain extent, are monitoring the origin of their products and raw materials, or they may give preference to furniture made of certified wood.

Furniture exporters from tropical countries are likely to be required to present proof that the wood raw materials of their furniture do not come from illegal sources or contribute to deforestation or forest degradation. The safest way of curtailing such claims is to obtain a chain-of-custody certificate from an existing certification scheme, such as that of the Forest Stewardship Council (FSC). Any other forest management certification scheme may do as well, but its credibility – the 'buzzword' for market acceptance – may be questioned by buyers. The pressure has been strongest in garden furniture and products sold through do-it-yourself (DIY) chains. Large buyers like the global company IKEA have their own requirements for suppliers of wooden furniture.

New furniture exporters from tropical countries should discuss with their potential buyers (buying groups, wholesalers, importers, traders) what the latter's requirements are and how best to address these requirements given the specific conditions in the exporters' countries. Producers should not expect that any label or certificate will automatically open all doors. It is important to understand that not having a certain label or certificate will not close these doors, either. Certification can give an edge in marketing or in entering a specific market, but the decision to obtain a certificate should be based on the values of the organization or known client requirements.

The more alert and responsible companies may reap the greatest benefits, but that is not to say that the indifferent – or just plain irresponsible – ones will be forced out of business in the short run. Despite all the efforts on standardization, certification, verification, and assurance of quality, environmental performance, social accountability, or any other aspect of corporate behaviour, there will always be some markets where anything goes if the product is priced competitively and is of acceptable quality.

Recommendations

Recommendations for ITTO

The International Tropical Timber Organization should:

- ❑ Promote an integrated strategic approach for the development of the furniture industry through support to long-term master planning in producing member countries.
- ❑ Carry out a stock-taking study of the utilization of plantation timber species as potential raw materials for the furniture industry.
- ❑ Commission analytical case studies of the management of the furniture export supply chain and of value/profit chains to improve market transparency.
- ❑ Commission special studies of regional and domestic furniture markets in Africa, Latin America and Asia.
- ❑ Help the producer countries to compile and disseminate production and trade statistics on furniture.

- ❑ Identify possibilities for linking African producers better with the global furniture outsourcing business, with emphasis on South-South partnerships, socially responsible investments, export-led poverty alleviation programmes and fair/ethical trade.
- ❑ Monitor the development of international standards and requirements related to wooden furniture, furniture making and the origin of wood raw materials, for example, as part of the ITTO annual market review and prepare special studies on standardization, certification and labelling requirements and measures on how to meet these requirements as the need arises.
- ❑ Together with other international and regional organizations, organize three regional workshops on technical aspects and marketing for the tropical wooden furniture industries.
- ❑ Strengthen the ITTO MIS (Market Information System) to provide more in-depth coverage of furniture market developments (including the pricing of typical products).
- ❑ Support the setting up informal networks to facilitate regular information exchange, to improve access to existing databases and knowledge centres on furniture markets, quality and standards, training, technology transfer, design, marketing and trade practices.

Recommendations for governments

Governments should:

- ❑ Improve the existing public domain databases on the furniture industry (markets, products, standards).
- ❑ Carry out sectoral assessments of the furniture industry's development opportunities and constraints and prepare strategic master plans to provide the necessary enabling environment for private investment.
- ❑ Identify the development of the furniture industry (entry into further processing activities and export expansion) as a major policy goal wherever the preconditions for such development exist. Development will bring about economic, social and resource valuation benefits (high value added, high employment, and possibilities for locating parts of the industry in disadvantaged areas).
- ❑ Prepare and implement strategies to enable existing furniture industries to respond to emerging issues, such as the use of substitutes for tropical natural wood (plantation woods, and non-wood materials including bamboo and rattan), certification and labelling requirements, and non-tariff barriers to trade.
- ❑ Carry out inventories of innovative new materials available in the country.
- ❑ Support the sector by creating an enabling policy environment, providing investment incentives, carrying out trade promotion activities, and regulating the export of raw materials to spur the growth of an export-oriented furniture industry.
- ❑ Channel public investment into infrastructure development, the establishment of industrial estates, and the provision of institutional support services (training, R&D) for the purpose of rationalizing the manufacturing base and making it competitive over the long run.
- ❑ Guide the industry towards moving beyond the two initial phases of development (import substitution and the export-oriented growth of

low-value products), so as to ensure greater value addition, sustained growth and product diversification. Put in place policies to foster continuous innovation, flexible manufacturing systems and skilful design through the provision of financing, training and R&D mechanisms.

- ❑ Promote foreign investment (with the associated provision of access to distribution channels and customers, and to design and product development) as a means for boosting technology transfer and the export trade.
- ❑ Encourage the furniture sector to take full advantage of the existing preferential import promotion programmes for wooden furniture from developing countries (such as those of the Netherlands and Switzerland).
- ❑ Integrate the needs of furniture industry's labour force into the country's technical education and training programmes.

Recommendations for trade and industry

- ❑ Strengthen internal coordination and cooperation in promoting the interests of the furniture sector through joint forums like furniture industry associations.
- ❑ Analyse and communicate the potential benefits of industry clustering, supplier networking and component outsourcing as building blocks for competitiveness.
- ❑ Develop and implement industry training programmes on furniture manufacturing processes, management skills, design, working skills; obtain human resource development funds and other resources for this purpose.
- ❑ Focus product development efforts on total quality (particularly raw material quality, precision, finishing, fittings and design) as a key factor of success.
- ❑ Introduce and implement labour standards that meet buyers' expectations.
- ❑ Create and maintain a roster of specialized consultants on wooden furniture manufacturing, trade and design.
- ❑ Provide or arrange direct technical assistance to enterprises to enable them to take advantage of emerging export opportunities. This could include market orientation tours, design networks and the development of business skills (including skills in negotiating with big buyers).
- ❑ Systematically facilitate the industry's attempts to know its customers and to obtain direct access to them rather than to continue relying on (too many) intermediaries. An internationally targeted furniture exhibition and joint export campaigns could be part of such an effort if the country has a critical mass of suppliers.
- ❑ Facilitate and promote the adoption of internet-based marketing of wooden furniture as part of the industry's competitive strategies.
- ❑ Keep the primary processing industry and the forestry sector continuously informed on the markets' requirements as regards the origin of wood raw material and forest management.
- ❑ Implement chain-of-custody certification if it is possible to purchase certified wood raw material and the market requires verification of the origin of the wood and the products made thereof.

Chapter 1

Introduction

Background

When the joint ITTO–ITC *Wooden Household Furniture: A Study of Major Markets* was published in 1990, the globalization of the furniture business was in its infancy. Domestic production was clearly the dominant way of meeting consumer demand for furniture in most industrialized markets. Historically, furniture manufacturing remained surprisingly long and firmly in the hands of the industrialized nations, despite the fact that it is one of the most basic and labour-intensive manufacturing sectors. In more recent times, developing countries have by and large followed the past paths and phases of the more developed economies.

At best, the 1990 assessment report perhaps paved the way towards contract manufacturing and the outsourcing of semi-finished furniture and components from the newly industrialized countries, mostly Asian. In Malaysia, rubberwood was starting to emerge as the first plantation hardwood of significant importance in furniture making – replacing mostly ramin at the time. Since then, the overall balance of the trade in value-added wood products started moving in favour of the southern hemisphere, where a green ‘wall of wood’ has been maturing in the plantations of Asia, Latin America and Oceania.

The past 10 years have seen the unprecedented opening up of the furniture trade, meaning that the import component of consumption has continued to rise in nearly all important markets. Globally operating retail chains and buying groups representing the collective interests of nationally important furniture chains have been at the vanguard of this change. In fact, realizing the cost-slashing and earning opportunities to be derived from outsourcing labour-intensive manufacturing to developing countries, they have been one of the drivers of the evolution. As the entry barriers to making mass-furniture have remained low, there has been an abundant supply of manufacturing capacity for overseas buyers to deal with. Consumers have been educated to accept the more eccentric designs and mixed styles along the way.

Competitive networking

There appear to have been somewhat natural limits to the scale of furniture factories and to the full automation of manufacturing processes. It is therefore rare to encounter furniture factories with more than 500 workers under one roof in almost any country. So, on average, the furniture industry has maintained itself in fairly small, labour-intensive units, or groups of small individual companies under one banner.

However, Asian countries, China and Malaysia in particular, have challenged this conventional mode by embarking on larger-than-average manufacturing units. The explanation can be found mainly in the role of the Asian furniture industries as the world's largest contract manufacturing base for meeting the needs and specifications of buyers in industrialized countries. At the same time, retailers and buyers' groups have consolidated themselves into larger units, which buy in bulk to minimize costs and profit from competitive sourcing.

The world's wooden furniture manufacturing industry has set up many types of successful networks and clusters. Most of the leading exporting countries have undergone an evolution of their own in organizing a competitive national furniture manufacturing base. The approaches and practical industry maps vary, and replicating an existing structure in a different situation will not guarantee success. For example, some efforts to restructure the industry and relocate it in furniture zones and under imposed clusters have not borne fruit. However, organic growth and subtle political support mechanisms appear to have been enabled some of the leading clusters to grow into sustainable entities that benefit the industry as a whole.

The ITTO–ITC supply-side study *Tropical Timber Products – Development of Further Processing in ITTO Producer Countries* (2002) recommended the identification of furniture networks and clusters and its use as the policy-maker's early guidance tool. Such a process will create wider knowledge of the players involved and of the interlinkages and synergies within the sector.

Furniture clusters

Flexible production through resilient producer networks or clusters has been a well-documented activity of some of the most successful furniture clusters in Denmark, Italy, Taiwan Province (China) and other areas. How do tropical producing countries compare in this regard? J. Ratnasingam of University Putra Malaysia provides some insights.

Networking in furniture manufacturing: a comparison of practice in Malaysia and Taiwan Province (China)

The rapid expansion of the Malaysian furniture base has been attributed partly to the industry's extensive networking or subcontracting activities. Such activities bring about economies of scale and spread overhead costs, resulting in cost competitiveness.

However, networking is confined to the supply of semi-finished components/parts, finishing and services. Most subcontractors are former employees of a large manufacturer, who also provides them with financial and business support. Hence, subcontracting is client-specific to the extreme. While the network generates economies of scale, it delays the diversification of the value chain. This increases the risk element in periods of difficulty, such as the regional financial crisis of 1997–1998 when many subcontractors went out of business.

The common obstacles to the development of industrial networking in the Malaysian situation are:

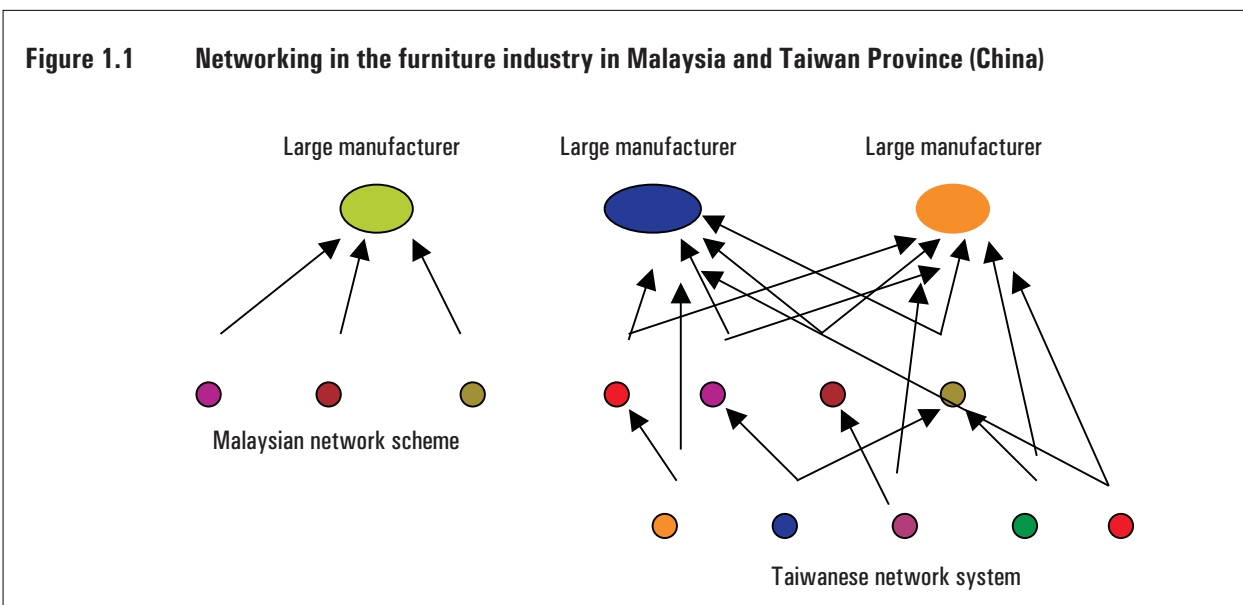
- ❑ The ex-employer-employee loyalty exhibited by most subcontractors;
- ❑ The operation is geared to economies of scale: the network is used to reduce cost by raising volume of output with little product diversification;

- ❑ The low entry barrier has created many subcontractors who are essentially traders, generating intense domestic rivalry;
- ❑ The value chain does not extend beyond the supply of semi-finished parts and components.

By comparison, networking in the Taiwanese furniture industry not only provides economies of scale but also encourages product diversification. As a result, the value chain in the Taiwanese industrial network extends beyond the mere supply of semi-finished parts and components to design and new product development. This creates value added in different stages and thereby brings about a more equitable sharing of benefits.

Because the industrial network is not client-specific, it is able to carry out a variety of tasks aimed at creating competitive alliances. Furthermore, unlike networking in Malaysia, which is often single-layered (i.e. offering one particular service/component), networking in Taiwan Province (China) is multilayered.

As a result, the value chain extends much further in the Taiwanese furniture industry. Although there is networking in the Malaysian furniture industry, its effectiveness in creating competitive advantage is questionable.



Value chain analysis for the development of the furniture sector

The traditional way of identifying development options in the wood and furniture industries has focused on sectoral analysis, and ITTO and ITC have also tended to adopt this approach. But it has certain limitations that may render it less useful in today's multilateral trading system.

Sector analysis can become rather static, not taking sufficiently into account linkages between productive activities and extra-sectoral forces, both formal and informal, and how these change over time. Traditional sector analysis may fall short in understanding dynamic factors such as information flows, learning processes and cooperation with interconnected sectors. Furthermore, governance and power structures within a value chain do not arise only from local conditions, but may depend on external forces to a larger extent than seems obvious.

Value chain analysis is a common diagnostic tool for furniture industries. It enables these industries to map out and improve the functional steps involved in moving from primary wood products, to intermediate products, then to furniture and its distribution, trade (wholesale, retail), marketing and disposal or recycling after use. Physical production is only one of the value-added links in the chain; the others are made up of items like services and regulatory frameworks, strategic considerations on resource allocation and the distribution of benefits. Value chain analysis makes it possible to evaluate market access, the establishment of standards and the assessment of conformance with these standards, and competitiveness between players. It also enables the industry to make improvements along the existing chain or to venture into new value chains.

Efficient value chain management is a core concept among successful furniture industries throughout the world. It responds to the challenges of globalization because increased world trade is generating new concepts that go beyond simply expanding volumes of finished products churned out to the market. As in many other industries, the trade in furniture is more than ever before about competition among the fittest. It involves the outsourcing of parts and components against given specifications in the most competitive location, and then assembling and marketing the final products elsewhere.

Furniture firms can identify at least four ways of upgrading within their value chains:

- ❑ **Process upgrading:** adoption of state-of-the art computer numeric control (CNC) machinery, computer-aided design (CAD) systems, flexible manufacturing systems, just-in-time delivery. The international transfer of best practice is a well-known process in the industry.
- ❑ **Product upgrading:** moving into flat-pack or RTA products, material innovations, enhanced design management, fast evolution of collections, licensing deals, the use of brand names.
- ❑ **Functional upgrading:** changing the mix of activities performed in-house and those outsourced from more cost-efficient sources. This has become a widely applied method in the world furniture scene, particularly in the United States.
- ❑ **Chain upgrading:** moving into a completely new value chain as a result of identified marketing opportunities, such as those available in home accessories, distribution, and repair and remodelling. As an example, China's wooden furniture firms are currently shifting to fabric or leather upholstered furniture to capture a larger market share.

All these upgrading opportunities may call for important financial and human resource investments. In many situations, SMEs may find it more realistic to accumulate capacities in the domestic market first and deploy export strategies only when strengthened over time. The search for foreign partners is often a short-cut measure to bridge the gap.

Chapter 2

World overview

World economic outlook

The global economic outlook deteriorated in 2002 as a result of severe short-term disturbances, waning consumer confidence and the slowdown in the major economies into near-recession levels. The fragile growth prospects did not materialize in the required strength during 2002, and the geo-political conflicts in the Gulf region, exacerbated by the SARS (severe acute respiratory syndrome) episode in Asia, postponed recovery further. Estimates of world economic growth settled at the 2.5% level for 2003 (close to the recession threshold), and somewhat higher at 3%–3.5% for 2004. The growth prospect is still subject to many uncertainties.

Among the biggest economies, the United States kept pulling the world economy as a growth engine until mid-2002, as consumer confidence remained unexpectedly strong. This was indicated by a buoyant housing sector, aided by record-low mortgage rates, which also lent support to brisk furniture sales. But the latter half of 2002 brought about a change and the outlook became uncertain, albeit some of the growth fundamentals remained in place, such as a rapid rise in productivity, housing and construction growth, and advantageous monetary and fiscal policies.

The European Union countries lost momentum earlier, entering into a stubborn slow-growth phase, Germany being the main concern. Germany's industrial production contracted slightly in 2001, and construction activity declined by nearly 6%. Italy, France and the United Kingdom slid into slow growth later on, so that all the major economies of the EU-15 failed to perform in early 2003. With 10 countries poised to join EU in 2004, the euro region was set to become comparable in size with the United States. The strengthening of the euro against the United States dollar during 2002–2003 hampered the region's export-driven economies.

Japan went from a stagnation phase into economic decline as the long overdue structural changes in the banking sector proved insufficient for a change in course. A deflationary economy is a reality in today's Japan. Japan's position as the second traditional world economic block after the United States remains untouched even on slow-growth gear. One has to remember that Japan is still an extremely wealthy nation with high per capita purchasing power.

China has established itself as an emerging economic powerhouse in Asia, and its relative global importance is quickly approaching that of the biggest European economies. It has been able to harbour a steady growth in gross domestic product (GDP) of around 7%–8% according to official government figures. It has demonstrated an ability to spring huge manufacturing industries in sectors where it lacks domestic materials. Wooden furniture is a state-of-the-art example. Domestic consumption seems to be following a more cautious path, as distribution structures do not yet allow country-wide mass

merchandising of many consumer products. China appears to be empowering itself to dominate several basic manufacturing sectors, with large export shares in low-cost market segments worldwide.

But the Chinese economy still shows a higher than expected degree of instability when confronted with sudden external shocks. The health system was unable to cope with SARS in a fully transparent and efficient way. As a consequence, the tourism/travel and construction sectors in particular were affected negatively. The latter has been one of the government-supported engines of growth, but it suffered from direct labour shortages with the restriction in the movement of migrant workers from rural China. The short-term effect was surprisingly severe and economic growth came to a halt. Implications for wood product consumption and related industries remain to be seen.

World furniture production

World furniture production was estimated at around \$180 billion in 2000 and close to \$190 billion in 2001. The observed speed of growth is likely to have taken the world output beyond \$200 billion in 2002. Furthermore, it is believed that around one-tenth of the world's output changes hands at the level of the local craftsmen, unrecorded in trade and production statistics.

Around 60% of the world's furniture production takes place in just seven industrialized countries: the United States, Germany, Italy, France, the United Kingdom, Japan and Canada. The European Union produces an estimated \$73 billion a year, while the United States is the biggest single producer with an output of around \$25 billion. If the manufacturing of contract and company office furniture is accounted for, the United States output moves up to \$40 billion–\$45 billion annually. Italy, Germany and Japan trail next with fairly equal production levels of \$15 billion–\$17 billion. France, the United Kingdom and Canada all record output levels of between \$5 billion and \$7 billion.

The output value of China's furniture industry amounted to around \$14.5 billion in 2000, and it is rising fast owing to the enlargement of factory capacities and improvements in logistics and infrastructure in key producing regions. Mexico, Poland, Indonesia, Malaysia, Thailand, the Philippines, Brazil and others follow. Around one-fifth of world furniture production comes from developing countries.

World trade

World imports

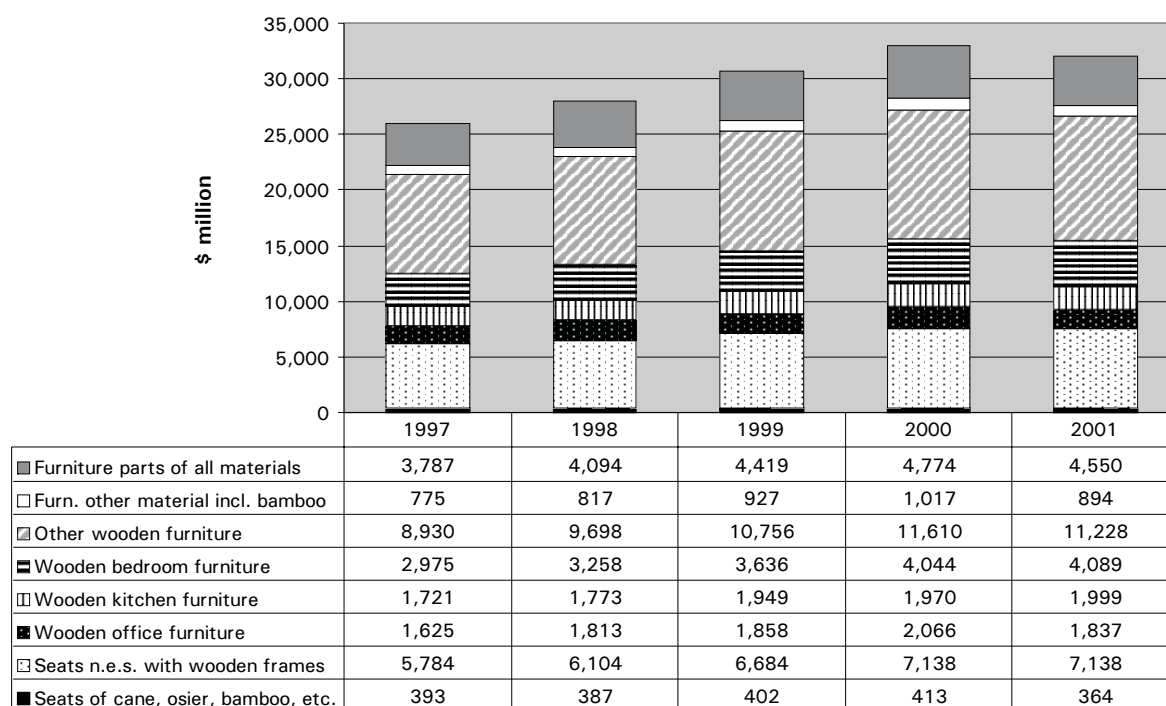
According to the COMTRADE database of the United Nations Statistical Division (UNSD), world imports of wooden furniture and parts reached \$32.1 billion in 2001, compared to \$26.0 billion in 1997 (current values). Trade peaked in 2000 at \$33.0 billion, but then deteriorated along with the slowdown of the major economies. The average growth rate in imports was 5.4% between 1997 and 2001.

The two major product groups in global imports were 'other' wooden furniture (35% of the total) and seats with wooden frames (22%). Furniture parts of all materials (14%) and wooden bedroom furniture (13%) captured the next largest shares. Wooden office and kitchen furniture both held shares of 6% and the remaining 4% was split between seats of cane, osier, bamboo (1%) and furniture of other materials like bamboo (3%).

The trade in bedroom furniture grew at the fastest pace (37% over the period 1997–2001 and 8.3% yearly), followed by other furniture (total growth 26% at 5.9% annually). Wooden seats recorded a 5.4% annual growth rate, which resulted in a total expansion of 23% between 1997 and 2001. Imports of furniture parts rose at 4.7% yearly. Lower growth rates (3%–4% annually) were seen in other product groups. Seats of cane, osier and bamboo performed badly, and imports declined at an average of 1.9% a year.

The data covers imports into all reporting countries from all partner countries. For the purpose of producing useful information for ITTO producer countries, the next chapters focus on the leading markets that showed relatively good prospects for imports from developing countries. It should be noted that some fairly big importers like Switzerland, Austria, and Norway have been excluded because they have a very small share in imports (2.5%–6.5%) from developing market economies (and tropical countries).

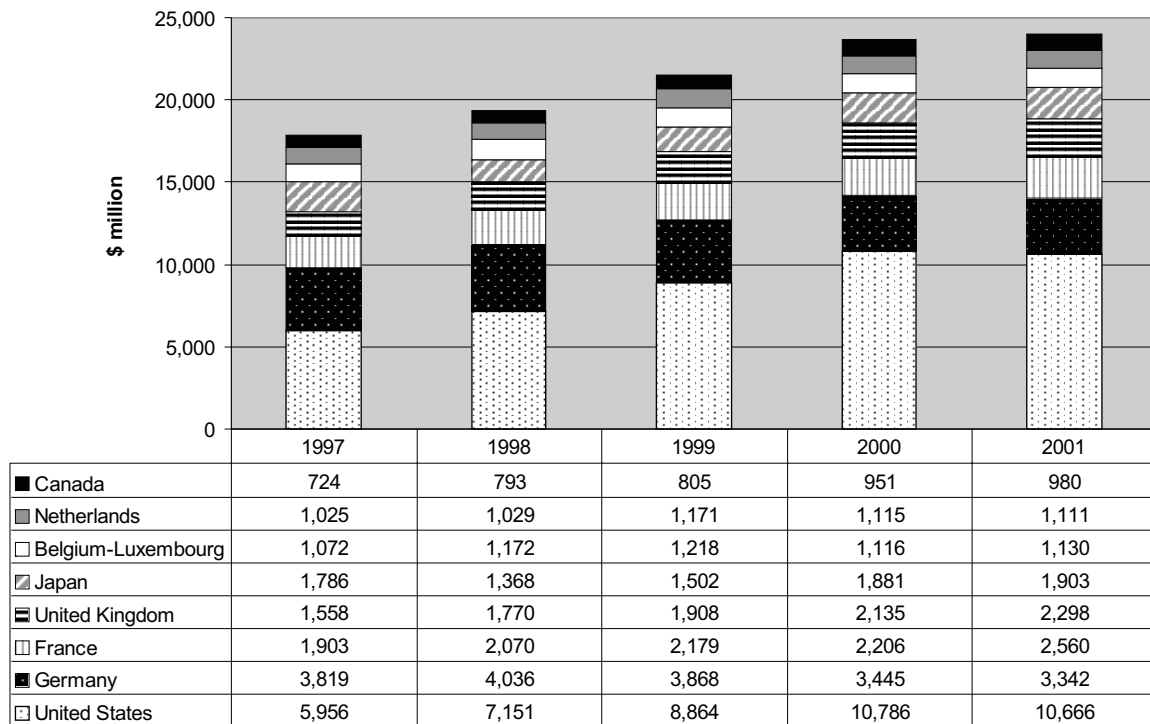
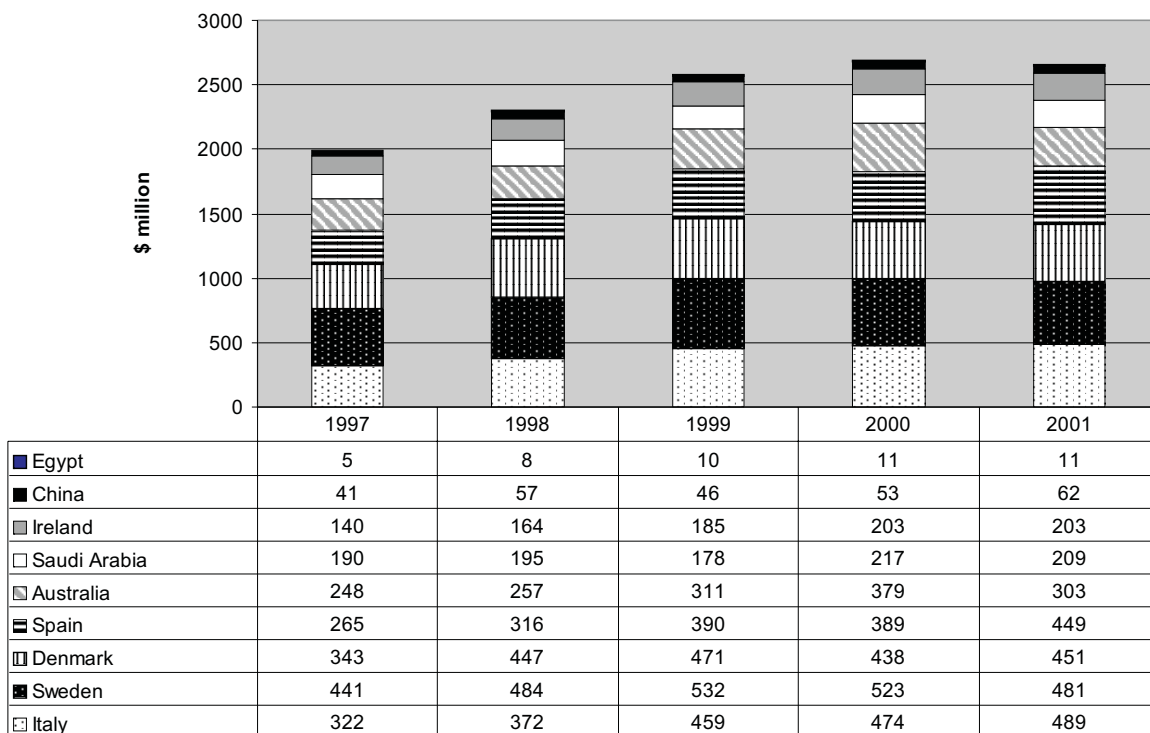
Figure 2.1 World imports of wooden furniture by product group, 1997–2001



Leading importers

World trade in wooden furniture and parts is fairly concentrated. Each of the first group of countries imports at least \$1 billion worth of wooden furniture and parts (and Canada's imports are just below that figure). The top eight importers accounted for combined imports of \$24 billion, 75% of the world total.

As figure 2.2 shows, the United States was by far the biggest market, with imports just below \$11 billion in 2000 and 2001. The other major markets were Germany, France, the United Kingdom and Japan. Germany was exceptional as its imports declined from a record \$4.0 billion in 1998 to \$3.3 billion in 2001. All other major markets – France and the United Kingdom in particular – followed a growth trend between 1997 and 2001.

Figure 2.2 Top eight markets: total imports of wooden furniture and parts, 1997–2001**Figure 2.3 Other markets: total imports of wooden furniture and parts, 1997–2001**

The other nine countries identified for this study (see figure 2.3 for a list) accounted for a combined \$2.6 billion, or 8% of world imports. This group was headed by Italy and Sweden, both importing close to half a billion dollars worth of furniture. Spain was a rising importer in 2001, and reached the \$450 million level together with Denmark. Australia (\$303 million), Saudi Arabia (\$209 million) and Ireland (\$203 million) followed. China is still considered a minor importer with \$62 million in incoming deliveries of wooden furniture, but it remains one of the biggest consumer markets and has a good potential for expanding imports over time.

Imports from developing countries and China

In all the major OECD markets, imports of wooden furniture from developing market economies and China (DMEC) have grown faster than overall imports. The influx of products from China is the single most important reason for this expansion. In addition to China, a handful of other developing market economies dominate the wooden furniture trade with OECD, holding a giant lead over some of their neighbours which are just about to start developing their furniture industries.

OECD imports of wooden furniture from China reached more than \$3.2 billion in 2000, or 33% of all DMEC deliveries. Indonesia's supplies amounted to \$1.5 billion, placing the country in second rank before Malaysia (US\$ 1.1 billion). Thailand was the fourth largest supplier, attaining more than \$1 billion in exports. Owing to severe market conditions and devaluated local currencies during the economic crisis of 1997–1998, these countries' exports (which are denominated here in current United States dollars) declined for the first time in the decade. Exports rebounded, however, in 1999 and have been expanding ever since. China's export growth continued unabated throughout the five-year period covered by table 2.1.

Origin	1996	1997	1998	1999	2000	% share		Growth index, 2000: 1996=100
						1996	2000	
Total DMEC^{a/} of which:	5 362.22	5 915.15	6 376.60	7 955.56	9 640.30	100.0	100.0	180
NIEs^{b/} of which:	878.70	833.15	790.59	879.32	885.55	16.4	9.2	101
Taiwan Province (China)	677.51	640.33	619.79	681.30	667.23	12.6	6.9	98
Hong Kong, SAR ^{c/}	67.77	75.15	85.50	109.82	128.17	1.3	1.3	189
Korea, Rep. of	58.64	51.25	45.14	49.15	51.76	1.1	0.5	88
Singapore	74.78	66.42	40.16	39.05	38.39	1.4	0.4	51
Other DMEC of which:	4 483.52	5 082.00	5 586.01	7 076.24	8 754.75	83.6	90.8	195
China	987.41	1,220.15	1,552.30	2,214.94	3,222.91	18.4	33.4	326
Indonesia	943.44	1,048.82	1,158.51	1,389.27	1,507.96	17.6	15.6	160
Malaysia	682.97	734.89	723.49	913.69	1,064.56	12.7	11.0	156
Thailand	511.79	486.93	461.33	603.46	725.12	9.5	7.5	142
Mexico	342.34	434.33	510.25	568.29	628.30	6.4	6.5	184
Philippines	215.26	244.59	264.95	308.92	347.73	4.0	3.6	162
Brazil	263.97	278.73	234.49	273.42	346.76	4.9	3.6	131
Viet Nam	96.37	149.40	149.02	208.74	305.26	1.8	3.2	317
Slovenia	167.08	165.66	165.48	177.07	163.92	3.1	1.7	98

Table 2.1 (cont'd)

Origin	1996	1997	1998	1999	2000	% share		Growth index, 2000: 1996=100
						1996	2000	
India	35.96	54.97	77.89	93.38	113.72	0.7	1.2	316
Croatia	71.31	64.61	59.35	60.37	59.96	1.3	0.6	84
Honduras	20.03	26.62	30.71	36.47	33.50	0.4	0.3	167
Chile	22.27	27.45	28.10	29.22	30.00	0.4	0.3	135
Turkey	10.09	11.20	15.71	30.03	28.63	0.2	0.3	284
Yugoslavia	4.34	9.19	12.27	9.73	13.87	0.1	0.1	320
Bosnia–Herzegovina	6.70	9.37	8.00	9.61	13.49	0.1	0.1	201
Argentina	6.13	7.36	7.68	9.47	12.54	0.1	0.1	205
Colombia	3.08	5.13	6.01	6.70	11.68	0.1	0.1	379
Myanmar	2.95	3.58	4.34	5.60	11.42	0.1	0.1	387
Others	90.03	99.02	116.13	127.86	113.42	1.68	1.2	126

Source: ITC/UNSD COMTRADE database.

a/ Developing market economies and China.

b/ Newly industrializing economies.

c/ Special Administrative Region.

Note: Excluding furniture parts.

Developments in major markets

Individual markets

United States

In recent years, the United States has opened itself up rapidly to imports of wooden furniture from the DMEC group. The group's share in total imports rose to 56% in 2000, particularly as a result of ever-increasing deliveries from China.

Growing outsourcing of semi-finished products and components by the United States furniture industry has been the key driver of this trade. Globalization has forced the industry to face the realities of shortages of skilled labour and high manufacturing costs (daily wages are 10 times higher in the United States than in Asia).

A large number of United States furniture manufacturers have transformed themselves into assembly plants, finishing lines or distributors and marketers of outsourced furniture and components from China and other countries like Brazil, Mexico and the Philippines. They continue to hold most of the value-adding potential of the design, distribution and marketing processes, which they keep strictly under their control. The manufacturing process itself (particularly with standardized machinery) is a lower value-added component and is therefore easily subcontracted anywhere in the world. Furthermore, the costs of transporting dried semi- or fully machined components are low in relation to their value. (Evidence for this is found in Japanese import statistics, which show for the first time in 2001 a higher unit value per kilogram of imported furniture parts than for ready-made furniture.)

The visible impediments to trade are being reduced and the market is becoming more transparent. Tariffs have dropped to almost zero and other barriers are falling in the hunt for price stability and profit as the industry seeks to meet vibrant customer demands.

The industry is in the process of responding to environmental issues, albeit at a low key at the moment, and it is certainly not relegating price stability to a lower priority. Many of the associations and industries that are seeking positive consumer benefits for their members concur. Various standards, rules and regulations, many of them linked to those of the European Union, are being considered or put in place. The requirements are being publicized and certification to ensure compliance is increasing as a result.

Given the transparency of these requirements, the competitive challenge focuses once more on pricing, delivery, quality and response to design needs. The major do-it-yourself (DIY) chains, home centres and furniture groups, as well as regional and government buying organizations, are set to exploit these market aspects.

For the smaller developing countries and those with raw material and manufacturing constraints, the volumes of product required by United States buyers could be a problem. Sales and order planning with major retail and DIY groups often requires a phased growth in supply which can rise dramatically if the product becomes popular. Many of the smaller countries do not have a manufacturing and supply infrastructure able to meet such a demand. High transport costs and shipping delays of three to four weeks add another hurdle. The country best able to cope with these trading factors at the moment is China, which is successfully supplying a wide range of furniture and other value-added wood products.

Sales of small-volume items focusing on better design for niche markets are often handled by specialist groups, and by smaller retailers and importers able to distribute across the United States. Volume is not too much of a constraint in this segment.

Household furniture normally reaches the consumer through three channels: gallery networks, specialty stores, and full-line furniture stores. Manufacturers and other companies source around the world and sell nationally.

The local independent furniture store and the regional chain store are today's most successful retailers. This situation opens up a practical opportunity for offshore manufacturers to establish own stores in key cities, following the example of United States manufacturers which are putting up product-specific stores throughout the country.

European Union¹

The furniture industry is one of the European Union's largest manufacturing industries, with a turnover of €82.2 billion in 2001. The industry accounts for about half of the world's furniture production. Apparent consumption was about €83.2 billion, giving the Union a trade deficit of €1 billion in 2001.

Extra-EU imports (€10.9 billion) supplied 13% of the EU furniture market. Imports from Poland covered 20% of the market and, for the first time, imports from China exceeded €1 billion.

1 This section is based on information obtained from the Union européenne de l'ameublement (UEA).

Imports from central and eastern European countries recorded double-digit growth rates, with Poland, the Czech Republic and Slovakia leading the way. With the exception of China and India, imports from Asian countries/areas expanded only moderately (Viet Nam) or even suffered a setback (Indonesia, Thailand, Taiwan Province and Malaysia).

Extra-EU exports (€9,904 million in 2001) rose by only 3.9% because the main export markets entered into recession during the year. Italy was responsible for 43% of all exports, Germany for 17% and France for 9%.

Exports to the United States continued to rise (by 10% in 2001), supported by the weakening euro. Supplies to the Russian Federation (6% of the total) climbed by more than 11%. Export growth rates were highest for Ukraine (+50% to €101 million) and Croatia (+26% to €95 million). The biggest fall occurred in Turkey (-36% to €91 million).

The upholstered furniture and kitchen furniture sectors are the largest sectors, with shares in production of 15% and 13% respectively. The office furniture sector (11.7% of total production), dining room furniture (11.5%) and bedroom furniture (10.3%) sectors followed next, indicating a balanced overall production structure.

Europe's furniture industry is consolidating into larger units. Leading enterprises are investing heavily in automation and computerization, resulting in a more standardized output. This holds true especially of the kitchen and office furniture industries.

The largest German enterprises have invested in mills in Poland where labour costs are only a tenth of Germany's; to a lesser extent they are also investing in other eastern European countries. In Italy, small entrepreneurs cooperate closely in the areas of design, marketing and production. These enterprises often act as subcontractors for larger firms by producing components, semi-finished products, or by finishing or assembling furniture. This gives the industry great producing flexibility, enabling it to respond quickly to market changes.

The majority of the leading EU industrial groups have one or more production units in several European countries and even in the United States. There are 50 groups with a turnover exceeding €100 million.

Europe has a complex system of different types of retail outlets. Its leading markets have country-specific differences.

In **Germany**, the furniture market is estimated at €32 billion at retail prices. It remains the leading EU consumer, producer and organized distributor. The recession in the country's construction sector was a precursor of decreasing furniture consumption and imports in recent years. New residential housing has fallen in a cyclical pattern since the peak of 1997. The construction crisis is generally deeper in the east than in the old Federal States of the west.

A total of 15,174 stores employ 110,000 people: eight people per outlet on average, compared with three people in other EU countries. The buying groups (*Einkaufsverbände*) and their affiliates, accounting for 60% of sales, exert a big influence on the furniture market. The majority of the retailers (90%) and manufacturers are connected with these groups. (Only the large manufacturers and retailers can get away with non-membership.) They obtain discounts from manufacturers (10% to 30%) and buy in large volumes. About 20 buying groups and chains control half of the market.

The country with the most furniture stores is **Italy**. Its more than 22,000 outlets, employing 67,000 people, have a total sales area of 7,958,000 m². The average of 362 m² per outlet is one of the lowest in the European Union. The

value of Italy's retail market is estimated at €11.3 billion. Furniture sales are controlled by specialized commercial operators, which account for 85% of sales. The market is specialized but fragmented and not too well organized.

The Italian furniture industry has recently started cooperating more actively with tropical countries. The leading companies understand (and the smaller companies usually follow their example) that competition from countries with lower costs will affect their markets. The largest companies have been prompt to invest in developing countries, especially where a large local market, reasonable local know-how and skilled handwork can be found.

For example, Natuzzi, the largest Italian producer of upholstered furniture, has established a large plant in China and others are following. Such cooperation will grow in the future.

While it is the common view that the exchange of technology and joint ventures can be expected to rise, it is doubtful that Italian manufacturers will buy more semi-finished products from tropical countries. They consider semi-finished items an important part of their output and they are not likely to relinquish their role as producers of these goods too easily. Furthermore, they apply strict quality control standards, making it impractical to outsource supplies from outside the country.

In **France**, the furniture trade is in the hands of 11,700 outlets, which have an overall sales surface of 7,700,000 m². Furniture specialists account for 82% of all sales; around 32% of the specialist sales are made by franchising companies and about 12% by buying groups.

In the **United Kingdom**, the non-specialized channels are important, commanding 35% of the market. In this segment, department stores and DIY shops play a leading role. Independent furniture retailers, which also have 35% of the market, tend to specialize.

The strengths of Europe's wooden furniture and woodworking industry are well known: an adequate raw material base; its technological lead; its quality and design levels; branding; control over distribution as a result of the proximity of its markets; clustering and networking. Its weaknesses include the costs of labour and raw materials, which lower profitability.

Japan

Japan's economy ground to a halt and stagnated throughout the last decade; imports of furniture followed suit. Housing construction likewise went on a downward trend, and is expected to continue falling. Ageing households and the increasing number of single- and two-person households are also trends to be reckoned with.

Over the whole range of consumer goods, the notorious bursting of the economic bubble around 1991 brought Japanese consumers sharply back to a price awareness that they seemed to have lost altogether in heady years. Especially when it came to furniture, consumers rapidly fell into a pattern of buying on price, regardless of quality.

As market competition intensified, marketers tried to outsell each other not on the strength of quality or design but on the basis of pricing. They turned to Southeast Asia and China for lower-cost supplies. Then the leading trading firms began outsourcing the manufacture of furniture. The major residential home builders have also started to have furniture crafted overseas to their specifications to appeal to home buyers.

For domestic producers this first meant being driven out of the competition by imports, almost entirely in the low-priced ranges, mainly from member

countries of the Association of Southeast Asian Nations (ASEAN) and, more recently, from China. Among industry sources there is an impression that this was not felt too keenly as a loss. Imports had always been acknowledged to have a place in the lower ranges of the market, and as long as consumers were still feeling prosperous they disdained the cheaper goods, uncritically equating low prices with low quality. The bulk of the market could therefore command higher prices and domestic furniture makers held their own. But by the mid-1990s domestic producers were also feeling heavy pressure in what they had always regarded as the backbone of their market, the high-volume mid-price range.

In more recent years, a new balance between price and quality has been established, with consumers becoming more discerning about the quality of the goods they buy. They are now more ready to accept pricing that is justified by quality. Demand has also been expressed for products suiting individual lifestyles, colour and design preferences, to the point that one authoritative Japanese industry source describes it as all 'too complex for (domestic) suppliers to cope with'.

As much as possible domestic producers have tried to cut costs to remain competitive, but the extremely high levels of all costs of doing business in Japan make it impossible to compete with developing country producers. Effectively, the continuing diversification of demand and of imports has pushed part of the Japanese furniture market well beyond the capabilities of the local industry.

Furniture speciality stores that continue to enjoy the lion's share of the home furniture market (three-quarters of total furniture sales) are fighting fiercely for survival. Paradoxically, while the furniture market shrinks, the major chains are rushing to open new stores, and the stores keep getting bigger.

Market access

Developing countries have enjoyed tariff relief on furniture and other value-added wood products under the Generalized System of Preferences (GSP) and other schemes in developed country markets. More recently, these relative benefits have been eroded by general tariff reductions through successive rounds of multilateral and bilateral trade negotiations. As tariffs in general go lower, the advantage of being exempted from them under GSP or similar systems becomes smaller.

Tariffs on value-added wood products in many countries remain higher, however, than tariffs on primary products like logs and sawn wood. The European Union, Japan and the United States apply no import tariffs on imports from GSP countries, while rates for most other countries range from 2% to 6% on the major product categories. The United States, Canada, the European Union and Japan have proposed to eliminate all tariffs on wooden furniture by 2005, which will probably further ease the flow of exports from the tropical producing countries. In contrast, many developing countries retain very high tariffs (up to 80%) on imports of value-added wood products to protect their producers.

The European Union applies uniform tariffs on goods from Members of the World Trade Organization (WTO). Trade with non-WTO countries is subject to bilateral agreements and there can be slight differences in tariffs from country to country. Duties on furniture and furniture parts are generally low or non-existing and are usually identical for all countries (though exceptions are possible). Duties are usually applied to the cost, insurance and freight (CIF) value and vary from 0% for wooden home furniture to 2.7% for wooden kitchen cabinets and 5.6% for bamboo and rattan furniture and seats.

Despite the low tariff barriers, furniture imports are subject to non-tariff barriers imposed by some buyers who have made commitments to source their products from ‘acceptable’ sources. Acceptability criteria tend to be company-specific and often vary from buyer to buyer. (This subject is discussed in greater detail in chapter 7.)

Promising market niches for developing countries

The Centre for the Promotion of Imports from developing countries (CBI) of the Netherlands has outlined the best opportunities for developing countries in various subsectors as follows:

- ❑ **Ethnic furniture.** A steadily growing demand is expected for authentic ethnic furniture, particularly small and occasional dining/living room furniture and bedroom furniture.
- ❑ **RTA furniture.** The quality and design ranges of this type of furniture are expanding, making it appealing to a wider group of consumers, including older people. RTA furniture, accessories and components are fairly easy to manufacture and transport. Care must be taken to ensure that the fittings match, and attention should be paid to assembly instructions and packaging. Recyclability is also an important aspect of RTA furniture.
- ❑ **Colonial furniture.** This consists of dining room and living room furniture in dark tints, featuring a mixture of tropical-temperate hardwoods from Indonesia, the Philippines and Mexico. The trend has been most popular in the Netherlands, the United Kingdom and the United States.
- ❑ **Bamboo and rattan furniture.** In some growing niche markets, this is a fashionable substitute for tropical furniture products, especially for home interiors, gardens and second homes.
- ❑ **Home office furniture.** Demand for this type of furniture seems to be booming in all the major markets as home and distance working becomes more common. Furthermore, savings in costs and the time expended in commuting have encouraged employers to outsource office work. While this subsector has been dominated by office furniture makers and is largely geared to the RTA concept, new trends are developing in favour of the ‘concealed’ home office, which calls for multifunctional furniture pieces in designs compatible with that of other household furniture. The use of solid wood, rather than the more common chipboard, is possible for this furniture type.

Marketing, product development and promotion in ITTO producing countries

Marketing and product development

From the point of view of developing country producers, there are many challenges to face in assessing and accessing the furniture markets of industrialized markets. In the current battle for market share, China is adopting a ‘catch-all’ strategy, in response to which other tropical producers cannot continue to rely on cost cutting and economies of scale.

Household furniture markets tend to be volatile. Continuous monitoring of furniture and living concepts must be carried out to obtain a solid basis for planning new investments and creations. While investment planning should

have a long-term perspective, it should also take account of the rapid changes in furniture fashions. New collections must be designed at short intervals to enable producers to keep pace with market opportunities. Flexible production through producer networks is one way of addressing this need.

Furniture sizes need to match differing requirements in Europe, Japan and the United States. While furniture for the American consumer tends to have larger dimensions, smaller items for one- or two-person households have significant sales opportunities in Europe. In Japan, the average living space per person has declined as more and more children continue to live with their parents; there is therefore a growing need for small, corner and occasional furniture.

Competitive prices, prompt deliveries and after-sales service are needed to enter the lower-priced market segments, and particularly for large-volume deliveries to buying groups or the big chain stores. Manufacturers are also starting to act as importers of made-to-order furniture. In the long term, a move away from the lower-priced market segment is warranted: China, Malaysia and the Philippines are making attempts to move to the medium- to high-priced segments.

The creation of original designs is necessary for anyone wanting to shift to the higher end of the market. Such designs should provide real value added. Most of the current exports of tropical producers are made-to-order and have little local innovation or design input, which in any case is often provided by the buyer.

To encourage the manufacture of items with greater value added in producing countries, there is a growing need to transfer technical and design know-how to these countries, as their current support infrastructure is in most cases incapable of providing such assistance to their furniture industries. Most policies adopted by tropical countries are geared towards providing comparative advantage to the furniture industry in the form of low-cost production factors. Unless a policy is put in place to encourage creativeness and innovation, value enhancement will be best undertaken by private-private initiatives, led by market forces.

Authenticity and knowledge of materials should be made to work to raise the competitiveness of tropical furniture. The furniture industry in the Philippines has adopted highly innovative designs and combinations of materials to earn more from export and help relieve the pressure arising from above-average (for the region) labour costs. It has become famous for the skilled handwork that goes into the finishing of its furniture, which may be hand-carved, painted, inlaid or gilded. The handwork in this case provides an added quality component.

Promotion

There has been a proliferation of home magazines, interior design and decoration magazines, as well as garden, house-building and home improvement periodicals with dedicated furniture sections. Increasingly, television programmes are being used to deliver new ideas on living and house refurbishing. Large catalogues are published annually by the leading household furniture retailers and mail-order houses.

Much of the hype about the use of e-commerce and the Internet in furniture trade and promotion has evaporated since the dot.com collapse in 2000. What remains now is a more realistic view of the use of the Internet as one of various means for pulling customers into stores. Furniture consumers appear to use the internet mainly to search for product information and to locate the nearest showrooms and retailers. By doing so they save much of the time and energy usually expended on furniture shopping.

The large retailers (IKEA, MFI, Conforama) have only recently turned to the Internet and have developed showcase sites and e-commerce platforms. The success of their attempts will be ultimately measured against sales figures, but they are being cautious so far. Sites are primarily organized as showcases to encourage clients to use classic distribution channels. However, online sales are provided in some national sites like IKEA-usa.com. In general, online offerings remain restricted.

Cooperation between industrialized and developing countries

United States

Changing industry strategies

In recent years, the United States market has been inundated with imports, mainly from China. As the market has been open to imports from a number of countries (both industrialized and developing), it has seen imports rise even as fashions and styles changed and consumer demand fluctuated. Exporters from countries seeking to reach the market always seemed to be aware of evolving style preferences and offered their own designs or adaptations of current favourites to reach niche United States buyers. In some cases, competitively priced entry-level products made a successful entry; in others, well-designed upmarket items for discerning consumers never took hold.

Now the character of furniture imports into the United States is changing. Manufacturing facilities for regular wood-based chairs and dining room and bedroom furniture, at the low to medium, and sometimes premium, price points, are being transferred to China and other Asian countries. This process will certainly create unemployment in the United States and is calling for a permanent modification in the operations of the United States industry.

The survivors are likely to be high-end producers who offer customization and rapid delivery, or who specialize in furniture of the highest quality (and price). The other American furniture companies are more than likely to shift production to Asia and to focus on marketing and distribution at home.

However, as markets mature, retailers may increasingly source furniture direct from foreign-based manufacturers, bypassing home-based companies entirely. Early signs of a similar change are being seen in the kitchen cabinet industry: many cabinet manufacturers are now importing doors from overseas.

Design as a competitive tool

Many Asian and Latin American countries will have to review their exports to move these away from the challenge posed by China-made products. Better designs, styles, new materials and concepts are being used to create items that differ from the usual commodity products. The Philippines has been doing this for some time and its example is being followed across Asia and especially in Thailand and Malaysia. The use of mixed media such as twisted rope, wicker, rattan (often linked with glass and metal) and new colours is allowing a shift to stronger shapes, styles and features.

Home office furniture is taking on country and vintage styling with carved features. The newer contemporary European styles using aluminium frames, glass tops, a wide range of colours and natural finishes for tops and fronts are

also being adopted. Whilst this is a move in a reasonable direction, it is not a permanent one and it cannot completely compensate for the low prices of furniture that is being obtained in large volumes from China. But the challenge has forced developing countries to improve their own design infrastructure or face losing this market.

Higher-priced quality products are being sourced from industrializing Asian countries, backed by better distribution systems at both ends of the chain. Design and quality are the major focus of the various trade bodies in these industrializing countries, capitalizing on the expertise of Western traders seeking better direct sourcing. A transfer of knowledge and the accompanying technology is now under way in many sectors.

The European way

An example of how the Europeans are working to improve their trade with the United States is given by Denmark. The Danes are setting up warehousing and distribution facilities in the United States to offer better loads and quicker delivery times. Some Danish manufacturers are looking to buy weakened American companies for sourcing purposes especially in the home office sector. This would cut their six- to eight-week delivery periods down to two or three days, thereby complying with the stocking policies of many buyers.

Italy has made even stronger inroads. It not only supplies leather seating and contemporary bedrooms, but is also establishing retail stores to take products direct to the consumer.

Change in business concept

The United States furniture market is now regularly supplied by American brand-name companies which once made furniture in the country but are now importing furniture carrying their brands (or having them rebranded on entry into the United States). The problem of transport over long water routes will be addressed, and the use of information technology (including the Internet) will ensure the rapid communication of data on purchase patterns, orders and delivery schedules. Retailing and distribution will take on a stronger role for the industry, as competing design and niche sectors proliferate.

European Union

The EU markets have remained a tougher ground for suppliers from developing countries. The Asian invasion seen in the United States and Japan has not been repeated in Europe. There are several reasons for this:

- ❑ The European market is diversified and has sophisticated quality, style and design requirements. At the moment, these are still beyond the capabilities of the majority of DMEC suppliers.
- ❑ EU manufacturers continue to enter into subcontracts with eastern European furniture factories, which are much closer and better able to meet requirements.
- ❑ The market for rattan furniture has been effectively taken over by EU companies that have set up production units in Southeast Asia.

As an example, the trade in American furniture classics reproduced in Asia does not have an equivalent trade in Europe. European importers are actively seeking 'new' suppliers capable of offering fresh innovations (the Philippines), low costs (Viet Nam), and products for still undiscovered niche markets. The EU

furniture industry appears to be heading towards greater specialization; this will pose challenges to developing countries as they will have to develop new collections at shorter intervals to meet fragmented demand.

The most successful European furniture manufacturers realized a long time ago that their competitive advantage lay in their home-base characteristics: flexible but efficient production, the highest technological quality specifications, superior design, innovative market promotion and swift distribution with minimal stock-keeping. This has offered a protective shield against low-cost competition.

Subcontracting appears to present possibilities even for the more distant suppliers in developing countries. The fact is that furniture is increasingly being traded in semi-finished form and without accessories. Finishing and accessories/fittings are added in the consuming country in line with local specifications. Therefore, the obstacles associated with meeting requirements in these two sensitive aspects of final product quality have been reduced.

Japan

According to the Economic Planning Agency's interpretation of the results of various household consumption surveys, by the mid-1990s around 70% of Japanese homes had dining room sets, and 36% of households had living room sets. These had changed very little over the previous 20 years. Certainly the sheer lack of floor space is a major barrier to increasing penetration.

The end of the switch to Western lifestyles and furnishings, coupled with dwindling population growth, is one more indication that, in the furniture market at least, the economic bubble of the late 1980s and early 1990s and its bursting was not a cyclical phenomenon in the usual sense. Rather, today it seems to have been the turning point from a rising to a falling secular trend, and any early reversal is not anticipated. The Japan External Trade Organization (JETRO) believes that, in the future, most of the demand in the home furniture market (where wood predominates) will therefore be for replacement.

To the encouragement of producers in developing countries, no market position in Japan is secure on the strength of tradition alone, as it used to be until recently. Any newcomers can hope to carve out a market share if they can demonstrate acceptable quality, versatility in meeting particular specifications, reliability in delivery and after-sales service, and, above all, a competitive price.

The desperate situation of the Japanese industry for furniture and other wood products has opened up prospects that have never been better for overseas manufacturers to set up profitable joint-venture arrangements with Japanese companies. However, potential partners in developing countries should not forget that, at present and for the foreseeable future, Japan is a bear market where only tough, quick and astute market players will thrive.

Put very bluntly, Japan simply is no longer the pot of gold it once appeared to be for many furniture exporters. But it is still a wealthy country with a great appetite for quality products, backed up by strong purchasing power even after all its recent battering. No one in Japan will part with money easily nowadays, but the Japanese are ready to spend if they are convinced that they will obtain good value for money. Convincing the Japanese purchaser of this is the challenge to developing country exporters of furniture and other processed wood products.

JETRO has several points of advice on how best to go about this:

- ❑ **Contracting a marketing survey.** For entry into, or expansion in, the Japanese market, there is no substitute for engaging on-the-ground expertise on critical questions of potential market scale, product differentiation and

competitive strategies vis-à-vis already entrenched suppliers. This also entails familiarity with the details of the Building Standards Law, Japanese construction methods and the Japanese climate.

- ❑ **Selection of Japanese importers.** In general JETRO still seems inclined to support Japanese firms specializing in import-export dealings rather than direct tie-ups between overseas suppliers and Japanese companies close to the final distribution stage.
- ❑ **Preparation of targeted catalogues for the Japanese market.** In spite of the costs, a local edition of the producer's full catalogue is indispensable, not only from the linguistic viewpoint but also to convey information on product appearance, performance test values and product identification points and to present dimensional mounting layout diagrams.
- ❑ **Provision of a showroom for product samples.** Because there remain substantial gaps in awareness of the differences between imported furniture of different brands, including those from well-known international companies, a showroom would enable end-users to recognize the features of a specific product line.
- ❑ **After-sales service.** It is essential to clarify such after-sales matters as the warranty period, the scope of the overseas maker's warranty responsibility (who shall provide after-sales maintenance or trouble-shooting services, and who shall be liable for any complaints).
- ❑ **Modification of products to conform to the technical specifications and tastes of the Japanese market.** This can represent something of a dilemma for overseas producers who would normally not develop new products until they are able to attain large sales volumes. However, they can expect sales to increase rapidly if their products conform to the requirements of the Japanese market.

Chapter 3

The world's eight leading furniture markets

United States

Basic demand factors and market drivers

The world's largest economy, the United States of America enjoyed continuous growth over the nine years to 2000 to a GDP of \$10 trillion at current prices, up 28% since 1996. The economy began slowing down first in the second half of 2000 and the first half of 2001. A dip started in March 2001 as the stock market plunge took its toll on share prices. Company profits fell sharply and the 'tech-bubble' burst with an effect on prices and a less than favourable employment outlook.

After the dramatic negative impacts of the third quarter of 2001, stronger output levels were again recorded in the first half of 2002, indicating prospects for a strong recovery but amidst numerous new political uncertainties. Consumer and government spending were the biggest contributors to the rise in real GDP during this time. The Government responded to the short and mild recession of 2001 with a \$150 billion stimulation and an incentive package aimed at renewing economic activity. However, this increased the government budget deficit.

Economic reports considered the economy capable of growth despite expanding imports. After the pull-back from the slowdown of 2000–2001, artificial GDP was expected to climb at 2%–3% annually over the succeeding five years. This was a static scenario as inflation would take up much of the rise, leaving a possible real growth of 1.0%–0.5%. Wages were rising, but productivity gains were expected to offset the increases in hourly labour rates. The inflation rate was under control at 1.5% as a result of many factors, one being the Federal Bank use of monetary policy and consecutive interest rate cuts.

Home ownership remained at highs of 67%, with new housing starts holding at strong levels, both supporting consumer purchases. Residential mortgage rates were at their lowest for years, below 5%–6.5%. The Federal base rate was cut from 6.5% in 2000 to 1.75% in late 2001 and held beyond the first quarter of 2002. Economists record that a one-point cut in interest rates boosted GDP by 0.6% after one year and by 1.7% after two years.

Consumer confidence, strong in 2000, but lower during 2001, returned during the first quarter of 2002 and kept the economy going. Furniture retailers did not benefit much from this drive. In fact, household spending on furniture (as a percentage of total consumer spending) dipped to its lowest level in a decade. Of every \$100 spent on all goods, 91 cents (0.91%) went to furniture. The figure was 95 cents in 1997 and has stayed at 0.95%–0.97% for the last seven years. In the 1980s, it was over 1% of consumer spending.

Consumer credit levels were high and remortgaging played a part in releasing cash for consumer expenditure. Furniture companies were using a range of sales promotion techniques to stimulate trade, especially in the DIY and RTA sectors covering home-builders and discount retailers. Other sectors were recovering mainly through consumer bargain-hunting.

Outlook

The country was importing more of its goods, especially furniture, and was closing factories and shedding jobs. Productivity growth in the second quarter of 2002 was 1.5%, well down on the 8.6% of the first quarter. Conversely, incomes (averaging \$35,600 per capita in July 2002) were rising faster than spending. However, the maintenance of the confidence level required to continue buying cars, houses and possibly furniture remained uncertain.

The flight from investment in stocks, the remortgaging of houses at lower interest rates, release of equity and tax cuts generate cash for consumers. Real disposable incomes were thus rising at 3.9% annually. GDP's two components, government spending and consumer spending, were expected to keep on expanding. The third GDP gear, business investment, was static and possibly falling. This sector needed a confidence boost to invest against an annual trade deficit of \$450 billion (nearly 5% of GDP). The deficit needed to be cut to \$250 billion–\$300 billion. The weakening dollar was expected to give some boost to export-oriented investments.

Unemployment was climbing to 6% and needed to stay at or below that figure – it was 4% in 2000. Housing starts, always a good indicator for furniture sales, although with a lag, were at 1.68 million for 2002 against 1.6 million in 2001. A drop to 1.65 million was expected in 2003.

The United States Federal Bank base lending rates were at 1.75% in 2002, the lowest level for 40 years. In 1990 the Bank rates were 10% and in 1980 over 15%, causing a different set of problems for the industry.

Residential furniture orders were up 5% during the first half of 2002 at \$12.7 billion, with shipments increasing only 2% year on year, indicating that consumer confidence had cooled, although housing and employment were still buoyant. The 2001 recession was relatively mild, but the economy was expected to take some time to start moving again.

Furniture consumers

How much do they spend?

The average United States household spends an estimated \$586 annually on furniture (see table 3.1). The largest amount (\$258 or 44% of the total) goes to wooden furniture, of which the main items are bedroom furniture (\$88 per household), dining room furniture (\$52), living room furniture (\$23) and kitchen furniture (\$22).

Expenditure on upholstered furniture, the second largest category, is estimated to have reached \$222 or 37.8% of the total. The figures for mattresses and related products, the third largest item, are \$74 and 12.5%. Finally, the smallest category, metal household furniture, accounts for \$34 or 5.8% of the overall figure. The main items within this category are outdoor furniture (\$23) and dining room and kitchen furniture (\$6).

Age group	25 or less	25–34	35–44	45–54	55–64	65 plus	Total
Number of households ('000)	8 306	18 887	23 983	21 874	14 161	22 155	109 366
Average income, US\$	19 744	45 498	56 500	58 889	48 108	25 220	44 863
Average expenditure on furniture, US\$	328	566	722	724	716	334	586
% spent on furniture	1.66	1.24	1.28	1.23	1.49	1.32	1.31
Percentage owning homes	12	46	69	75	81	80	64
Persons per household							
Total	1.9	2.9	3.3	2.7	2.1	1.7	2.5
Children under 18	0.4	1.1	1.3	0.6	0.2	0.1	0.7
Persons 19–64	1.5	1.8	2.0	2.1	1.8	0.3	1.5
Persons 65 plus	0	0	0	0	0.1	1.3	0.3

Who are the biggest spenders?

The frequency of furniture purchases increases with income, starting at about one purchase every five years among consumers with incomes of less than \$5,000 and reaching one purchase every 1.7 years (approximately 20 months) for those with incomes exceeding \$70,000. This suggests that the mid-low income brackets may not purchase furniture frequently, but when they do their purchases are fairly significant.

Furniture expenditures are greatly influenced by income, size of household, age of the household maintainer and housing tenure. Household incomes and the size of a household over its lifetime typically rise first, and then fall as the household maintainer ages.

For example, as table 3.1 shows, in 2000 the average household income in the United States peaked between the ages of 45 and 54 at \$58,889 a year. This compares to just \$19,744 for households headed by a person under the age of 25 and \$25,220 for households headed by a person over the age of 65.

The average household spending is highest in the age brackets 25 to 64, when incomes and household sizes peak. However, the proportion of income allocated to furniture purchases is largest in households headed by a person of age 25 and less, reflecting the high degree of family formation in that age group.

On the basis of tenure, homeowners spend much more on household furniture (an average of \$719 in 2000) than renters (\$332). While homeowners account for about 66% of all households, they are responsible for 80% of all household furniture purchased. By contrast, renters make up 34% of all households and purchase 20% of the furniture.

All age groups are strong spenders on furniture and offer a series of target markets to suit careers and stage of family formation. The 45–54 group is referred to in the United States as the 'older baby boomers', 35–44 as the 'younger baby boomers' and 25–34 as the 'generation X-ers' (45 million).

The domestic furniture industry

Overview

A well-reported fact in recent years has been the transformation of many United States furniture companies into global sourcing businesses, with partners located particularly in Asia. The outsourcing of semi-finished products and components has been a key driver for this trade. A great number of furniture manufacturers have transformed themselves into assembly plants,

finishing lines or distributors and marketers of outsourced furniture and components from China and countries such as Brazil, Mexico and the Philippines. While subcontracting the manufacturing processes to lower-cost countries, the American firms hold on to most of the value-adding potential in design, distribution and marketing, functions which they keep strictly under their control. The manufacturing process itself (particularly when it is carried out with standardized machinery) has a lower value-added potential and is therefore easily subcontracted anywhere in the world.

During 2001, some of the largest United States furniture manufacturers collapsed, and various famous brands were taken over by others. More than 50 furniture plants had closed by the middle of 2001 and, within the next 10 years, it is probable that only a few major domestic furniture manufacturers will remain. These are likely to be high-end producers who offer customization and rapid delivery or who specialize in the highest quality (and price) furniture. Other United States furniture companies are more than likely to shift their production to Asia and focus on marketing and distribution at home. However, as markets mature, retailers may increasingly source furniture direct from manufacturers abroad, bypassing United-States-based companies entirely. Early signs of a similar change are being seen in the kitchen cabinet industry, where many United States cabinet manufacturers are importing doors from overseas. The use of dedicated offshore manufacturers for American branded furniture is a growing trend.

The years 2000 and 2001 witnessed a race of American furniture companies into China to find reliable manufacturing partners and, ultimately, to gain a foothold in the Chinese domestic market-in-the-making. As soon as the Chinese distribution structures strengthen, growing imports of upscale furniture can be expected. The 2008 Olympic Games in Beijing will give an additional boost to the construction, information technology and services sectors, with multiplying effects on consumption of furniture and value-added wood products.

Furniture sectors

Household furniture

The United States factory output of household furniture was valued at \$25.6 billion in 2000 (see table 3.2), but fell by 10% in 2001 to \$23.0 billion. The leading 10 producers had a share of 41% of the total output.

Type of furniture	Production (\$ billion)	Share (% of total)
Upholstery	9.2	36
Bedroom	4.6	18
Dining room	3.3	13
Occasional furniture	4.1	16
Metal and other furniture	2.6	10
Ready-to-assemble	1.8	7
TOTAL	25.6	100

Sales by the leading 25 manufacturers fell in 2001 from \$13.8 billion in the previous year to \$13 billion. Eighteen companies were responsible for the downturn. Contract sales dropped by 17% over the same period.

Upholstered furniture made up 36% of the output in 2000. Bedroom and occasional furniture were the next largest production segments.

Production of wooden furniture amounted to around \$12.1 billion, or 48% of the total output in 2000.

For 2002–2003, AFMA expected domestic factory shipments to rise by 4.1% and 5.9% respectively (see table 3.3). Shipments of upholstered furniture were to climb faster than wood in 2002 but would slip back in 2003.

Indicators	2000	2001	2002	2003
Consumer spending	64.0	64.1	66.4	67.6
<i>Growth rate (%)</i>		0.0	3.5	2.9
<i>Real growth (%)</i>		1.7	5.9	1.8
Factory shipments, of which:	25.6	23.0	23.9	25.3
<i>Growth rate (%)</i>		-10.2	4.1	5.9
<i>Real growth (%)</i>		-11.3	3.1	4.8
Wooden furniture	12.1	10.9	11.2	11.9
<i>Growth rate (%)</i>		-11.0	2.7	6.3
<i>Real growth (%)</i>		-12.5	1.3	5.0
Upholstered furniture	10.82	9.8	10.5	11.1
<i>Growth rate (%)</i>		-9.3	6.3	5.6
<i>Real growth (%)</i>		-10.3	5.3	4.5
Metal and other furniture	2.55	2.3	2.3	2.4
<i>Growth rate (%)</i>		-10.5	1.1	5.1
<i>Real growth (%)</i>		-10.7	1.0	4.7

Source: American Furniture Manufacturers Association (AFMA).

Major players. The household furniture industry has undergone a restructuring in recent years. The most famous companies have traditionally been Athens, Bassett, Broyhill, Century, Ethan Allen, Kimball, Lane, La-Z-Boy, Lexington, Pulaski and Universal, to name a few. But during the 2000–2001 restructuring drive, many of these either closed down or were taken over by others. Some of them have filed for bankruptcy protection or continue to operate under Chapter 11 of the United States Code.²

La-Z-Boy, with sales of \$2.1 billion, is the largest survivor. Furniture Brands International (FBI) holds second place; it has a turnover of \$2.3 billion, partly as a result of purchases of furniture items from other manufacturers. FBI is the only major domestic source of furniture in the mid to high ends, after taking over Drexel Heritage, Hendredon (which imports 10% of its components), Maitland-Smith (which imports all of its furniture parts), Broyhill, Lane and Thomasville.

Lane is an example of a major American manufacturer which has closed domestic factories and moved offshore, mainly to China, Europe and Latin America. It has a turnover of \$750 million and 4,000 employees. It is building a new distribution centre at Tupelo, Mississippi to manage its imports. Its import affiliate, Outlook International, has a staff of 80 in China to look after quality; a key person is assigned to each plant. Testing laboratories and offices are, or will be, maintained in each country where Lane has operations. Containerized transport carry mixed and dedicated loads direct to customers or to storage depots. In addition to regular stores, Lane has over 300 showcase in-store galleries.

² The consolidation and codification by subject matter of the general and permanent laws of the United States.

Company	2000	2001	% change
	Turnover (\$ million)		
La-Z-Boy	2 223	2 072	-6.8
Furniture Brands International	2 031	1 816	-10.6
Lifestyle Furnishings ^{a/}	1 691	1 259	-25.6
Ashley Furniture	856	1 003	17.0
Klaussner	912	826	-9.5
Ethan Allen	740	739	-0.3

Source: F/Today analysis.

a/ Now liquidated; its brands were sold to the leading 25 companies, including Furniture Brands.

Office furniture

The Business and Institutional Furniture Manufacturer's Association (BIFMA) estimates that business and institutional domestic shipments of office furniture in the United States amounted to \$10.98 billion in 2001 and \$13.28 billion in 2000, an 18% decline. The incomes of many companies operating incomes went down considerably as they moved to offshore sourcing, incurred costs for domestic plant closures and sold off slow-moving stocks.

The top 25 American manufacturers of contract and company office products had a turnover of \$13.1 billion in 2001, down 14.9% from the 2000 high of \$15.4 billion.

The decline in sales resulted in a buyers' market, where price and service considerations are important. New office construction, project delays and cancellations brought about significant sales of used and refurbished furniture. However, despite the closure of leading stores like Heilig-Myers, Roberds and Montgomery Ward and HomeLife, it can be said that the retailers of branded home office furniture had fewer problems than the furniture retail sector as a whole.

It is said that imports offer more wood for money as well as innovative mixes of materials and styles. However, for low-priced imports, the cost of transporting the goods from offshore sources easily outweighs savings in labour costs. With automation the United States producer may often be able to compete with imports in various categories by offering a better delivery service.

Data on some of the leading manufacturers of office furniture is given in table 3.5.

Company	2000	2001	% change
	Turnover (\$ million)		
Steelcase	3 852	2 920	-24.2
Herman Miller	2 183	1 855	-15.1
Haworth	2 060	1 710	-17.0
Hon	1 650	1 366	-17.2
Knoll	885	910	2.8

Main raw materials

United States manufacturers use lumber, hardwood plywood and MDF (medium density fibreboard) in the making of furniture, but not much softwood plywood and OSB (oriented strand board). The latter two materials are used mainly for cabinet interiors, backs and caskets (coffins), mostly with surface coverings of veneer, vinyl or paint. According to research carried out by APA, The Engineered Wood Products Association, in October 2001, 10 million cubic feet of softwood plywood and OSB could be used as substitutes for lumber in the production of furniture and fixtures.

Outsourcing and networking among manufacturers

Outsourcing, a major business concept in the United States, involves the provision of service by a manufacturer (domestic or foreign) to a domestic customer through component production, full product production or assembly. The value of outsourcing by all manufacturing sectors (including furniture) expanded rapidly from \$100 billion in 1996 to \$325 billion in 2000.

Sourcing from domestic producers offers furniture makers advantages over offshore sourcing. These include shorter delivery times; good service and delivery facilities; possibilities for deliveries of smaller quantities, including one-off drops; probably better quality; and the use of local raw materials like oak and cherry.

However, offshore outsourcing enables American manufacturers to take advantage of low labour costs (which may go down to 25–75 cents an hour) and the availability of a skilled workforce for labour-intensive tasks (detailed hand finishing and carving). The disadvantages are long transport periods (22–32 days across the Pacific); the need for full container loads; the long lead times of 60, 90, 180 days; and associated costs. At the point of arrival, transport across the United States and break-loads for containers have to be organized if central one-drop delivery is not possible. Hence multiple handling can occur and damage control becomes a prime problem if loading and packing facilities at the various points are inadequate.

Foreign trade and apparent consumption

Imports

Imports dramatically changed the nature of the American furniture industry over the decade to 2001. The dollar value of imported furniture (at landed cost) increased by 250% in that period.

Total imports of wooden furniture climbed to \$10.67 billion in 2001, up from \$5.96 billion in 1997. The structure of imports did not change much over the period (see table 3.6). The most notable changes occurred in wooden bedroom furniture (which had a bigger share in imports) and wooden seats (which lost ground). The largest category, other wooden furniture, consisted mainly of occasional or accent items; it also covered entertainment storage units which are not easy to categorize. The category had 34% of the total in the two years to 2001. Bedroom furniture recorded the highest growth rate during the overall period.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	92.4	2	93.4	107.6	129.2	116.0	1	126
Seats n.e.s. with wooden frames	1 372.9	23	1 531.7	1 863.8	2 215.0	2 146.7	20	156
Wooden office furniture	395.4	7	507.5	576.4	715.6	582.9	5	147
Wooden kitchen furniture	421.4	7	465.0	554.2	666.7	735.1	7	174
Wooden bedroom furniture	756.2	13	945.8	1 298.2	1 687.4	1 840.0	17	243
Other wooden furniture	1 992.9	33	2 505.3	3 063.3	3 653.0	3 648.8	34	183
Furniture of other materials, including bamboo	233.6	4	277.0	341.1	402.2	371.1	3	159
Furniture parts of all materials	691.0	12	825.2	1 059.7	1 317.0	1 225.5	11	177
TOTAL	5 955.8	100	7 150.9	8 864.3	10 786.2	10 665.9	100	179

Source: ITC/UNSD COMTRADE database.

Imports from developing market economies and China, and other origins

The United States import picture can be best described as 'sino-dynamic', with growing market invasion by Chinese exporters across the wooden furniture ranges. The United States appears to have remained an extremely open market for furniture imports from all sources, and from China in particular when the country shifted to an export-oriented market economy.

During the 1997–2001 period, there were drastic changes in the import shares of the supplying countries, as well as an overall shake-up of the United States furniture market, which led to downsizing of domestic production and a shift in business strategies. In 2001, the United States obtained 56% of its wooden furniture imports from developing countries and China (the DMEC group). While this share had not changed much since 1997, the China factor certainly came into play during the period under review. China's share in United States imports of wooden furniture and parts went up from 15% to 27% between 1997 and 2001, and the end is not yet in sight.

In 2001 China ranked first or second as a supplier of the four largest categories of imports of wooden furniture into the United States (table 3.7). In 'other' wooden furniture, which by far accounted for the bulkiest part of trade, China held a comfortable 34% share, leaving only minor shares for Indonesia (third largest source) and Malaysia (fifth). Between these leading suppliers were Canada in second place (down 2 percentage points since 1997) and Taiwan Province (China) (which lost 6.5 percentage points over the period reviewed). Malaysia also lost market share.

In wooden bedroom furniture, China's position looked equally strong. Eroding the positions of Canada and Mexico, China's share soared from a mere 6% in 1997 to 31% in 2001. Canada's shares fell from 36.6% to 22.6%, and Mexico's from 16% to 8% over the five-year period.

In wooden seats, Italy stood firm against China and held a nearly unchanged share of around 30% as the leading source. China strengthened its market share from 10% in 1997 to 20% in 2001. The biggest loser was Malaysia, which saw its position slide from 14% to 6%. Deliveries from Taiwan Province fell by more than half.

Finally, in furniture parts, Canada (35%) and China (23%) were the key players, with the latter gaining fast. Mexico and Taiwan Province lost more ground than any of the other suppliers. Taiwan Province gradually lost its

special position as the export-import hub of mainland China, and much of its productive capacity has been relocated to the continent and other Southeast Asian countries.

Table 3.7 United States: imports of furniture from leading suppliers among developing countries and China, by major product group, 2001

Product group	Value (\$ million)	Major developing country suppliers	Share (%)	Rank
Other wooden furniture	3 648.8	China	34.2	1
		Indonesia	6.5	3
		Malaysia	5.2	5
Seats n.e.s. with wooden frames	2 146.7	China	19.5	2
		Mexico	8.8	4
		Malaysia	6.3	5
Wooden bedroom furniture	1 840.0	China	30.9	1
		Mexico	7.9	4
		Indonesia	7.1	5
Furniture parts	1 225.5	China	23.2	2
		Mexico	8.1	3
		Malaysia	3.5	6

It is useful to point out here that Brazil has a competitive advantage on the American market with its two-week delivery times, low-cost labour supply, and highly automated factories for RTA ranges. However, its transport costs are higher: a container costs \$2,000 to move to the East Coast, and \$3,000 to the West Coast as against Malaysia's \$1,000. Imports from Brazil amounted to \$485 million in 2001; they were expected to reach \$600 million and \$1 billion in the following years.

Exports

As table 3.8 shows, United States exports of wooden furniture fell by 6% to \$1.16 billion during the period 1997–2001. 'Other furniture' (30%), furniture parts (27%) and wooden seats (18%) made up three quarters of these exports.

Table 3.8 United States: exports of wooden furniture, by product group and by value, 1997–2001

Product group	Value (V): \$ million							
	1997		1998	1999	2000	2001		Index: 1997=100
	V	% of V	V	V	V	V	% of V	
Seats of cane, osier, bamboo, etc.	2.5	0	2.2	2.2	2.5	2.3	0	92
Seats n.e.s. with wooden frames	223.1	18	218.6	210.6	227.1	207.2	18	93
Wooden office furniture	85.1	7	87.4	78.3	99.5	96.9	8	114
Wooden kitchen furniture	65.7	5	44.7	49.1	53.4	41.6	4	63
Wooden bedroom furniture	105.2	9	114.1	102.7	105.1	104.0	9	99
Other wooden furniture	412.3	33	385.8	351.9	383.1	344.9	30	84
Furniture of other materials, including bamboo	51.1	4	59.8	68.8	72.8	51.8	4	101
Furniture parts of all materials	290.8	24	370.3	318.2	330.5	314.4	27	108
TOTAL	1 235.9	100	1 282.9	1 181.7	1 273.9	1 163.1	100	94

Source: ITC/UNSD COMTRADE database.

Net trade

As can be gathered from the above, the United States is a heavy net importer in all wooden furniture categories. It had a total trade deficit of \$9.5 billion in 2001, about twice the deficit of \$4.7 billion in 1997. Net imports of wooden bedroom furniture nearly tripled over the period reviewed.

Consumption

Consumer spending on furniture and bedding was \$64 billion in 2001 (see table 3.9). In the first half of 2002 consumer expenditure on furniture grew at an annualized rate of 4.8% to \$67.1 billion. For the full year it was expected to expand at only 2.4%. The rate estimated for 2003 was 2.5%, to reach a total of \$67.3 billion.

The average disposable household income is projected to grow by 11% in constant terms over the 10 years to 2010; this will be reflected in a rise in furnishing and refurnishing activities. Retail sales of household furniture are projected to reach \$78 billion by 2010.

A rise in consumption of bedroom furniture is anticipated owing to the increasing use being made of these rooms as living areas. Better-looking bedroom furniture and units for enclosing TV sets, DVD players and the like are in demand.

Consumer spending on furniture had been declining over decades with an occasional upward blip. The current share of household income going into furniture is down to 0.86%, from over 1% in the 1980s. Much of the fall has been due to decreasing family sizes and smaller households as well as to competing leisure products.

Table 3.9 provides an idea of expenditure (consumption) in the United States by type of furniture in 2001.

Product group	Consumer expenditure		Stock turn (No. of times)	Share of selling space (%)
	\$ billion	% of total		
TOTAL	64.1	100.0		
Upholstery ^{a/} , of which:	21.4	33.4	4	26
Stationary	14.3	22.3	4	27
Motion	7.1	11.1	4.2	4
Bedroom, of which:	10.1	15.8	3	9
Youth	2.9	4.5	3.5	3
Master	7.2	11.3	3	13
Infant furniture	1.0	0.1	3.7	0.2
Dining room, of which:	8.0	10.5	3.2	7
Formal	4.1	6.4	2.7	9
Casual	3.9	6.1	3.9	5
Occasional, of which:	9.0	14.0	3.0	4.5
Entertainment	2.5	4.0	3	4
Tables, etc.	3.2	5.0	3.1	5
Other/accent	3.3	5.0	3	4.5
Home office	3.1	4.8	3	1.5
Bedding	8.5	13.3	6	8
Kitchen furniture	2.9	4.5	–	–

a/ Of which: leather-covered: \$6.5 billion (26%); fabric covered: \$21.4 billion (74%).

Market segmentation and regional demand

Consumer segments by age group

The household furniture sector is being influenced by the irreversible maturing of the two 'boomer' generations (see table 3.10). Both are prosperous and are benefiting, or will benefit, from inheritance-generated asset transfers. This population group, usually seeking immediate gratification, is increasingly including 'place' in its definition of self. This means that 'the home', including vacation property, is becoming more of a central focus for families. The proliferation of 'shelter' magazine titles, increasing by 85% over the decade to 2001, helps spread household, furniture and DIY stories.

The second wave of household formation expenditure is from the 'echo-boom' of the original boomers. In 2001 people in this group were at college level and were soon to enter the home formation stage.

Age group	Number of households (million)	% of households planning expenditure on furniture in 2001	Characteristics of age group and type of furniture sought
Generation Y (born since 1975)	2.3	3	Necessities and popular items
Generation X (born in 1965–1975)	14.6	22	Have dual incomes, allowing flexibility in furniture choice; major home buyers.
Younger baby boomers (born in 1956–1964)	22.2	28	High earning levels; ideal furniture buyers; raising families.
Older baby boomers (born 1946–1955)	23.2	24	Have high discretionary incomes; are likely to be refurbishing homes.
Empty nesters (born 1936–1945)	16.6	13	Independent; have vacation homes; 83% own their main homes.
Retirees (born before 1936)	23.7	10	Lower expenditure on furniture; concentrate on special or decorative items.

Source: *F/Today*.

Price points and other considerations

In the 'kids and juvenile' market 14 companies sold \$2.5 billion (wholesale) worth of furniture in 2001, up 9% on 2000. While they experienced little change in turnover from the year before, they recorded increased profits and margins in 2001. This furniture sector uses licensed product designs from Disney films, famous child stories, TV comedy and TV characters.

Most furniture items are scaled down to suit child and juvenile sizes, but parent glider chairs are part of the 'baby' furniture room scene. In addition to carrying licensed designs, the furniture reflect 'modern' and 'youth attitudes' in 'reproduction' styles featuring the sturdy 'Victorian' image or in 'simple contemporary' styles under the RTA system. The use of these styles help in the redesign of the bedroom as the child gets older.

A number of retailers have moved from catalogues to online promotion as well as opening more brick and mortar stores. The various stages of a child's life are the key sales points. The various market segments were valued as follows in 2001: infant/nursery, \$300 million; ages 3–7, \$1.1 billion; and 10+ youth bedroom ranges, \$1.1 billion. The birth rate was up in 2000, with 4.1 million born during the year.

Parents in the 25–34 (accounting for 56% of total purchases in 2000) and 35–44 (33%) age groups are the main purchasers. The group with family incomes of \$50,000 spent an average of \$300 on furniture, taking over half of furniture sales in 2000. Expenditure rose to \$700 in households with incomes of \$100,000, but this represented only 7% of sales.

Coordination is useful in the 'kids and juvenile' market, and a range of accessories that can grow with the children can save their parents money whilst offering scope for a play on designs. This is an important sales point. Coordinated products are offered by such entities as jcpenny.com, Poshtots.com; eddiebaur.com/ebh, Bombay Kids, Pottery Barn Kids, Rooms to Go Kids and Babies R Us.

Within the household sector, the market for occasional furniture (small tables, wall stands and accent pieces) is dominated by imports. These are easy to ship in volume and are quickly available in new designs. Taking advantage of affordable offshore labour, imports are able to offer better surface treatments such as carving, rubbed finishes and metal/wood effects in the \$399–\$999 price points.

Imports use wood materials like pine, cherry, oak, maple, birch, mahogany and rubberwood. Bamboo (crushed and split), banana bark, coconut shell, raffia, rattan, wicker and leather are also employed, particularly in tops. The latter materials are often found in chair and table arrangements, mainly for the eclectic and designer ends of the market. Some buyers like to purchase pieces made from organic materials.

Entertainment units (for TV, video and DVD units; big screens; and small-item storage) are often supplied boxed complete or as RTA. Both are sold by the Home Centers and large Wal-Mart stores. Retailing from \$99 to \$499, they have wood and particleboard sides, plywood backs, and either solid wood or glass doors with metal extrusions. Sauder, Gusdorf, Bush and O'Sullivan are the major suppliers. They are now opening household furniture stores offering these items to improve their delivery services and offer a better-quality product.

Oak and cherry are the most popular wood species for bedroom furniture (table 3.11). Mahogany is the most common tropical species. For casual dining and youth furniture, oak, maple, birch, cherry and pine are the best selling species (table 3.12). Differing sets of price points segment these two parts of the market.

Price points	Master bedroom		Formal dining sets	
	Share in total sales (%)	Best selling woods (% of sales by price point)	Share in total sales (%)	Best selling woods (% of sales by price point)
High: above \$3 000	31	Oak 9 Cherry 37 Mahogany 12	33	Oak 23 Cherry 18 Mahogany 26 Burl 13
Middle: \$1 000 – \$2 999	55	Oak 50 Cherry 26	46	Oak 37 Cherry 34 Maple 10
Low : below \$1 000	14	Oak 47 Cherry 10 Pine 22	21	Oak 50 Beech 11 Birch 11

Casual dining furniture			Youth furniture		
Price points	Share in total sales (%)	Best selling woods (% of sales by price point)	Price points	Share in total sales (%)	Best selling woods (% of sales by price point)
High: above \$2 000	19	Oak 26 Birch 11 Cherry 11	High: above \$300	40	Oak 16 Maple 22 Painted 22 Birch 10
Middle: \$700–\$1 999	46	Oak 39 Birch 16	Middle: \$150–\$299	42	Oak 37 Maple 10 Pine 16
Low: below \$700	35	Oak 45	Low: below \$150	18	Oak 47 Pine 16 Painted 11

Recent research indicates the importance of the various criteria in buying decisions. Of the respondents, 26% said that 'low price' was their most important criterion. The other criteria were: 'high quality', 23%; 'wide selection', 18%; 'popular brand names', 10%; and 'store service', 9%. Shopping behaviour has changed, with 39% of buyers now researching online before buying at stores. A further 32% look online but buy by catalogue, and 10% research in-store and buy online.

Regional demand

California is the country's largest market for household furniture (13%), followed by New York (7.9%), Florida (5.4%) and Illinois (4.7%). Among metropolitan areas (metro region), New York leads with 18.1% of the total, followed by Los Angeles (10.6%), Chicago (7.2%), San Francisco (6.5%) and Washington (6.2%). In terms of expenditure per person the Chicago metropolitan area ranks first with \$36.90.

Regions	Population (Million)	Market size		% change: 2010/2001	Expenditure per person (\$): 2010
		2001	2010		
		\$ billion	\$ billion (constant 2001 \$)		
26 Metro regions: Total	133.1	34.58	42.20	22.0	26.0
of which:					
New York/Long Island/ New Jersey	20.7	6.27	7.15	14.1	30.3
Los Angeles/Riverside/ Orange County	16.7	3.69	4.51	22.3	22.1
Chicago/Gary/Kenosha	9.2	2.49	2.99	19.9	36.9
San Francisco/Oakland/ San Jose	7.2	2.23	2.74	22.7	30.9
Washington/Baltimore	7.7	2.14	2.66	24.0	27.8

Regions	Population (Million)	Market size		% change: 2010/2001	Expenditure per person (\$): 2010
		2001	2010		
		\$ billion	\$ billion (constant 2001 \$)		
52 States: Total of which:	284.8	64.11	78.77	22.9	22.5
California	34.5	8.38	10.44	24.5	24.3
Texas	21.3	4.52	5.82	28.8	21.2
New York	19.0	5.07	5.74	13.1	26.7
Florida	16.39	3.47	4.59	32.0	21.1
Illinois	12.5	3.04	3.63	19.2	24.3

The different growth rates forecast for the furniture market reflect changes in purchasing power and the movement (migration) of families to 'sunshine' States and cities like Nevada, Phoenix, Sacramento and Portland (table 3.13). The northern East Coast States are suffering a decline in population, government cutbacks and lower investment. Regional movements lead to changing store locations and distribution needs as new population and housing facilities develop.

Market developments by type of furniture

Office furniture

The United States furniture market was valued at \$13 billion in 2000, up slightly on 1999. The market declined subsequently, but a reversal of the trend was expected in 2003. In 2000, the SOHO (small office/home office) subsector held 35% of the overall United States market for office furniture.

Supplies, including those for the SOHO sector, are provided by at least 11 key manufacturers ranging from La-Z-Boy to Steelcase and Herman Miller, with RTA suppliers taking 45% of the market.

Growth is moving away from large offices and corporate businesses as downsizing in company staff continues. Table 3.14 shows the leading office furniture items and provides estimates for 2001.

Market segment	Estimate of sales, 2001 (\$ million)	Four-year growth (%)
Panel system and components	4 011	9
Desk chairs	2 011	8
Desks (excluding RTA wood)	1 174	11
Filing cabinets	855	
Desk systems	784	12
Bookcases/storage	553	*9
Vertical file/wall	508	
Work/conference tables	499	8
Other file cabinets	428	
Side/arm chairs	325	11
TOTAL, 10 segments	11 148	

Source: United States Department of Commerce, *MarketResearch.com/Stats*.

Small office/home office furniture

Customer base

Small businesses and home working have grown in recent years, creating the need for smaller furniture items for converted home offices.

The number of households with a home office rose to 34 million in 2002. About 40% were income-generating; of these 9.6 million were regarded as full-time home-based businesses. Corporate home office work was carried out by an estimated 25 million households. As network systems develop, the number is expected to rise.

About 31 million home workers engaged in telecommuting in 2002; an increase in this number is expected by 2006. SOHO with less than five employees had 37% of the telecommuting segment for small businesses (less than 5–99 employees) and 27% of the segment for enterprises with over 1,000 employees. The small business segment is likely to develop strongly as a market for SOHO units, with companies embarking on multi-purchase units for their staff.

With 59% of households owning a desktop computer and printer, 34% with scanners and 23% with notebooks, the lack of innovation in computer equipment is looked upon as one reason for the fall in sales of SOHO furniture in recent years.

Offer of SOHO furniture

Assembled and flat-pack furniture, both domestic and imported, are being offered in a wide range of sizes and desk shapes to suit the various homerooms and corners used for the home office. Wood and particleboard units with laminate tops and strong edgings mix with solid wood and traditional ranges.

The current favourites are space savers with a high degree of functionality and a small footprint. Decorative mouldings, inlays and varied shapes add 'fun' and colour to this otherwise predictable category.

Workstations priced at around \$950 account for 50% of sales in the SOHO subsector, filing/storage units costing about \$300 have a share of 13%. Cabinets (credenzas/hutches at under \$700 per unit) take 9%. Seating absorbs 26%.

Sales outlets

SOHO items are sold through the large stores of major retailers like Staples, Office Depot and OfficeMax. United Stationers is the main distributor. Flat-pack (RTA) units are generally retailed by electronic/office supply stores and Home Centers. Assembled and more expensive furniture are found at the usual household furniture outlets, which obtain their goods from the many furniture suppliers catering for this sector. These suppliers often import items carrying brand names.

The strongest retailers in this sector are the three office supply superstores (Office Depot, Staples and OfficeMax), with 48% of the market (\$2,142 million) in 2001, 8.7% lower than in the preceding year. Sales by the top 10 retailers amounted to \$4.4 billion, with hardly any change from 2000. By contrast, the discount department stores (with 12% of the sector) and warehouse clubs (26%) reported a growth of 12% in retail figures.

The top six outlets are listed in table 3.15. They were followed by Best Buy, IKEA (whose 15 sales outlets registered a 26% rise in SOHO sales to \$170 million), Lowe's and Target. Improving their figures by 6%, warehouse clubs accounted for more than 25% of the SOHO total in 2001.

Table 3.15 United States: top six retailers of non-traditional office furniture, 2000–2001

Retailer	2000	2001	% change	No. of store units
	Sales: \$ million			
Office Depot	999	905	-9.4	824
Staples	698	670	-4.0	1 066
Costco	580	630	8.6	284
OfficeMax	650	567	-12.8	935
Sam's Club	525	540	2.9	500
Wal-Mart	378	435	15.1	2 744

Source: SoHo Today.

Office seating

Seating for home and commercial offices is sold by chain stores at prices ranging from \$69–\$99 at the low end, to \$199 and, to cite an example at the high end, \$749 for the popular Miller classic. Retailers commission their own collections from designers who take into account such aspects as the needs of the users for ergonomic seating, the marketing value of variations in materials (wood and formed wood, metal, leather, micro-fibres, mesh) and finishes, and the demand for seats suitable for desk/storage combinations.

Leisure furniture

Family rooms are moving outdoors as travel declines, keeping families at home. Well-coordinated displays for porches, verandas, terraces and patios link products for seating, eating and storage. All-weather wicker is popular for seating both outdoors and in enclosed spaces. Wood is used with aluminium and wrought iron; wicker is combined with metal frames. Table tops made of marble, lava, faux stone, tiles and volcanic materials stand on metal uprights.

European suppliers offer the United States leisure furniture market quick-ship facilities, usually within five days. Gautier, a French manufacturer of a wide range of furniture items, has 47 galleries in the United States promoting SOHO-only, juvenile-only or the full range of juvenile and master bedrooms, entertainment and office products.

Any growth in the market for electronic goods for entertainment purposes offers scope for increased sales of furniture for the purpose of holding and even disguising these goods. Wide-screen television sets are becoming popular. Sales of home theatre electronic products doubled recently. Such developments can only have a positive effect on the furniture market.

Children's furniture

In the tough retail market of 2001 when all retail sales went up by only 3.6%, retail sales of home furnishings for children by the top 20 retailers rose by 5% to reach \$8.9 billion. Among the top 20 were six specialist stores using 'kids' as part of their name. These had a total of 320 outlets. Averaging \$4.2 million per outlet, they registered the highest growth and accounted for 17% of the top 20 retailers' total sales.

Department stores (especially the Wal-Mart chain) had 66% of total sales, making them the market leaders. The largest 'kids only' chain was Babies R Us. Its 145 stores sold \$1 billion worth of goods, accounting for 11% of total sales in 2001 and registering a rise of 2% over the previous year. Rooms To Go Kids,

with 18 stores, was tenth: it had sales of \$105 million and a growth rate of 10.5%. Seaman's Kids ranked twentieth, with 9 stores and \$35 million in sales, up 40% on the year before.

In 2002, retailers were planning to open new shops. Bombay Kids, which had operated a successful trial store in Dallas, was set to establish 20–30 new stores in the United States in 2003. Bombay Kids intended to create 100 shops over a period of three years; these would also integrate its catalogue and internet marketing operations. Pier 1 was to increase the number of its Cargokids outlets to over 300 from the 17 in 2002; these would offer new bedroom ranges.

The licensing of names and properties and the placement of related emblems and pictures on children's furniture have been major factors in the growth of the sector. The promotional strategies emphasize a range of aspects, from the educational to the pleasurable and the bizarre.

Retailer	2000	2001	% change	No. of store units
	Sales: \$ million			
Wal-Mart	2 300	2 560	11.3	2 624
Target	1 450	1 600	10.3	977
Kmart	1 585	1 555	-1.9	2 105
Babies R Us	980	1 000	2.0	165
Sears Hoffman	527	510	-3.2	867
JC Penney	375	365	-2.7	1 111

Source: *Kids Today*.

Styles and design trends

There are a handful of style groupings for furniture sold on the American market. The choice of style at buying points appears to depend on the end-use of the piece of furniture being considered and the price the customer is willing to pay for it.

At promotional price points, 'contemporary' is the most popular style, followed by 'American country'; together they account for more than four-fifths of sales at the lower price ranges. 'American country' and 'traditional' each have nearly a quarter of sales at the middle price levels; 'mission' has 26%. At the high end, 'other traditional' has a substantial 32% share in sales; 'European traditional' has 23% of the market.

In all the styles, products offering high quality and a good presence are able to attract better prices. Master bedroom furniture from China, for example, can retail at \$2,000–\$ 3,000. Some of these imports are made of cherry (which has a nostalgic appeal) in American designs, and of solid oak in a blond finish, or pine, in European styles. China also exports bedroom furniture for the youth market. Brazil is developing designs for the United States but does not compete with China in the same product segments.

The style preferences for each type of furniture are interesting to note. As regards wooden cabinets (case goods), for example, the 'contemporary' and 'American country' styles are the most popular. Although no figures were obtained on the distribution of sales by style, one does know that the value of retail sales of case goods approached \$24 billion in 2001, equivalent to about 36% of the overall furniture market. The shares in case goods sales by end use

were as follows: 40% for the master bedroom, 11% for the youth bedroom, 18% for the formal dining room, 15% for the casual dining room and 16% for other purposes.

At the middle price ranges for formal dining rooms, the most popular styles were 'contemporary', with 26% of sales, 'American country' 25%, 'eighteenth century' 22%. 'Mission' was the fastest growing style choice.

The most frequently chosen style for casual dining furniture was 'contemporary'. 'American country' had shares of 47%, 33% and 22% at the high, middle and low price levels. Sales of items in the 'casual contemporary' style increased the most rapidly.

Distribution patterns

Overview

After 40 years of growth until the mid-1990s, national retail chains are no longer the leaders in furniture sales, having lost the national strength they once had. Regional retailers focusing on selected States or metropolitan areas have replaced them and are now the dominant outlets. Small, often independent, stores have also risen in importance. These specialize in specific furniture styles, often serviced by the large manufacturers or by importers with developed distribution systems. Some small stores offer direct home delivery.

Household furniture reaches the consumer through three channels or types of outlets: gallery networks, specialty stores and full-line furniture stores. A number of each are owned by the major manufacturers. This is especially true of gallery outlets, which operate either as free-standing stores, or as sites within full-line stores. Some outlets operate on franchises.

Furniture moves from supplier to outlet through wholesalers, often operating regionally; manufacturers' regional distribution centres; or direct deliveries from source. Full container loads of imports purporting to come from United States sources may be delivered direct to outlets.

The growth of small independent furniture stores and regional chain stores presents a practical opportunity for offshore manufacturers to open their own, product-specific stores in key cities, which is what United States manufacturers are doing. An example of the way to retailing success is provided by Rooms To Go, with its 80 stores displaying their furniture in complete, easy-to-see room settings. Each room is displayed and accessorized to the last detail. The consumer makes one decision and the room is delivered, as Rooms To Go claims, from warehouse to the consumer's house in days. It also sells furniture by the piece. This retailer offers online sales and maintains an online catalogue; it has 73 showrooms associated with its online facilities. Its site can be accessed at www.roomstogo.com. It is important for such stores to provide for a continuous change in their product ensembles to ensure a sustainable turnover.

Retailers use trade shows as a buying point. High Point, North Carolina, is home to the International Home Furnishings Market held each April and October. This huge event draws 70,000 people in the furniture industry. A pre-market show usually takes place before these events. This could easily be transferred to Asia in view of the surge in new products from the region. The pre-market show enables suppliers to identify preferred ranges and have them ready for the main High Point shows. High Point operates online sales facilities (www.ncfurnitureonline.com) for furniture at discount prices.

Las Vegas is establishing the groundwork for a major furniture market. To be called the World Market Center, it will have permanent showroom facilities

and compete with the High Point show and the country's numerous city-based regional furniture trade shows. The first event is scheduled for early 2005. At least three-quarters of the top 200 retail buyers have said they will use this show as a buying point.

A recognized importer may deliver direct to stores and their distribution centres, or through wholesalers to warehouses and split containers for onward delivery. The delivery systems are transparent but as it takes time for items to be transported from one point in a system to the next, delivery schedules may be held up. It may be useful to restrict the movement of imports to direct deliveries to selected stores, unless these imports carry a strongly branded name and are able to compete reasonably well on the United States market.

Retail outlets

The diversity of retailing in the United States led to a change in the type and coverage of store systems during the 1990s. This slowed the market even further during the two years to 2001.

Table 3.17 shows the distribution of the country's furniture retail outlets by type in 2001.

Type of outlet	Share in total number of outlets (%)	% growth in number of outlets, 2001/2000
Regular furniture stores	42	6.4
Manufacturers' galleries	14	3.9
Office supply stores	12	-11.4
Department stores	11	-6.3
Discount department stores	10	7.5
Membership clubs/warehouses	9	11.1
Home improvement centres	2	13.2
TOTAL	100	

Total sales by all these stores, including sales of items like accessories and lighting, reached \$44.8 billion in 2001.

In the retail market it is important to differentiate between sales in furniture stores and sales in other types of outlets selling furniture. While furniture stores took 79% of all furniture consumer sales in 2001, they have been declining in importance since 1995 as the discounters and DIY stores have gained prominence. Sales to the first half of 2002 indicate an annualized growth to \$65.1 billion, or a gain of nearly 2%, just ahead of inflation.

As table 3.18 indicates, the 10 leading furniture retailers increased their share in total sales to 18.9% (\$8.5 billion), up from 17.6% in 2000. The top 100 retail stores generated \$21.3 billion in sales or 47.5% of sales by all furniture stores.

In 2001 the number of outlets run by the 100 leading furniture stores fell by 219 to 6,935. This was caused mainly by the collapse of the retailing chains Heilig-Myers, Krause, HomeLife and Nationwide.

The importance of furniture stores as sales points continues, but home improvement centres have been increasing their impact on the market. Many department stores are major players in the furniture trade.

Retail company	Sales			No. of units	Sales per sq. ft (\$)
	2000	2001	% change: 2001/2000		
	\$ million				
Rooms To Go	1 050	1 260	20	90	800
Ethan Allen	1 193	1 170	–2	285	
Levitz Home	893	900	1	3 791	235
Pier 1 Imports	777	858	10.4	6 601	
La-Z-Boy Galleries	744	836	12.4	3 642	230
Berkshire Hathaway	830	833	–	27	
IKEA	550	690	25.5	15	
Havertys	680	678	–	103	190
Value City	625	675	7.9	76	
Art Van	575	575	–	28	

Sources: *F/Today*; United States Department of Commerce.

Tables 3.19 and 3.20 provide data on furniture sales by department stores and discount stores respectively.

Company	Furniture sales				Number of units, 2001
	2000	2001	% change, 2001/2000	% share in all sales, 2001	
	(\$ million)				
JCPenney	725	630	–13.1	3.5	1 075
Macy's East	170	187	10.1	3.7	116
Macy's West	185	183	–1.4	4.4	138
Rich's Lazarus	184	165	–10.4	7.9	76
Marshall Field's	162	155	–4.3	5.5	64

The leading discount stores achieved sales of \$2.3 billion in 2001, up 4.7% over the previous year. Among the products they offer are RTA goods for the SOHO and youth markets. It appears that there is a need for these stores to move to RTA items of better quality and improved designs.

Company	Furniture sales			Total store sales, 2001 (\$ billion)	Number of units, 2001
	2000	2001	% change, 2001/2000		
	(\$ million)				
Wal-Mart	930	1 085	16.7	139	2 744
Kmart	717	685	–4.5	36.2	2 114
Target	240	267	11.3	32.6	1 053
Ames	249	212	–15.2	3.2	387
Shopko	104	98	–5.8	3.4	366

Among the top 100 furniture retailers are 31 specialist stores. These increased the number of their sales outlets to 4,250 units in 2001; sales went up to \$5.8 billion. By contrast the conventional furniture stores cut their outlets to 2,685 units (from 3,148); sales in 2001 amounted to \$15.5 billion. Sales per square foot varied, with the medians at \$275 overall and \$334 for specialty stores. Table 3.21 presents some data on the leaders among these specialty stores.

Retail company	Furniture sales			No. of units	Sales/sq. ft (\$)
	2000	2001	% change, 2001/2000		
	\$ million				
Thomasville Home	468	475	1.5	130	
The Bombay Company	373	394	2.8	365	417
Breuners Home	406	368	–9.5	48	200
Pottery Barn	305	345	13.1	169	
Wickes	335	345	3	38	
Crate & Barrel	300	326	8.7	106	
Restoration Hardware	139	120	–13.7	101	
Roche-Bobois USA	54	52	–4	38	275

In 2002, the specialist store Rooms to Go (with \$1.35 billion in sales) was expected to enter the California market as a result of a takeover of Wickes, a national fashion-oriented value-price retailer with 39 stores and sales of \$400 million. The Bombay Company, a high flyer among specialty furniture stores, had experienced a loss of sales as a result of the wrong type of advertising and a move from regular specialist catalogue sales. The advertising problem was being rectified at the time of writing and special sections in the Sunday papers were testing the new approach. It is interesting to note that, in a recent year, furniture made up 48% of The Bombay Company's store sales, accessories 36% and decor 13%.

Buying groups

Buying groups are now looked upon as profit enhancers as they offer a link between national and regional, often local, buying power, provide help in the identification of brands and suppliers, and facilitate merchandising by managing stores and the suppliers' delivery systems.

The growth of these groups in recent years has benefited small retailers, which turn to them for expertise in the handling of imports and the management of container loads. Associated Volume Buyers, Contemporary Design Group, Furniture First, Furniture Smart and Mega Group, together covering 4,000 outlets, are examples of buying groups.

Manufacturers' franchised stores

Retailing entrepreneurs are backed by experts in the franchise and licensed dealership and gallery business. Among the leading franchisers is La-Z-Boy (which had 8 stores and 290 galleries within stores in 2001, up from 144 galleries in 1995 and 19 in 1990). Its top 10 galleries generated sales of \$410 per square foot in 2001, up from \$100 four years earlier. Average sales per

gallery amounted to \$254–\$260 a square foot. La-Z-Boy's leading store, in Glendale, Arizona, retailed \$8.4 million worth of furniture in 2001; two other Arizona stores attained sales of \$5 million each.

The franchised outlets of Norwalk (80 stores; www.norwalkfurnitureidea.com), Badcock (330 stores, www.badcock.com), Kinkaid (15 upmarket stores) and Ethan Allen provide prime examples of full-service stores. Some of these outlets have been operating since the early 1990s; a few emerged as a result of changed manufacturing strategies in the three years to 2001. Sales per store start at \$5 million annually. Some of the smaller independent franchisers have 10–12 outlets, but half have only 2–5 stores.

Advertising and promotion

A recent advertising survey revealed some insights into the media prospective consumers were most likely to use to obtain their first information on possible furniture choices. At the regional and local level, inserts and circulars were the favoured media (27% of respondents). Newspapers (24%) were the next most used sources, followed by television and the Internet (13% each). The use of magazines had fallen to 6%, and direct mail to 3%. Thus inserts seemed to have the most visibility as far as consumers were concerned; these were read because they were interesting and useful.

Table 3.22 presents some figures on the use of advertising media by region.

Media	Western	Midwestern	Southern	North-eastern
	Share of advertising (%)			
Newspapers	42	41	25	37
TV	13	20	31	20
Radio	10	13	13	10
Direct mail	14	11	14	14
Yellow Pages	15	–	–	9
Other ^{a/}	6	15	17	10

Source: *F/Today* market research, September 2002.

a/ Including billboards, magazines, special events, websites.

Around 57% of the small stores and 86% of the large stores received advertising support from common advertising funds established by manufacturers. The advertising copy was provided by the store owners and their personnel (45% of the time for the small stores and 41% for the large stores), the manufacturers themselves (22% of the time), the publishing company or TV or radio station carrying the advertisement (19% of the time), and outside agencies (14% of the time for small stores and 31% for the large stores).

Advertising to promote sales was carried out by 61% of the small stores and 75% of the large ones. The percentages spent on advertising to build an image was 39% for the small stores and 25% for the large stores. Around 22% of the advertising by small stores promoted interest-free credit purchases with no deposit requirements, compared with 47% for medium-sized stores and 72% for the large ones. Such purchases were equivalent to 20%, 30% and 25% respectively of the sales generated by each type of store.

Interior designers were an important aspect of sales. About 45% of the stores had their own designers.

E-commerce and Internet-based marketing

It is said that deregulation across a number of industry sectors has increased the flexibility of the United States economy and has enabled it to react rapidly to changes in demand. Undoubtedly, e-commerce is responsible for some of this, if only as a means for making data available and for making possible the online use of information to facilitate the order and delivery process. Full, integrated e-commerce in the furniture industry is still some way off, although the use of developing country programmers and proprietary software will enable large and small companies in the business to take a cheaper route to success in this trade. Managerial efforts to appreciate the value of e-commerce and to use it will be crucial to this uptake.

In the two years to 2001, many middle-market American firms moved away from selling to consumers online. Reaching these consumers required advertising and promotion – how did one do this within a reasonable budget, and how did one make up for the absence of the touch-and-feel effect which often had a determining impact on sales?

Recently, however, changes in consumer perception have raised expectations. Today 5% of all furniture firms expect 20% of their sales to be business-to-consumer (B2C); 21% anticipate business-to-business (B2B) sales to rise to the same level. To attain their goals, these firms must:

- Improve their supply chain management.
- Improve their communications and cut administrative costs.
- Support their website and ordering facilities with order fulfilment and customer-service operations.
- Improve their relationships with suppliers to obtain better control of the purchasing process.
- Provide access to a 'live' person to build consumer confidence.

Furniture firms with websites must ensure that these present a sharp image, as customers use the Internet as a research tool for products, prices, styles and shop locations and as a means to view the products they are looking for. Websites must be easy to navigate to attract serious buyers. The sites must provide quality product information, shopping tips and dealer locating systems.

Business-to-business sites

These manufacturers' sites offer production control and direct ordering facilities to other businesses. They can operate from any country. A number work from Asia; an example is www.globalfurniture.com, which is based in Taiwan Province. Global Furniture is a high-end case goods manufacturer, importer and wholesale company. It offers turnkey services and is able to manufacture, import and direct deliver a variety of quality furnishings from around the globe to any city in the world.

In the United States, www.FurnishNet.com picked the ashes of net companies that had crashed to build links and automate transactions, acknowledgements of orders, etc., shipping notes and invoices for suppliers. The target is to shorten cycle times and drive down operating costs. Currently it manages \$885 million in purchase-order volumes.

RTO On-line (www.rtoonline.com) is a website for the rent-to-own industry. It has added an online marketplace for B2B to allow rent-to-own buyers a platform to find and purchase new products and services. At one point the site had 75,000 hits a month, with visitors staying an average of 12 minutes each. The site has members in 31 States (the United States) and four countries. Recent activity

has highlighted the need to work with manufacturers on electronic transactions and the development of XML-based digital products using wireless bar-code scanning to ensure that correct manufacturing and delivery information is provided to the consumer.

Thomasville carries out both B2B and B2C operations and handles different tasks for the various sectors involved. It offers retailers assistance in establishing their own sites, links these to Thomasville, and provides prospective buyers direct access to these retailers. A dealer extranet, using the XML standards of the Furniture Industry Data Exchange and approved by industry associations, handles ordering and the provision of product and delivery information. Product catalogues are regularly updated.

Business-to-consumer sites

With the bursting of the dot.com bubble in 2001, the exclusive use of Internet sites as opposed to those linked with bricks-and-mortar shops fell sharply. This trend has since reversed and Internet sites that are better presented and more frequently used have come into being. Manufacturers, especially those with galleries and in-store displays, are applying new concepts that enable the consumer to make decisions on the basis of online information. Thomasville (www.thomasvillecabinetry.com), for example, uses online imaging technology, exclusively for Home Depot sites, for semi-custom cabinetry. The technology enables the customer to browse through a variety of kitchen, bath, home office and home entertainment styles and select details such as mouldings, wood grain, and accessories. Wickes (www.wickes.com) has added a point-of-sale imaging and room-planning tool for designing entire rooms; 12% of its sales are generated in this way.

Other significant B2C sites are found in the following:

- ❑ www.EthanAllen.com
- ❑ www.Thomasville.com
- ❑ www.Ashleydirect.com
- ❑ www.Behome.com
- ❑ www.HermanMiller.com
- ❑ www.Officefurniture.com
- ❑ www.FurnitureFan.com (offers e-mail coupons to entice inquirers to visit the stores)
- ❑ www.FurnitureFind.com
- ❑ www.Furniture.com (tied in with Levitz stores and thus linked to bricks-and-mortar outlets)
- ❑ www.Crateandbarrel.com
- ❑ www.Pierone.com
- ❑ www.Lexington.com

Portals and directories

Major search engines for the industry are www.FurnitureFan.com (consumer), www.Furnituretoday.com (industry news and sourcing) and www.Homefurnish.com (consumer). On the basis of an analysis of 400,000 page views clicked by 17,000 visitors, the website www.Homeportfolio.com concluded that 80% of its customers shopped by product category (80%). It is therefore important for manufacturers to participate in an online environment that quickly leads customers to product selection rather than to brand choices.

The *FurnitureFan.com* portal exhibits the furniture collections of retailers across the United States, as well as catalogues of mainliners such as Drexel, Lexington and Berkline. A bricks-and-clicks site, it blends the digital and physical ends of business for the industry's best brands. Its website says the following about itself:

FurnitureFan.com is an Internet Furniture Directory for consumers, featuring furniture manufacturers and retailers throughout the US and Canada. Site features include:

- The largest available online selection of manufacturers catalogs. This makes researching easy before you go to a furniture store
- Detailed information for each item
- Listings of local stores where you can buy

The site was created to address the need for an unbiased, comprehensive display of furniture in a single location for consumers.

At one point, the site tested the e-mail marketing of online coupons and money-off offers. It achieved response and redemption rates of 30% and 5% respectively.

The website (*www.asid.org*) of the American Society of Interior Designers carries a directory of interior designers. Links to these designers are provided through the site's Industry Partner button. ASID's industry partners are manufacturers and suppliers of products and services to the interior design industry. They support the entire profession through their membership in ASID, in addition to carrying out cutting-edge research and education programmes and providing networking opportunities.

Globalization pressures on American manufacturers and retailers

Changes in sourcing, distribution and in the products' final presentation to consumers are now combining to open up opportunities for brand and style imaging. This is giving imports a chance to meet most market demands, albeit to the detriment of the home manufacturing industry and its workforce. Perversely, the use of materials handling technology, product tracing, scheduling and delivery sequencing via e-commerce has hastened the changes.

In the 1990s and progressively into the 2000s, importing into the United States became an acceptable method of obtaining wood-based furniture. This was not always so. Originally imports were of exotic woods and materials, often eclectic in style and featuring the unique designs of the supplying country. Today they can be completely 'American' in style, design and finish, replicating American-made products in woods sourced in the United States, but made at lower cost. This enables the importer, often a United States manufacturer or a United States retailer, to maintain prices at stable levels, and when occasion demands it, to retail products at lower prices than usual to attract new customers.

The inexorable growth of imports is evidence that the systems for importing are now fully in place and that the United States distribution sector is receptive to the process. While the law requires a declaration of origin on an item of furniture, consumers are rarely aware of a product's source, and if quality and price are consistent with their expectations, a sale is made. Innovative design and use of materials often offers scope for deviations from expected shapes, styles, woods and finishes; these value-added modifications are frequently pleasing to consumers. Hence the stage has been set for a widening movement of furniture across the world to the United States. It will falter only in the face

of economic and protectionist pressures when a weakened home industry begins to shed its workforce at unacceptable levels. The American furniture industry is already undergoing this change to hold price points.

The industrialization and opening up of China have allowed a strong importing infrastructure to develop to a depth that can support the needs of the American markets in the large volumes required. Taiwan Province (China) was in a similar situation in the 1980s; various ASEAN countries followed suit, though to a lesser extent. China, however, is the current powerhouse.

Around 46% of demand in the American furniture market (at trade prices) is met by imports, with supplies from China accounting for about a third of that, up from a negligible share 10 years earlier. China is expected to supply over 60% of imports within five years and to attain a dominant 65% share in the declining American furniture manufacturing sector. This high penetration will be backed by a resurgence of supplies from other Asian countries and South America as they target niche sectors and support the China trade with ancillary items. As in the 1990s, imports from Europe and new African suppliers will remain at consistent levels.

How the American marketplace will sort itself out in the face of this high level of imports is open to query, as the current wholesale failure of the domestic industry could bring about an economic and political backlash. Furthermore, how will it react when labour and manufacturing costs in China rise, and they undoubtedly will, even as China gains a decisive share of the American market?

Japan

Basic demand factors and market drivers

At the time of the writing of this study, there was as yet no sign of reversal, bottoming out or even slowing in the downward trajectory that the Japanese economy had taken for more than 10 years. Nor was there any encouraging evidence of will or ability to lay out and implement effective curative measures.

GDP

From an all-time peak of \$5,208.2 billion in 1995, Japan's GDP slipped to \$4,995.0 billion in 2000, with the annual growth rate averaging -1.0%. In 2001, a drop of more than \$500 billion occurred and GDP reached only \$4,370.9 billion. By then negative growth had been posted for four of a period of six years, and the fall in 2001 was by far the most severe, -12.5% in constant United States dollars.

Housing construction

New orders for dwelling construction in Japan peaked at \$2.478 billion in 1994, a year earlier than GDP, and then fell over the 1995–2000 period by more than a quarter of a billion dollars to \$2.189 billion, equivalent to an average negative annual growth rate of -2.2%. There was another very sharp drop (-19.4%) between December 2000 and December 2001.

A potentially important recent development has been the growth (or creation) of markets for renovating and reselling houses. Japan's poor general economic conditions have begun to impose some restraint on an almost automatic impulse to demolish and rebuild houses when property changes hands. Because of the extremely high land prices (especially in urban areas) and a complex set of

cultural attitudes, houses are destroyed and replaced, heretofore almost without exception, whenever property is passed on. Effectively, only building lots have been bought and sold.

In 1997, for example, the total housing stock of Japan was 50.246 million, but only 159,000 (0.3%) used house transactions were concluded without demolition. Compare this with United States figures: of the total housing stock of 117.589 million, 4.381 million (3.7%) used houses changed ownership intact.

Unemployment

Unemployment worsened between 1995 and 2000, and still more workers were put out of jobs in 2001. The rates of increase in the numbers of unemployed Japanese were 8% annually over the whole decade from 1990 to 2000, 8.3% on average from 1995 to 2000, and 6.2% during 2001. In that most recent year the rate of joblessness rose two-and-a-half times higher than in 1990. Moreover, during 2001 the number of job offers per applicant stayed at the 2000 level of 0.59. For the second year in a row, fewer than three Japanese job seekers in five found work. There were concerns about the possible understatement in Japan's officially measured unemployment rate.

Interest and credit

At 7.45% in 1990 the level of Japan's benchmark long-term interest rate was already fairly low compared with the average of 10.55% for 19 major industrialized countries. At that time the lower limit of their band was set by Switzerland at 6.45%, but since then Japan's rates have been driven down unrelentingly. The indicator long-term rate reached a new low of 1.32% in 2001 after a cut of 0.42 points, sharper than any other between 1995 and 2000. Now completely out of the range set by other industrialized nations, there was no more room for trying to stimulate Japan's economy through an interest rate policy.

One implication of this divergence was that, while Japanese savers stuck to domestic deposits earning almost nothing, investors in other countries virtually abandoned Japan's securities markets. The only exceptions were occasional moves by individual 'heavy players' targeting takeovers of specific Japanese companies.

Following the same across-the-board pattern of a sudden worsening in the state of the Japanese economy since the fourth quarter of 2001, credit contraction for the whole of that year turned out to be by far the sharpest in the entire study period.

Household disposable income and expenditure

Over the first half of the 1990s, Japanese households continued to enjoy significant gains in their disposable income, and responded to this with almost matching rates of increase in their living expenditures, but this trend was reversed from 1995 onward. From that peak year up to 2000, the monthly household disposable income shrank by \$718 from its high of \$5,478, down to \$4,760, equivalent to an average annual loss of 2.8% in purchasing power. At the same time households cut back their actual monthly living expenditures by \$539, from \$3,972 in 1995 to \$3,433 in 2000, a 2.9% average annual curtailment. Up to that point, these findings were still entirely in keeping with the well-known strong savings motive of Japanese householders.

But by the end of 2001, the average Japanese household saw its monthly disposable income plummet almost as much in that one year as in the whole of

the preceding five: down by a further \$659 to \$4,101, a jarring –14.9%. This time the Japanese appeared to have been unable to avoid some degree of previously uncharacteristic dissaving; actual living expenditures were reduced by less than the shortfall in income, \$448 monthly or –14.0% from \$3,433 to \$2,985.

The retail trade of department stores

Commercial activity in this sector is especially relevant to the wooden furniture trade, as department stores are one of the more important outlets for furniture made for household uses. A 1990-based index of their overall sales declined in every year but two since 1991. Over the 1995–2000 period they lost business at an average annual rate of –1.7%; this dropped a further –3.1% by the end of 2001. Their trade index on a 1990=100 base came down to 81.5 in 2001, accompanied by highly publicized and lamented failures of several of the oldest and most prestigious department stores.

The domestic furniture industry

The original yen-denominated data on production, value added and wages in the furniture industry have been falling steadily since 1991. The apparent early-1990s growth in those indicators seen in the United States dollar series is an artefact of currency conversion (the yen/dollar rate fell over 40 points, from 134.5 in 1991 to 94.1 in 1995). Readers must keep this in mind because it is reflected in some differences between this discussion of industry development, and that which is quoted from Japanese sources.

All statistics and all sources of information are in full agreement, however, that the whole story of the last decade has been one of great contraction in Japan's wooden furniture industry, and that no short-term relief is in sight. According to industrial surveys conducted by the Ministry of Economy, Trade and Industry (METI) of all companies employing at least 30 people, there were only 428 survivors in 2000 of the 761 companies in business in 1990. Total sales had fallen from \$9.245 billion in 1990 to \$6.421 billion in 2000 (–30.5%). Almost half the labour force had lost their jobs as employment in the sector contracted by 46.7% from 58,593 in 1990 to only 31,230 in 2000.

Moreover, the actual losses of the wooden furniture industry were surely considerably larger, as the METI surveys excluded thousands of smaller firms and tens of thousands of workers. They have been especially vulnerable. It is thought that while the official statistics recorded 333 business failures, ten times that number almost certainly went under during the decade in question. The number of displaced workers must also have been at least half again as large as the METI figure.

The wood and metal furniture industries: a comparison

The wood and metal furniture industries are by far the most important sectors of the domestic furniture industry. Simple comparisons of these sectors are made in this section in order to shed light on materials substitution and the competitive position of wood products within the overall furniture manufacturing sector.

Metal furniture making in Japan is subject to considerable year-to-year volatility. The wooden furniture industry by contrast follows steady multi-year trends of progress and decline with marked turning points.

Over the decade to 2000, wood lost market share vis-à-vis metal, from 67.9% of the total for the two in 1990 to 59.4% in 2000. However, wood's share had risen as high as 69.4% in 1994. These figures do not take account of furniture made of other materials such as plastics.

Over the decade, the absolute levels of value added per worker in the metal furniture industry began and ended higher, up to \$90,700 in 2000 from \$90,800 in 1990. The figures for the wood furniture worker were \$82,100 in 2000 and \$62,500 in 1990. The figures indicate that the gap in productivity between wood and metal workers has narrowed.

Metal workers were much more successful in securing higher wages, however, widening the differential between themselves and wooden furniture makers. In 1990, the average annual wages and salaries per worker were \$24,000 in the wood sector as against \$28,490 in metal. Despite, and perhaps because of, the continuously and steeply falling numbers employed in the industry, the remaining wooden furniture workers made significant gains to reach average annual wages of \$36,270 in 2000. But metal furniture workers, whose numbers actually increased slightly from 19,583 to 20,757 over the decade, earned \$50,230 on average in 2000. It is true that the technologies and skills involved are entirely different, as are the industry organizations and their labour-relations practices.

Production

Historically, the Japanese wooden furniture industry has been characterized by considerable regional diversity. The geographic spread of wooden furniture production is fairly even, with the Aichi and Fukuoka regions taking the lead with shares of just below 12% in the total output of the furniture types listed in the table below. The five leading furniture regions account for nearly 50% of the national output. However, there are considerable variations in the product mixes of each region.

Desks, tables and chairs accounted for 41% of the value of national production. Shelves and cupboards followed with a 30% share.

Table 3.23 Japan: regional output in the wooden furniture industry, by product group

Value (V): \$'000

Region	Desks, tables, chairs		Beds		Chests, bureaus		Shelves, cupboards		All furniture types listed	
	V	% of total	V	% of total	V	% of total	V	% of total	V	% of total
Aichi	591 967	21.9	110 017	24.0			92 967	4.6	794 955	11.9
Fukuoka			29 008	6.3	333 967	22.4	408 306	20.4	771 285	11.6
Hiroshima	170 983	6.3	44 273	9.6	276 463	18.5			491 722	7.4
Gifu	282 240	10.4					85 843	4.3	368 084	5.5
Hokkaido	130 496	4.8			57 752	3.9	119 413	6.0	307 662	4.6
Shizuoka			25 273	5.5	76 215	5.1	170 992	8.6	272 481	4.1
Tokyo	132 405	4.9							132 405	2.0
Saga					62 223	4.2			62 223	0.9
Chiba			32 504	7.1					32 505	0.5
Top 5, total	1 308 091	48.3	241 074	52.5	806 620	54.1	877 521	43.9	3 233 322	48.6
Other areas	1 399 281	51.7	217 851	47.5	683 860	45.9	1 121 909	56.1	3 422 917	51.4
TOTAL	2 707 372	100.0	458 926	100.0	1 490 479	100.0	1 999 430	100.0	6 656 240	100.0

Structure and location of industry

The limitations in coverage of Japanese industrial statistics might easily lead to misconceptions about the nature of the domestic wooden furniture industry and the magnitude of its problems. Drawing on the more comprehensive data available for one year (1998), table 3.24 reveals that there are, or have been, about 20 times as many micro-companies as small, medium-sized and large companies. The average firm has less than 10 workers. Wooden furniture making in Japan is mainly characterized by very small workshops, almost a cottage industry, although many of them work as contractors for larger enterprises. In that capacity they produce both parts for assembly and finished furniture pieces.

No. of employees per firm	Firms		Employees		Output	
	Number	% of total	Number	% of total	\$'000	% of total
Less than 30	10 041	95.2	55 033	59.1	4 667 846	40.6
1 to 3	5 128	48.6	10 567	11.3	467 021	4.1
4 to 9	3 495	33.1	20 353	21.8	1 552 185	13.5
10 to 19	977	9.3	13 296	14.3	1 354 706	11.8
20 to 29	441	4.2	10 817	11.6	1 293 934	11.3
30 and above	502	4.8	38 157	40.9	6 820 328	59.4
30 to 49	237	2.2	9 077	9.7	1 265 607	11.0
50 to 99	172	1.6	11 595	12.4	1 823 384	15.9
100 to 199	68	0.6	9 078	9.7	1 417 418	12.3
200 to 299	14	0.1	3 467	3.7	1 074 675	9.4
300 to 499	7	0.1	2 662	2.9	601 963	5.2
500 to 999	4	0.0	2 278	2.4	637 280	5.5
GRAND TOTAL	10 543	100.0	93 190	100.0	11 488 174	100.0
<i>All firms: average</i>			9		1 090	

Only about 1% of the furniture manufacturers have more than 100 employees. The 10 largest Japanese furniture makers are Kokuyo, Okamura, Uchida Yoko, Itoki, France Bed, Itoki Crebio, Karimoku, Paramount Bed, Kariya Mozukai and Kurogane Kosakusho. The biggest kitchen furniture makers are Sun Wave, Takara, Cleanup, Nas and Matsushita.

Outsourcing and networking among manufacturers

Some efforts have been made to modernize and consolidate the traditional production centres and establish industrial parks, to emulate European and North American organizational models and foster technological advances. There are calls for the Japanese industry to 'strive to be the Asian furniture powerhouse'. This seems far-fetched on a volume-sales basis, but a handful of the high-end domestic producers have distinctive design concepts and turn out pieces of uncommonly high quality in both materials and workmanship, which could indeed earn them a niche in high-fashion international markets. But even among these, only a minority have so far established overseas outlets.

The only remarkable exceptions are the overseas plants that Japanese firms have established in countries like Indonesia and China, and this in itself only contributes to the hollowing out of the domestic Japanese manufacturing base. The inability to compete successfully with imports and the generally falling

furniture market resulting from demographic and economic factors have driven the country's wooden furniture industry to a swift and relentless decline. A dispassionate view can only conclude that the future holds more of the same.

A variety of direct and indirect production mechanisms are employed, originally focusing on overseas production of components but increasingly taking the form of develop-and-import operations for entire finished products.

Foreign trade and apparent consumption

Trade overview

Japan's import trade in furniture tended to rise in the four years after 1998, when imports dropped under the impact of a fall in housing starts. Imports of wooden furniture followed the general trend. Table 3.25 shows a rise in these imports by 107 index points between 1997 and 2001; the rise from 1998 was much higher at 139 index points.

The volume of imports of wooden furniture continued to rise fairly strongly in 2002, according to data published by JETRO, although the value figures were slightly down as a result of falling prices. By contrast, imports of metal and other furniture were down in both volume and value.

Finished wooden furniture made up 57% and 49% respectively of the volume and value of Japan's imports of all furniture in 2002. JETRO does not provide a breakdown by material of imports of furniture parts, which accounted for 25% of all furniture imports in the same year.

JETRO attributes the continuing growth of the import trade to the fact that furniture making is labour intensive and high wages make domestic manufacture uncompetitive. As a result, Japanese furniture makers are relying increasingly on production offshore. The leading furniture stores and wholesalers are also contracting for production abroad.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	35.6	2	28.0	26.4	26.2	23.5	1	66
Seats n.e.s. with wooden frames	493.0	28	371.7	407.4	475.3	467.3	25	95
Wooden office furniture	16.1	1	10.6	8.9	13.4	11.5	1	72
Wooden kitchen furniture	68.5	4	50.2	43.2	51.8	54.1	3	79
Wooden bedroom furniture	94.6	5	73.6	85.5	101.2	118.7	6	125
Other wooden furniture	689.5	39	557.2	640.4	857.7	881.9	46	128
Furniture of other materials, including bamboo	79.7	4	53.9	51.6	54.8	55.5	3	70
Furniture parts of all materials	309.0	17	222.3	238.9	301.0	290.4	15	94
TOTAL	1 786.1	100	1 367.6	1 502.2	1 881.4	1 902.9	100	107

Source: ITC/UNSD COMTRADE database.

As table 3.26 shows, exports are negligible, and Japan continues to be a significant net importer (the world's fifth largest) of furniture. The International Development Association of the Furniture Industry of Japan

(IDAFIJ) laments: 'Japanese furniture makers make virtually no effort to sell their products overseas.' Nevertheless, Japanese makers have succeeded to a certain extent in developing new products measuring up to the workmanship, materials and style standards of Europe and North America. There is also talk of a new blend of Japanese and Western styles called *shinwayo*, which retains a distinctively Japanese character while having a universal and modern appeal.

Table 3.26 Japan: exports of wooden furniture, by product group and by value, 1997–2001

Value (V): \$ million

Product category	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997= 100
Seats of cane, osier, bamboo, etc.	0.0	0	0.1	0.0	0.0	0	0.0	183
Seats n.e.s. with wooden frames	1.4	5	1.8	1.1	1.4	5	1.4	101
Wooden office furniture	1.0	4	0.9	0.3	0.7	1	0.2	23
Wooden kitchen furniture	2.3	9	2.2	2.6	2.5	6	1.6	69
Wooden bedroom furniture	0.3	1	0.6	0.4	0.4	2	0.4	127
Other wooden furniture	8.1	31	8.7	10.0	10.3	39	10.2	126
Furniture of other materials, including bamboo	0.6	2	1.0	0.4	0.4	1	0.3	45
Furniture parts of all materials	12.3	47	10.8	9.4	12.7	46	12.1	98
TOTAL	26.2	100	26.1	24.3	28.5	100	26.3	100

Source: ITC/UNSD COMTRADE database.

Trade by product group

Around 46% of all imports fell in the category 'other furniture'; wooden seats took another 25% of the total. Furniture parts were the strongest export item (46%), but they traded at extremely low values.

Imports from developing market economies and China, and other origins

In 2001 as much as 80% of Japan's imported wooden furniture came from the developing countries (all Asian) and China, up from 69% in 1996. The leaders in this group of countries/areas were China, Thailand, Malaysia, Indonesia, Viet Nam and Taiwan Province (China).

According to JETRO, China had 32.2% of the value (yen) of imports of wooden furniture in 2002, followed by Thailand (17.4%), Malaysia (9.2%), Indonesia (8.2%) and Viet Nam (7.3%). Taiwan Province (China) had a 5.7% share. The other leading suppliers were Italy (6.2%), the United States (2.3%), Denmark (1.7%) and Germany (1.5%). The United States (36%) and China (16.7%) were by far the largest sources of parts of furniture of all materials. Taiwan Province, Thailand, Indonesia, the Republic of Korea, and the Philippines were among the other suppliers, with shares ranging from 6.1% to 2.4%.

The Asian countries ranked first as suppliers in each of the major product categories in 2001, with the exception, according to JETRO, of furniture parts of all materials. China was dominant in the 'other' wooden furniture category, with one-third of supplies, up from 14% in 1997. Thailand and Malaysia followed far behind. Other suppliers, in particular those from Europe and North America, had their market shares whittled away by China's catch-all exporters.

Thailand kept a leading position in wooden seats (29%) before China, which had a share just below 19%. Both had gained higher market shares since 1997, in contrast with Indonesia, Taiwan Province, Italy and the United States whose shares declined notably. In furniture parts of all materials, China was the leading supplier among the DMEC group, with 15% of all imports, rising in significance at the expense of Thailand and Indonesia.

Table 3.27 Japan: imports of wooden furniture from leading suppliers among developing countries and China, by major product group, 2001

Product group	Imports (\$ million)	Major developing country suppliers	Share (%)	Rank
Other wooden furniture	881.9	China	32.5	1
		Thailand	12.5	2
		Malaysia	9.8	3
Seats n.e.s. with wooden frames	467.3	Thailand	29.1	1
		China	18.6	2
		Malaysia	12.7	4
Furniture parts of all materials	290.4	China	14.8	1
		Thailand	9.2	4
		Indonesia	9.1	5

Apparent consumption

On the basis of the data on trade and domestic production, Japan's apparent consumption of wooden furniture can be estimated to be in the range of \$13 billion – \$14 billion. As the domestic output shrinks further, imports will play an even more prominent role on the Japanese market. This will be helped by the infusion of foreign lifestyles into Japanese homes.

Furniture styles and design trends

Modernizing lifestyles

The modernization of Japanese society has brought around certain positive implications for imported furniture in 'foreign' styles and concepts. It is important to recognize that much of the growth in household consumption of all types of fixed furniture has been driven by a major lifestyle change in the Japanese household over recent decades. Well into the second half of the 20th century, most Japanese sat and slept directly on floors covered with straw tatami mats. During the day, they used small low tables, and at night they spread futon bedding pallets (not to be confused with the wooden-frame sofa-bed called a futon in the West), often in the same room. All items had to be light, movable and easily put away in folded storage. The use of beds, tables and chairs began only in 1955–1960.

While fashion consciousness has been increasing and preferences have been growing for Western and foreign designs, Japanese homes have remained small. What is required as a result is smaller-sized furniture, corner furniture, legged furniture and storage units like closets and dressers. However, the traditional simplicity of the kitchen and dining area has given way to more diverse kitchenware and tableware, creating a demand for larger tables and cupboards.

Because the concept of fixed-position furniture has been imported into Japan fairly recently, professional Japanese buyers and furniture makers freely acknowledge that they are still very much influenced by styles from abroad. They seek ideas as well as purchases at the major international furniture shows. Pre-eminent among the furniture shows is the Cologne Furniture fair, 'the place

where the Japanese furniture industry is informed of directions that worldwide furniture makers are taking ... from environmental protection and recycling to stylization conforming to the new lifestyle trends toward naturalization and functionality'.

Other furniture show venues of high priority to the Japanese trade are High Point (North Carolina), Paris and Milan. Singapore gets special attention primarily on the strength of its distribution infrastructure, as well as its pioneering role in the use of information technology and Internet marketing. It is considered the furniture distribution leader in the Asian market.

Species promotion

The Japanese International Furniture Fair Tokyo (IFFT) is a must for exporters seriously targeting the market. At IFFT 2001, the American Hardwood Export Council highlighted an intriguing marketing campaign for lower-grade materials that it had begun waging in Japan. This was especially timely in view of the broad-based severe price competition on the Japan wood furniture market. The mechanism was a design competition for Japanese furniture designers. The designers were given supplies of various North American hardwoods that had been assigned 'common' grades because of (what had long been considered) defects such as knotholes, bark enclosures and the like which were now being referred to as 'features'.

The inspirational thrust of the competition was to incorporate the defects to the greatest extent possible as artistic features of the finished furniture piece. The response from the designers was enthusiastic, and many of the resulting pieces were strikingly attractive. The same aesthetic appears among certain leading Japanese furniture designers, especially in Asahikawa, Hokkaido.

Given the resonance of this approach with the more sophisticated Japanese design aesthetic, and with consumers in what remains of the high-price end of the Japan wooden furniture market, similar initiatives might well prove fertile ground for DMEC producers as well as environmentalists and other parties promoting the utilization of wood now wasted as defective in tropical forests. There would seem to be prospects for getting around some of the price-resistance lately plaguing the Japan market.

The wood around the defects or 'features' of woods like the North American 'common' hardwoods is often just as dense and well-coloured, and frequently has even more intricate and attractive grain patterns. Yet such wood can be bought by the furniture maker at a fraction of the cost of clear stock, enabling production of quality pieces at competitive prices.

Distribution

For a broad range of consumer products, the highly fragmented, localized and personalized nature of retailing has curtailed imports. The extremely complex and tightly scheduled network of supply chains serving them in the almost total absence of space for maintaining inventories at the point of final sale has long been recognized as one of the most formidable barriers to penetrating the Japanese market.

However, in recent years, there have been new and accelerating trends which have already substantially changed the relative importance of distribution routes, and promise to alter their balance still more in the future. Increasingly, the traditional multi-step Japanese distribution chains are being bypassed by large firms at or near the final-sales and end-use stages. These firms deal directly with overseas suppliers. This has caused large numbers of intermediaries, as well

as smaller retailers and installers, to go out of business. But from the point of view of overseas manufacturers and exporters, the development has been largely though not wholly positive:

- ❑ It means that market access can be gained more efficiently, by establishing relations with a smaller number of domestic Japanese partners who are more visible, more easily identified, and more sophisticated, e.g. in the use of international languages.
- ❑ The larger domestic players have both the customer bases and the financial means to make large and regular purchases, a distinct improvement over earlier times when the highly fragmented Japanese markets made for inefficiently small individual sales and often prohibitive information and transactions costs.
- ❑ This opening of the Japanese market has launched an unprecedented degree of price competition. Earlier, any overseas supplier astute or lucky enough to find a receptive Japanese buyer might have enjoyed high margins over long periods, protected by the Japanese propensities for dealing with known partners and for maintaining business relations on a personal basis.

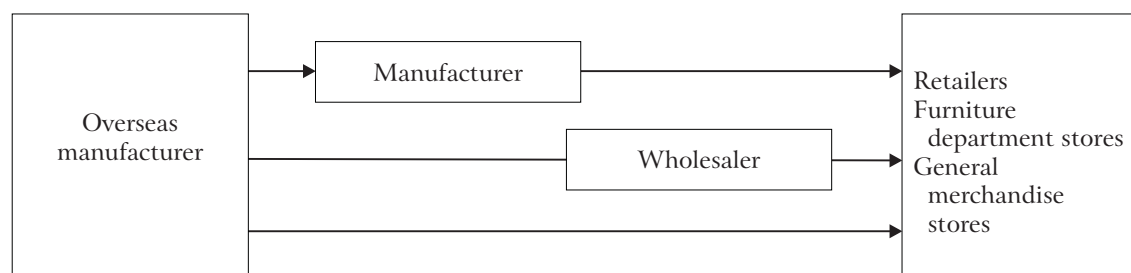
JETRO and other sources concede that there are no proper statistics on the volumes of imports by type of importer. The general consensus among Japanese experts is that short-cut routes are increasingly being taken for both building materials and furniture, effectively cutting out the middlemen.

In the case of wooden furniture, an important distinction is made between 'ready-made and semi-order' products on the one hand, and 'order-made' products on the other. The term 'ready-made' is self-explanatory, but 'semi-order' refers only the possibility of selecting from a menu of standard options on offer, such as upholstery or sizes of tabletops. 'Order-made furniture', on the other hand, refers to truly custom-made items, but they are typically bought in large quantities for commercial customers.

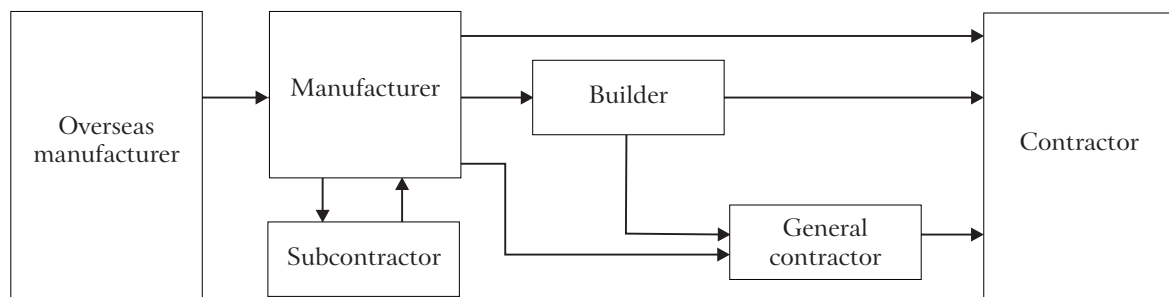
Figures 3.1 and 3.2 show the distribution channels for imports of ready-made and semi-order furniture, and for order-made furniture.

JETRO cautions overseas suppliers to be prepared to maintain much closer and continuing contacts with purchasers right through to final installation. It says, for example, that 'in the case of hotels, rooms sometimes slightly differ from the initial drawings' because of the leeway given to craftsmen in the traditional Japanese building trades. But the increasingly fierce competition in the order-made trade is believed to be a major factor favouring imports over domestically manufactured products.

Figure 3.1 Japan: distribution channels for imported ready-made and semi-order wooden furniture



Source: JETRO.

Figure 3.2 Japan: distribution channels for imported order-made wooden furniture

Source: JETRO.

Mark-up on imported furniture

Until recently, retail prices of imported ready-made and semi-order furniture came up to about three times the FOB (free on board) price for the following reasons:

- ❑ Wholesalers, as well as domestic furniture manufacturers acting as wholesalers for imports (these play an increasingly important role), resold their imported goods to retailers with a mark-up of 50%–60% over the import price.
- ❑ The retailers then set their prices to the final consumers so as to gain an additional 60%–80% mark-up.

But the dramatic rise of large-scale furniture retailers, capable both financially and organizationally of importing direct from overseas manufacturers, has brought stiff price competition into the Japanese market. It has also created sweeping changes in the structure of the market and modes of selling to final consumers.

When possible, retailers who import direct also try to maintain a mark-up of 150%–230% over their import price. However, competition with other giant stores often drives them to discount sales, shaving their margins to just a little over 100%.

This steep price-cutting by direct-importing retailers is one of the main forces forcing companies following the traditional business model out of the trade. A mark-up still yielding a reasonable profit rate for one firm becomes submarginal when shared by two or more in the traditional Japanese multi-step importing system.

Large-scale final sales outlets

The rising importance of large-scale final sellers of furniture has been monitored annually by IDAFIJ.

Traditionally the main retail outlets for wooden furniture have been specialized furniture retailers (many of them very small, neighbourhood stores), department stores and general merchandise stores (GMS), in that order. In 1991, their relative market shares were 72.6% for the specialized retailers, 15.7% for department stores, and 11.7% for general merchandise stores.

Japan's economic bubble burst in 1991 and the previously freewheeling marketing environment for all these outlets suddenly tightened. This threw the

retail outlets into unaccustomed rivalry with each other for the shrinking overall customer base. Department store sales were the first to plummet, and each of the other major players subsequently also steadily lost ground while contending among themselves for the fewer and smaller sales each year.

Furniture speciality stores that continue to enjoy the lion's share of the home-use furniture market (three-quarters of total furniture sales) are fighting fiercely for survival. While the furniture market shrinks, major chains are rushing to open new stores, and stores keep getting bigger.

The result has been an annual round of openings of 'mega-stores' by the leading 10 furniture companies. In fact for the last several years, none of these market leaders has dared to let a year pass without opening at least one new store of a size which would be considered huge in any country, and most of all in space-constrained Japan. In 1999, the top 30 furniture stores ranged in size from 8,827 m² to 30,714 m². The total number of stores had already fallen by almost 40% in just six years, from 25,033 in 1991 to 15,495 in 1997.

The Hokkaido furniture industry: three case studies

The case studies presented here of the Hokkaido furniture firms Kitanosumai, Conde House and Takumi Kohgei are given to illustrate developments in the Japanese furniture industry.

Overview of the area's furniture industry

The further-processed wood industries in Japan are strongly traditional. This is reflected in the prominence given to uniquely Japanese handicraft lines of minuscule weight. In sharp contrast to the emphasis given in Europe to the preservation and restoration of ancient wooden buildings and ships, in Japan even the most revered of all religious structures are periodically destroyed and rebuilt. The paramount Ise shrine, for example, has been on a 25-year destroy-and-rebuild cycle for more than two millennia. On this timescale, the traditions arising in the sixteenth century reign of emperor Shokuho to which the luxury wood products industries in Japan's central region of Chubu are attributed are relatively recent developments.

The northernmost island of Hokkaido is still regarded as a rustic and sparsely settled frontier territory. It was the only extensive region of Japan retaining significant mature forests into the second half of the twentieth century. Japanese white oak and, to a lesser extent, maple were its most valuable resources. By now these are largely depleted, but the local industries restrict themselves exclusively, so far as can be determined, to botanically closely related species, even if imported from overseas. The narrow but significant exceptions are North American cherry and black walnut, both of which have never been grown in Hokkaido.

The city of Asahikawa in central Hokkaido is the most important centre of the furniture industry. The Asahikawa Furniture Industry Cooperative has large showrooms displaying representative pieces from many local firms, and organizes an annual international design competition which draws top-flight designers, including talented newcomers, from around the world. Winning pieces often become Asahikawa products.

Though this is difficult to capture in either statistics or text, there is a distinctive flavour to the style, pace and, above all, space-consciousness of life in Hokkaido that sets it apart from the highly congested, frenetic existence of most of the rest of Japan. Surely, it is no accident that less stressful life breeds freedom in design.

With its own share of business failures, the area has by no means been immune to the general downtrend in the Japanese furniture industry. The Chief

Executive Officer (CEO) of Conde House claims that, so far at least, most displaced workers are trying to stay in the industry, often by making their own new start-up ventures using plants and equipment of failed firms. In accordance with the best aspects of the traditionally mutually supportive, often paternalistic, Japanese business relationship, Conde House uses such smaller firms as subcontractors for some pieces or components. But this does not mean that it is a potential market target for overseas subcontractors, as are many other Japanese firms now, for the reasons discussed below.

Common characteristics of the firms studied

Conde House produces high value-added goods, its total sales being more than 10 times the value of raw materials purchased. While neither Kitanosumai nor Takumi Kohgei has supplied sufficient data, there is little doubt that their margins must be comparable to those of Conde House.

These three firms seem best placed to remain enduringly successful survivors of the ongoing general surrender of Japanese furniture manufacturers to overseas competition. But they also seem the least likely of all Japanese companies to become customers for developing-country producers of finished products, components or even raw materials. The reason is their unswerving exclusivity in wood species used, a common characteristic of these three firms and reportedly also of all other Hokkaido producers.

The companies use only temperate-zone hardwoods in two narrow groups. One consists of light-coloured white oak, hard maple and elm similar to the original indigenous species of Hokkaido on which this industry centre was founded. Some of these woods are still harvested from Hokkaido forests. Local producers claim that the northern-grown Japanese white oak is 'the best in the world', but owing to the depletion of the indigenous resource, similar species are imported, particularly from the Russian Federation and North America.

However, all three firms claim their light-coloured hardwoods to be all Hokkaido grown. The only imported hardwoods any of them use are black walnut (*Juglans nigra*) and cherry from North America. They produce some pieces entirely from these dark exotic woods, and also make some striking colour-contrast effects in combination with the light local oak, maple and elm. The members of the small woodcrafts (small, typically one-person firms) guild seem to stick to the same walnut and cherry in combination with light-coloured local, or closely resembling imported temperate hardwoods. Kitanosumai mentions importing some pine from the Russian Federation, but this wood is not prominent in the company's furniture lines on display.

The extraordinary care taken in the selection of raw materials is exemplified by the actions taken by the Chief Executive Officer of Takumi Kohgei. The CEO travels to North America every year not only personally to select each one of the black walnut logs he purchases, but also to give detailed instructions to the American sawyers on exactly how each log is to be cut to reveal its grain patterns to best advantage in the furniture stock produced.

It should be noted in passing that this strict species exclusivity is not common throughout the Japanese industry, for either low- or high-end producers. For example in Ogawa City far to the south, beyond the main Honshu island on Kyushu, a maze of more typical-looking cluttered workshops freely uses low-density, rather low-grade imported tropical woods in cheap mass-market furniture. A high-end producer visited in the same area used a broad range of quite different, high-density and high-quality imported hardwoods, including several of tropical origin such as rosewood.

Interestingly, an otherwise highly artistic and painstaking Ogawa firm deviated from the uncompromising product quality standard of the best Hokkaido

makers in one respect important to truly discerning buyers: its cabinet pieces had only their fronts and sides made of the high-grade hardwoods, the interior parts and backs were of other materials. But when Kitanosumai, for example, sells a chest of drawers as 'walnut' or 'cherry', every part of it is made from solid pieces of those woods. Admittedly this is a rarity in the furniture industry of any country nowadays, being found mainly in antique pieces.

Significant differences among the firms

While the product quality and pricing of the three firms are comparable, they differ in scale of operations. Conde House is roughly six times larger than Kitanosumai. The former has current sales of over \$30 million, compared with about \$5 million for the latter. Takumi Kohgei must be intermediate between the other two, making perhaps two or three times the sales of Kitanosumai and a third to half those of Conde House.

Conde House makes some overseas sales through a showroom in California, though these accounted for only 1% of the company's total sales at the time of the study. While the CEO did not anticipate great expansion in international sales, many of his signature pieces are of sizes clearly calling for spacious American rooms, as well as of free-style designs more likely to be appreciated by non-Japanese owners. But several production pieces come close to defining a distinctive 'modern Japanese' style. Paradoxically, they do not look like furniture commonly seen in Japanese homes, but something about the subtly flaring lines could not have been designed elsewhere.

Kitanosumai sells its products exclusively in Japan, and all of its pieces are both compact in size and conservative in design. The simple, clean lines bear a strong likeness to mid-range Finnish or Swedish furniture. They are unquestionably inspired by the CEO's contacts in Scandinavia where Kitanosumai buys most of the small articles sold in the boutique/teahouse reception area of its showrooms. Both the furniture materials and workmanship are impeccable, but pricing could be problematic if there were any ambition to sell overseas in competition with similar Nordic designs.

These design differences between Conde House and Kitanosumai are especially interesting in view of the fact that it is Conde House with its much more automated, production-line style of operation that produces many of the more imaginative designs, while Kitanosumai's emphasis on individual craftsmanship using only simple tools and machines is coupled with relatively staid designs. This evident reversal of commonly held stereotypes may be due to aesthetic approaches, but there are other explanations as well. For example, the larger firm obviously has more financial leeway for design experimentation, while the smaller firms, particularly in Japan, may be risk-averse about making bold departures from proven sellers to its fundamentally conservative clientele.

While Takumi Kohgei also concentrates on the high end of the domestic Japanese market, a number of its products, most notably the Amedeo tables, cupboards and especially chairs, display a world-class high-fashion flair and refined quality that could undoubtedly win them a place among worldwide customers to whom price is no object. Its CEO has harmonized his business and personal styles to a degree seldom seen in Japan. For example, he has chosen his factory site for its spectacular view of snow-capped mountains, and gives considerable display space in the factory's airy, sunlit reception area to wooden art objects, particularly bird mobiles, made by members of the local small-woodcrafters guild. He also takes justifiable pride in the fact that the extensive array of hand woodworking tools covering one wall of that display area are not idle museum pieces, but his own implements which he routinely uses himself to craft the first prototypes of new Takumi Kohgei pieces.

There are also significant differences among the firms in their appraisals of the present business situation and outlook. Kitanosumai is nearly satisfied with the current situation and is optimistic for the future. Conde House finds current business only 'so-so' for itself and 'bad' for other firms in the industry. It expects the near future to be worse and believes that changes in the world situation since September 2001 have had substantial adverse effects which are apt to last for some years in the future.

Germany

Basic demand factors and market drivers

Germany has a population of 82 million, making it by far the largest country among the EU countries. It is a major global export powerhouse with a GDP of \$1.85 billion. However, the economic slowdown of 2001, experienced the world over, was particularly pronounced in Germany. Unemployment rates were high and consumer confidence waned. Economic restructuring and the reunification of East and West Germany in 1990 did not bring about the desired long-term stimulus for the economy as a whole. After the reunification boom levelled off in 1994, the former East Germany became a structural impediment to sustained growth.

The construction sector and the residential segment in particular went into a steep crisis. The number of approved dwellings came down from 528,000 in 1997 to just 201,000 in 2001. The number of completed dwellings did not fare much better and slid from 578,000 in 1997 to 326,000 units in 2001. This had an immediate impact on demand for built-in kitchen furniture and similar fitted furniture.

The domestic furniture industry

In 2001, the German furniture industry comprised around 1,330 enterprises each with more than 20 workers and 7,650 small craft units with 1–19 workers. The larger furniture companies employed a total of around 152,200 workers and the smaller enterprises 34,700. The industry had an annual turnover of \$19.4 billion from the larger companies and \$2.3 billion from the small workshops.

The industry's fortunes worsened in 2002. By end August employment had fallen to 149,700, and about 50 companies had become insolvent. By October, furniture production had dropped by 10%. The industry was described as one of the crisis sectors of the German economy.

The Association of the German Furniture Industries (VDM – Verband der Deutschen Möbelindustrie) forecast further massive job cuts in response to the demand outlook. Indicating the failing dynamics of the German furniture trade, the retail turnover plummeted faster than actual production (13% in 2002). The retail surface area exceeded business requirements by 50%.

Production output

In spite of its difficulties, Germany remains the biggest European furniture market. It was also the leading producer until 1999, when Italy took over the leading position.

In terms of the United States dollar, Germany's total furniture output reached \$15.6 billion in 2001, compared with \$22.5 billion in 1996 when it was 44% higher. In euro terms, however, the overall output by value was nearly equal in those two years.

The growing consumer uncertainty did not leave the wooden furniture sector intact. The economic downturn of 2001 caused a 4.0%–8.6% drop in output, the extent of the recession depending on the type of furniture. Wooden furniture for bedrooms, dining and living rooms was hardest hit. The fall of the euro against the dollar exacerbated the decline in euro terms.

Table 3.28 Germany: domestic production of wooden furniture, by type and by value, 2001–2002
(in millions of United States dollars)

Product type	2000	2001	% change
Seats, with wooden frame	1 956	1 877	- 4.0
Wooden office furniture	1 383	1 286	- 7.0
Wooden kitchen furniture	3 219	3 009	- 6.5
Wooden bedroom, dining, living room furniture	3 038	2 777	- 8.6
TOTAL	9 596	8 949	- 6.7

Major players

Germany hosts around half of the largest European furniture companies. According to UEA, 25 German firms were among the top 50 European companies producing more than €100 million worth of furniture in 1998. It appears that the German furniture industry is rather large scale in comparison with its continental competitors. Some of the biggest companies are stock listed, but essentially they are family-owned businesses.

Table 3.29 Germany: leading manufacturers of household furniture, 2001

Company	Turnover (\$ million)	Type of furniture produced
Schieder	985	Household
Welle	632	Household, office
Noite	549	Kitchen, household, RTA
Alno	390	Kitchen, bathroom
Nobilium	344	Kitchen
Casawell	304	Kitchen, bathroom
Steinhoff	287	Household, upholstered
Hülsta	255	Household, office
Hukla	238	Household, upholstered
Poggenpohl	222	Kitchen

Foreign trade

Imports

As table 3.30 shows, Germany's imports of wooden furniture fell from \$4.0 billion in 1998 to \$3.3 billion in 2001. Imports of bedroom furniture (-29% in 2001) and 'other' wooden furniture (-20%) suffered the biggest decline over the period. 'Other' wooden furniture was the biggest import category; its downturn from 38% of the total in 1997 to 34% in 2001 set the tone for the trade. The fall in value terms was partly aggravated by the currency fluctuations between the euro and the United States dollar.

By contrast, the second largest import category, seats with wooden frames (with a share of 27% of all imports of wooden furniture in 2001) maintained a growth path (+5%). Furniture parts (+3%) and office furniture (+29%) also followed an upward trend.

Table 3.30 Germany: imports of wooden furniture, by product group and by value, 1997–1998

Value (V): \$ million

Product category	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	51.8	1	56.1	55.3	48.5	43.8	1	94
Seats n.e.s. with wooden frames	887.5	23	1 000.0	1 002.8	931.9	976.7	27	105
Wooden office furniture	85.8	2	110.9	112.7	110.4	115.4	3	129
Wooden kitchen furniture	99.2	3	117.6	106.1	89.8	72.6	3	91
Wooden bedroom furniture	577.0	15	564.3	496.3	407.9	396.1	12	71
Other wooden furniture	1 447.0	38	1 463.1	1 357.8	1 164.2	1 107.5	34	80
Furniture of other materials, including bamboo	35.1	1	45.3	40.1	36.0	31.7	1	103
Furniture parts of all materials	635.3	17	678.3	696.4	656.3	598.0	19	103
TOTAL	3 818.7	100	4 035.6	3 867.5	3 444.9	3 341.8	100	90

Source: ITC/UNSD COMTRADE database.

Imports by origin

In 'other' wooden furniture, Italy (with a share of 21% of imports) and Poland (19%) were the largest suppliers, the former losing as much as the latter won over the five years to 2001. Indonesia and China ranked tenth and eleventh as import sources, with China pushing itself ahead of Indonesia very quickly.

In wooden seats, Poland caused a major shuffle in import origins. It gained 14 percentage points to obtain a share of 45% of total imports in just five years, overtaking Italy (12.8% of supplies) with a clear lead. Indonesia ranked highest among the DMECs in fourth place with 4.4% of the market. China was far behind at tenth place, but it gained pace rapidly over the period.

Italy (with 24% in 2001) dominated deliveries of furniture parts, ahead of Switzerland (12.5%) and Poland (10%). Taiwan Province (China) and China were ranked fourteenth to fifteenth with shares of around 1.5%. Indonesia was twenty-fourth with 0.7%.

As a general observation, eastern European suppliers had a pronounced presence on the German market, with the DMECs lagging behind in the product segments assessed. Geography, lower transport costs and quick delivery of familiarly designed furniture were the major competitive advantages of the eastern Europeans. Germany was an exception among the markets reviewed in the absence of Malaysia among the key DMEC suppliers.

Table 3.31 Germany: imports of furniture from leading suppliers among developing countries and China, by major product group, 2001

Product group	Imports (\$ million)	Major developing country suppliers	Share (%)	Rank
Other wooden furniture	1 107.5	Indonesia	2.6	10
		China	2.4	11
		Brazil	1.3	18
Seats n.e.s. with wooden frames	976.7	Indonesia	4.4	4
		China	2.1	10
		Viet Nam	0.9	17
Furniture parts	598.0	Taiwan Province (China)	1.6	14
		China	1.5	15
		Indonesia	0.7	14

Exports

Over the 1997–2001 period, the German furniture industry sought to expand its exports to make up for its poor prospects in the gloomy domestic market. Table 3.32 shows that around 49% of the exports consisted of kitchen furniture and 'other' furniture of wood; these exports peaked in 1999 and declined thereafter. Seats, bedroom furniture and parts held 14% to 15% shares of the export total. Exports of seats rose 19% in the five-year period, peaking in 1999 and falling thereafter but showing signs of recovery in 2001.

Table 3.32 Germany: exports of wooden furniture, by product group and by value, 1997–2001

Product category	Value (V): \$ million							
	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	6.0	0	5.7	7.3	6.5	5.0	0	83
Seats n.e.s. with wooden frames	319.0	13	375.0	401.4	361.0	379.1	15	119
Wooden office furniture	174.5	7	180.2	173.8	181.9	163.6	6	94
Wooden kitchen furniture	633.5	26	682.1	741.0	698.8	687.6	27	109
Wooden bedroom furniture	395.6	16	392.1	389.8	336.7	363.7	14	92
Other wooden furniture	544.7	23	588.6	599.2	543.5	554.3	22	102
Furniture of other materials, including bamboo	24.7	1	22.2	24.8	24.0	30.4	1	123
Furniture parts of all materials	321.2	13	376.6	383.6	371.7	347.3	14	108
TOTAL	2 419.2	100	2 622.6	2 720.9	2 524.1	2 530.9	100	105

Source: ITC/UNSD COMTRADE database.

Market developments

Consumption

Consumption by product segment had the following pattern in 2001:

% of demand	Product segment
55	Furniture for household uses and 'other' miscellaneous purposes
17	Upholstered furniture
14	Office furniture
14	Kitchen furniture

These segments moved in different directions over the 1996–2001 period. Office furniture moved up slightly with a 3% rise in consumption. Demand for upholstered furniture remained fairly unchanged until 2000, then rose by 2.8% in 2001. On the negative side, consumption of kitchen furniture dropped by 2.6% between 1996 and 2000, and fell further in 2001.

Distribution patterns

Furniture distribution in Germany is characterized by concentration in fairly large units. On average, there are around 8–10 sales people per unit, which is more than double the European average. There are around 15,000 sales outlets in the country.

A second feature is the significant market clout held by buying associations. These were originally established to negotiate better deals and conditions for their members, banking on their collective purchasing power over manufacturers. They outgrew their original mandate into providing marketing, training and financing operations for the benefit of their members.

There are four types of buying associations. One type (Begros, Atlas, Union) serves the biggest outlets and mainly provides common financial services. The traditional ones (VME, Regent, GFM, DMV, Europa Möbel, etc.) offer a wide range of services. Buying associations for kitchen furniture (like VKG, Der Kreis) and those (such as WK) serving the upper end of the market can manage made-to-order specifications for their clients.

In 2001, 62.5% of German furniture sales were channelled through the buying associations. Their role in organized distribution is a commanding one. Segment specialists accounted for 10% of all sales by segment, 5.9% of mail-order sales and 5% of Internet sales. Specialist retailers (6.7% of overall sales), DIY outlets (3.9%), direct sales (3.7%) and department stores (1%) were of minor importance in the distribution network.

Advertising and promotion

Advertising expenditure on household furniture and fixtures amounted to \$182 million in 2001. The larger producers and retailers increased their advertising budgets during the period reviewed to overcome competition from imports and faltering demand in general. The Association of the German Furniture Industries (VDM) also embarked on an industry-wide three-year promotion campaign with a €75 million budget funded by the industry.

The printed media dominate furniture advertising, with a 56% share in overall expenditure. About 37.6% of the budget is spent on advertisements in the consumer press. Advertisement in the daily newspapers (12.5%) is favoured by manufacturers that operate locally and by retailers. The electronic media absorb much of the remaining budget, with television taking 26.7% and radio 14.9% of advertising expenditure. No figures have been released on Internet-based advertising and promotion. Both television and the Internet are used mainly by the larger retailers to promote branded furniture.

United Kingdom

Basic demand factors and market drivers

In the second half of 2002, the economic climate was showing signs of weakening. This was true even of consumer spending which had been the powerhouse of the economy for two years. Expectations of growth in 2002 were reduced to 1.5% (as against the original 2%–2.5% estimates of the British

Treasury) and 2.5% for 2003 (as against 3%). This was expected to lead to higher government borrowing, or taxes, to fulfil planned expenditure levels. Commodity prices were falling, with the prices of many consumer durables dropping by 3.6% over the previous 12 months. Furniture prices were following the trend. The decline was particularly sharp for pine products, which accounted for 60% of the furniture market, as that sector became saturated and competitive in the extreme.

The inflation target set for the Bank of England by the Government was 2.5% but was likely to be well below that in 2002. Economic expansion slowed markedly during the third and fourth quarters of 2001, but was still positive at 1.1% for the first quarter and 1.5% for the second in 2002. The Bank interest rate was 4% in the second quarter and had remained so for 10 months, the lowest for 38 years. Factory prices were static or falling. Some retail prices rose, but many fell and helped to push the consumer economy. The stock market fell by 20%.

Manufacturing and investment

Again in mid-2002, the country's manufacturing output was down 5%, retail sales up 0.7%, and GDP higher by 0.6%. Factory gate prices rose by 0.3% and retail prices by 1.45%; average earnings were ahead at 4.1%. The unemployment level remained at 3.1% (943,000 heads) of the total workforce.

Public investment had dropped to a 50-year low in 1999–2000 at below 5% of GDP. It was now rising because of government investment in hospitals, roads and other infrastructural requirements. By contrast, private investment in manufacturing had declined from its 1997 level of \$8.7 billion to \$5.1 billion (at 1995 prices). The manufacturing output was stagnating as there was little incentive to spend on new plants and equipment within the country. British manufacturing capacity, however, was expanding overseas.

Since 1997 and the change of government, increased regulation of the labour market and higher taxes had pushed the United Kingdom down the list of countries favoured by foreign firms for relocation. This was expected to hold back change and to slow investment in the future growth and productivity performance necessary to sustain consumer spending. Higher taxes to pay for government plans and promises of high spending on public services were also likely to curtail consumer expenditure.

The domestic housing market

The level of activity within the housing market has important implications for the home-improvement market. It helps determine the income available to spend on the home and provides consumers with the impetus to purchase new furniture.

In mid-2002, interest rates were at their lowest level since the early 1960s. Owing to the sustained low rates, more householders were choosing to release equity by remortgaging their houses in order to fund refurbishment projects (such as installing a new kitchen or conservatory, replacing furniture, or buying garden furniture). Economic conditions, including high employment levels and low mortgage rates, were contributing to continuing price rises in the housing market. For the first time, the Council of Mortgage Lenders urged the Bank of England to raise interest rates in order to cool the housing market gently and avoid a housing crash.

In June 2002, it was announced that house prices had climbed by nearly 20% over the year. This was the highest rise for 13 years. This rate of increase had pushed first-time buyers out of the market in many parts of the country, and

raised fears of a sudden collapse. Completion levels of new houses in 2001 were at their lowest for 20 years, adding to the shortage of properties on the market. A continuing surplus of buyers creating excess demand for property was likely to sustain the market and continue pushing prices up.

The granting of the right to buy houses originally built for public use (council houses) had led to the transfer to buyers of 1.5 million units since 1979. In 2000 some 52,000 units were sold in this manner, supplementing the fall in new house building. The last peak year was 1990, when 150,000 units were sold at the height of the last housing boom.

The average house was priced at over £153,000 (\$220,000) in mid-2002, compared to £136,000 (\$230,000) in mid-2001. New houses completed in the second quarter of 2002 totalled 38,226, slightly down on the previous year when building was at a 70-year low.

Household expenditure

In 2001, expenditure on furniture and furnishings accounted for 14.3% (\$15.5 billion) of all household spending on durable goods (\$108.2 billion). In the previous years, expenditure on furniture and furnishings had increased at a higher rate than total expenditure on household durables, but this did not happen in 2001.

Furniture, with perhaps the exception of beds, is not generally considered an essential purchase. The vast majority of furniture sales are replacement purchases, which are considered deferrable in difficult economic periods or which compete with other discretionary purchases.

Performance in 2001 was strong despite the general economic downturn. Expenditure on household durable goods went up by 3% in United States dollar terms and by 8.4% in terms of the pound sterling. Growth varied between sectors as they competed for the limited disposable spending on discretionary items. Further growth was foreseen for 2002.

Year	Durables			Furniture and furnishings (FF) ^{a/}		
	Value: \$ million	% change, year on year	Value: \$ million	% change, year on year	FF as % of durables	% change, year on year
1997	101 112	n.a.	13,601	n.a.	13.5	n.a.
1998	107 755	6.6	14,527	6.8	13.5	0.2
1999	110 055	2.1	15,167	4.4	13.8	2.2
2000	105 073	-4.5	15,320	1.0	14.6	5.8
2001	108 206	3.0	15,494	1.1	14.3	-1.8

Source: *www.statistics.gov.uk*, Consumer Trends, Quarter 4- 2001.

a/ Including all household furniture, lights, lamps and pictures, but excluding works of art and antiques.

Note: Figures have been converted into United States dollars.

Implications for the furniture sector

Furniture purchases compete with other discretionary spending on goods and, as they are generally not considered essential, these purchases can be easily deferred. As a result, the performance of the household furniture market is

dependent on the general economy as a whole, the level of house building and moving–renovation activity. Changing house often triggers the purchase of replacement furniture, even from consumers who are not first-time buyers. Consumers setting up a home for the first time will usually purchase a wider range of household furniture.

The growth of the furniture market also relies on the success of efforts to shorten replacement cycles. The industry has been stimulating consumers to buy new furniture before their existing furniture wears out. Media coverage, particularly on television, is playing a bigger role in the promotion of this growth. For instance, a series of TV specials raised interest in home interior design, prompting consumers to buy new furniture purely for design reasons. Interest of this type has expanded demand for a wider variety of products.

The British retail market for new household furniture was valued at \$10.9 billion in 2001, having grown at the rate of 3%–4% annually since 1997. The market consists of the following sectors: living room furniture, bedroom furniture, kitchen furniture, dining room furniture and 'other furniture' (occasional; accent pieces; and furniture for the home office, halls and bathrooms, and gardens). The living room sector is performing well, as increasing use of home-entertainment technology has led to a search for new storage solutions away from the metallic and plastic stands of the past. The sector for home office furniture is likewise seeing growth, spurred by changing working styles and the rise in home computer ownership.

The number of single-person households has increased rapidly in recent years. In 2001, there were an estimated 5.8 million single-person households; this figure is projected to rise to 8.5 million by 2021. This is due in part to longevity, a decline in the number of marriages, an increase in the average age at marriage, and the rise in separation and divorce.

Single-person homes are likely to be smaller than family homes, and may not have separate dining and other rooms. They therefore have different furniture needs and require multifunctional and space-efficient furniture. As a result, the market is experiencing a decline in demand for the traditional living room and bedroom suites and large dining tables. The 'think cubic' promotional view that was espoused by IKEA during the 2002/2003 season was a response to this need.

The household furniture market is highly competitive, with discounting playing a decisive role in sales. The January and June sales remain important for the industry but promotional sales are offered year-round. Consumers are aware of this and shop around before purchasing.

Rapid growth for the market is not anticipated. If such growth does happen in one year, it will be followed by a decline in the following year to provide a 3% growth pattern over the two years. However, home-office, multifunctional, space-saving and flat-pack furniture are all likely to achieve a higher growth rate than other products.

The domestic furniture industry

The United Kingdom is the fourth largest furniture producer in the European Union, after Germany, Italy and France. Upholstered furniture is the leading sector. Wooden furniture accounts for an estimated 80%–85% of all production.

The tables below summarize information on furniture production in the country over the period 1996–2000.

Table 3.34 United Kingdom: production of household furniture, by market segment, product group and by value, 1996–2000
(in thousands of United States dollars)

Market segment	Product group	1996	1997	1998	1999	2000
Upholstery	Upholstered wooden framed seats	2 132 678	2 003 315	1 993 307	1 806 900	1 814 262
	Sofa beds	46 322	53 759	79 530	86 457	71 448
Kitchen	Wooden fitted kitchen units	1 223 611	1 449 581	1 256 817	1 486 367	1 291 923
	Other wooden kitchen furniture	210 848	228 138	241 101	235 924	189 819
Bedroom	Wooden bedroom furniture	1 124 002	1 102 184	940 663	1 267 669	1 009 233
Living/dining room	Wooden living and dining room furniture	956 532	915 399	926 608	773 011	657 984
	Non-upholstered wooden seats	38 579	52 225	46 021	36 160	32 528
Other furniture	Seats of cane, osier, bamboo	4 687	12 090	15 941	13 559	12 171
	Metal furniture (including parts)	557 802	723 911	618 115	666 551	608 055
	Wooden furniture (including parts)	519 435	656 746	575 480	626 845	701 825
	Plastic furniture (including seats)	205 488	208 347	222 768	191 605	188 814
	Other materials for furniture (including parts)	74 880	70 382	58 703	59 013	24 740
TOTAL		7 094 864	7 476 074	6 975 054	7 250 060	6 602 802

Source: Office for National Statistics (ONS), Product Sales & Trade Reports on Furniture.

Table 3.35 United Kingdom: production of office furniture, by market segment, product group and by value, 1996–2000
(in thousands of United States dollars)

Market segment	Product group	1996	1997	1998	1999	2000
Seating	Upholstered swivel	190 741	230 372	257 956	24 433	286 502
	Non-upholstered swivel	825	603	0	123	0
	Upholstered metal	85 862	104 757	115 463	108 552	113 917
Desks, desking and tables	Metal drawing tables	217	283	n.a.	379	118
	Metal desks <80cm	20 533	19 091	23 990	n.a.	16 776
	Wooden desks <80cm	396 414	421 442	463 747	415 128	471 407
Other office furniture	Metal furniture <80cm	218 418	179 292	199 035	182 719	185 775
	Metal cupboards >80cm	106 456	134 701	137 571	118 528	111 611
	Metal filing cabinets >80cm	118 627	125 508	126 517	117 098	111 756
	Metal furniture >80cm	311 739	221 574	275 057	274 513	281 308
	Wood furniture <80cm	173 121	134 589	138 306	141 188	158 002
	Wooden cupboards >80cm	75 196	88 285	92 477	106 191	82 791
	Wood furniture >80cm	91 420	84 147	87 559	79 861	77 110
TOTAL		2 488 867	2 430 375	2 482 584	2 213 227	2 621 837

Source: ONS, Product Sales & Trade Reports on Furniture.

Foreign trade

According to COMTRADE data, the United Kingdom has become more of a net importer in furniture. Its trade deficit went up from \$680 million in 1997 to \$1.9 billion in 2001. Much of the import increases occurred in the 'other' furniture category (living/dining room, small and occasional furniture); exports in this product group declined drastically. Overall, exports fell by 58% between 1997 and 2001. Import and export data for the period are presented in the tables below.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	24.6	2	23.8	23.7	25.9	26.2	1	106
Seats n.e.s. with wooden frames	323.5	21	390.0	438.6	490.7	562.4	24	174
Wooden office furniture	105.5	7	112.0	126.5	156.6	168.6	7	160
Wooden kitchen furniture	93.7	6	89.0	84.0	80.9	79.2	3	85
Wooden bedroom furniture	172.6	11	194.0	200.7	222.5	227.7	10	132
Other wooden furniture	450.4	29	554.6	650.7	762.4	830.3	36	184
Furniture of other materials, including bamboo	39.5	3	44.1	44.3	51.5	49.2	2	125
Furniture parts of all materials	347.9	22	362.5	339.4	344.1	354.3	15	102
TOTAL	1 557.7	100	1 770.0	1 907.8	2 134.6	2 297.9	100	148

Source: ITC/UNSD COMTRADE database.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	1.2	0	0.5	0.6	0.7	1.3	0	113
Seats n.e.s. with wooden frames	113.0	13	105.7	95.1	86.8	75.5	20	67
Wooden office furniture	62.7	7	63.6	55.9	56.3	31.0	8	49
Wooden kitchen furniture	77.9	9	68.5	62.9	49.6	41.0	11	53
Wooden bedroom furniture	68.6	8	41.2	47.3	38.2	31.5	8	46
Other wooden furniture	392.2	45	392.4	432.7	393.1	126.9	34	32
Furniture of other materials, including bamboo	20.6	2	23.6	17.7	16.5	3.7	1	18
Furniture parts of all materials	140.5	16	166.7	134.8	125.4	59.9	16	43
TOTAL	876.6	100	862.1	846.9	766.5	370.9	100	42

Source: ITC/UNSD COMTRADE database.

Imports from developing market economies and China

The United Kingdom is one of the main buyers of wooden furniture from the developing world. In 2001, it purchased 37% of its imports from the DMEC region (compared to 30% in 1996). China led the way in 'other' wooden furniture, which is by far the biggest category of imports. It was also an extremely competitive sector, because China held the leading position with only 9.4% of total imports. Malaysia (in second place) and Indonesia (in fifth) followed closely. In the other two product groups listed in table 3.38, Italy was the dominant player and reduced market opportunities for developing countries. It took 47% of imports of wooden seats, and 37% of imports of furniture parts. China trailed in third place (with a 6% share) as a supplier of wooden seats, before Malaysia and Thailand.

Product group	Imports (\$ million)	Major developing country supplier	% share in total imports by product group	Rank
Other wooden furniture	830.3	China	9.4	1
		Malaysia	9.0	2
		Indonesia	6.1	5
Seats n.e.s. with wooden frames	562.4	China	5.9	3
		Malaysia	2.8	5
		Thailand	2.7	6
Furniture parts	354.3	China	2.5	9
		Indonesia	1.6	15
		South Africa	0.9	18

Market developments

Overview

The retail market for household furniture market (all materials), excluding beds and mattresses, was valued at \$10.9 billion in 2001, having experienced only modest growth since 1997. The market shrank in United States dollar terms in 2000–2001 partly because of the strengthening of dollar, and because of a fear of recession and a drop in consumer confidence in the third quarter of 2001. However, the market was not overly affected despite the economic downslide. In terms of the pound sterling, growth continued at around 3% in 2001.

Product group	1997		1998	1999	2000	2001	
	V	% of V	V	V	V	V	% of V
Upholstery	4 163	38.3	4 338	4 358	4 231	4 104	37.7
Kitchen	2 497	23.0	2 601	2 534	2 449	2 392	22.0
Bedroom cabinet	2 871	26.4	3 008	3 033	2 964	2 910	26.8
Dining room cabinet	832	7.7	863	856	814	795	7.3
Other furniture	504	4.6	573	618	655	677	6.2
TOTAL	10 866	100.0	11 381	11 397	11 099	10 879	100.0
% change year-on-year	<i>n. a.</i>		4.7%	0.1%	−2.6%	−2.0%	

Sources: *www.statistics.gov.uk*; Key Note Publications.

The market for home office furniture was valued at \$237.6 million in 2000. It is a growing part of the overall market for office furniture, which was estimated at \$1.25 billion in 2000 at trade prices. The office furniture sector is expected to grow to \$1.58 billion by 2006 from \$1.35 billion in 2002.

Helped by the boom in home computer ownership in the late 1990s and the penchant for home working, desks and desking make up the largest subsector at 43% of the market (\$102 million), followed by storage at 29% (\$70.6 million), and seating 28% (\$66 million).

Purchases tend to be at the lower-price end, but the choice is being widened by the offer of new styles and new design concepts. Many people working from home do not have dedicated rooms for their home offices. Instead they use part of another room or convert a bedroom into a work base. This increases the need for coordinating and aesthetically pleasing furniture that will blend the computer area with the rest of the room.

Flat-pack office furniture has traditionally had a downmarket image, but retailers like IKEA and the MFI Furniture Group Plc have made the furniture popular. Consumer perceptions are also being radically changed by the use of new designs and materials, including pine.

Year	£ million (\$ million)	Index (£)
1998	117 (194)	100
1999	130 (210)	111
2000	143 (217)	122
2001	155 (223)	133

Source: Mintel International Group Ltd.

As the number of people choosing to work from home for at least part of the week grows, demand for home office furniture will continue to rise.

Call centres have made as big an impact on the market for office furniture as the now conventional open-plan office did in the early years of the change from cellular offices. Call centres require dedicated desking, seating and acoustic controls to make them comfortable for shift working and 24-hour operation. Demand for this type of office was growing rapidly in the United Kingdom in the latter half of the 1990s, but call centres are now being moved to Asia and other cheaper locations. Unless the equipment moves too, high volumes of desking will come onto the British second-hand market, and will perhaps reduce demand for new desks.

Developments by type of furniture

Bedroom furniture

This sector is mature and changes in styles and woods have been one of its features. Replacement cycles are long as few problems occur over the life of the furniture. Refurbishment, moving house, and new starter homes are the prime reasons for buying this type of furniture.

Free standing fitted storage takes 75% of the market. Around 46% of all bedroom storage furniture is sold in flat-pack or self-assembly ranges.

The subsector for bedroom furniture for children and teenagers has been growing. Pushed by the example of IKEA and by the strong impact of imports, domestic manufacturers have been adding to their own ranges of furniture for the subsector.

Some of the furniture being retailed is made of the same wood or panel materials used for adult units. This allows furniture in the same range to be added as the child grows. A few use licensed themes and styles and have bright colour finishes.

MFI Furniture Group is the country's leading manufacturer and retailer of bedrooms (and kitchens). It produces its own branded bedroom furniture (Hygena and Schreiber) which it distributes through its own outlets. Silentnight Holdings (makers of Silentnight Furniture, Ducal and Stag), the Homeform Group (Sharps) are among the other major retailers of bedroom furniture.

Children's furniture

The market is growing. Manufacturers are finding it profitable to produce children's furniture for retail in their own chain stores or for distribution in non-industry chain stores. Importers are likewise active in the sector. Among the retail outlets are Toys R Us, IKEA, MFI, Mothercare, Wal-Mart, Argos, John Lewis, House of Fraser, Marks & Spencer, a wide range of furniture independents and local nursery retailers.

Buyers are seeking regular supplies of well-designed 'child-based' products for this sector. Moving on from the single-bed and bunk-bed offerings with combined storage units and writing desks, the retail market is offering full ranges of furniture for children at various ages: baby/nursery, young child and teenager. Individual room sets, colourways and accessories to match the child's growth and changing learning patterns are in demand. Storybook and film characters frequently appear in surface decoration. The use of games and computers has encouraged the growth of the market for units on which to use them and for storing them. Extensive testing for safety is essential for these products. Two trade shows deal specifically with children's furniture, as also do the regular furniture shows.

Outdoor furniture

Consumers are seeking mainly wooden garden furniture. Although furniture trends are moving upmarket, the wooden furniture ranges still manage to meet requirements at the lower price points. It seems that consumers understand that designs change and thus buy garden furniture that has a lifespan of five years. Repeat purchases are often made in three to four years. Price is an important consideration, and the expensive ranges whilst offering durability do not meet the consumer's short-term needs. Hence a proliferation of low-priced well-merchandised hardwood (mainly tropical) and softwood (pine) units are found across a wide type of stores, from supermarkets selling food, to DIY stores, garden centres, discount stores and local independent outfits. As 80% of the furniture displayed is of wood, emphasis is on FSC certification to ensure that wood is from sustainable sources. Special lacquers are used to ensure that the softwood endures for at least four years.

The market is valued at \$720 million at retail level. Tables and chairs accounted for 65% of purchases in 2001, recliners 12% and benches 10%. Chairs and tables on their own took smaller shares at 4% and 1% respectively. Parasols, often with wooden poles, had a 10% share of the market.

A link to information on styles and products in demand is provided by the Leisure & Outdoor Furniture Association (LOFA) at its www.lofa.com website. LOFA is a trade association representing over 80% of the country's manufacturers and suppliers of garden furniture, benches, parasols and other outdoor living products and accessories. It runs an annual trade show in September at the National Exhibition Centre in Birmingham. The Glee website (www.gleebirmingham.co.uk) reports that over 26,000 professional buyers for the leading garden and leisure multiples, independent garden centres, DIY outlets, etc. visit the show every year.

Kitchen furniture

British consumers spent \$3 billion on fitted kitchens in 2001. As much of that was on high-end appliances and worktops, it reduced the amount available for fitted furniture in 2001 to nearly half the level of 10 years earlier. The DIY sector performed well but the contract sector declined.

Franchising is the main route for the development of the kitchen specialist store, not only for household kitchens but also for commercial and contract sites such as schools and hotels, and contractors like builders and housing associations. Independent owners are often encouraged to enter the market under group banners.

Among the better-known franchisers is In-toto Kitchens, which was established by Wellmann, a German manufacturer of kitchen furniture, in 1953. Wellmann is now part of the Alno group, Europe's largest quality kitchen manufacturer, which itself is part owned by Whirlpool. In-toto's website (www.intotofranchise.co.uk) claims that because of this direct link, quality European products can be sold in the United Kingdom at a competitive price, giving a design and price advantage over rivals.

Some websites, such as www.cuisines-schmidt.com, www.snaidero.com, www.mobalpa.com and www.crown-imperial.co.uk offer online design facilities.

Various companies cater to customers who want to improve their kitchens without a major reconstruction of storage structures by offering to refurbish doors, drawers and worktops. Some offer their services online (www.restoration.com, www.atkinsonskitchens.co.uk, www.kitchen-magic.com) or advertise in Sunday newspaper supplements or in the Friday papers. Refurbishing is often a back door to the business of refitting kitchens with new units.

Do-it-yourself and gardening furniture

The British DIY and gardening sector attains annual sales of £12.2 billion (£22 billion if builders' merchants are taken into account). Focus Wickes, the country's second largest DIY group, also owns Do-it-All and Great Mills. These companies have been rebranded into a group with annual sales amounting to \$2.1 billion. With the original 93 Focus stores and 133 Wickes units, the group covers 50% of the DIY market. B&Q and Homebase are also important market players. Home Depot of the United States is considering entering the sector.

Distribution

The supply side is fragmented with traditional suppliers, importers, new entrants and regular furniture sources moving into ranges that supplement their dining and bedroom items. Multiples and chains dominate buying and market coverage, with IKEA, office superstores and other furniture dealers taking their share among others alongside the companies mentioned above. The web is mainly a marketing tool. Some direct sales are made by computer web shops which offer home office desk and seat systems at competitive prices and good delivery conditions.

IKEA, Courts and MFI are the country's biggest retailers of furniture. The first two recorded clear growth in 2002, while MFI lost ground. In that year, MFI and Ethan Allen (a leading furniture company in the United States) were engaged in a partnership venture in a pilot store in Kingston, London. Ethan Allen was targeting the \$1.5 billion premium furniture market in the

United Kingdom by offering a wide range of products, including quality wooden furniture and the accessories necessary for a complete designer home and room delivery service of the type it offered in the United States.

Among the other important retailers, the use of in-store galleries is a common concept. Laura Ashley, for instance had 20 home furnishing stores in 2002 and was planning to establish 30 more stores within the immediate future. It also had concessions in Homebase, the country's third largest DIY outlet.

Company name	Sales (£ million)	Compound sales growth 1998/1999–2000/2001 (%)
IKEA	745	24
MFI	659	-5
Courts	658	17
Allders department store	387	-3
DFS Furniture	357	13
Harveys Furnishing	271	5
Laura Ashley	247	-15
Homestyle	239	-
Habitat UK	137	10
Overall industry average		14

Source: *Business Ratio Report: Home Furnishing Retailers*.

Advertising and promotion

There are a wide variety of home-interest weekly and monthly magazines and television programmes dedicated to home design and DIY to fuel consumer interest. This has affected the market by encouraging consumers to purchase new furniture in order to change the 'look' of a room, rather than because their existing furniture has worn out and needs replacing. The interest has also stimulated product design, as consumers become more adventurous in their purchases.

Advertising expenditure in the United Kingdom can be apportioned from the retailer to the consumer and from the manufacturer to the stockist and the consumer. Retailers' advertising fell in 2001 by 2.75% to \$232 million, because of the collapse of large spenders like World of Leather, Uno (now defunct) in the upholstery sector, and Kingsway and Landmark among the discount retailers. These enterprises took nearly \$9 million out of the advertising market.

The 20 largest retailers accounted for 71% of advertising expenditure in 2001. Of these, DFS (an upholstery retailer and manufacturer) ranked first with \$80 million and 27% of all spending.

Expenditure by advertising medium was distributed as follows: press advertising 55%, television 33%, radio 7.6% and direct mail 3.9%.

Advertising by the manufacturing industry reached nearly \$360 million in 2001. About 17% came from manufacturers and a further 33% from manufacturers with their own retail outlets.

Advertising from manufacturers attempting to brand their products is highest in spring and autumn. Retailers advertise throughout the year with peaks in spring and autumn and during special sales periods.

The tables below provide some figures on advertising expenditure by the leading retailers and manufacturers of furniture.

Retailer	Total expenditure	Expenditure by media category		
		Press	Television	Radio
DFS (60 stores, seating manufacturer)	50.7	23	26	1.7
MFI (180 stores, manufactures the full range of furniture)	16.2	8	8.2	–
Courts (140 stores, all ranges)	15.0	7.1	7.1	0.8
ScS (20 stores, seating manufacturer)	4.5	–	3.1	1.4
IKEA (11 stores, all ranges)	4.0	–	3.1	0.9
Furniture Village (26 stores, all ranges)	7.0	4.1	2.5	0.5
Harveys (all ranges)	3.1	3.1	–	–
Moben (manufactures kitchen and bedroom furniture)	5.1	2.2	2.9	–
Kitchen Direct (manufactures kitchen and bedroom furniture)	1.4	1.4	–	–
Multiyork (seating manufacturer)	1.9	1.9	–	–
Total for 10 leading retailers	108.9	49.4	54.3	5.3
<i>Percentage of overall total</i>	<i>54</i>	<i>44.5</i>	<i>82</i>	<i>34.5</i>
OVERALL TOTAL	201	110.9	66.23	15.34

Source: Cabinet Maker.

a/ Expenditure by the 10 biggest spenders in each media category; excludes expenditure by the retailers listed if they do not fall among these 10.

Leading manufacturer and percentage of total expenditure by sector	Total expenditure by sector		
	March 2001	March 2002	% change
Lounge and dining room (Land of Leather: 56%; Ligne Roset: 5%)	14.6	14.8	1.3
Bedroom (Sharps: 59%; Hammonds 11%)	6.6	6.4	–3.1
Kitchen (Clive Christian: 12%; Kitchen Magic 10%)	6.6	7.7	16.9
Others (beds, bathroom cabinets, outdoor furniture)	13.2	14.0	6.4
TOTAL, all sectors	40.9	42.8	4.7

Source: Neilsen Media Research.

Catalogue advertising, not covered by the figures given earlier, appears at least once a year from the IKEA type of stores. General catalogues and the monthly catalogues of direct mail-order companies and stores that sell by catalogues (such as Argos, Mothercare, Littlewoods and MFI) also carry advertising on furniture.

A number of catalogues of 20 to 40 pages reach households as inserts in Sunday newspapers and TV magazines, as well as through direct mail drops and local deliveries. These feature a mix of furniture, furnishings, accessories and

some consumer durables. Examples of the issuing companies are the House of Bath (www.houseofbath.co.uk), The Cotswold Company (www.Cotswold.com), Home & Garden Direct (www.readersoffers.co.uk/cx09), and Scotts of Stow (www.scottsofstow.co.uk).

Consumers look upon furniture as a major investment and they put a great deal of effort into making a sound choice. Distance of travel to a store or choice of stores is as important as the type of store available to visit.

A survey report published in 2002 provided an insight into consumer reactions to the question: 'How far would you travel to buy new furniture?' Some of the results of the survey are tabulated below. The context was to look at usage of city stores as opposed to edge-of-town retail parks and multi-purpose hyper-stores such as IKEA and factory outlet centres.

Distance covered	Percentage of respondents willing to travel
Up to 5 miles	19
Up to 10 miles	22
Up to 20 miles	27
Up to 50 miles	21
Over 50 miles	9
Would not travel	1

Source: NOP/Cabinet Maker, September 2002.

Stores that provide entertainment, are convenient for families and offer value for price points, be they high, medium or discount, have a competitive advantage. Travel time, car parking and convenience are important, and retail parks with a number of furniture stores for comparison have an edge. Prospective suppliers to the market should look where the groups, chains and independents are placed and attempt to be stocked in at least one outlet in each sector to ensure coverage of the marketplace.

Market entry

To reach the British market, one requires local representation and this is often done by using agents to cover specific regions of the country. A base of four agents and a contact number in the United Kingdom are crucial for the household furniture market, although perhaps less so for kitchens and for contracts calling for the close involvement of designers and architects.

The country can be successfully covered with 200 retailers, which can be either independents, or a mix of these and chains or department stores. The use of a stocking warehouse will be helpful as this level of retailers rarely take container loads. The link between stock and retailer is difficult to establish and the use of a carrier that offers good systems, covering even such aspects as ordering, cash handling and full financial reconciliation, can be vital. Such a carrier's ability to make swift deliveries, offering the consumer a practical two-week or better waiting period, will be a bonus.

It is useful to appreciate that stocking 200 outlets with displays, room sets or stand-alone items will take at least five containers valued at around \$20,000 each. Cash flow could be a problem unless sound payment terms are part of the introductory package. Size can be important, as furniture designed for Europe and the United States is often not suitable for the United Kingdom with its smaller homes and rooms.

Designer pieces that appeal to city dwellers in apartments are purchased to suit a style choice and the space available. Such consumers are reached through specialist boutique outlets, key department stores, or by direct-mail order offers advertised in the upmarket press.

Items of choice include accent pieces, display and entertainment units, occasional tables, side tables, small storage pieces and dining sets. In the bedroom a mix of free-standing units is preferable to semi-fitted wardrobes and drawer storage. Over-large units must be capable of being partially disassembled to facilitate movement into homes and stairs.

If the furniture is made in solid woods, a moisture content of between 8% and 10% is required to ensure satisfactory use throughout the year. Lacquers are important for a good finish, or the furniture may be hand-polished. After-care instructions must be detailed clearly.

New product offers, possibly launches linked to the regular annual furniture trade shows, should be provided each year. This would make it possible for the retailing base to grow.

Key buyers could be 'awarded' with involvement in pre-product selection and design on the basis of feedback from their sales. Factory visits to discuss details with the workforce and management could be arranged. Such close contacts would help acquaint factory workers with the quality standards that the designers require and ensure delivery to those standards.

France

Basic demand factors and market drivers

France, like most other EU countries, had made serious efforts to attain the required standards for entering the European Monetary System. This had squeezed consumption and GDP increase had been moderate. In 2002 the Government promised economic improvement, but the world situation being what it was, the French economy was not expected to show other than moderate amelioration in 2003.

At the time of the preparation of this study, French consumers were spending almost 30% of their budget on their homes. They were in fact the Europeans that spent the most on their homes. They were followed by German and Spanish consumers (about 28% and 27%) and by the Italians at 22%.

French consumers were keen purchasers of durable goods and furniture, particularly at the high end of the market. The housing market was expected to remain stable for the two years from 2002. New collective housing sites were being developed and a drop in individual housing sites was anticipated. All in all, there were reasonable prospects for the furniture market.

In 2002, the French were showing a rising inclination to rearrange their homes, a trend helped by the increasingly fluid distribution channels. In 2001, 7.3 million French households, or nearly 30% of the total number of households, bought at least one new piece of furniture. It must be noted that, at the end of 2001, furniture sales were likely to have profited from the reassignment of budgets initially planned for travel. French families spent an average of €1,250 on furniture in that year.

The domestic furniture industry

In 1998, the French furniture industry consisted of over 17,000 companies, of which only a small part (about 690 companies, or 4%) employed more than 20 workers. The overall workforce numbered 104,000, indicating that the industry was quite dispersed. Of the companies with more than 20 employees, only 4% were large companies with over 500 workers; about 58% consisted of small and medium-sized companies with 20 to 50 workers.

The kitchen furniture segment had about 80 companies with 8,000 workers. Supply in this sector was quite concentrated, with the three main companies controlling 60% of sales. The craftsmen's output met 12% of demand.

The segment for upholstered furniture became more concentrated, with the leading 40 companies accounting for 65% of the output in 1998, compared to 57% a few years earlier. The leading producers had been restructuring in a bid to become more competitive on the European market.

	1990	1995	1998	1999	2000
Number of companies ^{a/}	835	750	693	704	671
Number of workers	76 222	76 154	78 821	73 384	74 318

Source: Service des études et des statistiques industrielles (SESSI).

a/ Companies with more than 20 employees.

The overall domestic furniture industry has been facing, and continues to face, strong challenges because of the restructuring of the distribution sector and shifting consumer tastes. Meeting these challenges have called for significant new investments in all parts of the production chain.

Companies specializing in given furniture styles have had to adopt new production and marketing strategies. Furthermore, distributors have had to meet demands of consumers for more services in relation to their furniture purchases. This has led to the development of collaboration programmes between industry and the distribution sector. Such programmes are more and more frequently based on the development of differentiating marketing strategies.

Production

France is the fourth largest furniture producer in the European Union. Between 1996 and 2000, its output rose by 5% on average to reach a value of around \$7.2 billion in the latter year.

Type of furniture	\$ million	% of total
Office	913	12.6
Kitchen	886	12.3
Upholstery	876	12.1
Others	4 543	62.9
TOTAL	7 218	100.0

Source: SESSI.

Structure and location of industry

The 10 largest producing companies held a share of 24.6% of total sales in 1998. The average number of workers (for companies with more than 20 workers) was 110. The number of artisans has been falling slowly over the years. About 67% of the French companies are independent, 26% are part of larger French groups, and 7% are associated with larger foreign groups.

The geographical breakdown of manufacturing companies shows that distribution is fairly uniform throughout the country. However, there is a greater concentration in central France, where over 24% of all furniture plants are situated, and 22% of all furniture is produced. About 21% of the companies are located in the western region and account for 20% of national production.

Region	Producing plants	Effective production
North	9.7	9.8
East	14.8	21.0
South-east	19.6	18.2
Center	24.4	22.0
West	21.0	20.1
South-west	10.5	8.9
TOTAL	100.0	100.0

Source: SESSI.

a/ Limited to companies with more than 20 employees.

Some of the main furniture producers are Steelcase Strafor, Gautier France, Roset, Dumeste and Capdevielle et Fils. The main kitchen cabinet producers are Schmidt, Mobalpa and Parisot; they control about two-thirds of the market.

Favoured wood species and finishing techniques

French furniture makers use a large variety of wood species. As the figures below show, the species preferred vary for each furniture type. Overall, however, wood consumption is heavily concentrated on a few species, led by oak and followed by cherry and pine. While the industry uses big quantities of solid hardwood (mainly oak), chipboard is the most widely employed material. Only small amounts of edge-glued panels are utilized.

Species preferred by type of furniture

Type of furniture	Wood species
Children's and low-budget furniture	Spruce, pine
Chair, seats and institutional furniture	Beech, ash
Bedsprings and frames support furniture	Poplar, beech
Traditional furniture (reproduction antique and country)	Oak, cherry, pine
Quality reproduction antique furniture	Walnut, cherry
Indoor furniture	Chestnut, maple
Modern furniture	Elm (scarce)

Source: United States Department of Agriculture.

Tropical species are little used. However, teak is increasingly being exploited for garden furniture, as is iroko (*Chlorophora excelsa*). Ipe (*Tabebuia* spp.) and jatoba (*Hymenaea courbaril*) are employed for pool sidings and garden fittings, and

these durable woods are occasionally promoted for bathroom uses as well. Small quantities of ayous (*Triplochiton scleroxylon* K. Schum) and similar species are utilized for furniture mouldings. Okoume (*Aucoumea klaineana*), a common material for plywood, is used only occasionally by furniture producers. Furniture made of bamboo and rattan has a niche market. Most of this furniture is imported from the tropical producing countries, and some quantities are obtained from Italy and Spain, which are noted for their designs.

Gardino Consulting reports that the main wood materials used by the French furniture industry in 1999 were as follows:

Wood product	% share
Sawn hardwood	30
Sawn softwood	8
Chipboard	46
MDF	10
Other panels	6
Total	100

In 2002, Gardino also looked into the main wood materials used by the 50 leading furniture producers in the country. Its findings were as follows:

Wood product	Usage: % of 50 companies
Softwood	47
American hardwood	35
European hardwood	80
Tropical hardwood	5
Plywood	25
Edge-glued panels	22
MDF	60
Chipboard	87
Veneer	20
Mouldings	9

Furniture finishing techniques are traditional. Environmentally friendly and non-polluting materials must be used. Because of the popularity of traditional furniture, wax and oil finishings are frequently carried out.

Outsourcing and networking among manufacturers

The manufacturing process is mainly traditional, with many manufacturers preferring to make all parts and components within the factory. Only a few items are obtained from outside sources, mainly drawers, some veneered panels, and some cut-to-size panels. However, changes are beginning to take place. Some companies are now importing semi-finished parts from other countries, mainly from Italy, but also from China and Brazil. Component factories are in place, but these are much less important in France than they are in other countries. There is little networking among furniture manufacturers, but there are powerful purchasing groups and franchising chains.

A recent analysis by the Service des études et des statistiques industrielles (SESSI) indicates that some leading home furniture producers are pushing the outsourcing process, in order to be able to concentrate on the more important production processes and to reach higher creativity and innovation levels.

Some figures on France's makers of furniture parts with more than 20 workers are set out below.

Number of companies	39
Number of workers	2 018
Annual sales	€170 billion
Investments	€9.2 billion
Value added	36.8%
Export rate	10.5%
Investment rate	14.8%
Rough margin	22.3%
Profitability rate	7.8%

Source: SESSI.

The part makers are considerable investors in comparison to the sector in general. They are largely situated near the big furniture manufacturing areas, where they improve production flexibility as well as profitability. They produce furniture legs, doors, drawers, carcasses. Their main customers are home furniture producers and manufacturers of kitchen cabinets. They also supply small quantities of parts to producers of office furniture and other furniture types.

The market for parts is also supplied by imports (see table below). In 2000, imports accounted for 52% of France's net consumption of furniture parts. Two-thirds of the imported goods came from Italy.

Type of supplies	1997	1998	1999	2000
Imported	130	145	150	180
Domestic	130	150	155	140

Source: SESSI.

Cooperation is good between furniture manufacturers and their suppliers. This is especially true of suppliers of overlays, who provide the manufacturers with exclusive designs and colours. Machine producers also collaborate with the furniture industry and the two-way flow of information contributes much to the success of this collaboration.

It is necessary to note the considerable power of the main clients of the furniture makers. These are the major French distributing companies, which exert a strong influence on industrial suppliers, whether small, medium-sized or large. In fact, some distribution chains play a leading role in the directions taken by certain segments of the market.

Technology level

French furniture makers (at least the leading companies) are technologically advanced. However, there still exist a large number of artisans, often producing traditional furniture, with less modern and less sophisticated equipment. Investments in the sector are considerable at about 9.9% of turnover.

Around 20% of investments are made by independent French companies, 62% by French companies belonging to larger groups, 18% by companies belonging to big foreign groups. Investments by home furniture companies are insufficient, and this is critical to the competitiveness of the sector.

Furniture design trends

Several activities are carried out to improve furniture designs, including the competition held at the Furniture Show of Paris. The competition at this Show is open to designers from all countries, although French designers often prevail over their foreign competitors. Since 1993 the Show has been organizing an important design event under the Le Village umbrella. In 2002, this event highlighted new colour trends and an emphasis on comfort. The use of opalescent glass, new plastics, metal, as well as hitherto unexploited materials (such as the new composites) was also evident.

Technical design is needed to move products from the designer's table through the manufacturing processes onto the marketplace. The leading French companies, cooperating with well-known designers, are able to go into mass production. However, the term 'top quality' generally means traditional furniture, respecting old materials and lines.

There are several design schools, and these often participate in furniture design competitions. A well-known training centre is VIA, the institute for the promotion of furniture and design in Paris. Another important institute is ENSAD (École nationale supérieure des arts décoratifs).

Foreign trade and apparent consumption

Overview

Both French imports and exports of wooden furniture recorded healthy growth rates over the 1997–2001 period. Imports rose faster, however, resulting in a widening trade deficit. France imported wooden furniture and parts worth \$2.56 billion in 2001, \$1.29 billion more than its exports of \$1.27 billion.

The bulk of the imports consisted of 'other' wooden furniture (35% of the total) and wooden seats (23%). The third largest category was furniture parts, with a 14% share. Imports of furniture of other materials like bamboo and kitchen furniture expanded at the fastest rates, but these products were of minor importance in terms of trade value.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats cane, osier, bamboo, etc.	18.0	1	20.9	22.2	26.5	28.5	1	158
Seats n.e.s. with wooden frames	475.3	25	520.0	534.5	500.6	593.3	23	125
Wooden office furniture	122.2	6	126.1	111.5	131.1	142.8	6	117
Wooden kitchen furniture	111.8	6	127.0	149.2	147.0	181.8	7	163
Wooden bedroom furniture	245.4	13	245.0	254.2	249.5	287.6	11	117
Other wooden furniture	649.3	34	711.1	767.9	775.6	890.6	35	137
Furniture of other materials, including bamboo	45.7	2	48.2	58.6	71.4	81.8	3	179
Furniture parts of all materials	235.3	12	271.3	281.4	304.6	353.8	14	150
TOTAL	1 903.0	100	2 069.6	2 179.5	2 206.3	2 560.2	100	135

Source: ITC/UNSD COMTRADE database.

Table 3.49 France: exports of wooden furniture, by product group and by value, 1997–2001

Product group	Value (V): \$ million							
	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997= 100
Seats of cane, osier, bamboo, etc.	2.1	0	3.2	2.7	2.7	3.5	0	169
Seats n.e.s. with wooden frames	121.1	12	126.3	123.6	114.2	134.4	11	111
Wooden office furniture	39.6	4	52.4	50.3	51.4	57.7	5	145
Wooden kitchen furniture	123.9	13	126.8	114.6	102.3	123.0	10	99
Wooden bedroom furniture	129.6	13	140.4	137.9	129.3	131.1	10	101
Other wooden furniture	434.1	44	514.4	520.0	525.2	591.3	47	136
Furniture of other materials, including bamboo	32.4	3	42.5	46.1	35.4	42.3	3	131
Furniture parts of all materials	95.4	10	107.4	133.4	173.3	184.4	15	193
TOTAL	978.2	100	1 113.4	1 128.6	1 133.9	1 267.7	100	130

Source: ITC/UNSD COMTRADE database.

According to data covering all types and materials of furniture, the country consumed \$8.4 billion worth of furniture in 2000. Consumption rose by 5% in 2001.

Table 3.50 France: furniture consumption, by type and by value, 2000

Type of furniture	\$ million	% share
Office	996	11.8
Kitchen	929	11.0
Upholstery	1 127	13.4
Others	5 367	63.7
TOTAL	8 419	100.0

Source: SESSI.

Imports from developing market economies and China

France obtained 21% of its imported wooden furniture in 2001 from developing countries, up from 13% in 1996. The leaders among these suppliers were Asian. Brazil ranked eighth as a supplier of 'other' wooden furniture; Indonesia held sixth position in this product category. Indonesia was also the third largest source of wooden seats.

Table 3.51 France: imports of furniture from leading suppliers among developing countries and China, by major product group, 2001

Product group	Imports (\$ million)	Major developing country supplier	% share	Rank
'Other' wooden furniture	890.6	Indonesia	6.7	6
		Brazil	5.0	8
		China	4.5	9
Seats n.e.s. with wooden frames	593.3	Indonesia	4.9	3
		Viet Nam	2.4	6
		China	1.9	8
Furniture parts	353.8	China	1.3	14
		Indonesia	0.5	21
		Malaysia	0.4	26

In furniture parts, developing countries did not do well: China, the largest supplier, had only 1.3% of imports. France obtained most of its imports of furniture parts from its neighbours.

Market segmentation and regional demand

The breakdown of supply according to quality is fairly balanced in the middle (44%) and lower-middle (46%) ranges. The market is smaller (10%) for furniture in the upper range, which includes antique reproductions for the conservative buyer.

The low-cost segment of the market has been adapting quickly to the changing tastes of its younger, low-budget buyers. At the middle range, the market contracted sharply between 1995 and 1998, losing 5% of its overall share. Kit furniture had 57% of the market for kitchen furniture at one point and has continued to record significant growth in recent years.

In 2002, the major consuming regions were the Paris area (Île de France) with more than 10 million inhabitants, Rhône-Alpes (around Lyon), with more than 5 million and Provence-Alpes-Côte d'Azur (around Marseille) with a population of a little less than 5 million.

Furniture styles

While French furniture production has leaned and still leans fairly strongly on its old traditions, it appears to be moving towards more contemporary fashion. The market continues to have a hefty requirement for traditional furniture and has a significant niche, also at the top end, for reproduction antique furniture. However, with the rise in demand for contemporary designs, many French producers, especially of furniture in the middle- and low-price ranges, have shifted to furniture in 'modern' designs; this type of furniture now has the lion's share of the market.

The 'modern' design concept is interpreted in different ways: a 'return to the 70s', according to some, and 'priority on functionality' according to others. 'Modern-contemporary' had 64% of the overall value of the market in 2000.

Furniture style	Kitchen furniture		Upholstery	
	Value	Volume	Value	Volume
Modern-contemporary	65	71	67	74
Traditional-classic	35	29	33	26

Source: CSIL Furniture Industry Research Institute, Milan.

Two differing principles govern French furniture styles: basic and luxury. Basic designs offer what is necessary for daily living in simple lines, with proven materials and shapes. Luxury is associated with space, safety, technology and home automation.

The classic furniture offering rides on authenticity and product knowledge, and integrates a touch of exoticism. Antique reproductions are popular and the numerous French historical genres have been meticulously maintained and documented throughout the centuries.

The consumer of design furniture integrates individual pieces into contemporary or modern settings. The main consequence of this is a drop in the market for furniture that is sold as complete bedrooms or dining rooms. The consumer is searching for a new style, which is establishing itself between traditional and modern, a relaxed mixing of genres. Design furniture is following this trend and has explored the possibilities arising from art deco and ethnic furniture. Interest in ethnic furniture has increased and it has now acquired a market niche.

The evolution of design and technology in the office furniture sector has been spurred by various factors. The use of information and communication technologies has brought about the rise of functional and modular furniture systems. New materials are being used, making it possible to develop new shapes. Environmental issues and the related life cycle considerations have also influenced finishing techniques.

The new laser-cutting techniques with extra short impulses will influence manufacturing processes.

Distribution

In 2001 France had 11,700 furniture sales outlets with a total sales area of 7.7 million m². Specialist shops, with 81% of the total turnover, dominated the market. Companies specializing in bargain prices and those offering top-end products expanded more rapidly than others. The low-end segment gained ground by adapting quickly to market demands, while the top-end sector increased its market presence by reinforcing its image and its association with France's cultural identity.

The large-scale distributors controlled 49% of the low-end market segment. Of these, Conforama, But, IKEA and Fly had a share of around 35%, up from 23% in 1992. Two out of three furniture consumers in 2001 chose to buy furniture from one of these four companies.

In terms of optimum efficiency, the highest mark goes to IKEA which held 6% of the French market with only 11 stores, as opposed to But, with 10% of the market and 228 sales outlets. Conforama had 15% of the market with 171 stores, and Fly 5% of the market with 125 stores. The large DIY stores and mail-order channels had also gained ground, accounting for 4% and 7% of the market respectively.

The 10 biggest overall distributors were Conforama, But, IKEA, Fly, Monsieur Meuble, Atlas, Mobilier de France, Camif, La Redoute and Roche-Bobois.

By 2001, the market was expanding at about 3% yearly. The four largest distributors accounted for about 50% of sales, up from 23% in 1992. The large and powerful groups were expected to continue their growth, but a shrinking in their number was also anticipated as a result of increasing market concentration. The smaller traditional furniture stores held about 20% of the market.

A strategy involving a combined 'products and services' offer is enabling the furnishing-interior decoration sector, craftsmen and certain kitchen specialists to recover some of the ground they had lost in recent years.

An insight into the market shares of other market participants can be gained from the data below. The figures are for 2000 and so differ slightly from those mentioned in the text.

Type of distributor	Market share (%), 2000
Specialists	77
Independent retailers	10
Buying groups	15
Large-scale specialist distributors	40
Other specialist channels	12
Non-specialists	23
Department stores	2.5
DIY stores	3.5
Mail order	6
Direct sales	6
Other non-specialist channels	5
TOTAL	100

Source: CSIL Furniture Industry Research Institute, Milan.

Distribution in France is shifting towards large store surfaces. DIY stores are expanding and are distributing furniture in some market segments. The strong French sales groups are increasing their presence in other countries (both directly and through franchising), thus promoting French furniture abroad.

The table that follows gives an idea of the growth of large store surfaces in France in the 1990s.

Store type	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Hypermarkets	20.7	13.6	15.6	8.9	6.8	8.5	9.0	7.7	8.5	7.3
Supermarkets	9.6	8.9	10.1	6.6	12.6	14.5	11.0	12.6	12.7	13.7
Home equipment	11.5	18.3	16.6	13.0	10.7	9.6	15.0	9.9	12	12.7
DIY/gardening	18.3	15.8	14.7	30.7	40.7	36.8	26.0	43.9	40	37.4
Others	39.9	43.3	43.1	40.8	29.2	30.6	39.0	25.9	26.8	28.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Direction des entreprises commerciales, artisanales et de services (DECAS).

In early 2001, furniture distribution was expected to follow the following trends:

- ❑ Furnishing specialists would continue to reorganize their networks, and concentration appeared inescapable. Sales would fall by 3.5% in 2001.
- ❑ Living room specialists, with only 2.5% of the market in 2000, would disappear.
- ❑ Mail-order sales would shrink by €30 million from their level in 2000. Mail-order companies were trying to find their way out of the downturn which followed the good years between 1994 and 1997.
- ❑ Discounters would continue to find it difficult to adapt to changing market requirements.

Transport and packaging

French furniture consumers like customized furniture. This is especially true of kitchen cabinets, and less so of upholstered furniture. They also want their furniture delivered either immediately (for discount items, knock-down furniture, etc.) or promptly (for customized orders).

The country therefore has an efficient system of order transmission and transport, favoured by the relatively short distances between consuming areas and main producing areas, including areas in the surrounding countries (Spain, Italy, Belgium). Furniture is almost always transported by truck. Goods are properly packaged in order to eliminate damage.

Cheap items are generally sold and delivered knocked down. Goods shipped from overseas are always transported in containers. Buyers and sellers dedicate great care to establishing the sizes and shapes of furniture (when it is not knocked down) to enable them to fill containers to the maximum. Buyers prefer shapes that make it possible to fit furniture pieces one inside the other.

Advertising and promotion

According to SESSI, home furniture producers invested €168 million in advertising in 2000. Investment by specific furniture type was as follows: seating furniture €21.3 million, kitchen cabinet and bathroom furniture €40 million, and office furniture €6 million.

There are no official figures on advertising expenditure on branded as against non-branded furniture. However, industry sources suggest that manufacturers of branded items spend considerably more on advertising than the other companies. The former also advertise among consumers, while the latter focus only on traders, mainly through specialized magazines.

E-commerce and Internet-based marketing

There were about 9 million Internet users in France in 2000, of whom 6.3 million reported weekly use.

While B2C sales in France jumped by 246% in 2000 (from €198 million to €686 million), very few furniture companies are really involved in this trade. Probably less than 1% of all furniture sales are made through the Internet.

A recent study of the Benchmark Groups ascertained that out of a sample of 2,500 traders in goods, only about 100 depend on the Internet for more than 80% of their sales. The study cited Camif, a site which at the time offered 27,000 products. The average size of its individual sales amounted to €195. The site achieved about 13% of its sales through the Internet, and about 30% of its sales were of furniture. It was clear that very few furniture companies were involved.

Case studies

Government support for the French furniture industry

The French Government has traditionally helped the industrial sector in its efforts to expand production and to engage in the export trade. The wood industry (including the furniture sector) benefits from State assistance to modernize equipment. This facility is provided through the Ministry of Industry and Trade, as well as through regional and local authorities. Moreover, the State supports research and technical institutions such as CTBA (Centre technique du bois et de l'ameublement). There is a structure for assistance to exporters, including export credit insurance and financing.

EU Framework Programme for research, technological development and demonstration activities

This Programme, now in its sixth form, promotes innovation at the European level and encourages SME participation in research projects. It supports European businesses from all industrial sectors (including furniture and related sectors) to enable them to innovate, develop, market and integrate new

technology, and to manage change more effectively. It also aims to develop a more innovation friendly environment in Europe; improve conditions for the creation and development of new companies, the diffusion of new technologies and the emergence of new economic activities; and foster an innovation culture in Europe. To optimize the economic impact of Community Research and Technological Development (RTD), the Programme facilitates the effective use of Community RTD results. In areas such as intellectual property rights and innovation finance, the Programme provides help services to its participants and carries out pilot activities. Specific emphasis is given to assistance in setting up and developing innovative firms.

The Programme serves three main functions:

- ❑ As a service provider, it offers information services and assistance to SMEs, other firms and relevant players and supports thematic programmes in their approach to innovation and SMEs.
- ❑ As a clearing house, the Programme collects innovation data and analyses trends, initiatives and policies at Community and Member State level. It offers platforms for transnational experience exchange and contributes to Community policy initiatives.
- ❑ As a test bed, the Programme launches pilot actions in the areas of innovation and SME participation and aims at the continuous improvement of Community instruments.

The submission of a project proposal, for furniture SMEs for example, may, optionally, give rise to an exploratory award (called step 1), which covers part of the costs of conceiving and preparing a complete project proposal (step 2) under one of the RTD programmes.

The five types of project proposal (step 2) that may be prepared using an exploratory award are:

- ❑ Cooperative research projects (CRAFT): these enable groups of at least two SMEs with similar technical problems and without adequate in-house R&D capabilities to engage third parties (RTD performers) to carry out most of the research on their behalf.
- ❑ RTD projects or collaborative research projects: these are open to enterprises which possess the internal capacity to undertake their own research; at least two companies must pool their efforts.
- ❑ Demonstration projects: these are designed to prove the viability of new technologies on completion of the research phase, where the technologies concerned still face technical and technological uncertainties and are thus not yet ready for marketing;
- ❑ Combined research and demonstration projects: projects which combine research and demonstration activities in respect of new technologies;
- ❑ Innovation projects: pilot projects resulting from research, where the transnational transfer of a technology is involved.

Canada

Basic demand factors and market drivers

Canada's economic climate in 2001 and 2002 kept consumer spending rising at 3%. Housing construction was stronger with 175,000 housing units in 2002 against 165,000 the year before. The housing market was driven by low mortgage rates and activity (housing moves) in the apartment and townhouse sector.

The fact was, however, that growth in real disposable income had fallen from a high of 4.7% in 2000 to 2.5% in 2001 and was slowing down to an estimated 2.7% for both 2002 and 2003. While consumer expenditure in general seemed to reflect this economic downturn, furniture consumption rose in the short term by 7% in 2001 and an anticipated 9% in 2002. A fall to 5% was expected for 2003. The furniture retail market was valued at \$5.35 billion in 2002 and estimated at \$5.61 billion in 2003.

The domestic furniture industry

The Canadian furniture industry is traditionally made up of small single-factory companies mainly located in Quebec and Ontario provinces. In 1996, these companies accounted for 82% of the country's 1,400 producers; the remainder were based in western Canada and some Atlantic States.

The industry's shipments of household furniture to the domestic market were valued at \$1.48 billion in 2001. The output of office furniture amounted to \$2.2 billion in the same year. In 2002, the leading producers of office furniture for the contract and home sectors all reported a fall in sales by a magnitude of at least 30%.

Year	Production	Exports	Imports	Apparent consumption
1997	1.27	0.90	0.17	0.53
1998	1.65	1.12	0.20	0.73
1999	1.83	1.18	0.21	0.86
2000	2.29	1.40	0.27	1.16
2001	2.20	1.16	0.64	1.68

Note: The trade figures reflect the exchange rate between the Canadian and United States dollars.

Palliser and Shermag are the two largest makers of household furniture in Canada. Some Canadian producers of furniture are among the largest in North America. They include Teknion (www.teknion.com) with annual sales of \$491 million in a recent year, Inscap (www.inscapesolutions.com) with \$91 million, and Dorel (www.dorel.com) with \$83 million. Teknion, Amisco and Bestar are the country's main producers of office furniture.

The Canadian furniture market and trade

Overview

The apparent market for household furniture peaked in 2001 at \$2.29 billion, up from \$2.23 billion in 2000. The high growth rates of previous years had fallen off, but were expected to stay above the inflation rate. Domestic sales rose by 4.9% to \$1.48 billion in 2001.

Cabinet items are the main Canadian export. Even so, imports of these items have increased, possibly indicating the lack of promotional price points. The number of factories producing cabinetry had fallen by half in the decade to 2001.

Upholstery producers remained dominant on the domestic market. In 2001 they supplied \$370 million worth of goods for home consumption.

Imports

Canada's imports of wooden furniture were valued at just below \$1 billion in 2001, having showed consistent growth. Exports were on a much higher level at \$2.7 billion, making the country a net exporter at \$1.7 billion, and one of the world's leading exporters of wooden furniture. Much of its export trade is with the United States.

Imports increased mostly because of the growing sourcing from China and the double-digit rise in supplies from Italy and Malaysia. The United States was the dominant source of imports in the early 2000s, but China was even then expected to take the lead in two or three years. Imports from the United States slipped in 2001; by contrast those from China (mostly wooden furniture) rose by 30%. This high growth was the effect of increased sourcing by Canadian furniture makers from the Pacific Rim, mainly China, but with Malaysia, Indonesia and Viet Nam also strongly in the picture. According to Shermag, China has taken over as a supplier to Canada of almost all products that are labour-intensive.

Table 3.55 Canada: imports of wooden furniture, by product group and by value, 1997–2001

Value (V): \$ million

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	3.2	0	3.9	3.9	4.4	5.8	1	179
Seats n.e.s. with wooden frames	192.1	27	189.5	186.2	221.5	241.9	25	126
Wooden office furniture	37.3	5	40.8	45.0	61.0	60.0	6	161
Wooden kitchen furniture	24.9	3	17.2	18.5	27.4	30.7	3	123
Wooden bedroom furniture	62.7	9	66.3	68.8	79.0	80.2	8	128
Other wooden furniture	225.9	31	247.8	265.6	299.8	310.9	32	138
Furniture of other materials, including bamboo	12.4	2	13.6	13.4	16.1	15.3	2	124
Furniture parts of all materials	165.0	23	213.3	203.5	242.2	235.1	24	143
TOTAL	723.6	100	792.5	804.7	951.4	979.8	100	135

Source: ITC/UNSD COMTRADE database.

Palliser, another large producer of assembled household furniture, imports goods from Indonesia. In 2001, it had two factories in the country to take advantage of the availability of wood raw materials there. At the time, the Indonesian workforce was deemed to be more skilled than the Chinese. A number of woodworking schools are keeping that situation going. Indonesia provided goods valued at \$21 million in 2001, up from \$18 million a year earlier.

It is interesting to note that the factories set up by United States producers in China now deliver direct to the Canadian retail and wholesale trade. Canada's furniture import picture is rather straightforward, as the United States is the dominating supplier of all wooden furniture categories, except those containing bamboo, rattan and similar materials. Canada imports 31% of its wooden furniture from the developing countries and China. As indicated earlier, China has captured most of the Canadian market that is not supplied by the United States; in 1996, its share was only 20%.

Table 3.56 Canada: imports of furniture from leading suppliers among developing countries and China, by product group and by value, 2001

Product group	Imports (\$ million)	Major developing country suppliers	% share	Rank
Other wooden furniture	310.9	China	21.2	2
		Malaysia	5.6	3
		Thailand	4.8	4
Seats n.e.s. with wooden frames	241.9	China	11.7	3
		Malaysia	5.0	4
		Thailand	4.3	5
Furniture parts	235.1	China	7.7	2
		Malaysia	0.9	10
		Mexico	0.6	11

Exports

Table 3.57 summarizes data on Canada's export trade in wooden furniture during the period 1997–2001.

Table 3.57 Canada: exports of wooden furniture, by product group and by value, 1997–2001

Product group	Value (V): \$ million							
	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	0.2	0	0.1	0.3	0.3	0.6	0	253
Seats n.e.s. with wooden frames	157.7	10	200.6	242.4	290.8	294.4	11	187
Wooden office furniture	289.5	18	359.5	399.3	459.8	397.9	15	137
Wooden kitchen furniture	270.1	17	316.6	395.3	478.8	520.3	19	193
Wooden bedroom furniture	281.8	17	316.4	370.5	420.3	421.6	16	150
Other wooden furniture	381.7	23	476.2	554.3	650.5	605.1	23	159
Furniture of other materials, including bamboo	9.0	1	7.7	7.6	7.3	7.5	0	83
Furniture parts of all materials	240.8	15	300.5	405.2	521.8	440.6	16	183
TOTAL	1 630.9	100	1 977.6	2 374.8	2 829.6	2 687.8	100	165

Source: ITC/UNSD COMTRADE database.

Market segmentation and regional demand

In a sparsely populated country like Canada, the major urban centres absorb most furniture sales. Toronto, Vancouver and Ottawa will be strong markets for household and office furniture for the foreseeable future, as economic opportunities materialize and their populations grow. The geographical distribution of the major retail outlets supports this view.

Company	Location	1998	1999	% change	No. of units
		Sales: \$ million			
United Furniture Warehouse	Coquitlam, BC: promotional ranges	109.9	119.8	9.0	129
Costco Wholesale	Vancouver, BC: part of an American company	n.a.	87.5	n.a.	59
The Bay	Toronto: accounts for 5% of the total departmental sales of Hudson's Bay Company	83.6	86.2	3.1	34
Furniture Plus	Mississauga, Ontario: part of the Cantrex buying group	53.9	64.6	19.8	39
Countrywide Stores	Peterborough, Ontario: part of the Mega Group buying group	53.9	59.9	11.1	63
The Bombay Company	Mississauga, Ontario: the Canadian arm of Bombay in the United States	39.1	40.4	3.3	51
La-Z-Boy Canada	Waterloo, Canada: wholly owned subsidiary of La-Z-Boy in the United States	27.0	35.7	32.3	10
Mobilier Group	Montreal: upper-middle to high-end specialist	24.3	26.9	10.9	13
Bad Boy Furniture	Toronto: operates a promotional store system	18.9	24.2	28.4	5

Distribution

Introduction

The top five retailers had sales totalling \$1.22 billion in 2001, up 14% on the previous year. They have 238 sales outlets in Canada. Sears Canada with 214 stores (of which 118 in shopping malls), 37 free-standing units and 20 dealer stores will convert its 12 Eaton's brand stores into Sears units to increase its market share.

Mobilier Européen, a major retail player in the French market is introducing the Fly format in Quebec. It has 150 stores operating as Fly in France, Switzerland and Spain with a combined turnover of \$640 million. In Canada, its target is to offer products that are contemporary in style for presentation in three styling groups, plus a cash-and-carry RTA section.

Company	1998	1999	% change 1999/1998
	Sales: \$ million		
Sears Canada (Toronto)	374.1	437.5	16.9
IKEA (Burlington, Ontario)	231.9	278.0	19.9
Leon's Furniture (Toronto)	221.8	243.7	9.9
The Brick Warehouse (Edmonton, Alberta)	178.6	200.6	12.3
Groupe BMTC (Montreal)	136.2	142.0	4.3

Company	1998	1999	% change 1999/1998
	Sales: \$ million		
Cantrex Group (St Laurent, Quebec)	n.a.	413.9	n.a.
Mega Group (Vancouver, BC)	193.5	214.7	11.0
Les marchands (Vancouver, BC)	110.5	119.1	7.8
Allied Home Network	49.9	59.2	18.7

Office furniture retailers

Retail sales rose by 8% in 2001, fell a little flat in 2002 and were expected to move ahead in 2003. The leading retailers were IKEA, Staples/Business Depot and Office Depot.

Staples/Business Depot had 196 stores in 2002 and was planning to add 20 units in 2003. It was also set to widen its colour collection and to go for higher-quality furniture with oak and cherry finishes.

As part of an aggressive expansion programme, IKEA Canada set up new stores in Toronto and Montreal to add to the nine that were already in use. The Toronto store was IKEA's fourth for the city and was expected to use a new concept to present a 10,000-item core line-up based on low price and good design. It was thought that this would be attractive to the market as Canadian consumers tended to spend little on this type of furniture. Even so it seemed at the time that home buyers were spending more for quality professional-looking home offices. IKEA launched a SOHO furniture catalogue and featured it on the Internet.

SOHO furniture is now being designed to complement existing furniture and home decor. This enables retailers to present home solutions, such as a bedroom and office, or sitting room and home office, rather than a den or spare space response. This allows storage to be designed so that when it is not being used for work, the home office becomes 'invisible'.

Advertising and promotion

Three furniture associations operate in the country, one each for suppliers, retailers and the industry. They run three separate furniture shows (see list below), of which the Toronto event is the biggest. Many Canadian companies also exhibit their products at the two High Point shows in the United States, which are held in April and October.

- ❑ Canadian Home Furnishings Market, Toronto, January/June (www.tchfm.com).
- ❑ Salon du meuble de Quebec, Quebec Furniture Manufacturers Association (QFMA), September. The participants come mainly from Quebec province and the show is supported by the buying groups that have a strong presence in Quebec.
- ❑ Furniture West, Market Showplace, Calgary, Alberta, September. The Furniture West group administers the Canada programme of the Upholstered Furniture Action Council (UFAC).

China

Basic demand factors and market drivers

As indicated in the table below, China's GDP in 2000 was \$1,081.718 billion, having risen by an average of 8.3% annually between 1996 and 2000. Fixed capital investment increased to \$398.278 billion in 2000 and its average growth rate over the 1996–2000 period was 11.2%.

Indicator	1990	1995	1999	2000	Average growth: 1996–2000 (%)
GDP	224.416	707.538	992.958	1 081.718	8.3
Primary industry	60.702	145.106	175.1	171.954	8.3
Secondary industry	93.37	345.287	490.72	550.369	3.5
Tertiary industry	70.345	217.145	327.139	359.395	9.8
Investment in fixed assets	54.652	242.218	361.218	398.278	11.2
Foreign capital used	1.245	5.823	6.371	7.182	4.3
Exports and imports	13.967	33.982	43.633	57.385	11.0

Source: 2001 China Statistical Yearbook.

In 2001, China's GDP was \$1,161.42 billion, 7.3% higher than in 2000 at constant prices. Sales of both producer and consumer goods also went up. The gross retail value of consumer goods hit \$455.15 billion in 2001, a 10.1% increase over 2000. Consumer prices rose by only 0.7% over the previous year.

The cost of housing climbed by 1.2%, while the ex-factory price of industrial goods fell by 1.3%. The prices of materials, fuel and power dropped by 0.2%.

Employment expanded continuously in 2001, when the employed population reached 730.25 million, an increase of 9.4 million over 2000. The number of employed people in urban areas reached 239.40 million, up by 7.89 million. The registered urban unemployment rate was 3.6%.

The international balance of payments kept in good shape. The balance of foreign trade was \$22.5 billion, \$1.6 billion less than in 2000. The exchange rate of the yuan renminbi (RMB) remained stable. The gross import and export value rose to \$509.8 billion, a 14.9% increase over 2000.

Foreign direct investment (FDI) amounted to \$46.8 billion in 2001, up by 14.9% over the previous year. The number of the certified foreign investing enterprises was 26,139 in 2001, 16.0% higher than in 2000.

The Tenth Five-year Plan for National Economic and Social Development set forth China's major targets for national economic and social development for the 2001–2005 period as follows:

- The average annual economic growth rate will be around 7%, and GDP will reach \$1.51 trillion by 2005, while per capita GDP will be \$1,138.

- ❑ The newly employed urban population and diverted rural labour will reach 40 million in the next five years, and the maximum registered urban unemployment rate will be 5%.
- ❑ The primary, secondary, and tertiary industries (e.g. agriculture, processing industry and service industry) will take 13%, 51% and 36% respectively in the increase of GDP by 2005.
- ❑ The three segments will take 44%, 23%, and 33% respectively of China's total industrial labour force.
- ❑ The natural population growth rate will be under 0.9% per year, and the total population will remain under 1.33 billion by 2005.
- ❑ Forest cover will expand to 18.2% of the total land area, and green lands will take 35% of the total established urban areas.
- ❑ The emission of major pollutants in town and rural areas will be reduced by 10% from its 2000 level.
- ❑ The per capita disposable income of urban residents and per capita net income of rural residents will rise by about 5% each year.
- ❑ The per capita gross housing area will increase to 22 m² by 2005, and the cable television network will cover 40% of all families in China.
- ❑ The total value of imports and exports of goods will reach \$680 billion by 2005.

Disposable income

The per capita annual disposable income of urban dwellers reached \$759.83 in 2000 from \$89.41 in 1985, an increase by 8.5 times in real terms. The per capita net income for rural residents rose to \$272.60 in 2000, up 5.7 times from \$48.15 in 1985. During 1996–2000, the per capita disposable income of urban dwellers expanded at a growth rate of 5.7% annually, and that of rural residents at the rate of 4.7%.

Items	1985	1990	1995	2000	Average growth: 2000/1996 (%)
Total population (10 000 people)	105 851	114 333	121 121	126 583	0.9
Total number of households (10 000 households)	23 804	27 738	31 676	34 837	1.9
Population in urban areas (10 000 people)	25 094	30 191	35 174	45 594	5.4
Population in rural areas (10 000 people)	80 757	84 142	85 947	80 739	0
Per capita annual disposable income of urban households (\$)	89.41	182.81	518.52	759.83	5.7
Per capita net income of rural residents (\$)	48.15	83.05	191.04	272.60	4.7
Total wages (\$ million)	167.33	357.26	980.63	1 289.29	5.6
Average wages of staff/workers (\$)	138.90	259.08	665.86	1 133.82	9.0
Retail sales of consumer goods (\$ million)	459.89	877.72	2 496.37	4 132.24	10.6

Source: 2001 China Statistical Yearbook.

In 2001, living standards in both urban and rural areas continually improved. The disposable income of urban dwellers reached \$830.51. The per capita income of urban dwellers averaged \$318.77, with a real growth rate of 4.2%. That of rural dwellers was \$211.62, and the real growth rate 5.7%. The dwellers' housing conditions also improved. The area of completed dwellings in urban areas totalled 0.54 billion m², and 0.74 billion m² in rural areas.

Year	Consumption (\$)			Index	
	All households	Rural residents	Urban dwellers	Previous year=100	1978=100
1980	28.57	21.55	60.05	108.7	115.8
1990	97.22	69.13	204.12	103.4	221.0
1991	108.47	75.18	233.05	108.3	239.4
1992	129.54	86.92	285.23	112.9	270.3
1993	161.14	103.51	366.46	108.1	292.2
1994	211.38	135.35	471.07	104.3	304.8
1995	270.70	173.61	590.07	107.5	327.7
1996	319.73	214.04	657.38	109.1	357.5
1997	343.10	227.12	701.69	104.2	372.4
1998	359.81	229.42	752.66	105.5	393.1
1999	416.83	232.20	817.19	107.9	424.1
2000	411.01			108.3	459.4

Source: 2001 China Statistical Yearbook.

Consumer spending patterns

With the acceleration of economic growth, the Chinese have been moving from the basic necessities of life to higher-grade products, from commodity consumption to service consumption, and from quantitative consumption to quality consumption. The changes in consumption structure show that the proportion of basic consumables such as clothing and food has dropped, while consumption on living conditions (e.g. housing) and recreation (travel) has gone up. Services consumption, such as education, tourism, culture and sports, will become the new stimulus for consumption.

Population	Consumption item	1985	1990	1995	2000
Urban dwellers	Food	52.25	54.25	49.92	39.18
	Clothing	14.56	13.36	13.55	10.01
	Articles for daily use and others	28.4	25.41	29.46	40.8
	Residence	4.79	6.98	7.07	10.01
Rural residents	Food	57.79	58.80	58.62	49.13
	Clothing	9.69	7.77	6.85	5.75
	Articles for daily use and others	14.29	16.09	20.62	29.65
	Residence	18.23	17.34	13.91	15.47

Source: 2001 China Statistical Yearbook.

Demographics

According to the results of the fifth census, China's population is currently 1,265.83 million. Its age structure is as follows:

- 0–14 years: 289.79 million (23%)
- 15–64 years: 887.93 million (70%)
- over 65: 88.11 million (7%)

The population has aged since the fourth census. The share of age group 0 to 14 fell by 4.8% and that of over 65 rose by 1.4%.

As regards educational level, the population is divided as follows:

- With college education: 45.71 million
- With high school education (including vocational school): 141.09 million
- With preliminary school education: 429.89 million
- With primary school education: 451.91 million
- Illiterate: 85.07 million

The illiteracy rate fell from 15.88% (fourth census) to 6.72%.

The total number of urban dwellers is 455.94 million or 36% of the population; the rural population numbers 807.39 million, or 64% of the total. The proportion of urban population went up by 9.86 percentage points since the fourth census.

Housing

Evolution of ownership

In July 1998, the Housing Reform Legislation formally legalized a trend which had been growing in China for several years. Previously, the Government owned all housing in China, or at least controlled enterprises which awarded free or low-cost housing to citizens based on their positions in society, their work groups, and/or their social needs. Chinese law now clearly permits and encourages citizens to buy their own housing and apartments. While the vast majority of Chinese still reside in State-owned housing, it is projected that most Chinese in major cities will have ownership of their personal residential housing over the next two decades.

Improvement in housing conditions

The per capita living space of urban dwellers was 3.5 m² in 1978, 8.8 m² in 1997, and 9.0 m² in 2000. In 1997, the purchase of personal residential housing accounted for 58.7% of all housing sold. As residential housing becomes privately owned, the kitchen facilities, sanitary apparatus and interior decoration sectors will develop at a high speed.

Indicator	1985	1990	1995	2000
Residential buildings in urban areas (10 000 m ²)	51.5	47.4	102.7	150.1
Private residential buildings in rural areas (10 000 m ²)	190.5	185.8	181.5	218.4
Per capita net floor space of urban residents (m ²)	5.2	6.7	8.1	10.3
Per capita net floor space of rural residents (m ²)	14.7	17.8	21.0	24.8

Source: 2001 China Statistical Yearbook.

In 1985, the per capita living space of rural residents was 14.7 m². It went up to 24.8 m² in 2000.

The privatization of home ownership in China has sparked growth in the home improvement and furnishing markets. It has been observed that citizens living in buildings converted into private ownership have made dramatically higher home improvement investments than those living in publicly owned housing.

Furniture item	1985	1990	1995	2000
Wardrobe closet	102.08	99.85	88.3	83.45
Sofa	131.49	157.3	210.12	198.92
Writing desk	80.06	87.23	88.14	83.44
Composite furniture	4.29	19.29	46.23	57.82
Soft bed	5.53	16.45	36.46	44.43

Source: 2001 China Statistical Yearbook.

China has 70 million urban households. Over the 15 years from 2001, China's construction of residential buildings is projected to increase at the rate of 15% each year. China's Tenth Five-Year Plan provides for the construction of over 1.2 billion m² of residential buildings, meaning that more than 240 million m² of residential buildings must be completed each year.

According to the National Bureau of Statistics, funding for real estate development soared 29.7% year-on-year to \$58.8 billion in the first 11 months in 2001. And the growth rate is 13.5 percentage points higher than that of fixed asset investment. Real estate investment accounted for more than 20% of the country's fixed asset investment in the period. In the first 11 months of 2001, land development and newly completed houses increased by 34.8% and 17.6% respectively. On the other hand, the number of unsold buildings was on the increase, especially since May 2001.

China's housing industry is expected to enjoy robust growth in the next 20 years. By the year 2020, the average housing space for urban residents will rise from the current 20 m² to 30 m². This space will be equipped with better appliances and will have an improved home environment.

In 2000, housing investment totalled \$40.47 billion across the country, up 25.8% from 1999. During the first eight months of 2001, housing investment increased 311.7% from its level in the same period in 2000.

Housing starts and renovation activity

At the end of 1998 China abolished the old housing allocation system and implemented a monetary housing allocation policy. The monetary allocation system is based on personal salaries or wages, public reserve funds and a housing subsidy. This has enabled common workers to afford to buy a house. The policy change assumed that high-income families would buy or rent their houses at market prices, while medium- and low-income families would buy government-supported homes, and the lowest-income families would rent cheap houses. More effort was put on constructing affordable houses, and this led to booming construction and sales in many cities.

The second-hand housing market also started to emerge. Dwellers were encouraged to buy the houses they were living in, and to move to new houses by selling their old houses and buying new houses when possible. The house consumption tax and loan policies were adjusted. The trade tax and loan

interest for housing were reduced. The proportion of the down payment was cut to 20%, and loan terms were prolonged to 30 years. By July 2001, the amount of housing loans totalled \$24.78 billion.

The above-described policies have greatly promoted the construction and use of residential housing, resulting in the development of supplier industries.

China's entry into the World Trade Organization and the furniture market

China joined the World Trade Organization in December 2001. As a result, China is opening up trading rights to foreign companies in the mainland within a phase-in period of three years for most products. One year after accession, full rights to import and export were granted to joint ventures with minority foreign stakes. The same rights were given to joint ventures with a majority foreign share two years after accession. All enterprises will have full rights in 2005.

China's accession to WTO is not only a milestone in its economic development but will also have a great impact on the global business arena in the twenty-first century. China is now gradually lowering import tariffs and is giving foreign business unprecedented access to its vast market. This will result in substantial opportunities for foreign furniture manufacturers, among others. The tariffs on most furniture dropped from 22% to 11% in 2002 and will fall to 0% by 2005. The removal of tariff barriers is enabling imported furniture to compete with local products.

With a population of 1.2 billion people, rising incomes, and a revival of traditional Chinese values regarding the accumulation and expression of wealth, China is a market with great potential for the furniture industry. It is estimated that by the end of the century, China will become the world's second largest furniture manufacturer and among the world's five largest furniture markets.

The domestic furniture industry

Production

The annual output value of the Chinese furniture industry has grown fast since 1990. Having maintained a steadily increasing momentum over the decade, it was valued at \$14.5 billion in 2000, up 15.4% on 1999. In 2001, there were over 50,000 furniture enterprises registered, with about 5.5 million employees.

Wooden furniture dominates the market, and various wood-based panels have become the major raw materials for furniture making. The current status of China's furniture industry can be described as follows:

- Furniture manufacture is in the process of being industrialized.
- Relatively advanced production equipment is being used.
- A large number of domestic furniture marketplaces have been set up.
- The manufacture of supporting wood products for the furniture industry is developing fast.
- A large variety of furniture is being produced.

Most of China's furniture factories are small to medium scale with relatively low productivity. Larger furniture factories that are internationally competitive are developing, and more and more small and medium-sized operations are merging. International furniture companies are opening joint-venture factories in China with a view to producing branded furniture.

Furniture production will rise by an anticipated 10% annually, and China is expected to become one of the world's largest furniture-producing countries.

Structure and location of the industry

Among furniture manufacturers, enterprises that are not State-owned hold a predominant place. Of these, enterprises with foreign capital and privately run enterprises are among the major players. Foreign capital has played a decisive role in the expansion of the industry.

Furniture enterprises have distinctive regional characteristics. They are found mainly in the southern, eastern, northern and north-eastern parts of the country. Guangdong Province is the most important location as it has more than 6,000 enterprises, accounting for 12% of the national total. It has an output of RMB 36 billion (30% of the country's output), and exports worth RMB 1.8 billion, equivalent to 50.5% of the national figure.

With the gradual development of the industry, furniture brands are becoming increasingly important. The brands that are famous nationwide are MeiKe Xinjiang, Guangming Heilongjiang, TianTan Beijing, Richman and Land Bond Guangdong and XiLinMen Zhejiang. MeiKe and Guangming are the only two enterprises listed in the Shanghai and Shenzhen stock markets.

Production trends by type of furniture

Office furniture

The emphasis in this sector is standardization, systematization and ease of assembly of parts and components. With the implementation of ISO 9000 standards, quality controls are requested at each link of the production chain. Standardization and systematization of production could satisfy this demand.

In addition, because of the advantages they offer in design, production, transportation, installation and utilization, easy-to-assemble products like KD and RTA furniture, and 32 mm cabinetry will become the mainstays of office furniture lines.

Various materials like steel, plastic and rubber are used, but they require large investments in production equipment. Wood is therefore the predominant material, mainly in the form of solid wood, laminated wood and wood-based panels. Grain decorated paper, grain impregnated paper, timber veneer, etc. are used as furniture surfaces. As this kind of furniture is of fairly good quality and is low priced, it is popular among consumers.

Office furniture production is gradually being mechanized and automated. In addition, professional manufacturers of furniture parts and components have appeared in some areas.

Kitchen furniture

Industrial production of kitchen furniture did not occur in China until the 1990s, because of the country's poor housing conditions. In 1993, cabinet-producing factories on an industrial scale began to appear, and they developed rather rapidly. According to the China Furniture Association, there are currently more than 1 million kitchen furniture manufacturers in China, with annual sales per manufacturer of over RMB 2 million. The annual output of the kitchen furniture industry in 2000 exceeded RMB 7 billion.

Though most kitchen furniture factories are still based on semi-mechanized and semi-manual operations, production on a large scale and industrialization are the trends for the whole kitchen furniture industry. Some domestic cabinet

manufacturers cooperate with European manufacturers and are introducing advanced technology to develop modern kitchen furniture of improved designs and quality.

Bedroom furniture

With better housing conditions and the reappearance of the concept of furniture consumption, the furniture replacement cycle is now 4–8 years, compared to the 10 years of the past. In addition, as standards of living improve, the farmers of today prefer to purchase finished furniture products rather than to make furniture themselves. As the main articles of indoor furniture, bedroom furniture has a large market in China.

Wood is the predominant material. There are mainly two kinds of bedroom furniture: traditional furniture and panel furniture. The latter, especially elaborately made MDF furniture, has the advantages of a flat texture, insect-resistance and lesser susceptibility to cracking. In addition, it can be assembled easily, its styles and colours can be updated frequently, and it is priced at affordable levels. This kind of furniture is becoming more and more popular.

Other furniture

Outdoor furniture is a new product in China. For the domestic market, this furniture is made largely of plastic, metal and stone.

The self-assembly furniture in China is mainly KD, RTA, ETA (easy-to-assemble) and 32 mm systematic furniture.

Raw materials, technology and other matters

Main raw materials

Solid wood is the dominant material for traditional Chinese furniture and parts, as well as for decorative items such as mouldings. Wood-based panels have become the major raw materials for mass furniture and are now used for 70% of the wood furniture made in China.

Furniture made of bamboo and rattan could satisfy demand for environmentally friendly furniture. Rattan furniture is often considered an arts and crafts product and is favoured by consumers for its pleasing and elegant appearance, delicate design, as well as for its strong and enduring structure. As the growth of rattan relies on tropical natural forests, China imports cane mainly from Indonesia, Malaysia and Myanmar. Though China does not have abundant natural rattan resources, the country has skilled workers and produces high-quality products. The rattan furniture made in the country is known for its quality and has a steady demand in world markets.

China has the richest bamboo resources in the world and utilizes this material widely. Traditional furniture made from round bamboo has simple and classic looks. By contrast, furniture made from bamboo panel, a newly developed material, has the styling of modern wood furniture. The physical properties of bamboo panel are equal to those of medium- or high-grade hardwood. Furthermore, its special texture, the abundance of the bamboo raw material, and its short growing cycle make bamboo panel an ideal material for furniture.

Technology and management levels

China has about 600 woodworking enterprises, and the number is rising. These enterprises are mostly found in Shanghai, Zhejiang, Guangdong, Shandong, Sichuan, Yunnan and the north-eastern area. According to statistical sources, the annual demand for woodworking machines is around \$615 million.

Overall, China's furniture industry is still in the early phase of industrialization. Production scales are small, and there are only about 10 enterprises with annual sales over \$100 million. The industry dominates the low-medium quality segments of the Chinese home and office furniture markets, with a market share of at least 90% of those segments. Imported furniture and higher-quality furniture made by foreign joint ventures account for less than 10% of the Chinese market.

Industry management is backward and inefficient. The distribution system is underdeveloped. Most furniture is sold direct to consumers or through leased premises at market centres.

Table 3.67 presents some data on China's wooden furniture industry by type of ownership. Table 3.68 shows various economic indicators for wood furniture manufacturers by ownership category.

Ownership	Number of firms		No. of employees	Revenue	Production value
		Of which: loss-makers		(\$ million)	
Industry overall	1 103	208	193 807	3 003.75	3 252.78
State-owned	123	44	13 030	82.57	86.20
Collectively owned	212	20	35 573	591.89	663.08
Joint stock	138	23	32 534	402.54	412.83
Privately owned	323	27	45 084	819.49	908.35
Overseas Chinese	304	94	67 388	1 102.66	1 177.48
Others	3	1	198	4.60	4.72

Source: China Markets Yearbook 2001.

Ownership	Profit	Average profit	Profit/revenue	Return on assets	Yield of net assets	Profit margin
	(\$ million)	(\$'000)	(%)			
Industry overall	137.65	0.71	4.58	3.99	6.51	4.86
State-owned	-1.33	-0.11	-1.66	0.26	-0.75	-1.51
Collectively owned	29.06	0.82	4.91	6.61	13.92	5.08
Joint stock	23.00	0.71	5.73	3.86	5.07	6.11
Privately owned	37.53	0.83	4.58	5.83	8.13	4.88
Overseas Chinese	49.27	0.73	4.47	3.26	6.15	4.83
Others	0.12	0.59	2.51	2.00	2.58	2.62

Source: China Markets Yearbook 2001.

Product quality and design

The industry has problems of low product quality, poor designs, insufficient volumes of high-grade products, and a superfluous supply of products in the low to medium grades. According to the State Bureau of Technical Supervision,

only 57.1% of the inspected wood furniture reached the quality standard in 2000. The corresponding figures for furniture by type were: 45.3% for bedroom furniture, 64.3% for wood bookshelves, 89.5% for wood cabinets, and 40% for wood dining tables and chairs.

Most small and medium-sized manufacturers in China do not have design teams. Instead, they commonly copy the existing products of competitors that are selling well domestically or abroad. Compounding this problem, even for those companies who wish to employ designers, there is an appreciable shortage of qualified furniture design professionals in the country. Most national designers are artists who do not have extensive knowledge of the industry and market. Chinese manufacturers are also reluctant to purchase rights to foreign designs or employ foreign designers because they consider their fees to be too high.

On the other hand, a great deal of progress has been made in the past few years. As a consequence, China has become strong enough in the international furniture trade to compete with market giants like Italy and the United States. China offers various types of wooden furniture. Items are of relatively stable quality and prices are competitive. With highly developed CAD technology, many Chinese companies follow the latest trends in furniture design. At least 30% of the 6,000 factories in Guangdong Province use this technology. Many of these have been set up by investors from Hong Kong SAR or Taiwan Province (China); most have strong trading networks all over the world. Some have R&D offices in Hong Kong and Taiwan Province and design centres in France, Germany and Italy. To improve the quality image of their exports, some big companies have obtained ISO 9000 certification.

China's furniture market: foreign trade and apparent consumption

Overview

The striking feature of China's foreign trade is of course the continuous growth in exports of wooden furniture coupled with minuscule imports. The country is a major net exporter of furniture and a furniture powerhouse in Asia. According to COMTRADE data, its net exports of wooden furniture amounted to \$2.2 billion in 2001, up from \$1.2 billion in 1997. China's own statistics put total exports of furniture at more than \$3.9 billion, of which 59% consisted of wooden furniture. COMTRADE mirror statistics on imports from China by OECD countries report \$3.2 billion worth of trade.

Exports were mostly in the 'other' furniture category (35% of the total), followed by wooden seats (19%) and bedroom furniture (16%). Exports of bedroom furniture had tripled in just five years, and shipments of seats and 'other' furniture had nearly doubled. Imports consist mainly of parts and components, often sourced from neighbouring countries. These are assembled into furniture for export.

There are several discrepancies between COMTRADE data and China's data on the furniture trade, mostly owing to different classification and aggregation criteria. This makes the estimation of apparent consumption of wooden furniture difficult.

Using China's data on all types and materials of furniture, estimated production in 2000 (\$14.5 billion) minus net exports (\$3.8 billion) puts apparent consumption at around \$10.7 billion. The share of wooden furniture in total production is difficult to establish with accuracy. The Chinese figures also show that wood accounted for 59% of all export deliveries, a figure corroborated by COMTRADE data.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	0.0	0	0.0	0.1	0.1	0.2	0	557
Seats n.e.s. with wooden frames	3.4	8	5.8	4.9	5.6	6.4	10	186
Wooden office furniture	4.2	10	5.2	2.9	2.0	1.7	3	42
Wooden kitchen furniture	2.4	6	3.4	2.7	3.8	6.8	11	286
Wooden bedroom furniture	4.5	11	8.1	7.9	7.0	7.9	13	178
Other wooden furniture	8.1	20	9.0	6.4	4.7	5.8	9	71
Furniture of other materials, including bamboo	3.3	8	2.8	3.9	8.7	8.5	14	256
Furniture parts of all materials	14.9	37	22.3	17.5	21.4	25.3	40	170
TOTAL	40.7	100	56.6	46.3	53.2	62.5	100	153

Source: ITC/UNSD COMTRADE database.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	16.5	1	16.6	21.8	24.4	16.9	1	103
Seats n.e.s. with wooden frames	236.3	19	224.4	305.6	382.9	435.3	19	184
Wooden office furniture	59.2	5	76.4	72.4	85.8	79.2	3	134
Wooden kitchen furniture	102.2	8	120.9	152.1	167.1	175.4	8	172
Wooden bedroom furniture	118.7	10	141.6	183.6	265.9	360.4	16	304
Other wooden furniture	442.8	36	521.3	595.8	766.8	801.9	35	181
Furniture of other materials, including bamboo	100.4	8	121.0	111.8	155.2	153.4	7	153
Furniture parts of all materials	146.9	12	136.1	175.8	223.7	241.6	11	165
TOTAL	1 222.9	100	1 358.3	1 618.9	2 071.8	2 264.0	100	185

Source: ITC/UNSD COMTRADE database.

Imports from developing countries and other origins

China's import requirements have remained on a low level, and have tended to concentrate on upper-market products. This explains why in nearly all the product groups, a European country or the United States is the leading supplier. In kitchen furniture, it is Germany, in bedroom furniture Denmark, in wooden seats and 'other' wooden furniture (living/dining room, small/occasional) Italy, and in furniture parts the United States.

In the three biggest import categories, Malaysia reached the highest rank in furniture parts (fourth) with a share of 8% of imports. Viet Nam succeeded in reaching fifth place in wooden bedroom furniture.

Table 3.71 China: imports of furniture from leading suppliers among developing countries, by major product group and by value, 2001

Product group	Imports (\$ million)	Major developing country suppliers	% share	Rank
Furniture parts	25.3	Malaysia	8.4	4
		Viet Nam	3.5	7
		Thailand	2.8	8
Furniture of other materials, including bamboo	8.5	Thailand	3.7	7
		Indonesia	1.3	16
		Malaysia	1.2	17
Wooden bedroom furniture	7.9	Viet Nam	5.7	5
		Indonesia	1.6	8
		Malaysia	1.5	9

Market segmentation and regional breakdown

Consumer market

Two factors contribute to growing demand for residential furniture in China: the rising disposable income of Chinese consumers, and new housing reform laws which permit and encourage Chinese citizens to buy their homes and apartments.

Rising personal incomes have enabled many urban Chinese to purchase high-quality furniture. The replacement cycle for furniture has now been shortened to 4–8 years from over 10 years in the past. In addition, as living standards improve, the rural population increasingly prefers to purchase finished furniture products rather than to make the furniture themselves.

Consumption of children's furniture is also expanding. There are 0.2 billion children in China. Along with the improvement of living conditions, the number of singleton children with their own rooms is rising. Sales of children's furniture are therefore bound to increase tremendously. They should reach about 8% of the volume of all sales of furniture in the future.

Institutional market

The recent construction boom in many major Chinese cities has resulted in a surplus of prime office space. As a result, commercial rental rates have dropped significantly and many Chinese and foreign enterprises are now taking advantage of this by relocating their offices and upgrading their office furnishings when they move. This phenomenon has created a significant rise in the middle and upper end of the office furniture market. Office furniture currently accounts for 30% of all furniture sales by volume.

Commercial and industrial market

In 2001, China's hotels entered a renovation phase. There were nearly 2,000 star-graded hotels and 300,000 rooms that needed to be refurbished. Furniture for these, as well as for new hotels, was required.

Style and design

Favoured wood species

The most popular wood species for solid wood furniture are ash, Chinese fir, walnut, maple, oak, rosewood, teak, elm, zelkova (*Zelkova schneideriana*) and

rubberwood. Because of its quality, appearance and value, rosewood is the material of choice for well-off families and senior citizens. The young prefer furniture made of zelkova and oak. Bamboo is gradually rising in importance because of the plant's short growth period and abundance in the country.

Developments in consumer preferences

The Chinese have started to recognize furniture, doors and windows, and flooring as the major elements of interior decoration. They purchase furniture after comprehensively considering how particular items coordinate with other interior furnishings.

For them, furniture in the Western (international) style epitomizes what is modern and practical. Furniture in this style is increasing in popularity, particularly among the young.

Traditional Chinese furniture is of two main types: one is made entirely of solid wood (mostly hardwood), and the other consists of copies of furniture made during the Ming (1368–1644) and Qing (1644–1911) periods. Traditional Chinese furniture – although more expensive – is still quite popular in the domestic market because of its graceful designs and elegant craftsmanship.

The latest development in consumer purchasing, especially among younger couples, is a move away from heavy, bulky, dark-coloured furniture to more practical, functional and lighter-coloured ranges. This was the market segment targeted by IKEA, the Swedish retail group, when it opened its two stores in Shanghai and Beijing in 1998 and 1999 respectively. IKEA plans to have a total of 10 outlets in China in the four to five years from 2004.

Furniture arrangements are dominated by expressions of individualism and the use of a larger variety of items. Chinese consumers are becoming more adventurous and are mixing colours, designs, fabrics and styles. In living and dining rooms it is now not unusual to see woven fabrics, leather, steel and wickerwork together. Trends in design and style include the following:

- ❑ **Going modern.** Colour choices have become unlimited. Chrome, brass, wood, cane, and upholstered materials for furniture create endless possibilities for successful combinations with wood-clad rooms.
- ❑ **Simplicity.** A common characteristic of consumer choices is simplicity, especially as regards furniture for the official business environment.
- ❑ **Creativeness.** Design and style should be creative to attract consumers, particularly the young. The combination of wood and other materials for furniture is widening creative avenues.
- ❑ **Client-orientation.** Designers have become aware of the importance of consumer requirements. Furniture is now being designed with consumer tastes and interests in mind.
- ❑ **RTA furniture.** RTA (also called flat-pack furniture) is furniture made up of 'components and metal connectors'; components are produced in factories and are assembled in the client's site. RTA components are standardized and are produced in a series of different sizes. Flat-packing reduces not only volume and cost, but also the risk of damage in storage and transportation.
- ❑ **Dining and living room furniture.** As dining and living room furniture reflects the social standing of the consumer, this furniture tends to be of a higher quality than the pieces in other rooms. A typical dining set comprises a table and six chairs plus cabinets for television and hi-fi equipment. Traditional leather and fabric upholstered suites are predominant in the sector for living room furniture.

- ❑ **Bedroom furniture.** Bedroom furniture is taking increasing shares of the market. The trend is towards lighter colours. Storage furniture is made of particleboard, MDF and blockboard carcasses surfaced with natural wood finish. Cupboards are often built to the ceiling and mirrored cupboards are becoming more common. Upholstered beds are gaining in popularity as are beds with headrests.
- ❑ **Kitchen furniture.** Light-coloured woods are also preferred here. Kitchens have become more comfortable, edges are rounded and worktops come in various heights.
- ❑ **Home office furniture.** Furniture for home offices is becoming popular. The major items in this sector are desks, chairs and sofas, and bookshelves.

Design skills and development

In the early 2000s, China's furniture industry generally suffered from low technical levels, poor skills, and the lack of technicians and designers. At the time, the industry was going to devote more attention to training staff because of the consumer's increasing demand for quality products, upgrading of manufacturing equipment and competition from imported high-end furniture.

The skills needed included those of room decoration project conservators, decoration woodworkers, painters, individual house decoration designers, furniture woodworkers – to mention a few. Certificates were to be awarded on completion of training courses on various aspects of the furniture manufacturing process, ranging from timber drying and material sciences to furniture design (visual, structural), manufacturing techniques, CAD applications, to finishing techniques.

The China National Furniture Association conducted the 2002 Furniture Design Competition in Shanghai in late 2002. The design areas covered cultural furniture, scientific furniture, environment-friendly furniture and various kinds of innovative furniture, lamps and ornamental articles for Beijing's Olympic gymnasiums, hotels and public premises. The awarded products were exhibited at the 10th China International Furniture Fair in Guangzhou in August 2002. Later on, these were made part of the Collections of Excellent Furniture Design, which was compiled by the Furniture Designing Committee of the China National Furniture Association.

Distribution

The Chinese furniture industry is relatively localized. This is because it is difficult to transport bulk items across China and distribution channels are still underdeveloped and expensive. A common distribution strategy is to target regional urban centres. Furniture 'towns', speciality stores and trade marts claim the majority of furniture sales.

Foreign furniture companies doing business in China typically divide the country into at least three main regions, each centred on a major city. A certain amount of furniture products is sold in the contract market to commercial or institutional buyers.

Most Chinese representatives and agents of foreign furniture manufactures work on a consignment basis, and earn commissions from the manufacturers. Although there are some exceptions, most foreign manufacturers offer exclusive distribution rights only for specific regions in China and often assign different agents to different regions.

Market access

Market conditions and market access for all types of consumer goods are rapidly evolving. Trends affecting retail market access, import channels and distribution channels and recent duty rate reductions are highlighted below.

Retail market access

About two decades ago, Chinese consumers had two alternatives for purchasing furniture. They could either get a purchasing permit ticket from local government authorities and then wait in long lines to purchase furniture at State-controlled distribution centres, or they could buy raw lumber and have the furniture made at home. China is no longer a seller's market. While sales and marketing channels for furniture remain fairly unsophisticated, rapid progress is being made.

In China's coastal cities, 'furniture cities' have begun to emerge. These are usually retail hangars at which factories can rent space to market their products to consumers. Both Beijing and Shanghai have more than 10 such 'cities'. Major coastal cities have also recently witnessed the clustering of upscale furniture importers in furniture marts and luxury shopping malls.

'Grey' import market

Historically, most imported furniture in the Chinese market was trans-shipped through Hong Kong by agents who employed various tactics to avoid China's high furniture import tariffs. These grey market methods included smuggling; reporting lower invoice prices to reduce duties; intentionally misclassifying goods; making inappropriate use of special economic zone duty-free permits; and obtaining false documentation reporting full payment of duty and value-added tax (VAT) when these had not been paid. However, many companies report that, as a result of recent dramatic cuts in duty rates on furniture and an aggressive crackdown on corrupt customs officials, the grey channels are slowly diminishing in their volume and influence on the Chinese furniture market.

Tariffs and other trade regulations

When China joined WTO, the import tariff on furniture fell from 22% to 11%; zero duty rates will be applicable in 2005. This has had, and will continue to have, the effect of opening the Chinese market to medium and lower grade furniture from Southeast Asia and high-grade furniture from Europe and North America.

In July 2001, the first environmental protection standard and label for the furniture industry, Green Furniture, was released by the China Certification Committee for Environment Label Products. The standard focuses on the materials for assembled furniture, such as plank materials, metal, paint and adhesives. It was expected to lead to new competition on environmental aspects among producers in the wood products industry.

Non-tariff barriers to imports have mostly affected trade in logs, sawn timber, wooden packaging materials and paper. Non-tariff barriers have been less common (and less useful) in the furniture trade because import pressure has been lower and tariffs higher than for commodity products.

China is committed to establishing a tariff-only import regime. All WTO-inconsistent non-tariff barriers will be eliminated. All other measures, such as testing, inspection, etc. must be made consistent with WTO rules

requiring transparency. China has agreed over a five-year period to eliminate quotas and other quantitative restrictions such as licensing and limitations on who can import and export.

Along with the people's intensified consciousness of the need to protect the environment, environmental aspects are being increasingly stressed in the design and manufacture of wood products. In accordance with what is referred to as the 'green product concept' in China, harmful adhesives and chemicals are being avoided, for example, and the use of natural raw materials is being maximized. Moreover, measures are being taken to prolong product service life in order to rationalize the utilization of natural resources and to save energy.

Indicative price levels

Price information available at the time of the writing of this survey is provided in tables 3.72–3.74.

Item	Dimensions	Finish	\$/piece
Big worktable	Main desk, 3400x1050x760	Wooden skin	520
	Auxiliary desk, 1700x480x540	Paster	387
	Main desk, 2200x950x760	Wooden skin	350
	Auxiliary desk, 1600x450x540	Paster	242
	2.8 m	Wooden skin	483
		Paster	378
	3.2 m	Wooden skin	592
		Paster	411
	2 m	Wooden skin	302
		Paster	242
Middle worktable	Main desk, 2000x1000x760	Wooden skin	280
	Auxiliary desk, 1200x430x590	Paster	211
	Main desk, 1800x900x760	Wooden skin	230
	Auxiliary desk, 1500x410x420	Paster	181
Small worktable	Main desk, 1600x800x760	Wooden skin	167
	Auxiliary desk, 1200x410x470	Paster	121
Meeting table	2400x1200x760	Wooden skin	196
		Paster	136
	3700x1900x760	Wooden skin	465
		Paster	356
	4500x1500x760	Wooden skin	441
		Paster	356
Document bookcase	800x420x1800	Wooden skin	118
		Paster	85
	1600x420x1800	Wooden skin	205
		Paster	151
	2400x450x1900	Wooden skin	332
		Paster	266
Oak meeting chair			26
Bent wood meeting chair			58
Office sofa			302–725
Tea table		Wooden skin	68
		Paster	129

Item	Dimensions	\$/set
Student bookcase	W900-D390-H1850	71
Bookcase with several drawers	W900-D390-H1850	75
Bookcase with two parts	W900-D400-H1800	85
Bookcase with two parts and drawer	W900-D400-H1800	88
Document bookcase with double doors	W900-D400-H1800	91
Bookcase with four doors	W900-D400-H1800	94

Item/Specification	Price range	
	\$/set (low)	\$/set (high)
Chair	11	54
Meeting table	242	1 087
Ordinary desk used in office	46	217
Furniture for double room in hotel	393	683
Furniture for single room in hotel	375	1 167
Furniture for suite in hotel	822	2 247
Art-ware screen	36	103
Rostrum (platform)	139	225
Bookcase	60	272
Wooden sofa with 5 items	181	272
Cloth sofa with 3 items	423	785
Leather sofa with 3 items	242	423

Transport and packaging

Furniture sellers provide free delivery for large purchases and use container trucks. For suburban areas, goods reach the consumer five hours after purchase and are conveyed to the designated room free of charge. For rural areas/counties, goods are delivered to the designated place in 24 hours (within a 49 kilometre radius) free of charge.

E-commerce and Internet-based marketing

Along with the rapid development of the information industry and the Internet, the furniture industry is striding forward to the B2B e-commerce market. Numerous furniture producers, purchasers, salesmen and retailers are already trading on the Internet with domestic and overseas buyers. Some well-known Internet sites are thisB2B.com (www.thisb2b.com), tpage.com (www.cn.tpage.com), www.2t2.net/b2b/--B2B and China Commercercer (www.dg.chinacommercercer.com). Their services include the provision of supply and demand information on specific products, information on the general world outlook for certain products, complete services for the import and export trade, and web page construction.

A list of websites of interest is given below.

Name of website	Address
B2B trade service	http://cn.tpage.com
Chinese commercial situation	www.thisb2b.com
Chinese enterprises network	www.ce.net.cn
Chinese exhibition	www.2t2.net/b2b/--B2B
Chinese furniture	www.china-sales.net
Chinese furniture Affiliation	www.chinafv.com
Chinese furniture for export	www.furnituremedia.com/cn
Chinese furniture information	www.cnfa.com.cn
Chinese furniture Internet	www.china-f.net
Chinese sofa	www.8163sofa.com
Chinese trade man	http://dg.chinacommercer.com
Chinese well-known furniture	www.2f.com.cn
Daily furniture	www.365f.com
Electronic trade of Chinese furniture	www.echinaf.com
Furnishings market	www.8620.net
Furniture commercial and trade net	www.furniture32.com
Furniture online	www.e-furniture.net.cn
Guangdong furniture network	www.chinagdf.com
International furniture network	www.furnituredisplay.com
The world furniture	www.8620.net
Window of furniture	www.f-windows.com

Case studies

Promotion and marketing in the Landbond Furniture Group

The company

The Landbond Furniture Group was founded as a small plant in 1984 in Nanhai, Guangdong. Now with four main workshops with a total area of 40,000 m², it has become a leading manufacturer, exporter and retailer of wooden benches, occasional tables, panel wall units, dining furniture, bedroom furniture and office furniture. Landbond produces solid wood case products, panel furniture, and upholstery. With its own design team and a French chief designer, Landbond has established a reputation for modern design and a unique style. Its catalogue contains over a thousand different furniture pieces and parts. New products are launched every month.

Brand strength

Landbond is noted for its modern marketing concept, innovative design, quality products, superior service and value for money. These attributes have made the company a leader in the home furnishing sector in China. It focuses mainly on products in the middle and upper middle price ranges. Its sales network covers more than 30 big cities throughout China. It operates under five brands: Landbond Furnishings Center, Landbond Furniture, Lesduke, Landbond Accessories, Landbond Office & Hotel.

To promote its furniture, Landbond has branches and showrooms in the major cities, including Guangzhou, Shanghai, Beijing and Chongqing. The company is also established in Singapore and Hong Kong SAR as a leading furniture group with multinational operations.

Landbond has obtained certification to an ISO standard and an environmental-protection requirement.

Landbond has increased its exports since 1997. With an experienced team and knowledge of both the Chinese and international markets, Landbond has successfully introduced its products into East and Southeast Asia, Australia, the Middle East and Africa.

Brand management

Brand management is the main means Landbond Furniture uses to seize market opportunities and set new trends for furniture. The brand increases its furniture's value added.

Landbond was one of the first furniture manufacturers in China to use a company logo. The company used the brand 'LB Furniture' as early as 1985 and set up its first brand store in Huangqi, Nanhai City. Since then, the company logo has appeared on all products of the company as well as on its printed materials.

Marketing, distribution and promotion

The marketing system of Landbond has four elements: self-supporting subsidiaries, a licensed league system, a wholesale system and general distribution.

At the time of writing, Landbond had subsidiaries in Beijing, Shanghai, Guangzhou and Chongqing, and had become the market leader in China. It offered its league partners support in shop design, management, e-commerce, market evaluation, investment forecasts, quality control, product development and staff training.

Integrated services

In 1999, the company opened its first Landbond Furniture Plaza, expanding its operations to the provision of integrated services. In addition to selling and showcasing Landbond's furniture products, furniture plazas have housing design centres, housing furniture 'saloons' and coffee bars. In addition, they offer customers consultation services in their role as 'residential furnishing advisers'.

Chain stores

The design concept of Landbond's chain stores covers the store environment, the furniture combination on display, product recommendations and other aspects. The design concept aims to reflect the lifestyles and tastes of target consumers, promote the Landbond brand, and encourage the development of new demand. All subsidiary stores and licensed stores in furniture plazas promote the brand through their furniture displays.

After the establishment of the Landbond International Distribution Centre, pilot chain stores were set up in Guangzhou. At one point, the chain system had six stores in the Foushan area. All the brand-loyal stores undertake group purchasing, joint stocking, coordinated distribution and pricing; they also share manpower and capital resources.

Landbond Housing Furniture Club

As an extension of its distribution network, Landbond Group created the Landbond Housing Furniture Club Programme to cover its furniture plazas and its chain stores all over China. Membership progresses into silver card and gold card levels. Members are entitled to discounts on products purchased from

furniture plazas and chain stores and regularly receive free information on furniture, new products and discounts. They attend various membership activities organized by the programme.

After-sales services

Landbond offers the following after-sales services:

- Free delivery. Any consumer buying Landbond furniture is entitled to a free delivery service within the appointed area of each brand chain store.
- Installation. Landbond provides free installation services for goods entitled to free delivery.
- Landbond guarantee. Within one year of the delivery date, the company offers free repair services for quality defects, replaces defective products, or refunds payment on products that are returned. The order of the 'three services' provided is to repair, replace and return for refund. The repaired products may be replaced if they remain unsatisfactory or returned for refund if no similar products are available.
- Upholstered furniture (leather, cotton-cloth sofas). If quality problems appear three months after delivery, and replacement and return are necessary, the company charges a depreciation fee of 0.1% per day of the sales price for each day after the delivery date.
- After one year of delivery, the company will repair a piece of furniture that needs fixing for any reason and will charge the customer for the service.
- After one year of delivery, if the product is damaged for any reason, the company will repair the damage and charge service costs, but will not replace or accept goods for returning.
- The company may disassemble, repackage, re-transport and reinstall a product at any time at the client's request and charge service costs.
- The company may recondition hardwood furniture at the request of the client and charge service costs.

To ensure that all promises of after-sales service are kept and that the service is continuously improved, Landbond insists on the following:

- Goods delivery process: to maintain customer trust, the worker responsible for the first delivery follows up or provides follow-up service from the beginning to the end.
- An emphasis on communication with customers and the employment of qualified staff.
- Intense on-the-job training of delivery workers.
- Periodic staff competitions on installation skills.

Beijing and the 2008 Olympic Games

In July 2001, Beijing won the right to stage the Olympic Games in 2008. As a catalyst for economic development, the Games were expected to boost annual GDP growth in China by another 0.3 percentage points in the following seven years.

The positive influence of the Olympic Games on Beijing's economy will be felt in the following ways:

- Enhanced confidence among foreign investors;
- Promotion of the city's reform policy;

- ❑ Improved industry structure, particularly for the high-technology and tertiary industries;
- ❑ Promotion of the development of sports facilities, cultural schemes, information services, real estate, tourism, transportation, commerce, the financial and insurance industries, and exhibitions.

It is thought that the use of high technology will yield over 45% of the total industrial value-added and become the most important growth point of Beijing's economy until 2008, partly thanks to the Games.

Capital construction between 2002 and 2008

In the six years to 2008, Beijing's investments in infrastructure will reach an estimated \$33.90 billion. This will push consumption in many sectors of economy. It is estimated that the volume of retail sales of consumables will increase by \$13.32 billion over the period. The impetus will accelerate the growth of the entire city's economy to double-digit figures over the 10 years from 2002, and may push the attainment of the city's objective of a per capita GDP of \$6,000 ahead of schedule. The standard of the city's infrastructure will advance by 20–50 years, according to some estimates.

Employment opportunities and household incomes

The Olympic Games projects will create 2 million job opportunities in Beijing's construction, communication and services sectors. In 2008, the average per capita disposable income of urban and rural households in Beijing will reach about \$3,000.

Development of the real estate industry

In the run up to the Olympic Games, Beijing will establish an Olympic garden, the competition arena and games village, apartments for athletes and a press centre, to name some of the facilities required. The establishment of large-scale infrastructural facilities, such as airports, railway stations, urban highways, telecommunication systems, and auxiliary facilities will have to take place. Furthermore, the city will reconstruct about 9 million m² of dangerous and old housing in the city zone. This is expected to expand per capita living space to up to 18 m² in Beijing. The number of star-rated hotels will rise to about 800.

Useful contacts

Appendix II gives contact details on major retailers and domestic furniture industries, relevant trade associations, furniture research and testing institutions and quality standard bodies, and major trade fairs associated with the furniture industry.

Belgium, the Netherlands and Luxembourg

Overview

Belgium, the Netherlands and Luxembourg (the BENELUX countries) are smallish players in Europe's furniture industry. Their production output is valued at between \$1.8 billion and \$1.9 billion. Their shares remain below 3% of European production.

However, they are important hubs of international trade, as indicated by the higher than average share of imports in furniture consumption. Part of their imports is re-exported to other European destinations, mainly the largest

economies – all conveniently located around Belgium and the Netherlands. The two countries also trade actively between themselves. Belgium in particular is oriented to foreign trade: it imports around 80% of domestic consumption and exports 75% of its domestic production. For the Netherlands the figures are less pronounced: it imports more than half of its consumption but exports only around 30% of production.

The domestic industry

In terms of United States dollars, the output of the Belgium-Luxembourg furniture industries declined from \$2.26 billion in 1996 to \$1.82 billion in 2001, or roughly by one-fifth. In euro terms, the output rose fairly consistently and attained €2.03 billion in 2001. This was 14% higher than in 1996. The first eight months of 2002 showed a 4% fall in furniture production (nominal euro value).

The Netherlands' furniture output was almost at an equal level in 1996 (\$2.24 billion) but the country outperformed Belgium with a production figure of \$1.98 billion in 2001. In dollar values this amounted to a 12% decline, but in euro terms it was equivalent to a growth of 25% over the 1996–2001 period. A 3% drop in production was recorded for the first eight months of 2002.

Structure of the industry

Belgium had around 2,900 furniture companies employing 22,000 workers in 1999. The Netherlands had 4,400 companies in 2000 and a workforce of 38,000. The average firm sizes are therefore very small.

There are two very large Netherlands companies (Samas, Ahrend) which are among Europe's leading furniture manufacturers. Both operate in the office furniture segment. Office furniture and upholstered furniture are the country's main outputs.

The top 10 companies account for 65.5% of total production in the Netherlands. A structural change in the industry is under way. Smaller manufacturers are moving towards flexible specialist production: this is helpful in networking and will enable them to become suppliers to bigger firms. Foreign outsourcing is also becoming more common.

In Belgium, the leading 20 furniture firms are responsible for 27.5% of the total output. The largest companies are within a fairly narrow size range in comparison with the Netherlands industry and its two giants. Upholstered and household furniture are the main output of the biggest manufacturers in the country.

Table 3.75 Belgium: leading manufacturers of household furniture, 2001 (in millions of United States dollars)

Company	Turnover	Type of furniture produced
Confortluxe	67	Upholstered
Recor	53	Upholstered
Mewaf	49	Office
Veldeman	44	Household
Karel Mintjens	40	Household
Gaston Bauwens	38	Household, upholstered
Bulo	37	Office
Jori	28	Household, upholstered
Rom	27	Upholstered
Mevi	27	Household, office

Company	Turnover	Type of furniture produced
Samas	540	Office
Ahrend	476	Office
Bruynzeel	76	Kitchen
Leolux	55	Upholstered
Gispen	40	Office
Gelderland	34	Upholstered
Kembo	27	Office
Dico	23	Household
Lensvelt	16	Office
Lande Design	9	Office

Foreign trade and apparent consumption

Overview

'Other' wooden furniture and wooden seats were the two biggest import categories in both Belgium and the Netherlands. In Belgium, furniture parts ranked third, while kitchen furniture took third place in the Netherlands.

Both countries imported roughly \$1.1 billion worth of wooden furniture in 2001. Belgium's exports were nearly on par with imports, making it practically self-sufficient in furniture. By contrast, the Netherlands, with its trade deficit of \$740 million, is clearly a net importer. The large number of small enterprises has been cited as one reason for the lacklustre export performance of the Netherlands furniture sector; the difficult conditions in its main export market, Germany, are another aggravating factor.

The export trade in kitchen and bedroom furniture from the Netherlands has collapsed. On the other hand, exports of seats of cane, osier and bamboo (which have a small niche market) have doubled; imports of this category of product have declined. This situation presumably reflects outsourcing from Southeast Asia (Indonesia, Viet Nam) for final assembly and commercialization in the Netherlands. While Belgium has doubled its exports in this seating category, the products concerned play a small part (1%) in the sector's trade.

Product group	1997		1998	1999	2000	2001		Index: 1997=100
	V	% of V	V	V	V	V	% of V	
Seats of cane, osier, bamboo, etc.	12.7	1	14.0	16.6	16.3	15.7	1	123
Seats n.e.s. with wooden frames	249.8	23	253.7	278.3	273.1	295.5	26	118
Wooden office furniture	123.3	12	130.2	129.0	101.9	102.4	9	83
Wooden kitchen furniture	114.5	11	108.0	112.7	96.0	103.5	9	90
Wooden bedroom furniture	128.1	12	138.9	139.8	125.1	118.6	10	93
Other wooden furniture	305.7	29	363.9	386.3	357.4	349.5	31	114
Furniture of other materials, including bamboo	19.1	2	20.8	25.2	21.8	19.2	2	101
Furniture parts of all materials	118.4	11	142.4	130.2	124.6	126.0	11	106
TOTAL	1 071.7	100	1 171.9	1 218.1	1 116.2	1 130.5	100	105

Source: ITC/UNSD COMTRADE database.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	5.1	0	5.6	8.6	9.5	10.1	1	199
Seats n.e.s. with wooden frames	282.7	27	308.0	330.7	315.9	340.6	31	120
Wooden office furniture	81.3	8	97.2	106.0	49.7	46.3	4	57
Wooden kitchen furniture	42.9	4	40.6	41.8	37.9	38.3	4	89
Wooden bedroom furniture	145.8	14	133.5	143.8	124.8	121.8	11	84
Other wooden furniture	344.2	33	335.2	400.7	373.3	385.7	36	112
Furniture of other materials, including bamboo	13.9	1	22.2	24.9	13.9	15.4	1	111
Furniture parts of all materials	126.9	12	96.9	152.3	133.6	123.3	11	97
TOTAL	1 042.8	100	1 039.1	1 208.6	1 058.8	1 081.5	100	104

Source: ITC/UNSD COMTRADE database.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	48.1	5	44.2	42.0	34.2	30.7	3	64
Seats n.e.s. with wooden frames	202.3	20	212.7	256.7	254.8	259.6	23	128
Wooden office furniture	32.7	3	30.9	36.9	36.1	28.9	3	88
Wooden kitchen furniture	175.5	17	166.1	186.8	149.3	160.0	14	91
Wooden bedroom furniture	120.2	12	115.6	129.3	128.7	125.8	11	105
Other wooden furniture	323.5	32	352.6	382.3	380.7	377.3	34	117
Furniture of other materials, including bamboo	20.5	2	19.9	21.3	20.8	17.5	2	85
Furniture parts of all materials	102.6	10	87.0	115.3	110.6	110.9	10	108
TOTAL	1 025.3	100	1 029.0	1 170.6	1 115.1	1 110.8	100	108

Source: ITC/UNSD COMTRADE database.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	8.6	2	11.9	16.4	16.4	18.4	5	214
Seats n.e.s. with wooden frames	85.3	22	73.1	94.9	94.3	95.5	26	112
Wooden office furniture	6.3	2	5.4	6.9	7.0	6.1	2	97
Wooden kitchen furniture	22.6	6	20.9	14.2	10.4	14.3	4	63
Wooden bedroom furniture	41.0	10	35.9	32.8	26.2	21.7	6	53
Other wooden furniture	178.7	46	183.0	193.4	187.6	169.9	46	95
Furniture of other materials, including bamboo	5.9	1	5.7	8.0	5.8	6.0	2	103
Furniture parts of all materials	43.0	11	38.4	44.8	45.3	38.7	10	90
TOTAL	391.3	100	374.3	411.4	392.9	370.6	100	95

Source: ITC/UNSD COMTRADE database.

Imports from developing market economies and China

Indonesia did well in the two largest import segments in Belgium. It held a good 10% of imports of 'other' furniture and wooden seats, ranking third and fourth respectively among all suppliers. China and Viet Nam also featured among the leading 10 suppliers of both products, and recorded consistent increases in supplies in recent years. In furniture parts, Malaysia (10th rank) was ahead of Indonesia.

Product group	Imports (\$ million)	Major developing country suppliers	% share	Rank
Other wooden furniture	316.5	Indonesia	9.7	3
		China	1.7	11
		Viet Nam	1.6	12
Seats n.e.s. with wooden frames	278.6	Indonesia	10.6	4
		Viet Nam	2.9	7
		China	0.9	11
Furniture parts	116.2	Malaysia	2.0	10
		Indonesia	1.5	12
		Taiwan Province (China)	1.4	13

a/ Excluding Luxembourg.

Indonesia and China were both well in the picture as suppliers of 'other' furniture to the Netherlands, ranking second and eighth respectively among suppliers. Brazil held fifth place in 2001, but had fallen behind in comparison with its position in 1996. Indonesia, China and Viet Nam were the fifth, seventh and eighth largest suppliers of seats with wooden frames.

The kitchen furniture market was almost totally in the hands of German suppliers. They held 87% of all imports into the Netherlands, leaving only minuscule shares to be shared by developing countries.

Product group	Imports (\$ million)	Major developing country suppliers	% share	Rank
Other wooden furniture	377.3	Indonesia	15.1	2
		Brazil	6.0	5
		China	3.8	8
Seats n.e.s. with wooden frames	259.6	Indonesia	7.3	5
		China	3.0	7
		Viet Nam	2.7	8
Kitchen furniture	160.0	Indonesia	0.09	11
		China	0.05	15
		Malaysia	0.03	16

Market developments by type of furniture

The patterns of furniture consumption in Belgium and the Netherlands are presented in table 3.83.

Type of furniture	Belgium	Netherlands
Upholstered	14	14
Office	11	15
Kitchen	10	13
Household uses and other miscellaneous uses	65	58

Developments in Belgium over the 1996–2000 period have been positive, as consumption of all types of furniture rose at the rate of 2.4%–3.1% per annum. However, consumption of office furniture declined drastically (–5%) in 2001.

In the Netherlands, annual growth rates ranged from 0.8% for office furniture to 3.0% for upholstered furniture in 1996–2000. The figure for upholstered furniture was even higher in 2001 (6%), while consumption of office furniture suffered a 6% decline. Consumption of kitchen furniture was nearly 4% lower in 2001.

Distribution

In Belgium, there are 1,000 furniture sales outlets. Independent retailers hold a share of 40% of furniture distribution. Buying associations control 17% of sales, and large-scale specialists 24%. Department stores (5%), direct sales (8%), mail order (4%) and DIY (2%) outlets account for the rest.

In the Netherlands, there are about 2,500 specialist furniture sales outlets, as against 1,800 non-specialists. They employ more than 25,000 people and have an average sales area of 1,000 m². Independent distributors that are not affiliated with buying associations are the dominant players. They take 45% of furniture sales. Another 30% passes through large-scale specialist distributors, and 16% is handled by outlets belonging to buying associations. The remaining 9% of furniture sales take place in DIY stores, department stores or by mail order.

Annex

Sources and useful contacts

BELGIUM

European Furniture Manufacturers Federation (UEA)
Rue Royale 109-111, B-1000 Brussels
Tel : +32-22-181-889
Fax: +32-22-192-701
E-mail : u.e.a.@infoboard.be
Internet : www.ueanet.com

Nationale Beroepsvereniging van Meubelhandelaars
Brussels International Trade Mart
P.O. Box 613, B-1020 Brussels
Tel: +32-247-084-758
Fax: +32-247-837-66

FRANCE

BMSI, French furniture production, February 2002, No. 322.

CSIL Furniture Industry Research Institute, Milan.

CTBA (Centre technique du bois et de l'ameublement), various reports, including No. 88/2001.

Direction des Entreprises commerciales, artisanales et de services (DEcas), for information on the distribution system, www.decas.finances.gouv.fr.

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Industries françaises de l'ameublement : Economie et marchés 2002.

INSÉE statistical database: http://www.insee.fr/fr/home/home_page.asp

PME – Gouvernement français – information sur la distribution,
www.pme-commerce-artisanat.gouv.fr/economie/onc/chap13.htm.

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SESSI, *France Meubles 1999*.

SESSI, Les 4 pages No. 155-2001: Les entreprises industrielles et la publicité.

SESSI, www.evariste.org/sessi.

US Department of Agriculture, Solid wood products annual reports, 2001.

GERMANY**Central association**

Hauptverband der Holz und Kunststoffe verarbeitenden Industrie, HDH (the association of the German woodworking and plastic industries)

www.hdh-ev.de/english/index.html

HDH's members consist of 13 special associations, 10 regional associations and three federations.

Special associations

Association of the German Furniture Industries: Verband der Deutschen Möbelindustrie (VDM)

Flutgraben 2, 53604 Bad Honnef

Tel: +49-2224 / 93-77-0 Fax: +49-2224 / 93-77-77

Internet: *www.hdh-ev.de/english/index.html*

Bundesverband des Deutschen Möbelhandels e.V.

Frangenheimstrasse 6, D-5093 Cologne (Lindenthal)

Tel: +49-221-40-31-42 Fax: +49-221-40-09-396

Internet: *www.moebelhandel.org*

Fachverband Serienmöbelbetriebe des Handwerks e.V.

Engerstraße 4b, 32051 Herford

Tel: +49-5221-12-650 Fax: +49-5221-12-65-65

Verband Büro-, Sitz- und Objektmöbel e.V. (BSO)

Kaiserswerther Straße 137, 40474 Düsseldorf

Tel: +49-211-6-02-53-43-0 Fax: +49-211-6-02-53-43-15

E-mail: *s.mieth@bso-ev.de* Internet: *www.buero-forum.de*

Verband der Deutschen Polstermöbelindustrie e.V.

Engerstraße 4b, 32051 Herford

Tel: +49-5221-12-65-0 Fax: +49-5221-12-65-65

Other contacts

Deutsches Institut für Möbeltechnik e.V.

Frankfurter Ring 243, 89897 München

Tel: +49-89-32-46-53-0 Fax: +49-89 32-46-53-13

Möbelonline

Verein zur Koordination von Multimedia und Electronic Commerce der Möbelbranche

Wolf-Hirth-Straße 10, 71034 Böblingen

Tel: +49-7931-46-17-30 Fax: +49-7931-46-17-50

JAPAN

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NETHERLANDS

Association of Furniture Manufacturers
 P.O. Box 100, 2100 AC Heemstede
 Tel: +31-23-515-8800 Fax: +31-23-531-5538
 E-mail: info@cbm.nl Internet: www.cbm.nl

Central Association for Furniture Retailers
 Bovenweg 100, 3708AG Zeist
 Tel: +31-30-697-3100 Fax: +31-30-691-9751
 E-mail: info@cbw.org Internet: www.cbw.org

Centre for the Promotion of Imports from developing countries (CBI)
 P.O. Box 30009, 3001 DA Rotterdam
 Tel: +31-10-201-3434 Fax: +3110-411-4081
 E-mail: cbi@cbi.nl Internet: www.cbi.nl

UNITED KINGDOM**Publications and websites for the retail and supplier trade**

Cabinet Maker, a recognized weekly magazine for the retail and supplier trade.
 Subscriptions: +44-1858 438 893 (email: custcare2@subscription.co.uk)
 Editorial offices: +44-207 579 4321 (email: akidd@CMPinformation.com)
 Provides comment and research detail.

Furniture News, a monthly magazine for the retail and supplier trade.
 Subscriptions: +44-14-24-77-49-88
 Editorial offices: +44-14-24-77-61-04; email: dennis@nigelgearing.com; www.nigelgearing.com
 An excellent magazine full of information and promotional advertising on the British trade.

Furnishing, a monthly magazine for the retail trade; mailed free to registered subscribers, plus post and packing for overseas readers.
 Subscriptions: +44-17-37-85-53-99
 Editorial offices: +44-20-85-15-20-00 and fax +44-20-85-15-20-80
 Provides comment and research detail, and financial data on retailing.

Kbbreview: a key monthly trade magazine for the kitchen and bathroom industry. Hosts <http://groups.yahoo.com/group/kbbnewsforum>, a news delivery and discussion forum for professionals from the British kitchen, bedroom and bathroom industry.

The Interiors Event (www.thefurnitureshow.co.uk): the website of the Birmingham furniture show (see below, on trade fairs).

Interactive website of G Plan, a Glasgow furniture manufacturer (www.gplancabinets.co.uk) features trade-only segments on replacement parts (ordering, prices and promotions). The consumer section is for room-set planning: panning allows visitors to look around corners and see the items in a place setting. A store finder identifies local stores and ranges.

Trade fairs

Some of the furniture trade fairs that take place regularly in the United Kingdom are listed below.

- January, annual, at the National Exhibition Centre (NEC), Birmingham: The Furniture and Furnishing Accessories Show.
- January, NEC, Birmingham: KBB – Kitchens & Bathrooms Show.
- August, annual, at Earls Court, London: BFM – London Furniture Trade Show.
- September, annual, at Earls Court, London: 100% DESIGN – London Contemporary Furniture Show.
- GLEE for outdoor, NEC, Birmingham, September.
- Long Point, Derbyshire: an upmarket trade show, usually twice a year in May/October.

- October, annual, NEC, Birmingham: Baby & Child International Fair.
- October-November, every two years, at NEC, Birmingham: ASFI Furniture Industry Suppliers Exhibition; WOODMEX.

The Daily Mail Ideal Home is a major retail show for the consumer. It is held annually (the 2004 event took place in March) at the Earls Court and Olympia exhibition centres in London. National retailers present show houses or store windows with their latest product ranges.

UNITED STATES

Main statistical sources

Annual Survey of Manufacturers: www.ita.doc.gov/td/ocg/furniture.html#manufacturing

Census of Manufacturers: www.census.gov/epcd/www/97EC31.html, www.census.gov/epcd/www/naics.html

Industry Trade Surveys: www.usitc.gov/webpubs.htm

The Office of Consumer Goods, US Department of Commerce
Washington, D.C.

Tel: (202) 482 5783, Fax: (202) 482 3981

Internet: www.ita.doc.gov/org

US Imports & Exports (of household and office furniture): www.export.gov/ocg/furniture.htm

US Industry & Trade Outlook: www.yntis.gov/product/industry-trade.html

It should be noted that the North American Industry Classification System (NAICS) has replaced the US Standard Industrial Classification (SIC) to provide new comparability in statistics on business activity across North America.

Industry contacts

American Furniture Manufacturers Association (AFMA)

Tel: +1-336-88-45-000 Fax: +1-336-88-45-303

Internet: www.afma4u.org

Association of Progressive Rental Organizations (APRO)

Tel: +1-512-79-40-095 Fax: +1-512-79-40-097

Internet: www.apro-rto.com

BIFMA International (Business and Institutional Furniture Manufacturer's Association)

Tel: +1-616-28-53-963 Fax: +1-616-28-53-765

Internet: www.bifma.org

International Furniture Suppliers Association (IFSA), the former International Wholesale Furniture Association (IWFA)

Tel: +1-336-88-41-566 Fax: +1-336-88-41-350

Internet: www.ifsa-info.com

National Home Furnishings Association (NHFA)

Tel: +1-800-88-89-590; +1-336-88-66-100 Fax: +1-336-80-16-102

Internet: www.nhfa.com

Office furniture manufacturers

www.haworth.com

www.hermanmiller.com

www.honcompany.com

www.knoll.com

www.steelcase.com

www.wal-mart.com

Office furniture retailers

www.costco.com

www.officedepot.com

www.officemax.com

www.staples.com

www.samsclub.com

Trade shows

May	International Contemporary Furniture Fair – Javits Center, New York
June	Dallas Furniture Market, Texas
June	NeoCon World's Trade Fair, Chicago (www.merchandisemart.com)
July	Showtime Fabric market (www.ITMA-Showtime.com), High Point, North Carolina
January/July	San Francisco Summer Furniture Market (www.sfmart.com)
	Chicago Gift & Home Market (www.merchandisemart.com)
February/August	Tupelo Furniture Market (601 844 1473)
April/October	High Point, N. Carolina (www.highpointmarket.org for information on the markets, places to stay, itineraries, transport, access and registration) Showplace Kids 4th Floor (showplace-highpoint.com)

Trade press*Furniture/Today*

Tel: (336) 605 0121. Fax: (336) 605 1143

www.furnituretoday.com

This is a weekly magazine as well as a daily online newspaper. In addition to providing information on the sector, it offers links to manufacturers and other sources for use by consumers, the trade and importers. During the furniture marketing seasons (twice a year), the magazine runs special editions.

Other

Since 2002, AFMA, through its website www.findyourfurniture.com, has been educating consumers about buying and caring for furniture. It also provides information on styles, new products and room-by-room checklists. It directs users to websites of its members and categorizes these by product style and price range. The site would be useful to other countries seeking to inform prospective consumers about their products and to provide a comprehensive review of their furniture suppliers.

FIDX (Furniture Industry Data Exchange, www.fidx.org) is a neutral industry group promoting standards of data exchange. FIDX is committed to making the exchange of information faster, easier and less expensive. The work is open to all those interested in furthering the development and implementation of e-business standards. FIDX members are American companies from across the furniture industry, but it is possible for furniture companies from other countries to affiliate themselves with the Exchange, especially as sourcing and direct imports continue to grow. The basics of bar-codes, XML transfers, product identification, catalogue schemes, etc. are available for free use.

Chapter 4

Other major furniture markets

Spain

Basic demand factors and market drivers

Spain's economic performance in recent years has been among the best in Europe, especially as far as the wood industry is concerned. The country's GDP per capita is slightly lower than the European average. However, Spain has a fairly large black economy, pushing actual GDP per capita beyond the official figure.

About 80% of Spanish families own their homes. This is among the highest home ownership levels in Europe. House building has increased constantly since the Second World War, and Spain today has Europe's newest housing stock: 44% of its homes have been built since 1970. Therefore, while investments in new residential buildings have been rising (a slowdown in subsequent years was expected at the time of the writing of this study), the percentage of remodelling in total construction remains one of the lowest in Europe despite the fact that it has been rising fast. Spanish consumers spend about 27% of their budgets on their homes.

The domestic furniture industry

Spain is among the largest European furniture-manufacturing countries, after Italy, Germany and the United Kingdom. About 20% of its furniture output is exported, primarily to other EU markets, the Russian Federation, the United States and some Asian countries. Design and a fairly good price/quality ratio are behind the competitiveness of the industry.

The furniture industry grew strongly between 1993 and 2000 because of increased domestic sales and exports. A reversal in furniture sales occurred in 2001 and 2002.

Production

Spain's output of furniture peaked in 1999 at around \$5.6 billion, declining thereafter in dollar terms to the 2001 level of \$4.9 billion.

Type of furniture	Production (\$ million)	Share (% of total)
Office	383	7.8
Kitchen	472	9.6
Upholstered	661	13.5
Others	3 382	69.0
Total	4 898	100.0

Source: Asociación Nacional de Industriales y Exportadores de Muebles de España (ANIEME).

Structure and location of the industry

Spain has a large number of furniture manufacturers, companies are small and the structure of production is fragmented. The average company size does not seem to be growing. Only about 12% of the companies in the sector have more than 20 workers.

The figures below show the total number of workers in the industry between 1993 and 2000. Table 4.2 presents the distribution of companies by number of workers in 1999–2000.

Year	Number of workers in the furniture industry
1993	110,295
1994	105,990
1995	107,133
1996	114,857
1997	117,019
1998	126,996
1999	131,234
2000	133,008

Year	Total number of companies	Of which with:		Total number of workers
		More than 20 workers	Less than 20 workers	
1999	12 666	1 557	11 110	131 234
2000	13 263	1 494	11 769	133 008

Source: Instituto Nacional de Estadística.

The industry is concentrated mainly in the Valencia area (16.5%) and in Barcelona (13%) and Madrid (9%). The Valencia area works like an industrial cluster. It is also the home of the main furniture associations, research institutes and quality control organizations. The major exporters of furniture are Valencia, Catalonia, the Basque Country and Navarra.

Some of the main Spanish furniture producers are Mostoles Industrial, Danona, Jevit, Ofita, Kemen-Haworth and Muebles Tapizados Granfort. Two of the biggest producers of kitchen cabinets are Novoperfil and Xey SA.

Main raw materials

The Spanish producers of wood panels are large and powerful and offer abundant cheap material to the local furniture factories. Chipboard is therefore by far the main raw material, but demand for MDF is growing. Furniture manufacturers also use considerable volumes of softwood, mainly pine. Large amounts of softwood edge-glued panels are likewise utilized; they are often manufactured by the furniture factories themselves. The figures below summarize data on overall usage of wood raw materials in 2002.

Wood product	% of total usage of wood materials
Sawn softwood	13
Sawn hardwood	12
MDF	10
Chipboard	62
Plywood	3

Source: Gardino Consulting.

It is interesting to compare the above figures with the figures also obtained by Gardino Consulting on the use of wood raw materials by Spain's 50 largest furniture manufacturers. The fairly low use of tropical hardwood in the sample is worth noting.

Wood product	Percentage of usage by the top 50 furniture manufacturers
Softwood	91
American hardwood	19
European hardwood	44
Tropical hardwood	21
Plywood	19
Edge-glued panels	36
MDF	61
Chipboard	72
Veneer	44
Moulding	25

Source: Gardino Consulting.

There is significant use of overlaid panels, pre-varnished, melamine-faced and PVC-faced (polyvinyl chloride). Some Spanish companies are specialists in veneer facings of real wood, and these compete with synthetic overlays in furniture panels.

The most recent design trends mix materials (steel, glass, textiles, wood) and colours (cold and warm colours) more freely than before. Light colours still dominate, but there is a definite trend towards the inclusion of dark tones (brown, black).

Outsourcing and networking among manufacturers

Traditionally, Spanish furniture producers have preferred to produce all their parts and components within their own factories. However, in recent years they have made use of the advantages of outsourcing for parts and components. This has rapidly created a good network of subcontractors, especially in the Valencia area, but also around Barcelona and Madrid. Several companies are now producing cabinet doors, tops, legs, drawers, but also such items as edge-joined veneer, marquetry veneered parts, upholstered furniture frames and overlaid mouldings. While at this stage outsourcing provides only a small share of the industry's parts and components, this share is expected to grow steadily.

Quality standards, certification and labelling requirements, environmental management systems

Confemadera (Confederación Española de Empresarios de la Madera), the wood industries association, is carrying out a programme together with the main woodworkers' unions to increase workers' safety. It also establishes strict rules on the handling of varnishes, other chemicals and other materials, and the disposal of dust. Product quality seals are issued by AIDIMA (Instituto tecnológico del mueble, madera, embalaje y afines) and by other quality control organizations.

An association called ASERMA (Asociación Española de Recuperación de la Madera) was established in 2001 to recover wood waste. Confemadera and CAM (a financing organization) signed in 2001 an agreement on financing solutions for pollution (water, smoke, dust, among others).

In EU countries, almost all household waste, which is collected by private or public companies, can be considered municipal solid waste. At the end of its

lifetime, furniture becomes municipal solid waste. To recycle furniture at that stage, it should be easy to disassemble, its parts should be reusable, and it should be possible to reuse its materials or to exploit them for energy purposes.

To facilitate recycling, the conception and production of furniture should provide for the marking and separation of materials to allow reuse or handling as waste.

Foreign trade and apparent consumption

Overview

Spain is a net exporter of wooden furniture; it had a trade surplus of about \$465 million in 2001. Spain imports (42% of the total) and exports (45%) mostly furniture in the 'other' product category (living/dining room, small/occasional furniture). Imports have been growing faster (69%) than exports, which remained flat (+3% in the five years to 2001).

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	10.6	4	11.7	14.3	13.8	13.4	3	126
Seats n.e.s. with wooden frames	36.5	14	42.8	47.7	47.7	59.1	13	162
Wooden office furniture	15.7	6	19.4	18.6	17.9	22.9	5	146
Wooden kitchen furniture	17.9	7	22.7	28.9	33.6	40.4	9	226
Wooden bedroom furniture	23.3	9	25.7	34.3	32.5	36.1	8	155
Other wooden furniture	102.7	39	130.4	172.7	174.6	190.4	42	185
Furniture of other materials, including bamboo	15.8	6	15.0	18.3	18.3	20.2	5	128
Furniture parts of all materials	42.7	16	48.0	55.4	50.9	66.1	15	155
Total	265.3	100	315.6	390.1	389.2	448.6	100	169

Source: ITC/UNSO COMTRADE database.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	6.4	1	7.1	5.2	4.7	4.8	1	74
Seats n.e.s. with wooden frames	115.5	13	129.2	129.9	121.3	130.5	14	113
Wooden office furniture	45.1	5	57.3	47.3	53.7	56.7	6	126
Wooden kitchen furniture	64.7	7	75.6	87.8	80.7	70.4	8	109
Wooden bedroom furniture	142.1	16	161.7	141.9	138.2	115.8	13	81
Other wooden furniture	368.2	42	386.1	397.7	388.6	406.8	45	110
Furniture of other materials, including bamboo	75.2	9	58.1	62.6	64.6	66.3	7	88
Furniture parts of all materials	65.8	7	66.7	65.8	61.2	61.9	7	94
Total	883.0	100	941.8	938.4	913.0	913.2	100	103

Source: ITC/UNSO COMTRADE database.

Imports from developing market economies and China

Spain purchased 36.5% of its wooden furniture from developing countries (22% in 1996). Indonesia was an important overall supplier, ranking first in 'other' wooden furniture (with 18% of the import market), and second in wooden seats (13.7%). Viet Nam supplied nearly 10% of imports of seats and ranked fourth before China (8.7%) which was the fifth largest supplier (table 4.5). European sources dominated the Spanish import trade in furniture parts.

Product group	Imports (\$ million)	Major developing country suppliers	% share	Rank
Other wooden furniture	190.4	Indonesia	18.2	1
		China	6.5	5
		Viet Nam	3.7	8
Furniture parts	66.1	China	2.3	8
		Malaysia	0.7	18
		Indonesia	0.6	20
Seats n.e.s. with wooden frames	59.1	Indonesia	13.7	2
		Viet Nam	9.7	4
		China	8.6	5

Features of demand, styling and design

Demand follows the distribution of the Spanish population, which is roughly concentrated along the coastlines and in the centre of the country in the Madrid area:

- Madrid region, with a population of almost 6 million;
- Barcelona and its surrounding region: more than 6 million;
- Valencia region: 4 million;
- The area along the North Coast: 3.5 million.

Favoured wood species and finishing techniques

The main wood species used are beech and pine. These are followed by many imported species: oak, chestnut, cherry, alder, spruce, walnut. The main tropical species is ayous (for mouldings). A few other tropical species are also used: iroko, koto, sapele, acajou, jatoba, tauari and teak. As has been indicated earlier, the use of tropical species is fairly limited in the furniture sector.

The required finish varies with the furniture type. Office furniture, upholstered furniture and furniture in modern designs generally have a matt finish. Gloss is favoured for bathroom, bamboo and rattan furniture. Furniture in classic designs carry a satin finish. A small percentage of the furniture sold in Spain is finished to show wood texture; this type of finish is popular for kitchen cabinets.

Style and design trends

Overview

The Spanish have generally preferred pine furniture in the traditional rustic and classic styles. The popularity of more modern designs has been growing, however; these had about 54% of the market in 2000. ANIEME reports that in 1999–2000, stylistic preferences in the furniture produced in Spain shifted as follows:

Style	% change, 2000/1999
Rattan	6.9
Design	5.0
Rustic	-1.4
Classic	6.3
Modern	8.1

It seems that the favoured room for furniture purchases is the bedroom. It accounted for 16% of all purchases in a recent year.

Until 1983–1984 Spanish furniture was little known abroad. Things have changed since then, and the growing success of Spanish exports has also been driven by the emergence of a ‘school of Spanish design’. Manufacturers are adapting their furniture to the related designs; the designers in turn have accepted some of the ‘formalities’ imposed by the industry.

Nevertheless, the manufacturers’ investment in new design projects has been equivalent to only between 1.7% and 3.5% of their annual sales. Confemadera, the industry association, is cooperating with AIDIMA, the technical assistance organization, to find means to improve the situation. A design competition is held once a year during the well-known Valencia furniture fair (September).

Design trends in kitchen cabinets

Spanish consumers want to be able to modulate their kitchen space. Among recent innovations, for example, is a corner seating for kitchen tables which has pull-out extensions on the ends of the bench. Guides under the bench control the movement of the pull-out sections.

A simple, space-saving mechanism to open and close doors, flaps or drawers has also been patented. The device has a release element and drive unit with at least one spring made of a shape-memory alloy.

Distribution

As the figures below show, furniture distribution is highly fragmented. Traditional shops still make up the vast majority of sales outlets. However, shops are aggregating into sales groups and are increasingly specializing, selling either only a specific style or only certain product lines.

Distribution channels	Percentage share in total turnover
Specialists	83
of which:	
Independent retailers	52
Buying groups	13
Large-scale specialist distribution	10
Other specialist channel	8
Non-specialists	17
of which:	
Department stores	5
DIY stores	1
Mail order outlets	1
Direct sales	10
Other non-specialist channels	–
Total	100

Source: CSIL Furniture Industry Research Institute, Milan.

Manufacturers of kitchen furniture sell a considerable share of their production direct to consumers.

Type of retailer	Home	Upholstered	Kitchen cabinet	Home office	Upper-end furniture
Independent retailers	52	60	50	40	85
Purchasing groups	13	18	–	–	–
Large organized stores	10	2	18	30	15
Large non-specialist stores	5	9	–	–	–
Specialists	8	10	16	20	–
Mail order	1	1	–	–	–
Direct sales	10	–	15	10	–
DIY	1	–	1	–	–
Total	100	100	100	100	100

Source: CSIL Furniture Industry Research Institute, Milan.

The main sales outlets in Spain include the following: Artimueble; ALM y Cía; Cía de Equipamiento del Hogar, Habitat; Conforama España; DIMURESA (Distribuciones Muebles Rey); Saistribuciones Muebles Rey; Gestión y Compras; Grupo Internacional del Mueble; HIPERCOR (El Corte Ingles); IKEA España; Kemen Comercial; Kibuc; Merkamueble; Nuevas Galerias Tarragona; Okapi; and SAGISA (Sanchez Giner).

An indication of price levels in a recent year is given below:

Beech chair, with seat in wood or in straw (in 30 colours):	€ 16.23
Beech chair with seat in wood or upholstered (in 30 colours):	€ 48.68
Upholstered arm chair	€196.71
Small stained oak table	€236.98
Lacquered chipboard bed: 90 x 200 cm	€210.05

Advertising and promotion

Spanish furniture manufacturers spend the biggest part of their promotional funds on participating in trade shows (about 50% of their budgets). Of the remaining amount, the largest expenses are for publicity in specialized magazines (about 30% of the total), followed by minor expenses (direct promotion, publicity in non-specialized magazines).

E-commerce and Internet-based marketing

In 2000, there were around 5.6 million Internet users in Spain, of whom 3.6 million utilized it on a weekly basis. According to a survey carried out by the website El Portal del Mueble in 2001, only 5.2% of the consumers already using the Internet had considered making purchases of furniture through the net in the succeeding 12 months.

Furniture sales through the Internet (B2C) were expected to grow 0.5% in the three years from 2002. Browsing the net for pre-purchase information was growing, particularly for information on new styles and designs, shop addresses and customer services. About 2% of consumers trawl through the Internet before purchasing new furniture.

The bottlenecks to increased furniture sales through the net include the lack of appropriate product imaging technology, of personnel qualified to handle sales with the help of new technologies, and of catalogue purchasing traditions in Spain.

Italy

Basic demand factors and market drivers

In the late 1990s and early 2000s, the Italian economy grew moderately. It had some problems stabilizing its currency (the lira) and joining the euro zone was difficult. At one point, the country had the highest debt ratio in Europe. In 2000 and 2001, the Government had to prioritize economic growth in order to keep the State deficit under stricter control.

It is necessary to remember that Italy has an active black economy. Many studies have tried to estimate its magnitude and it is usually assumed to be equivalent to 10% to 20% of the official economy.

Italian families furnish about 800,000 homes a year, with budgets varying between €10,000 for low-quality furniture and €50,000 for top-end pieces. A high percentage (58.8%) of consumers purchased furniture in specialized shops and the outlets of specialized distribution groups. About 17.6% went to department store centres or large distribution centres (mercatone), and 13.9% to artisans for tailor-made furniture.

The domestic furniture industry

Industrial structure

With nearly 38,000 companies, the Italian furniture industry is extremely fragmented. The vast majority are in the micro or cottage industry categories. Most SMEs are organized into production districts. The sector has a total workforce of 230,000.

About 88% of the companies employ less than 10 workers, and the average company employs a mere six. Companies with over 20 workers account for 4% (about 1,600) of the total number of companies and their combined workforce reaches around 103,000 (approximately 62 workers per enterprise). Companies with over a hundred employees account for just 0.4% of the total (roughly 140) and employ 28,000 workers in all (about 200 per enterprise).

Indicator	2000	2001	% change
Number of companies with more than 20 workers	1 657	1 657	0.0
Total number of companies	38 136	37 840	-0.8
Number of workers in companies with more than 20 workers	102 150	103 360	1.3
Total number of workers	226 142	230 315	1.8

Source: Federlegno-Arredo.

The industry doubles in size if the complete production chain is taken into account, i.e. including the companies involved in the production of panels, profiles and components. A census of the wood-furnishings sector in 1996 revealed that the sector comprised about 100,000 establishments with over 400,000 workers.

There is a considerable lack of skilled workers, especially in the North-East and in Lombardia, but even unskilled workers are not often sufficiently available. Federlegno-Arredo estimated that in 2002 the sector could have employed about 4,000 additional workers had they been available. Workers for ‘new jobs’ are especially scarce; these include operators of numeric or computerized machines. In the design sector, CAD specialists are not plentiful.

Location of the industry; major players

Furniture producers are mainly concentrated in ‘industrial districts’, where SMEs abound. The highest concentration is in the Brianza district (between Como and Milan); Brianza has a strong presence in foreign markets.

The Lombardy region as a whole has the highest concentration of companies, with 22.9% of the national figure; workers in the region account for 20.3% of the total. The Veneto region surpasses Lombardy in terms of concentration of workers (22.8%), and is home to 18% of all of Italy’s furniture firms. The companies in these regions are to a great extent craftsmen’s enterprises.

Other regions with a significant industry presence are Friuli Venezia Giulia (4.5% of companies and 10.5% of workers), Tuscany (10.2% of companies and 8.4% of workers) and Marche (5.4% of companies and 8.1% of workers). Companies in these regions tend to be more industrial in structure.

The main Italian furniture companies are Industrie Natuzzi, B&B, Doimo International, and Haworth. The leading kitchen cabinet manufacturers are Snaidero, Scavolini, Veneta Cucine, and Lube Over.

Natuzzi is the country’s largest producer of furniture. It specializes in leather upholstery and controls 2.4% of the world market for upholstered goods and over 10% of the world market for leather upholstery.

With the exception of Natuzzi, all Italian furniture industries are ‘small’ from the international point of view.

Industrial competitiveness

Italian furniture manufacturing ventures are not highly profitable. In 2000, the largest of these ventures had a net profit equivalent to 3.2% of their sales. Producers of home furniture (with profit levels of 4.5%) outperformed others; the best achievers were probably in the upholstery segment. The profit margins of manufacturers of kitchen cabinets were way below average (0.7%); makers of office furniture earned 2.1%.

The table below presents some of the findings of recent research undertaken by Pambianco, a consultant on industry strategy and international marketing, on the industry.

Item	1999	2000
Annual sales (€ million)	27	31
Sales increase (%)		15.2
Sales per worker (€1,000)	195	210
Cost of work per worker (€1,000)	27	26
Incidence of cost of work on sales (%)	13.6	12.6

Source: Pambianco Strategie di Impresa, SpA.

The cost of labour per worker rose faster than inflation during the 1998–1999 period, as the figures below show.

Labour cost per worker, annual percentage change

Sector	Percentage change: 1999/1998
Industry as a whole	2.9
Upholstered	5.5
Office	2.4
Others	3.1
Kitchen	2.3

Source: Federlegno-Arredo.

Technology level

Italian furniture producers use highly advanced technology, thanks to two factors. The first has to do with their close cooperation with machine manufacturers. The second is the small average size of Italian furniture plants. Companies are always managed by their owners, who are generally experts in the production cycle and love using new production processes, while keeping labour costs low. Innovation and design are well known strengths of Italian furniture. The high-end manufacturers invest 5% of their annual sales in research and development.

Table 4.9 Italy: investment in the furniture industry as percentage of turnover, 1997–2001

Sector	Investment as percentage of turnover				
	1997	1998	1999	2000	2001
Office furniture	6.9	6.4	10.6	5.5	–
Kitchen furniture	7.0	7.2	9.0	6.7	8.0

Source: CSIL Furniture Industry Research Institute, Milan.

Table 4.10 Italy: return on investment, by industry segment, 1997–1999

Industry segment	Percentage return on investment		
	1997	1998	1999
Upholstered	21	19	21
Office	10	11	4
Other	9	6	8

Source: Federlegno-Arredo.

Outsourcing and networking among manufacturers

Italian furniture industries have been world leaders in creating sophisticated outsourcing networks for furniture production. Each company has a different position in this respect, determined by its quality standard, the visibility of the company's brand and its sales policy, among other factors. However, outsourcing of furniture parts is extremely common. Many furniture companies do not actually produce anything themselves, but outsource all components and assemble semi-finished parts. Almost all companies do some outsourcing. The most common outsourced parts are cut-to-size overlaid panels (often drilled and sometimes grooved), cabinet doors, tops, furniture mouldings,

carcasses and drawers. A rough estimate of the size of this market indicates that Italy's furniture companies buy as 'components' about one-fourth of their requirements for materials.

There is close cooperation between furniture manufacturers and the producers of wood-working machinery within each district. It is necessary to remember that the Italian producers of wood-working machinery rank second in Europe in size of production and first as exporters. These modern operations are often located near wood-working industries and there is continuous communication in both directions between them.

Furniture companies contribute to the engineering of new machines (and to the planning of new layouts). Machine producers in turn cooperate in the creation of new furniture plants. A shadow on this otherwise rosy picture is cast by some furniture producers who claim that machine producers have passed the know-how given to them on to their foreign clients, thereby creating indirect competitors for the Italian producers concerned.

Government and other support for the development of the industry

The Italian Government actively supports export-oriented companies. Assistance has been particularly active since 1998, when an ad hoc law supporting the Italian export trade was issued. Export credits are financed by the State organization Società Italiana per le Imprese all'Estero (SIMEST) and are insured by another State organization, Servizi Assicurativi del Commercio Estero (SACE).

The Italian chambers of commerce abroad carry out considerable promotional activities, as does ICE (Institute for Foreign Trade), which has offices all over the world. Italy also supports professional training for the young in the industrial and artisanal fields (for example through the IPSIA programme), as well as university students and professionals. The furniture sector spends about 0.15% of its turnover for educational purposes.

Production output

The industry's output was valued at \$17.6 billion in 2000. Upholstered furniture made up 18% of the total, followed by kitchen furniture (12%) and office furniture (8%).

Furniture type	Value: \$ million	% share
Office	1.327	7.5
Kitchen	2.047	12.0
Upholstery	3.237	18.0
Others	11.034	62.5
Total	17.645	100.0

Source: Istituto Nazionale di Statistica (ISTAT).

Main raw materials

Italy uses large quantities of chipboard for furniture making. MDF consumption is steadily growing. Only small amounts of edge-glued panels are utilized.

The findings of a survey of the 70 largest companies in 1998 are summarized below. The first set of figures relate to the shares of specific materials in the companies' overall usage of wood. The second set shows the percentage of companies using these wood products.

Wood product	Percentage share in total usage of wood materials, 70 companies
Sawn softwood	10
Sawn hardwood	21
Chipboard	52
MDF	10
Other panels	7

Source: Gardino Consulting.

Wood product	Percentage of 70 companies using the wood product
Softwood	72
American hardwood	47
European hardwood	57
Tropical hardwood	54
Plywood	23
Edge-glued panels	15
MDF	56
Chipboard	74
Veneer	52
Mouldings	18

Source: Gardino Consulting.

It is worth noting the large use of tropical hardwood in the sample. It is also of interest that all companies utilize many different wood products and that chipboard and softwood are the most commonly used.

Favoured wood species and finishing techniques

As in other European countries, the Italian furniture industry continues to have an overall preference for light-coloured species. However, the industry does not go for the extremely light colours much liked in Germany and in Scandinavia. Buyers prefer cherry and beech, and there is some demand for oak. However, the typical furniture in cherry, which had dominated the market for some years, was at the time of writing of this study showing signs of weakness. More and more buyers appear to be going for wood in darker tones; walnut seems to be the leader in this regard. Wood is not much used in furniture with modern designs. Fashion requires lacquered surfaces and the use of steel, aluminium and glass.

Composite panels and components play a prominent role in Italian furniture making. There is a high demand for wood panels combined with PVC, steel and glass; the same applies to furniture components. Substantial use is made of honeycomb panels for the production of large but lightweight furniture doors.

As regards reconstituted wood materials, demand for MDF is growing, while chipboard consumption is stable. Although only small quantities of plywood are employed, usage of birch plywood is rising slightly. Italy consumes small quantities of edge-glued panels, mainly of softwood, for use principally as high-quality carcasses in the furniture exported to Germany. Consumption of hardwood edge-glued panels is limited to a few cabinet doors and kitchen tops; demand, however, is growing.

Not much use is made of tropical wood species. Only a few species are employed for appearance purposes, mainly teak and some mahogany. Other species are utilized as support for overlaid mouldings (ayous, fraké) or for stained mouldings (ramin, ayous). There is a small consumption of tropical plywood

(mainly fromager). There is also a small but growing demand for durable Asian and South American species for garden furniture. Acajou has a niche market for boat furniture.

As mentioned, lacquered surfaces are preferred at the moment. When wood is visible, fashion favours very smooth surfaces. What is required therefore are wood species with closed pores (like maple), rather than those with open pores (like ash). Water varnishing and other environment-friendly finishings are often specified if this does not influence final costs.

A survey of 45 companies in the office, home, kitchen furniture sectors ascertained that the most popular materials for visible parts of the furniture exhibited were as follows: veneered surfaces 22%; melamine paper surfaces 23%; solid wood 9%; lacquered surfaces 22%; metal 17%; and glass 5%.

The main colours were white 18%; brown 14%; ivory 9%; blue 7%; cream 7%; and sand 7%. The main wood species (including paper imitating wood) were oak 22%, walnut 20%; cherry 14%; wenge 12%; beech 8%; and maple 6%.

The sample represented the high end of the industry. Italy uses little softwood for furniture making and rustic pine is no longer in fashion.

Quality standards, certification and labelling requirements, environmental management systems

By the end of 1999, 34 Italian firms had obtained certification to the EU's Environmental Management and Audit Scheme (EMAS) and 403 had been certified to ISO 14000.

Italy is a country with limited sensitivity to environmental problems. Therefore, few companies use the environment as a sales tool. There is a European project for a furniture eco-label that is creating resistance among Italian furniture manufacturers. However, some companies that are strongly export-oriented to more environmentally-sensitive markets are starting to have all or part of their production certified to environmental standards and to obtain chain-of-custody certification. By mid-2001, only about 11,000 hectares of Italian forests had been certified, all under the FSC system. The national PEFC system is under development. ('PEFC' stands for Pan European Forest Certification.)

Furniture style and design trends

One of the main reasons for the success of Italian furniture industries is design know-how coupled with a reasonable price/quality ratio. The main furniture design centre is Milan, where most of the large design offices are located.

During the April Milan furniture show, there are several design competitions. All the main designers participate in these competitions. Competitions for young designers are also held.

The success of Italy's furniture industry is, among other factors, driven by its capacity to translate products from the designer's table to the factory, as well as the other way round. The leading furniture producers, those who dictate the fashion in Italy and often in the world, decide the new product lines in teams, which usually include a designer, the production manager, the purchasing manager, the sales manager and the company's owner. The designer prepares some drawings; then, after discussion, samples are manufactured and shown at furniture shows. Here the sales manager collects the response of the market, and production with adjustments follows.

There are many technical schools for furniture workers in Italy, but the sector claims that these schools are not sufficient.

Style trends

With 40% of total sales, traditional furniture still holds a large share of the market. However, this style has been facing a crisis in recent years. Traditional furniture dominates the market in southern Italy, but it is gradually losing market share to modern styles in northern Italy.

Modern styles can be more, or less, extreme. Sales of trendy lines are slower than sales of furniture in more moderate designs. In 2000, the distribution of Italian furniture production by style was as follows:

Style	Percentage of total
Modern	55
Traditional	20
Design	15
Classic	10

Source: CSIL Furniture Industry Research Institute, Milan.

Other traditional styles such as rustic furniture or art furniture have a small share of the market, and demand is weak. Some companies try to sell 'eco-furniture', often without explaining well what 'eco' means, but market reactions are quite negative.

A recent survey found out that in their homes Italian consumers prefer the kitchen to other rooms. In kitchen furniture, consumers expect more technological and intelligent solutions.

Current trends in Italy favour ergonomic and ethnic furniture. Another trend links furniture with the other decorative elements of the home: lighting, accessories. Some companies have produced furniture prototypes made of recycled materials in order to meet whatever demand there is for environment-friendly goods.

There has been an increase in sales of home-office furniture. Some producers are now selling items that can hold the computer as well as the scanner, printer and other accessories. In this sector, the straight lines of the past are giving way to curved and more ergonomic lines.

Foreign trade and apparent consumption

Overview

The domestic market for furniture of all materials has been estimated at \$10 billion.

Type of furniture	Consumption: \$ million	% share in total
Office	860	8.5
Kitchen	1 750	17.2
Upholstery	1 145	11.3
Others	6 408	63.1
Total	10 163	100.0

Source: Istituto Nazionale di Statistica (ISTAT).

The trade figures extracted from COMTRADE show that exports of wooden furniture stayed above the \$6 billion level between 1997 and 2001, with a

minor slump in 1999–2000. In 2001, imports remained 2% lower than in 1997. Although imports were small throughout the period, they rose by 52% between 1997 and 2001.

Wooden seats feature prominently in Italy's exports, mainly thanks to its famous 'chair triangle' from Udine and Gorizia. One third of all exports consisted of wooden seats. 'Other' furniture – comprising living and dining room furniture and mixed items (occasional and accent furniture) – is another major export category.

Product group	1997		1998	1999	2000	2001		
	% of V	V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	3	8.3	9.4	10.2	10.3	10.4	2	126
Seats n.e.s. with wooden frames	14	45.1	53.0	65.9	69.1	65.7	13	146
Wooden office furniture	4	12.2	15.7	19.8	19.7	20.3	4	167
Wooden kitchen furniture	6	18.0	20.9	25.9	23.2	19.9	4	110
Wooden bedroom furniture	7	22.9	26.2	32.9	31.5	29.4	6	128
Other wooden furniture	36	116.4	130.7	168.6	180.5	195.3	40	168
Furniture of other materials, including bamboo	4	13.0	15.8	17.3	17.8	19.0	4	147
Furniture parts of all materials	27	85.8	100.5	118.4	122.0	128.7	26	150
Total	100	321.7	372.2	458.9	474.1	488.7	100	152

Source: ITC/UNSD COMTRADE database.

Product group	1997		1998	1999	2000	2001		
	% of V	V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	0	30.2	29.5	30.8	33.8	34.7	1	115
Seats n.e.s. with wooden frames	32	2 098.3	2 053.2	2 068.0	2 088.6	2 125.1	33	101
Wooden office furniture	5	301.9	290.3	254.7	255.5	273.8	4	91
Wooden kitchen furniture	5	322.3	332.1	317.7	334.2	376.7	6	117
Wooden bedroom furniture	8	544.0	518.9	454.4	437.1	437.8	7	80
Other wooden furniture	31	1 993.1	1 980.5	1 872.5	1 807.3	1 812.7	29	91
Furniture of other materials, including bamboo	5	333.2	307.0	285.9	315.2	347.0	5	104
Furniture parts of all materials	13	869.9	904.2	885.2	914.6	946.1	15	109
Total	100	6 493.0	6 415.7	6 169.2	6 186.3	6 354.0	100	98

Source: ITC/UNSD COMTRADE database.

Imports from developing market economies and China

Italy imported 34% of its wooden furniture from developing countries and China in 2000. By comparison, the 1996 figure was 22%. Indonesia ranked high (third) in the 'other' wooden furniture category and in wooden seats (second), with one-tenth of both markets. Particularly in furniture parts, developing countries rank far behind suppliers from central and eastern Europe, which serves as the main sourcing region for Italy's chair and other wooden furniture producers.

Product group	Imports (\$ million)	Major developing country suppliers	% share	Rank
Other wooden furniture	195.3	Indonesia	10.2	3
		China	5.6	7
		India	4.7	9
Furniture parts	128.7	China	1.6	13
		Malaysia	0.3	27
Seats n.e.s. with wooden frames	65.7	Indonesia	10.0	2
		China	6.4	7
		Viet Nam	4.0	11

Market segmentation and regional demand

Income levels vary extensively between the Italian regions. Lombardia is by far the richest and most populated region, followed by Lazio, Veneto, Emilia and Piemonte. These are the regions where furniture consumption is concentrated.

Distribution

Overview

Traditional distribution systems continue to dominate, and only small changes have taken place in patterns of distribution in recent years.

Type of outlet	1997	1999
Traditional outlets	46	44
Upper-end outlets	15	16
Groups	15	16
Craftsmen	14	12
Large-scale organized distributors (retail chains or multiples)	8	10
Direct sales	2	2
Total	100	100

Source: GDO.

The average number of employees per sales outlet in 1999 was 7.5, 4.9% higher than in 1996 and indicating a growing concentration of distribution. Large-scale distribution through multiples or retail chains has not yet really taken hold in the country. However, modern distribution concepts are taking root. The main sales organizations are:

- ❑ Large furniture sales organization, non-specialized: IKEA, Mercatone Uno, Semeraro;
- ❑ Large furniture sales organizations, specialized: Divani & Divani, Chateau d'Ax, Ricci Casa.

In 2000, the various types of distributors had the following shares in domestic trade:

Type of distributor	Percentage share in domestic sales
Specialists	84
of which:	
Independent retailers	76
Buying groups	
Large-scale specialist distributors	7
Other specialist channels	1
Non-specialists	16
of which:	
Department stores	n.a.
DIY stores	2
Direct sales	14
Total	100

Source: CSIL Furniture Industry Research Institute, Milan.

Federmobili, an association consisting of about 5,000 furniture stores, provides information on the number of distributing companies, the number of stores, average sales surfaces, and average number of employees in the country.

Type of distribution outlet	No. of companies	No. of stores	Average sales surface (m ²)	Average number of employees
Traditional stores				
Small	11 755	11 755	243	2.0
Medium	3 167	3 167	1 081	4.8
Large	423	423	3 044	12.1
Store chains				
Small	1 052	3 156	746	4.4
Large	396	1 783	2 546	10.7
Franchised shops	350	350	430	3.4
Office furniture shops	149	149	272	3.7
Others	1 328	1 328	136	1.9
Total	18 620	22 111	523	3.0

Source: Federmobili.

Indicative price levels

Examples of prevailing price levels are given below:

- ❑ Chairs in solid walnut, about €180.00;
- ❑ Solid wood table, traditional style, 160 x 80 x 76 cm: €452.00;
- ❑ Wardrobe, solid wood and glass (doors), with veneered sides, walnut colour 300 x 60 x 245 cm: €2,141.00.

Transport, packaging, after-sales service

With the exception of cheap furniture, furniture is generally sold through catalogues and is often tailor made. This is especially true of kitchen cabinetry.

Furniture is delivered through a specialized network of trucks. Containers are used for transport to overseas destinations, and furniture is often knocked down in order to save on transport costs.

After-sales service is considered important by Italian consumers. It is said that independent stores provide more after-sales assistance than large department stores. All furniture manufacturers are conscious of the fact that exporters from countries with lower costs are competing aggressively in many markets, including Italy. It is for this reason that the Italians are investing heavily in after-sales services.

About 94% of buyers of kitchen furniture demand professional assembly. Only 6% buy RTA furniture for their kitchens.

Advertising and promotion

Producers promote non-branded furniture mainly by participating in trade shows. Advertising in trade magazines (there are about 100 of these) addressed to professionals is also an important tool.

Branded furniture is promoted quite differently. Most advertising is carried out through specialized magazines, both for consumers (100 magazines) and for professionals (another 100). In the last few years branded companies have increasingly used daily newspapers and their weekly supplements. Television is sparingly used, and any advertising through this medium is confined to local networks.

Purchases made during the first visit to a shop make up about 30% of all purchases, and the percentage increases in specialized shops. Most buyers lack information, and depend heavily on suggestions from sales personnel. Except for kitchen cabinets and upholstered furniture, brands are not too important to the Italian customer. Choices are influenced by new requirements, such as the need to place dishwashers in kitchens and personal computers in living rooms.

Promotion has an incidence of about 3.9% on annual sales (1999). This percentage is higher for bigger companies and lower for smaller companies. CSIL estimates the shares of the different promotional channels in 2000 as follows: trade shows 45%, media advertising 29%, sponsorships 4%, sales store advertising 10%, and other 12%.

E-commerce and Internet-based marketing

The Internet is a growing tool for furniture advertising, but for the time being it takes only a small percentage of advertising budgets. The advertising message is mostly directed to young couples (25–50 years of age), although older couples are growing in importance as a target for sales.

E-commerce (B2C) contributes less than 1% to total sales. There is widespread pessimism about the future of this avenue for sales owing to the particular relationship between furniture sellers and buyers. There are some exceptions to this general pessimism as far as very low-priced items are concerned; also exempted are tables, chairs and furniture with a strong brand image (such as the plastic furniture of Kartel).

Some companies mentioned as a strong deterrent the logistic problems created by Internet sales: it is almost impossible to deliver personalized furniture within the required one or two days. This type of furniture has the major share of the market. Kitchen cabinets must respect safety norms and are always tailor-made (sizes, accessories); it is impossible to deliver personalized kitchen cabinets within the periods imposed by Internet sales.

By contrast, there is a bigger market for, and hence more optimism about the development of, B2B sales. At the moment, most furniture producers use Internet web pages only to publish their catalogues. However, a growing number of companies are using the Internet to maintain contact with sales outlets, which can order personalized furniture online. The website of Federmobili (www.webmobili.it) showcases the furniture carried by about 120 stores (10,000 items).

A recent survey of Italian Internet users looking into furniture sites found that:

- ❑ The number of consumers who use the Internet to obtain information before an expensive purchase was roughly three times higher than a year earlier.
- ❑ The typical Internet user was a young professional (less than 34 years old) living in a large city.
- ❑ About 850,000 people had used the Internet to select a group of outlets and to check addresses before going to the shops themselves to make purchases.
- ❑ Web surfers tended to prefer some types of furniture, in particular small items and day furniture.

Even though generalizations should not be drawn from the conclusions of a study carried out among families purchasing household furniture in Italy, the following observations are important:

- ❑ Around 2% of all the families buying household furniture worth €500 or more during the 12 months preceding the study used the Internet to gather information before visiting sales outlets.
- ❑ Around 38% of families buying furniture had an Internet connection.
- ❑ The process of buying a furniture item was long and complex, involving on average three visits to sales outlets, a review of magazines, and the participation of at least another member of the family close to the actual purchaser of the furniture.

'Exporting' an Italian furniture cluster to Brazil: a case study

A recent agreement between an Italian regional association (Federlegno Triveneto) and a community in Brazil aimed at creating an industrial district in Brazil similar to the districts in north-eastern Italy.

The Italian association needed to find a production base that could operate at lower costs and which was located near possible markets with high growth potential. It found in Brazil the following positive conditions to justify bilateral cooperation: good availability of raw material; reasonably skilled labour force; committed local authorities; large and growing potential domestic market; and short distance to other large potential markets.

Brazil was assessed together with many other countries, including China, Indonesia, Thailand, Venezuela and Mexico. Brazil complied best with all the selection criteria; the other countries did not have some of the prerequisites.

The Italian association identified the best possible location in Brazil. They selected the city of Uberlandia, in the State of Minas Gerais. The city had 600,000 inhabitants and had good logistic facilities. An additional positive factor was that about 50% of the local population was of Italian origin. This was deemed important because small Italian industry owners and the workers they would send to start production abroad did not readily speak foreign languages.

A district-level industrial plan was prepared according to various economic, financial, and production parameters. Several possible development scenarios

were analysed. Once a possible location was identified, the association and individual companies started negotiations with local authorities and industries. This stage was supported by European Union assistance during 2000–2001.

At the end of this process, 16 Italian companies, mainly from the north-east, decided to participate in the project. In the meantime, a Brazilian industry group had been established. In mid-2002, a joint venture involving the Brazilian and Italian groups was set up to manage the first investments. The city of Uberlandia made available 100 hectares of land for the development scheme.

At the time of the study, the participating companies were beginning to create a network of companies similar to the Italian network. The network would cover the entire supply chain from the manufacture of raw materials to the commercialization of finished products. Infrastructural and industrial development was also under way at the site.

Denmark

Basic demand factors and market drivers

Economic restraints in 1998 affected consumer spending and discouraged spending by households through out 2000/01. With inflation steady within the 2%–3% range, real wages increased to stabilize the economy in 2001 for a possible slow growth during 2002 and onwards. Unemployment is relatively low at 5.4%. The Danish tax burden is high (close to 50% of GDP) to ensure the availability of various public services in the health and education sectors and care for children and the elderly. The public sector employs 29% of the workforce, making it difficult to raise real wages and thus incomes for consumer spending. Two-thirds of Danish trade is with other EU countries, and this trade has suffered recently. However, as the Danish currency is closely linked to the euro it has depreciated vis-à-vis other currencies, resulting in a strong increase in exports to non-euro countries.

The domestic furniture industry

Even though Denmark is a country of three main islands, the transport infrastructure is good and rail/road access to Europe has contributed to the successful manufacturing and marketing of consumer goods. Furniture is one of the country's thriving exports; strong furniture clusters work as synergetic export powerhouses.

The Danish furniture industry consists of 500 companies, which had a combined output of \$2.37 billion in 2001. Its workforce of 18,595 is backed by a combination of advanced technology and technical competence. Productivity is high at \$124,700 per employee. Nearly 80% of production is exported (\$1.89 billion), with Germany as the main market. Furniture is the fifth largest export item, making up 5% of all industrial exports in 2001 (but this had declined slightly from 5.5% in 1997). Imports amounted to \$0.7 billion, suggesting an apparent consumption of \$1.18 billion in 2001.

Production

The shares of various furniture categories in production changed over the five years to 2001. The output of seating and dining room furniture both declined

by 20% each, with office (up 31%) and kitchen furniture (up 9%) taking up the slack along with furniture parts (up 11%) and other products (consisting mainly of occasional items, up by 18%).

Table 4.18 Denmark: production of furniture, by type and by value, 1996–2001

Value (V): \$ billion

Product type	1996		1997	1998	1999	2000	2001		
	V	% of V	V	V	V	V	V	% of V	Index: 1996=100
Seating	0.47	19	0.39	0.40	0.37	0.35	0.34	16	73
Office	0.22	9	0.23	0.26	0.26	0.25	0.26	12	118
Kitchen	0.24	10	0.24	0.26	0.25	0.22	0.23	11	99
Bedroom	0.36	15	0.31	0.33	0.33	0.33	0.34	16	94
Dining room	0.76	31	0.71	0.76	0.71	0.64	0.55	26	72
Other	0.20	8	0.20	0.23	0.22	0.21	0.22	10	107
Parts	0.20	8	0.19	0.21	0.20	0.22	0.20	9	99
Total	2.45	100	2.27	2.44	2.35	2.22	2.13	100	87
Change (%)			-7.30	7.37	-3.71	-5.36	-3.91		

Total production in terms of the Danish krone increased by 29% between 1996 and 2001, but growth adjusted for inflation reached only 15%. The government squeeze on consumption strongly influenced this development.

By contrast, the converted dollar figures in table 4.18 show a decline of 13% over the period reviewed, with large losses in the seating and dining room categories of 27% each. Even if the depreciation of the Danish krone vis-à-vis the dollar (43%) is taken into account, the slowing down in total production and in production in these two sectors is clear. This was possibly due to changes in some export markets, especially Germany with its currently difficult consumer climate.

Structure and location of the industry

As has been said above, there are around 500 furniture companies in Denmark which collectively employ a workforce of about 19,000. If small firms are accounted for, the numbers would be 1,300 units and 26,000 workers.

The main production base is Aarhus in Jutland, which is supported by a furniture centre. Salling in Western Jutland is perhaps one of the best-known Danish furniture clusters. It is essentially composed of small and medium-sized wooden furniture makers, which collaborate through a manufacturers' association, a local business council and a technical school. IKEA, across the border in Sweden, has been an important client for the region. The cluster has showed its resilience over time, and it created an unprecedented number of new jobs in the 1980s and 1990s, i.e. before the automatization of the industry. New start-ups have been quick to expand Salling's capacity in times when older companies have been closed.

The use of robots and CAD/CAM systems has since become more usual in the Danish furniture industry as a means of improving competitive advantages. Capital injection into machinery and computers is also a common phenomenon.

Major players

The leading 10 manufacturers have a combined turnover of \$1.07 billion, and the Danish furniture industry as a whole has become known as the most export-oriented in Western Europe. Several mergers and acquisitions have taken place in recent years, which has increased the average size of the Danish furniture companies. Among the industry leaders is Skandinavisk, Europe's largest producer of office furniture. Another is Tvilum Scanbirk, which has established itself as the leading RTA manufacturer. Like many of their domestic rivals, the two groups have emerged through the consolidation of the industry. Skandinavisk's production facilities are operated by affiliated companies in several other European countries.

Company	Turnover (\$ million)	Type of furniture produced
Tvilum Scanbirk	260.1	Office
Skandinavisk	174.6	Office
Bodilsen	128.0	RTA home and office
Licentia	125.4	RTA
HTH	108.0	Kitchen, bathroom
Club 8	85.1	RTA home and office
Fövling	58.2	RTA
A. Ostergaard	51.7	Home and office
SIS International	41.0	Office
Flexa	36.0	Children's furniture

Quality standards, certification and labelling requirements, environmental management systems

Items at the retail level need to carry labelling or marking information on country of origin, type of product, materials used, and type of finishing. Marking denoting compliance with an EN standard, such as a CE mark, is obligatory for selected items such as children's furniture and some types of contract seating. Denmark aims to replace and harmonize its national laws with EU requirements. The responsibility for complying with such requirements falls on the importer, although it is often easier for items and their outer packing to be fully labelled with the correct detail prior to loading and shipping. Most store groups are fully aware of this and ensure that all entry requirements are covered as part of the order-and-supply process.

Foreign trade and apparent consumption

Danish pine bedroom and dining room furniture, which once had a strong presence across Europe, is finding it harder to compete with furniture from eastern Europe in the euro area. However, it is still succeeding in the United Kingdom. In terms of United States dollars, exports were static in the two years to 2001 and were 7% lower in that year than in 1997. Imports were 31% higher in 2001, but had remained flat for three years. Dining room items (included in the 'other' category) accounted for an estimated one quarter of exports and bedroom furniture for a fifth; seating and office furniture made up 11% and 9% respectively of all exports in 2001.

The trade balance is heavily positive, with a surplus of \$1.05 billion in 2001. It had slightly narrowed from \$1.27 billion in 1997 because of stagnating exports and increasing imports.

Table 4.20 Denmark: imports of wooden furniture, by product group and by value, 1997–2001

Value (V): \$ million

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	11.8	3	12.4	8.9	6.0	5.9	1	50
Seats n.e.s. with wooden frames	93.3	27	111.5	109.1	107.6	117.3	26	126
Wooden office furniture	16.4	5	28.3	40.2	34.0	33.6	7	205
Wooden kitchen furniture	7.9	2	11.0	13.4	11.7	9.7	2	123
Wooden bedroom furniture	20.3	6	36.9	36.5	35.9	36.6	8	180
Other wooden furniture	112.0	33	147.2	137.7	125.0	125.0	28	112
Furniture of other materials, including bamboo	6.6	2	8.5	7.8	6.4	5.1	1	77
Furniture parts of all materials	74.8	22	91.1	117.1	111.3	117.9	26	158
TOTAL	343.2	100	446.9	470.6	437.9	451.1	100	131

Source: ITC/UNSD COMTRADE database.

Table 4.21 Denmark: exports of wooden furniture, by product group and by value, 1997–2001

Value (V): \$ million

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	8.3	1	8.9	7.4	3.0	2.9	0	35
Seats n.e.s. with wooden frames	145.3	9	149.9	140.7	140.3	166.7	11	115
Wooden office furniture	109.8	7	136.6	139.0	146.9	137.4	9	125
Wooden kitchen furniture	60.1	4	66.9	83.8	82.3	87.5	6	146
Wooden bedroom furniture	387.5	24	428.9	411.3	399.3	404.3	27	104
Other wooden furniture	776.9	48	776.7	686.4	631.6	603.2	40	78
Furniture of other materials, including bamboo	5.6	0	5.6	5.5	2.8	3.9	0	70
Furniture parts of all materials	119.9	7	108.5	105.8	89.1	97.4	6	81
TOTAL	1 613.4	100	1 682.0	1 580.0	1 495.2	1 503.3	100	93

Source: ITC/UNSD COMTRADE database.

‘Other’ furniture (living/dining room and small/occasional furniture) had a 28% share in imports of all furniture in 2001. Seating and furniture parts each had a share of 26%; the imported parts are used in the production of pine and beech furniture. Imports from developing countries supply the home market with such items as dining room sets and outdoor garden furniture. Teak furniture accounts for about 85% of the visible items in the outdoor garden sector; the rest consists of pine and painted furniture.

A transit trade is also carried out by wholesalers for onward shipment mainly to retailers in other European countries. For instance, the wholesaler Solo (www.solofurniture.dk), based in Vejle, engages in the containerized trading of goods obtained from Indonesia.

Apparent consumption in the Danish home market amounted to Dkr 9.8 billion (\$1.18 billion) in 2001. Changes in overall consumption and in the shares taken by each product group are important for marketing strategies. There was a strong home market for seating and for office, kitchen and dining room furniture in 2001. Bedroom furniture, however, showed negative growth.

All of Denmark's trade with other EU members is tariff-free; trade with non-EU members is subject to the EU external trade policy. A 25% value-added tax (VAT) is applied on goods, whether imported or locally produced. The clearance of goods through customs and payment of duties (including VAT) on entry in Denmark and other EU countries are the responsibility of the importer or freight forwarder. An original commercial invoice from the exporter/factory is always required for the clearance of the goods through customs.

Imports from developing market economies and China

Around 23% of Denmark's imports of wooden furniture originated from developing countries and China in 2000, down one percentage point from its level in 1996. In 2000, it was obvious that Viet Nam had found a market in Denmark, having become the second largest developing country supplier (after Indonesia) in two key product groups. In 'other' wooden furniture, Indonesia ranked second largest supplier (12.7% of all imports) and Viet Nam fourth (6%). In wooden seats, their market shares were roughly a half smaller and their ranks fell to sixth and seventh respectively. In furniture parts, a product category of growing importance to Denmark as a big re-exporter, Indonesia ranked sixth but had only 3% of the total market. Denmark's neighbouring countries captured much of that trade.

Product group	Imports (\$ million)	Major developing country suppliers	% share	Rank
Other wooden furniture	125.0	Indonesia	12.7	2
		Viet Nam	6.0	4
		China	3.9	9
Furniture parts	117.9	Indonesia	3.3	6
		China	1.4	14
		Thailand	0.5	21
Seats n.e.s. with wooden frames	117.3	Indonesia	6.8	6
		Viet Nam	3.1	7
		Thailand	1.8	11

Styles and design trends

Raw materials

The widespread use of sheet board with painted, veneer and laminated surfaces, as well as glass and Perspex fronts, is typical. Production for export tends to be in solid pine, beech and oak solid, often as RTA boxed sets which do not find ready markets in Danish homes.

Consumer preferences

According to a survey of trends conducted by the Danish furniture industry association in 2001/02, simplicity was the key trend for lifestyle products linked to a perceived need for relaxation. The then current preference for the 'feel' of the 1950s and 1960s, with its nostalgic evocation of hazy days in the

Mediterranean and of past pleasures, was reflected in bright colours on small items and the use of sandy urban neutral shades as background to offset the steel/silver effects found on many kitchen surfaces. ‘Blond’ birch, beech and light oaks were the preferred woods for furniture, with little recognition given to the darker woods and finishes so popular in the market of 30 years earlier.

In 2002, consumer expenditure was rising and the furniture market was firming up as a result. Retailers were using promotional plans to gain customers and were seeking ways of making their ‘home concepts’ desirable. Many retailers were using designers to present room sets in clean lines and coordinated colours.

There is an emphasis on outdoor living for three months of the year, offering good prospects for garden furniture as design preferences change. With 80% of production aimed at the export trade, an idea of trends in Denmark can be gleaned from international magazines and from advertising. Manufacturers for the domestic market tend to be insular; in addition to working with retailers, they have their own factory outlets for consumers. Buying groups and discount retailers are open to supplies of quality products which are well-designed and attractively priced and which can be competitively sourced to meet the needs of the fairly small home market.

Distribution patterns

Retail market

The retail market was valued at DKr 18.4 billion (\$2.21 billion) in 2001 (including VAT at 25%), with the top 10 stores taking 62% of sales. Of these, IKEA was by far the largest branded chain with 4 stores, 7% of the market and an average of DKr 321 million (\$38 million) in sales per store, although some of the stores were small ‘city’ outlets. In the Danish market IKEA was classified as a discount store, as was Ilva, an out-of-town furniture centre offering a wide range of local and imported items. Buying groups offered the largest coverage with 115 stores and 13% of the retail market.

The breakdown of the Danish retail sector is not too transparent. A number of buying groups are involved with chain stores and department stores. DIY centres also sell furniture. Nevertheless, the market can be said to be divided as follows: buying groups 13.2%; chain stores 2.6%; discount stores 14.5%; department stores 3.0%; DIY centres 28.8%; kitchen/bedroom specialists 18.7%. Together, these outlets have a total of 80.8% of the market.

Some information on the turnover of retail stores is provided in table 4.23; contact addresses are also provided. There are seven main chains or buying groups for kitchen, bath and fitted bedroom furniture. A number of these are franchised and able to stock competing brands; others are factory-owned studios that deal direct with the public and offer design, planning and fitting services.

In Copenhagen the street Gammel Kongevej is well known for its furniture outlets, such as the large *Ide Mobler*³ chain store, the upmarket designer store *Bo-Concept* (with Club 8), and *Living Room* which sells furniture in the middle price ranges. Also present are a wide range of franchised kitchen showrooms offering Danish (Multiform, Invita, Svane) and imported kitchens and seating, some of them branded. Studios offering branded European kitchens, such as Boffi, Poliform, Alno and Siematic, are also located at the site.

3 The italics in this paragraph and the one following it denote a retailer with an annual catalogue carrying clear price information.

Table 4.23 Denmark: leading furniture retailers, 2001			
Retailer	No. of outlets	Turnover (\$ million)	Contact information
Buying groups for regular furniture			
Ide Mobler	42	169.8	www.ide.dk
Dan-Bo Mobler	34	88.2	www.danbomobler.dk
Mobelkaeden	35	31.2	www.moebelkaeden.dk
Edel's Design Mobler	4	4.0	
<i>Sub-total</i>	<i>115</i>	<i>293.2</i>	
Chain stores			
Leo Jacobsen	3		www.ide.dk
M. Aleandersen	3		
Smag & Behag	34	56.5	www.smagogbehag.dk
<i>Subtotal</i>	<i>34</i>	<i>56.5</i>	
Discount stores			
IKEA	4	151.1	www.IKEA.dk
Ilva	3	92.7	www.ilva.dk
Biva Mobler	31	23.1	www.biva.dk
Hansen Mobler	6	21.0	www.hansen-mobler.dk
Trip Trap Traestudie	8	8.2	www.triptrap.dk
Trae Design	11	8.4	
Drømmeland	7	7.4	www.drommeland.dk
Dux Industrier	5	4.8	www.duxiana.dk
<i>Subtotal</i>	<i>73</i>	<i>320.1</i>	
Department stores			
Ide Mobler	n.a.	n.a.	www.ide.dk
Illums Bolighus	n.a.	n.a.	www.royalshopping.dk
Meak Mobeleentre	n.a.	n.a.	
Daells Bolighus	n.a.	n.a.	www.daells-bolighus.dk
DIY stores			
Bauhaus Danmark	9	126.2	www.bauhaus.dk
Harald Nyborg	14	100.3	www.harald-nyborg.dk
Jem&Fix	41	89.7	www.jemogfix.dk
Silvan Kaeden	38	276.3	www.damsketraelast.dk
10-4 Byggecenter	7	1.6	www.10-4.dk
<i>Subtotal</i>	<i>100</i>	<i>638.5</i>	
Kitchen/bathroom/fitted bedroom studios			
HTH	41	186.2	www.hth.dk
Kvik	41	65.5	www.kvik.dk
Svane	25	51.7	www.svane.dk
Invita	38	4.8	www.invita.dk
Biga	36	26.4	www.biga.dk
Vordingborg	16	19.8	www.vordingborg.dk
Skab Selv	25	15.6	www.skabselv.dk
<i>Subtotal</i>	<i>222</i>	<i>413.3</i>	

The Bella Center has a permanent display of Danish furniture and is the venue for the annual Copenhagen International Furniture Fair. *Ilva Ishoj*, a major competitor of IKEA, has two stores at Industrial Zone 10, close to the airport, and one each on the islands of Aarhus and Lyngby. Its catalogue features a full range of furniture items and offers delivery and easy credit arrangements with the retailer's own in-store credit card. Arranged in room settings, but with a special area for fitted bedrooms and kitchens, one of Ilva's stores has 16,000 m² of floor space and is suited for day-long browsing and comparison with an *IKEA* store close-by. Brands include *Club* and *Beds4kids*.

Indicative price levels

When this study was being prepared, a large garden centre at Roskilde (www.plante.dk) was advertising end-of-season sales for a wide range of designer wooden garden seats and tables from \$360 down to \$234 for a set including a bench, two seats and a two-metre hardwood table; \$78 for a bench; \$312 for a curved three-seater teak bench; \$140 for a teak octagonal table; and \$54 to \$62 for various teak chairs.

Weekly information on public purchases of furniture items valued at over Dkr 200,000 is issued by Statens og Kommunerne (www.ski.dk) as part of a government service. Such furniture is purchased on contract for the use of the Government or local communes. In most cases, the types, sizes, standards and materials of the furniture items will have been specified by an architect as projects undertaken by the State or by the business sector are always architect driven, whether new or for refurbishment. In some instances where the DS/EN standard in use is insufficient or some deviation from the norm is required, the Ministry of Labour may issue an 'A' certificate and require the application of a Danish standard (www.ds.dk).

For private houses and apartments, an architect or designer is often hired, mainly from a design studio with links to factory sources. The major stores of Ilva and Bo-Concept and most of the kitchen studios offer these services for all types of furniture and fittings. A 25% VAT is charged on design services, but discounts are offered to provide the customer with a reasonable 'all-in' price for design and product.

Advertising and promotion

Advertising expenditure during 2000 reached \$25 million. The largest share (35%) went to newspapers, usually on Sundays and in monthly colour furniture supplements. Television, favoured by producers of branded kitchens, accounted for 25% of advertising expenditure. Radio advertising is also an important means of reaching consumers.

Table 4.24 Denmark: expenditure on furniture advertising, by sector and by medium, 2000
Value (V): DKK million

Sector	Advertising expenditure		Main media (% of advertising by sector)				
	V	% of V	Newspaper	Radio	Magazines	TV	Leaflet
Manufacturers	16.8	8	13	3	76	2	n.a.
Kitchen brands	74.3	36	22	7	15	39	7
Retailers	114.1	56	35	24	7	15	14
Total	205.2	100	35	18	11	25	12

Source: Gallup Adfacts.

Retailers were responsible for 55% of all expenditure on furniture advertising. The largest share of this expenditure (35%) went to the newspapers; radio advertising consumed 24%.

The largest advertisers among 22 retailers were Ide Mobler (\$3.2 million), Ilva (\$1.21 million) and Jysk (\$0.76 million). Other retailers spending below \$125,000 accounted for 27% of the total advertising expenditure. The biggest

advertisers among the retailers of kitchens were HTH (\$2.5 million) and Kvik (\$2.3 million). Producers of beds and mattresses spent \$0.26 million on advertising.

Denmark has 'Furniture Sundays' in January to March, and October to December.

E-commerce and Internet-based marketing

The Association of Danish Furniture Industries (Center Boulevard 5, Bella Center, DK-2300 Copenhagen, www.danishfurniture.dk) plays a central role in promoting the Danish furniture industry. It ensures that there is worldwide awareness of the industry and it prepares a wide range of detailed information in various forms for prospective customers. A manufacturers' index allows direct contact with 200 online manufacturers and exporters with home pages or info-sites. Twelve different product categories are available. Association members account for 90% of all Danish production. They comprise 320 companies, designers and sales companies. These are well known throughout the world and the Association provides an access point for their skills and services.

Sweden

Basic demand factors and market drivers

Economic growth in the early 2000s was strong, allowing Sweden to reach a GDP per capita of \$25,800 and a ranking of eighth among OECD countries. GDP at current prices had increased by 35% from its 1995 level; consumer expenditure was up by 22%. The fall in food costs allowed other items to take a stronger share of expenditure.

The September 2002 election saw the Government returned to power. It favoured a high personal tax policy, strong social services and increased investment, indicating that the economy was set for continued growth. A greater proportion of income was becoming available for spending as prices were being kept low and inflation under control. About 47% of the workforce was employed in 2000 against 45% in 1995 as a result of the creation of 130,000 jobs. The number of new dwellings had increased, but expenditure on refurbishments had declined in the previous years.

The domestic furniture industry

Little detail is known about the breakdown of the Swedish furniture industry sectors beyond the figures given below:

Industry sectors	Percentage share of market
IKEA	19
Office (home and office)	26 *
Traditional home	12
Beds	10.5
Interiors	10.5
Subcontract	10.5
Designer home	4.2
Designer public buildings	3.7
Traditional public buildings	3.7

Source: Swedish Furniture Industry Association (SMI).

* Inclusive of IKEA office furniture: 5.7%

Swedish furniture production was assessed at nearly SKr 18 billion in 1999 (\$2.2 billion). It rose to SKr 19.5 billion or by 8.3% in 2000 (however, owing to the exchange rate, the output in dollar terms was lower at \$2.12 billion). Only a small change was reported for 2001, according to the Statistical Office.

Structure and location of the industry

Tibro, with its 75 companies, is the country's furniture centre. The region boasts an IKEA factory (Swedwood for kitchen furniture) and is the base of LBC Sweden, a distributor of furniture to, from and within Europe. LBC has links to the United States market. It can be accessed through its website (www.lbcsweden.se) and by telephone (+46 504 40100), fax (+46 504 401 01) and e-mail (info@lbcsweden.se). IUC, the industry's research and resource base, is also located in Tibro (www.iuctibro.nu). It was founded in 2000 to promote the industry.

The Swedish Furniture Industry Association (SMI) in Stockholm comprises over 115 companies which account for 60% of the country's production output or SEK 11.7 billion. A fortnightly newspaper is published for members, along with press releases for the export business and statistics for the industry. Möbelfakta, the voluntary reference and quality system for home furniture, kitchen furnishing and contract furniture, forms part of the organization. It uses stringent testing and documentation against Swedish and European standards to approve manufactured products for the market.

Foreign trade and apparent consumption

According to COMTRADE data, Sweden had a trade surplus of \$270 million in wooden furniture in 2001. While imports were up 9% compared to 1997, exports were down 13% mainly due to large drops in exports of office and kitchen furniture and wooden seats. Imports of kitchen furniture grew fastest (by 31%) over the five-year period.

With exports of furniture of all materials at SKr 11.1 billion in 2000 (\$1.21 billion) and imports at SKr 8.0 billion (\$0.9 billion), the apparent home consumption was SKr 16.4 billion (\$1.8 billion). These figures are higher than those given in table 4.25, which cover only wooden furniture. Apparent consumption in SKr terms increased by 112% over the period as imports increased and exports decreased slightly.

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	2.8	1	3.1	3.1	2.8	3.4	1	121
Seats n.e.s. with wooden frames	116.9	27	133.7	143.0	152.0	138.1	29	118
Wooden office furniture	16.8	4	18.3	15.4	16.8	19.0	4	113
Wooden kitchen furniture	17.5	4	21.5	21.5	23.6	22.9	5	131
Wooden bedroom furniture	33.2	8	36.0	38.1	35.1	23.9	5	72
Other wooden furniture	164.9	37	173.8	201.9	188.4	176.8	37	107
Furniture of other materials, including bamboo	5.1	1	4.5	4.7	5.6	6.4	1	125
Furniture parts of all materials	83.5	19	93.3	104.0	98.3	90.5	19	108
Total	440.7	100	484.3	531.8	522.6	480.9	100	109

Source: ITC/UNSD COMTRADE database.

Product group	1997		1998	1999	2000	2001		Index: 1997=100
	V	% of V	V	V	V	V	% of V	
Seats of cane, osier, bamboo, etc.	0.6	0	0.5	0.5	0.6	0.8	0	136
Seats n.e.s. with wooden frames	107.3	13	112.5	100.7	99.4	86.6	12	81
Wooden office furniture	165.6	19	184.8	147.3	140.8	105.3	14	64
Wooden kitchen furniture	65.8	8	57.4	57.9	52.6	49.7	7	76
Wooden bedroom furniture	42.4	5	42.2	48.4	53.7	38.9	5	92
Other wooden furniture	273.1	32	300.8	299.7	297.6	272.4	36	100
Furniture of other materials, including bamboo	4.9	1	4.5	3.8	4.3	4.3	1	87
Furniture parts of all materials	198.1	23	215.4	239.3	234.5	192.1	26	97
Total	857.9	100	918.1	897.6	883.4	750.0	100	87

Source: ITC/UNSD COMTRADE database.

Much of this change in external trade was probably the result of decisions by IKEA in regard to the distribution and handling of furniture in Europe. Deliveries of containerized furniture from IKEA-owned manufacturing facilities in eastern Europe and of items sourced from client factories throughout the world now go direct to IKEA distribution centres across Europe rather than through the centralized facility in Almhult in southern Sweden. This external movement of furniture is not recorded in Swedish trade figures and thus the country's trade figures are more likely to cover the trade from Sweden itself (excluding in-transit deliveries). IKEA's worldwide retail sales were valued at nearly \$10 billion in 2000.

Notwithstanding the trade balance changes, apparent consumption at trade prices improved as the country's purchasing and spending power strengthened by 20% in the few years to 2000. At least part of this growth found its way into spending on furniture and floor coverings as their share in consumer expenditure increased from 4.4% to 4.8% in 2000. This rise of nearly 10% in furniture expenditure resulted in a growth in the turnover of the major retail furniture stores and selected buying groups and a change in their attitude to merchandising.

Imports from developing market economies and China

Around 16% of Sweden's imports of all wooden furniture came from developing market economies and China, up from 12% in 1996. China, Indonesia and Malaysia were the biggest suppliers among the DMEC group, but their market shares by product group were only between 1% and 4% (table 4.27). They ranked among the 10 most important sources of wooden seats. China was also among the leading suppliers of furniture parts and 'other' (living/dining room, small/occasional) wooden furniture.

Product group	Imports (\$ million)	Major developing country suppliers	% share	Rank
Other wooden furniture	176.8	China	3.7	10
		Indonesia	3.6	11
		Malaysia	1.7	15
Seats n.e.s. with wooden frames	138.1	Indonesia	4.1	7
		China	3.7	8
		Malaysia	2.2	11
Furniture parts	90.5	China	4.0	8
		Malaysia	1.2	20
		Thailand	0.9	23

Styles and design trends

In terms of styling, the Swedish look is modern and often compact, with firm functional seating and clean lines. According to SMI, it exudes an appreciation of simple visual effects and is backed by quality of workmanship, design and innovation.

There is a strong market for leather-covered furniture in muted colours. Cluttered, multi-coloured or flowery fabrics are not common, as consumers prefer single colours. Metal supports and visible metal surrounds are more popular than wood. Where wood is used, it is often fabricated into bentwood and laminated frames. Light-coloured woods are used in bedroom and dining room furniture and in occasional cabinet items. The preference for wooden doors and drawers in the kitchen remains strong, contrasting with the increasing importance given to the metal look the farther south one goes in Europe.

Furniture is advertised in magazines specializing in kitchens and dining/living rooms in traditional and reproduction styles.

Distribution patterns

Detailed statistics on individual retailers in Sweden are produced each August by Mobler & Miljo, the trade magazine. According to this source, retail sales amounted to SKr 32 billion (\$3.1 billion) in 2001, with no change from 2000. The top 100 stores accounted for 46.8% of this amount. With a clear 20% taken by the contract sector and public buildings and a further 10% by interior designers, about 23% can be attributed to other retail outlets, DIY stores and direct sales either from the factory or by catalogue.

A review of the top 11 stores shows the sheer strength of IKEA in the marketplace and thus the effect it has on Swedish home styles and furnishings. IKEA is the largest retailer with half of the market and 13 stores. The other stores and buying groups have had to carve a different route to gain consumer acceptance as price competitiveness for similar items cannot be an issue. Designers and design stores are a strong part of this market and their export trade. Companies such as Galleri Stolen (www.galleristollen.se), Iform (www.iform.net) with two showrooms, Swedese (www.swedese.se) with three showrooms, one in each of the Scandinavian capitals, Offecct (www.offecct.se) and Kallemo (www.kallemo.se) with two stores all feature innovative ideas for chairs, the use of laminated wood, and furniture for the office contract and home sectors.

Retailer	Turnover (\$ million)						No. of outlets
	1998	1999	2000	2001	% change: 2001/2000	% share in turnover of top 11	
IKEA	642	666	825	757	-8.25	51.8	13
Jysk Baddlager	164	169	181	184	1.53	12.6	101
Skeidar Mobler	82	67	56	0	-100	3.3	10
Stalands Mobler	19	25	28	26	-7.89	1.8	6
Bro Mobler	20	21	20	16	-16.23	1.2	5
Erik Tiberg	20	21	20	16	-16.23	1.2	3
E18 Gruppen	19	17	16	16	0.53	1.2	4
Sangjätten	6	11	13	12	-11.30	0.8	9
Mobler och Stodj	10	11	12	12	-3.23	0.8	2
R.O.O.M.	10	11	12	11	-11.30	0.7	2
Bromolla	14	15	13	11	-18.69	0.7	3

Source: Mobler & Miljo.

The major buying groups are important to the trade and their market share in 2001 was 29.7% of the total turnover of the leading 100 retailers. This share was practically unchanged from that of the preceding two years, and was down on the 1998 level of 34.1%. It is worth noting that the total number of outlets for buying groups is larger than the number of outlets of the top 100 stores.

The largest buying group is Mio. In 2001 it had 70 outlets and an 11.9% share in the turnover of the leading 100 stores. Sales per outlet amounted to \$250,000. Europa Mobler, the Europe-wide group, had a share of 7.9% and achieved sales of SKr 1.2 billion or \$116 million overall and \$200,870 per store. The third largest buying group was Svenska Hem, with a share of 7.6% and sales per outlet of \$272,300. By contrast, IKEA had a total turnover of \$759 million and sales of \$58.4 million per store.

Buying group	Turnover (\$ million)						No. of outlets
	1998	1999	2000	2001	% change: 2001/2000	% share in turnover of top 100 stores	
AB Mio	196	206	194	174	-10.30	11.9	70
Europa Mobler	140	128	135	116	-14.16	7.9	58
Svenska Hem	126	132	131	111	-14.99	7.6	41
Mobelmastarna	19	21	29	31	5.13	2.1	27
Total	481	487	490	434	-11.49	29.7	196

Mio's 70 stores are managed by entrepreneurs, many with franchise agreements; 10 are company-run units. Its central buying facilities, showroom, studio and warehouse are located in Tibro. It has 150 suppliers, of which 30 provide over 80% of its product range; about 50% of Mio's products are imported. Mio uses designers in Sweden and overseas to create its collections. These designers ensure that Mio home and room decor can be coordinated by the customer with the aid of key numbers and wall swatches for each room set. Its brochures present a series of colour ways for furniture fabrics and

backgrounds created by the designers; these are also used in the room sets displayed in Mio's stores. For the 2002/03 season, four colour collections were created.

As part of its growth strategy, Mio was planning a link-up with Bo-Concept (Club 8) of Denmark and the conversion of some stores to designer boutiques as the group expanded internationally. The sales concept was to focus on high-quality and well-designed contemporary furniture for people with modern values. This objective was expressed in the company brochure designed for the press and investors.

Advertising and promotion

Consumer magazines play a strong role in the advertising of furniture and home design concepts. Four monthly magazines are important and cover architects and the home. These are published in German and carry summaries in English and Italian. Information on the magazines can be obtained from the website www.architektur-und-wohnen.de. Hus&Hem (www.husohem.se) is issued in Swedish.

Mio stores use a range of media to reach their consumers: regular TV slots in the spring and autumn, newspapers covering the monthly buying periods, and catalogues delivered in August to reach homes as the tax rebates become due each September. Their customer database makes it possible to use direct mail and other means for product launches; these are backed by an aggressive press campaign and promotion on the Mio website (www.mio.se). A full-colour catalogue carries price details for each product type and size, as well as information on stores and ordering procedures.

Case Study: IKEA – a global retailer

IKEA operates 154 stores in 22 countries, has 260 million customers and sells most things to do with comfort and use in the home. A further 21 stores are owned and operated by franchisees outside the IKEA Group in 13 countries/territories. IKEA Trading is represented in 33 countries and works with 1,800 suppliers from 54 countries. About 70,000 co-workers (the term used by IKEA for its workforce) are said to be following a code of conduct as regards working conditions and the environment.

The retail business

The privately owned IKEA Group was established in Amhult, Sweden in 1958. It started as a catalogue-selling operation for a range of small gift items before flat-pack tables were introduced. The Group's headquarters are now located in Delft, Netherlands. Its marketing centre is in Helsingborg, Sweden and the core operational part of the business is still based at Amhult. Distribution centres are located strategically in various countries and regions to handle products from over 2,000 suppliers in 55 countries for the existing stores and the expansion planned for the ever-growing number of stores worldwide. It is said that 260 million people visited IKEA stores in 2001. In 2002/03 a commitment to good design, called 'demographic design', was made. This aimed at offering the widest product range at the lowest prices. One target was to be significantly lower in price than the competition – possibly up to 40% lower.

Future growth in the Russian Federation and China is looked upon favourably as the chain seeks wider world markets and understands the need for good simple designs in houses and flats that may be cramped and yet need furniture for modern living. The Go Cubic concept has been designed to meet differing housing conditions.

IKEA's global turnover was €10.4 billion (\$9.6 billion) in the year ending August 2001, a 9.4% increase on the previous year. Europe took 80% of the turnover, North America 17% and Asia 3%. Germany was the largest market with 21% of world sales; the United States was next with 13%, and the United Kingdom third largest with 12% of global sales. France and Sweden had shares of 9% and 7% respectively. In its home market, Sweden, IKEA had only 13 stores but took 55% of the country's furniture retail sales.

In mid-2001 IKEA was said to be planning to establish 50 more stores in North America over the succeeding 10 years, of which nine in 2003. IKEA would then have 74 stores with sales of furnishings projected to reach \$3 billion. In mid-2001, IKEA ranked seventh among furniture retailers in the United States, having generated \$690 million in sales at 15 stores, up by 25% over the same period in 2000.

In Canada, IKEA sold Can\$ 359 million worth of furniture and attained Can\$ 677 million in sales for the store group as a whole. It is the country's third largest retailer of furniture and bedding. With the establishment of a fourth store in Toronto (the eleventh for the country as a whole), the city joined London and Paris in having four metro centres for testing new display concepts. In 2001, the fourth Toronto store planned to test a coordinated room-set concept for presenting products as they would appear in real homes rather than in the showroom arrangements of the typical furniture store. This new approach was expected to generate Can\$ 150 million in sales in year 1 and Can\$ 150 million in year 2 from over 1.7 million customers. If the concept succeeded in Canada, IKEA planned to set up a second test store in the Netherlands and then to apply the concept to its world chain of 167 stores in 30 countries.

In the United Kingdom IKEA's 10 stores generated sales of £800.9 million in the year to 31 August 2001, up 7.6% from a year earlier. Operating profits climbed 13.6% to £169.3 million and the operating margin rose by 21.14%. Average prices were cut by 3% even though the year registered much slower growth than in the previous year when sales rose by 27% as the chain expanded. The price reductions intensified the perception of the company among consumers as giving good value for money. In the 15 years to 2001, the company established itself as the largest and most profitable furniture and furnishings retailer in the United Kingdom.

In September 2001, IKEA opened its eleventh store, in Glasgow. The establishment of a store in Southampton had been approved by then, and others were planned for Edmonton, north London and Stockton. Applications for new stores in Cardiff and Sheffield had also been lodged. The stores take 10–11 months to build. Each store employs 500–600 people as carpenters, interior designers, chefs, office workers and floor staff. In the United Kingdom alone, IKEA has a staff of over 6,000.

Some company operations

Swedwood is IKEA's manufacturing arm. It produces a wide range of furniture products in 33 company-owned factories and sawmills in 10 mainly eastern European countries. The Almhult factory produces kitchen ranges. The units in Poland and eastern Europe make furniture of pine, beech and birch in solids and veneers, often with particleboard and MDF structures. Textile factories in Turkmenistan supply upholstery fabrics. Other factories produce plastic, glass and metal furniture components.

Teams from 40 Trading Service offices in 33 countries travel around the world in search of efficient and cost-effective factories, many in developing and some war-ravaged countries. These factories produce agreed volumes of suitable

products according to strict time, quality and cost parameters and take advantage of these operations to raise the standards of their workforce and provide benefits to their communities.

Modul Service AB is an international wholesaler for furniture fittings. Its head office is in Almhult and it has units in China and Slovakia. A subsidiary of IKEA, Modul has a staff of 270 and a turnover of SKr 750 million. It started in 1986 to supply IKEA with items needed to fit and repair stores, but during the mid-1990s Modul developed into a wholesaler of furniture fittings, electrical components and the related packaging materials.

At Almhult, Modul has 20,000 pallet spaces and produces 50 million bags for IKEA RTA kits. Most of the fittings are assembled into hardware kits and packed by fully automated machines. Drawer runners, slides and larger items are packed separately. Great care is taken to ensure that each package contains the precise sizes and quantities of fittings to match IKEA assembly instructions for each piece of furniture. Since 1998, an Asian office has dealt with purchasing and sales, and a factory in Shenzhen, China supplies IKEA manufacturers in the region.

IKEA Quality Assurance requires a series of testing procedures to meet IKEA's own requirements for durability, design and functionality, and the specifications of statutory standards across the world in regard to safety, the environment, materials used and product markings. The laboratory in Almhult is the key to quality assurance during the design process and prototyping stages. To save on transport costs, testing centres at suitable places around the world are used for product testing.

In 2001 the company set up IKEA Rail to handle the transport of goods. IKEA Packaging deals with the production, handling and reuse of consumer packing, store delivery and packing systems, euro-pallets, and in-store clean-up and disposal systems. Distribution and logistics, ordering and purchasing both at headquarters and at IKEA's various centres are subject to close management control.

Design

The design theme for 2003 – Go Cubic – made use of the whole room and not simply the floor space. Five product groups were used to actualize this concept: space savers, double taskers, modular solutions, mobile solutions and 'high' performers.

Kungens Kurva, the IKEA store in Stockholm, was refurbished in the Go Cubic style. It is the world's largest IKEA store and attracts more than 3 million visitors a year. It has 8,000 m² of floor space for furniture, 7,800 m² for the self-service area, and 6,200 m² for the furnishing accessory shops. With parking included, it has a total area of 56,000 m² in four floors containing 11 complete 'homes' ranging from 22 m² to 111 m² in size. It has 22 room settings, including 5 teenage rooms. About 2,000 m² are devoted to products for children. It has 9 office and 12 kitchen displays, and a 500-seater restaurant, according to the July 2002 edition of *Read Me*, the in-house magazine published four times a year in 15 languages.

In that edition, the magazine also highlighted company research into adverse customer reaction, which formed part of a plan to respond to specific customer problems and thereby to keep sales improving as the store group expanded. Waiting times seemed to be the most aggravating aspect and new systems have been brought in to speed up the flow.

New ideas

Inter IKEA Systems BV, which is based in Delft, has issued two manuals entitled *Selling in the Showroom* and *Selling in the Market Hall*. Another manual, *Marketing the IKEA Way* (IWAY) is targeted at retailers and shows them how they can successfully market the company concept. The IKEA Toolbox lists publications on store communication techniques for in-store promotion.

At the time of the preparation of this study, IKEA Marketplace was being developed for an online launch in January 2003. This was to be a communication platform for IKEA, its suppliers and subcontractors. It would be used to invite tenders and enable suppliers to reply online. The objective would be to reduce purchasing prices for the factories, boost cooperation and to offer routes to a process-oriented flow to ensure the application of good stocking and delivery policies. The simplification of the paperwork flow in the purchase sequence was to be a bonus.

A trial for Internet and mail order was under way in Scandinavia. This would cover order processing, the pick up of orders from warehouses, transport, and the handling of damaged goods and returns.

Over 110 million copies of the IKEA catalogue are issued in at least 34 languages and feature a core of similar products which, with the prices printed, makes possible the most cost-conscious price comparison exercise that can be made worldwide. The catalogue is produced at a cost of SKr 80 million.

IKEA fields separate buying sections for each product group and these can be contacted direct by telephone, fax and email. A booklet on 'Who Does What' is published and should be available from the management group.

Egypt

Basic demand factors and market drivers

In 1991, the Egyptian Government introduced a multi-phased economic reform programme, developed in consultation with the International Monetary Fund (IMF), which focused on privatization, deregulation and trade liberalization. The success of the programme is evident in the long-term growth rate of the GDP at around 4% in 1989–1998. During the same period, per capita GDP increased, inflation fell and the budget deficit dropped from 4% of GDP to 1.1%.

The success of the reform process to date has given the Egyptian Government the ability to forge ahead with further deregulation and privatization. The interest of foreign and domestic investors in the privatization process has increased as investment opportunities emerge. If the pace of reform is maintained and tangible progress made, the prospects for the Egyptian economy are promising.

The needs of Egypt's massive infrastructure and growing population, and the large inflows of foreign assistance since the 1980s to finance major projects, have kept a highly developed construction industry growing at an annual rate of over 20%. The Government intends to establish 44 new cities and communities and to construct 5.3 million housing units by 2017. It hopes to curb congestion by eventually housing around 6 million people in new communities in the desert and by developing the Suez Canal area, the Red Sea and Sinai among other regions for tourism and housing.

Much of the construction is low-cost housing. However, future construction projects include a \$150 million library in Alexandria, a new \$320 million media city southwest of Cairo, Egypt's first private-sector airports, and a possible third terminal for Cairo airport. In the private sector tourism is still an important area for development, and a number of major projects are currently under construction.

About one third of the population lives in Cairo and its surrounding towns, making it one of the most densely populated areas in the world. Almost 99% of Egypt's population live within the Nile Valley and Delta, which is less than 4% of the country's total land area. Furniture demand is therefore totally concentrated in the Cairo and Delta areas.

The domestic furniture industry

The furniture industry in Egypt is primarily oriented towards the production of wood-based furniture, which is also the most developed sector of the industry. The sector is composed of a large number of small and medium-sized enterprises. Many small firms produce handcrafted carved furniture pieces, very fashionable in the country, which are also exported, mainly to neighbouring countries.

ITC's previous work on Egypt's furniture sector has analysed export potential and the types of Egyptian products that have competitive advantages in the North American and European markets. It identified greatest potential in Western Europe, which offered a market for:

- European-style antique reproduction furniture;
- Furniture in original Egyptian designs; and
- Specialized chair frames produced under subcontracts for European manufacturers.

The Egyptian furniture industry still focuses heavily on labour-intensive wood carving and veneer inlaying methods. The industry, therefore, requires diverse species of wood in sawn lumber, veneer and wood-based panels (plywood) as raw material. For example in veneer inlaying work, contrasting colours and wood grains are needed to produce the diverse patterns and ornate surfaces in demand. Closely related to inlaying is the wood interlocking method, which works on larger-sized, geometrically shaped wood pieces held together with a mere joinery forming panel and a locking frame. Another unique production method is the panel consisting of very small wood turnings (*mashrabeya*). This is mainly used in balcony door and window coverings similar to louvre shutters.

Although the wooden furniture industry plays a relatively small role in Egypt's overall industrial activity, the long tradition of furniture making and woodworking combined with the sector's competitive wages can provide the industry with a comparative advantage in the world market. The official wooden furniture industry accounts for about 0.3% of the country's total industrial output. Its contribution to overall output has fallen from 0.65% a decade ago as a number of other industries have flourished.

Nevertheless, the industry supports a number of other activities through its links to other industries, especially wood and wood products, chemical products and metal parts, as well as R&D activities and the development of craftsmanship. Despite its decline in importance, the furniture industry continues to employ about the same proportion of the total available workers as it did a decade ago. The industry officially employed over 11,000 workers in 1995/96, according to data from the Central Agency for Public Mobilization

and Statistics (CAPMAS). Employment expanded by 3.7% a year between 1985 and 1995, notwithstanding a contraction in the constant dollar value added of the industry.

Production output

The official output of furniture grew consistently to reach the \$510 million–\$520 million level in 2001–2002. Egypt remained a net exporting country until 1997, but it became a net furniture importer thereafter.

It must be noted that Egyptian experts believe that the actual production of the sector is much higher than that reported by official sources, perhaps as much as three to four times larger.

About one-half of the output consists of bedroom furniture. Wooden and bamboo chairs and other bamboo furniture make up a small fraction of overall production. Other types of wooden furniture include various products in the domestic household and garden furniture categories. Furniture finishing, restoration and repair constitute a major additional production segment.

The political situation in the Middle East, as well as the world economic slowdown, does not allow great optimism about the near-future growth of furniture consumption and production in Egypt. However, the growing middle class, as well as the large projects planned in the country (hotels, city improvements and the like) do suggest reasonable future growth, in the range of 3%–4% a year.

Structure and location of the industry

Only about 10% of the firms are large in size but these few account for a high percentage of the industry's total output. Small and medium-sized firms, which make up nearly 90% of the total number of establishments, produce the remaining output.

About 40% of the furniture is made in the Nile Delta town of Damietta, and most of the remaining output originates from factories and workshops located in Cairo and Alexandria. Damietta hosts the household furniture industry, with its 39,000 small workshops. Many of these produce parts and chairs for the larger firms. Local observers believe that in Damietta a total of 500,000 people are directly or indirectly dependent on the local furniture industry.

Cairo is the country's furniture design centre. Many firms producing high-end home furniture and most office furniture producers, as well as architectural millwork companies, are located around the capital. In Alexandria, the most important companies are also large wood product importers, conveniently situated near the city port.

Among the major furniture companies in Egypt are Mobica, Cairo; Abu Zaabal, Cairo; Africa Wooden Products, Tenth of Ramadan City; Al Kasr, Cairo; Al Misrya Furniture, Tenth of Ramadan City; Bimondo Egypt, Agouza; El Amira Factory, 6th October City; International Wooden Industries, Tenth of Ramadan City; and The International Company for Furniture, Alexandria.

Main raw materials

Beech is by far the most popular wood species. Tropical hardwoods are used only in very small quantities for niche products. The main tropical wood species used are teak, sapele, iroko and acajou. European hardwoods tend to go into the production of upscale furniture, and most of the beech and oak from Romania, Croatia, and Serbia and Montenegro end up in Damietta.

Inconsistent grading rules and poor drying are a cause for concern. Buyers are price-conscious even when it comes to wood of higher quality. Egyptian furniture producers also use considerable quantities of wooden panels and veneer. Veneer is both produced in the country and imported. Temperate hardwood veneer mainly originates from Europe and the United States. The main wood species used for veneer are white and red oak, beech and walnut.

Tropical hardwood veneer is a marginal item as far as Egypt's furniture makers are concerned. The country imports large quantities of plywood and Southeast Asia is the main supplier. However, only a part of the imported plywood goes to furniture production, as the construction sector takes a larger share of imports. MDF is a quickly growing item and is mainly obtained from European suppliers.

Interviews in the furniture sector revealed that both Egyptian importers and producers are willing to explore the possibilities of importing more value-added products. Imports of these items for the manufacture of furniture parts are currently minimal.

Outsourcing and networking among manufacturers

The larger firms can normally produce all the furniture parts they need within their factories. However, especially in the Damietta area, many smaller firms make either components, or complete pieces of furniture, such as chairs, for the larger companies.

Such producer networks have gone through decades (if not hundreds of years) of long evolution and are therefore resilient to change. Some attempts to relocate Damietta-based furniture clusters into other sites (new furniture villages) have failed as the existing networks are too firmly rooted in the surrounding community. The synergies and supporting services that have taken decades to develop cannot be relinquished without causing damage to the functions they serve.

The Egyptian furniture networks usually have one dominant player. This is the showroom owner, who produces the designs, outsources the manufacture of wooden parts to small carver workshops, and gives credit to carvers for the purchase of wood. The showroom owner has controlling power over the carver community, and adds most of the product value by finishing and upholstering furniture pieces. The resistance to change of these owners is one impediment to the modernization of the country's furniture value chains. The current arrangement is suitable for small-series production and hinders progress in both technology and design.

The technology in use is adequate for the domestic market, but in some cases it falls short of demands in export markets.

Quality standards, certification and labelling requirements, environmental management systems

There is a genuine effort by the most modern and export-oriented sector of the industry to improve quality standards, mainly in the high-end segment. Results have been positive and quality has improved. There appears to be very little sensitivity to environmental aspects and timber certification in the domestic market.

Foreign trade and apparent consumption

According to COMTRADE data, Egypt was fast losing its status as a net exporter of wooden furniture in the five years to 2001. The country still had a

\$2 million trade surplus, but this had narrowed remarkably fast over the period. Imports doubled to more than \$11 million, while exports fell by 15% to \$13 million. Other sources indicate that net imports of furniture of all materials have been increasing since 1998.

Commonly mentioned reasons for the weakening export performance of Egypt include the overall malfunctioning of the supply chain, starting from suboptimal wood purchases from limited sources, lack of wood seasoning, dependence on a few markets, as well as the overwhelming power held by showroom owners over the small artisans producing components and unfinished furniture under subcontracts. Networking among small carver workshops did not give the Egyptian industry the competitiveness attained in Italy, for example.

Furniture distribution in Egypt is, for the time being, a simple affair, and is left almost entirely to many independent small and medium-sized outlets. Some manufacturers sell their products direct to customers. Some chains for both specialized and non-specialized furniture are growing.

Table 4.30 Egypt: imports of wooden furniture, by product group and by value, 1997–2001

Value (V): \$ million

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	0.1	2	0.0	0.0	n.a.	0.1	1	106
Seats n.e.s. with wooden frames	0.7	15	1.0	1.1	n.a.	1.3	12	183
Wooden office furniture	0.4	9	1.0	1.7	n.a.	1.8	16	407
Wooden kitchen furniture	0.3	6	0.4	0.4	n.a.	0.4	3	135
Wooden bedroom furniture	0.4	9	0.4	0.7	n.a.	0.6	5	136
Other wooden furniture	1.8	37	3.0	3.3	n.a.	4.9	44	272
Furniture of other materials, including bamboo	0.2	5	0.4	0.3	n.a.	0.7	6	325
Furniture parts of all materials	0.8	17	1.3	2.6	n.a.	1.4	13	168
Total	4.8	100	7.6	10.1	n.a.	11.2	100	233

Source: ITC/UNSD COMTRADE database.

Table 4.31 Egypt: exports of wooden furniture, by product group and by value, 1997–2001

Value (V): \$ million

Product group	1997		1998	1999	2000	2001		
	V	% of V	V	V	V	V	% of V	Index: 1997=100
Seats of cane, osier, bamboo, etc.	0.0	0	0.0	0.0	n.a.	0.1	1	7300
Seats n.e.s. with wooden frames	0.0	0	0.0	0.0	n.a.	0.1	1	143
Wooden office furniture	0.1	0	0.0	0.0	n.a.	0.3	2	449
Wooden kitchen furniture	0.2	1	0.0	0.0	n.a.	0.0	0	2
Wooden bedroom furniture	6.4	41	7.5	8.9	n.a.	10.8	81	168
Other wooden furniture	8.7	56	5.1	6.2	n.a.	2.0	15	23
Furniture of other materials, including bamboo	0.1	0	0.0	0.0	n.a.	0.0	0	13
Furniture parts of all materials	0.0	0	0.0	0.0	n.a.	0.0	0	94
Total	15.5	100	12.7	15.1	n.a.	13.2	100	85

Source: ITC/UNSD COMTRADE database.

Imports from developing market economies and China and other origins

China, Indonesia and Malaysia were the leading suppliers of wooden furniture from the DMEC group of countries. Italy was the largest source of wooden office furniture, slightly ahead of Indonesia. Both the United States and Italy were strong suppliers of 'other' wooden furniture (living/dining room, small/occasional); China ranked fourth as an origin in this category of imports. Italy contributed the most to the overall rise in Egyptian imports.

Product group	Imports (\$ million)	Major developing country suppliers	% share	Rank
Other wooden furniture	4.9	China Indonesia Philippines	7.9 6.0 4.8	478
Wooden office furniture	1.8	Indonesia Malaysia China	17.9 10.5 8.9	245
Seats n.e.s. with wooden frames	1.3	China Indonesia Malaysia	7.1 4.0 3.8	478

Market access

Egypt's tariff regime has undergone many changes in recent years. The current structure was established by Law 187 of 1986. Since then the general maximum tariff has been progressively reduced, but tariffs on furniture remain high. The existing tariffs on wood may be harmful to the domestic furniture industry. While the tariff on imports of wooden furniture protects domestic producers, tariffs on the wood products used in the manufacture of furniture raise costs and consequently reduce the competitiveness of the industry.

The current import tariff on sawn timber averages 5% of C&F values, with actual tariffs varying with the wood species. In addition, there is a 5% sales tax, a 3% customs service fee and 1% of other taxes. The import tariff on MDF is 30%; the other charges (5% + 3% + 1%) also have to be paid. Finished furniture is subject to a tariff of 40% of its value.

Until the end of 2001, the Egyptian Government imposed credit restrictions which influenced the import trade quite heavily. Importers of goods for trading purposes were obliged to deposit 100% of the value of the proposed imported goods in order to open a letter of credit. This meant that an importer who wished to buy \$100,000 of a certain wood product for reselling had to deposit \$100,000 in an Egyptian bank before a letter of credit could be opened.

However, importers of goods for manufacturing purposes did not suffer such rigorous restrictions and some wholesaler/importers established small manufacturing companies to go around the credit restrictions. The largest furniture industries in the Damietta area took advantage of the rules and imported some of their raw material requirements.

Styles and design trends

Carved furniture is especially popular in Egypt. Local producers use beech for this traditional item. Reproduction antique furniture is an important sales item.

For this type of furniture, companies require many different types of veneer in order to reproduce intricate marquetry and inlaid tops. Another segment, mainly using oak, produces country furniture for export markets.

Furniture in traditional styles holds most of the market, but demand for 'modern' furniture, often imitating the 'Italian style' is rising. The market does not require modern furniture in 'extreme' lines, and likes to maintain a contact with the traditional.

Traditional designs continue to dominate the mass furniture market. There are modern and sophisticated design centres in Cairo for large hotel projects and the production of 'serial' furniture.

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Chapter 5

Future of plantation woods in furniture making

Assessment of wood quality

The dominant species in tropical forest plantations include pine, rubberwood, acacia, teak, gmelina and eucalyptus. In general, their wood comes in smaller dimensions, of mediocre qualities compared with natural timbers, and with lower natural durability. These imperfections call for immediate improvements in wood drying, jointing and edge-gluing, wood preservation and product finishing. But, as rubberwood has shown, many obstacles can be overcome with sufficient research and development.

Plantation-grown teak poses a different type of challenge, as the quality downgrade from natural teak tends to be inevitable, unless high standards in silviculture and the grading of logs and sawn timber are applied. This is likely to threaten teak's position in high-end market niches, where the properties of planted teak fall short of expectations. This may also pose a long-term risk for the market positioning of natural teak if supplies are mixed or irregular.

Growers of another high-value plantation wood, mahogany, have been confronted with grading problems. The small island nation of Fiji has a maturing plantation base of 50,000 hectares of mahogany, and there are plans to begin commercial logging and sawmilling for export to the United States. Fiji's national grading system has been developed for planted mahogany. In the United States, however, the National Hardwood Lumber Association (NHHLA) applies a stricter grading system based on mahogany from natural forests. The discrepancies between the two systems will lead to a considerable downgrading of Fiji's planted mahogany by American importers. This situation will pose a practical trade impediment for Fiji until harmonization of grading rules is achieved.

When considering the suitability of any potential timber species for value-added wood products like furniture, it is necessary to take into account at least the following performance criteria:

- Grade quality;
- Engineering properties (density, strength, stiffness, hardness, creep);
- Stability;
- Drying quality (moisture content and drying degrade);
- Machining characteristics (planing, moulding, drilling, CNC or computer numeric control, turning and sanding);
- Gluability; and
- Veneering and surface finishing characteristics.

A detailed knowledge of these characteristics is essential for the entire production process. These characteristics will have an impact on product

design, the choice of materials and tools, the selection of manufacturing techniques and methods, and the recommendations to be made on end-uses and requisite environmental conditions.

Technical information on the timbers that have been traditionally used for the production of high-value wood products is generally well documented. The changing timber resources have stimulated the industry in a number of countries to search for alternative species suitable for appearance products. The traditional techniques and methods used in the manufacture of value-added wood products often have to be modified for the 'new' timbers to accommodate their different properties and processing characteristics.

Eucalyptus

Most of the *Eucalyptus* spp. timber resources have been utilized as wood chips or for structural products for local markets. Because of growing interest all over the world in the use of this species for high-value goods such as furniture, joinery, flooring and architectural products, the technological suitability of eucalyptus for these applications should be fully understood.

The fastest progress has been made in Australia, the home of eucalyptus, where old-growth eucalyptus has been utilized for decades in the absence of other hardwood timbers in larger quantities. Attention has heretofore been directed to natural stands of old-growth eucalyptus, but an important shift in the focus of research has come into play. Several research programmes have begun to assess the properties of young, fast-growing eucalyptus for solid wood production.

The appearance-type properties of timber, such as texture, grain pattern, colour and lustre, have a significant decorative impact in high-value wood products. Wood features that in the past were considered defects have become more readily accepted and are highly sought after in some markets. Timber with features such as kino veins, sound knots, insect galleries, borer holes, resin pockets, burls and other marks is well known as 'natural feature grade' timber in Australia and 'character marks timber' in the United States. Natural features in timber are being heavily promoted by the timber industry.

However, some of the technological properties of wood, such as high density, high levels of extractives, hardness and strength, may sometimes be a deterrent to the production of high-end products. They require the application of new processing and manufacturing techniques.

Radiata pine

For many years *Pinus radiata* suffered from a poor image in the export markets for higher-value end-products. Some of its perceived shortcomings have been real product limitations, but others reflected a lack of knowledge of the wood or incorrect market perceptions. To cite an example, for many years radiata pine was deemed suitable only for packaging uses in Japan.

In New Zealand, the Public Good Science Fund (PGSF) has funded research to widen the range of wood products that can be made from the existing radiata pine resource. It aims at improving both the quality and the competitiveness of the current product mix and at developing databases for such purposes as preparing codes and standards and answering basic questions about markets and international trade flows.

Similar research has resulted in a wood-hardening process that offers improved performance qualities for low-density timbers in applications such as flooring and furniture. Another has led to the development of a finger-jointing process

for unseasoned wood; the process now carries the registered trademark Greenweld®. It promises economic advantages over conventional finger-jointing methods by reducing processing costs and by increasing kiln-drying efficiencies.

Suitability of plantation species for specific uses

Laminated wood panels and finger-jointing

With the growth in the processing of rubberwood in some Asian producing countries, finger-jointing and laminating have turned into a high-volume industry. Special lines to finger-joint and then laminate the strips into defect-free solid wood panels have become popular in furniture plants seeking wood surfaces with an immaculate appearance.

A wide range of equipment with varying levels of sophistication and capacities is used for these processes. The equipment is generally large and is unsuitable for smaller plants. Most production takes place either in Europe or in Taiwan Province (China). The panels are produced for export either as panels or with solid wood moulded frames which can be used as tabletops. The panels are also sold to the smaller local furniture factories.

With the expanding usage of plantation wood and logs of smaller diameters, the production of the above types of panels is expected to rise. The quality of the panels can vary with the homogeneity of the kiln-drying processes and the amount of care taken in matching the colour of the strips prior to assembly as panels. Production planning and control in processing plants is relatively straightforward.

Plantation pines and rubberwood are well suited for finger-jointing. In addition, features in these woods, such as sound knots, insect galleries and the others mentioned earlier, have become desirable characteristics. They are highly sought after in high-value wood products, provided they do not affect the structural performance of the end-products, particularly furniture and components.

Brazilian sources indicate that the technology for removing defects and producing finger-jointed blanks and laminated boards from eucalyptus is technically and commercially more problematic than the technology for pine. Eucalyptus timber is not so stable, there are gluing problems, and in most cases the large number of defects reduces final yields.

In any case, the market is not as receptive to finger-jointed eucalyptus as it is to pine. This is due to the perception that eucalyptus is a substitute for tropical and other hardwood, which usually come in large dimensions without defects or finger joints.

Furniture and components

Ideally, the design of any wooden structure should be based on the technical characteristics of the timber from which it will be made. This would involve the optimization of the dimensions of each member on the basis of the strength of the timber to be used and the load to be carried in service.

Furniture is usually constructed from short-length components with small cross sections. From the engineering point of view, the timber used for highly stressed furniture components (e.g. chair legs and back rails, sofa rails) should be defect

free. For such applications the use of structural design criteria is essential. Furniture made from high-strength timbers can be built with thinner and narrower components than is possible with low- and medium-strength wood.

Properties that must be considered in the engineering design of furniture are stiffness (which is measured by the modulus of elasticity or MOE), and bending strength (which is gauged by the modulus of rupture or MOR).

Most of the eucalypts have higher densities and higher stiffness and strength than some of the species commonly used for furniture production. For example, at 17 years of growth, the red gum (*E. camaldulensis*) already has higher MOE and MOR measures than teak, which is considered one of the most desirable furniture timbers.

The marketing factor

Plantation wood producers often try to edge natural timber off the market by price slashing. This sometimes leads export industries to operate in conditions of permanent loss. Instead of engaging in cut-throat price competition, producers should focus on product innovation in the engineered and furniture product lines as the market is generally receptive to the use of fast-growth wood in these product lines. Once a presence in export markets is established, companies need to diversify their output and add value in order to stay competitive. Producers who seek and apply new marketing ideas have the best chances of flourishing on international markets.

Conclusions

The development of engineered wood products (like medium density fibreboard or MDF and laminated veneer lumber or LVL) and the application of more advanced surfacing and finishing techniques are making it possible to use a wider range of species for the production of furniture and other value-added items. Consequently, steady increases in the tropical countries' production and exports of these products can be expected, with a corresponding reduction in the production and export of primary tropical timber goods.

As the stocking levels of the main plantation species approach their first prime (this will happen in about 2005), forest industries throughout the tropical world will have to adjust their product development, processing technologies and promotional tools accordingly. The overall balance of furniture making is likely to move in favour of the southern hemisphere, where a green wall of wood is maturing in the plantations of Asia, Oceania and Latin America.

A case study: Aracruz Wood Products

A case study focusing on the commercialization and positioning of eucalyptus wood products on the market with a brand name, a logo and registered trademark is presented here to illustrate various points. The case is fairly atypical because it describes the product diversification strategy taken by a mass producer of a single product (wood pulp), which has multinational ownership and has to listen carefully to its shareholders.

Silviculture is the backbone

Aracruz Celulose S.A. produces bleached pulp exclusively from eucalyptus species and is the world's leading producer of this type of pulp. The company started with *E. grandis*, *E. saligna* and *E. alba*, but it has since created a genetic eucalyptus base comprising 54 clones, 1,254 provenances and around 5,000 selections. In particular, it has worked on developing hybrids that can produce a sawlog with an ideal shape and properties (Simula & Tissari, 1998).

The superior quality logs promised by improved clones can be obtained only if silvicultural management regimes are simultaneously modified. This is exactly what Aracruz did. In plantations destined for solid wood production, it moved away from the traditional Brazilian practice of a 21-year stand rotation with clear cutting every seven years. Such a practice is called for when the objective is to maximize the output of wood fibre for pulping; it does not systematically produce large-diameter logs. In its place, Aracruz instituted pre-commercial thinning and pruning schemes with a view to generating well-formed sawlogs with a minimum diameter of 29 cm in 3.20 metre lengths.

Aracruz's experience has been positive and it provides a basis for a new strategy for forest management and industrial development. The strategic choice of Aracruz has been firmly based on market opportunities and on matching its wood qualities with end-use applications.

In the beginning

The progress from the birth of an idea (product diversification) to commercialization of eucalyptus wood products took more than a decade. Over the years, the acceptability of the concept followed the mother company's (Aracruz Celulose S.A.) business ups and downs. Gradually, however, the concept of plantation forestry for multiple uses won the sceptics over, not least because it also addressed the investors' wish for better financial returns after some disappointing results from the single-use plantations.

As early as the mid-1980s, IPT (Instituto de Pesquisas Tecnológicas do Estado de São Paulo, a leading scientific research and development institution in Brazil) carried out tests for Aracruz on sawn eucalyptus logs. This was followed by testing in Brazil and abroad on laminating properties and wood-based panel manufacturing.

In the mid-1990s, remanufacturing properties were examined in Portugal for end-uses like flooring. Various European experts defined and managed industrial trials at European manufacturing companies. These confirmed the eucalypt's good workability in comparison with hardwoods for furniture and flooring. Laboratory testing at the premises of a producer of industrial coatings resulted in a positive conclusion on the receptiveness of the wood to all common types of finishes (water- and solution-based lacquers, pigments, oils and waxes).

Several market surveys were carried out on samples of various eucalyptus species and clones destined for the European and North American markets. Some of them have proven overly optimistic in retrospect, while others were more realistic in forecasting a slow market penetration assisted by a certification push.

Aracruz Celulose S.A. and the United-States-based Gutchess International Group formed the joint-venture company Tecflor Industrial S.A. in 1997 for the production of solid wood products. Aracruz took a 60% stake in the venture, and offered its plantation base and forest technology to Tecflor.

Gutchess, with the remaining 40% interest, contributed production technology and distribution channels. When the pilot plant was being set up, Gutchess ran into financial difficulties and the partnership was terminated.

The technology

The sawmill uses temperate hardwood sawing technology from Canada and the United States. It aims at combining the high-volume output typically achieved on softwood sawmills and the quality of sawn wood attained in hardwood mills in the United States. Two large bandsaws serve as a head rig and a re-saw. The process produces raw sawn wood, which is then fed into gang-saws, edgers and trimmers for re-sawing into smaller pieces (planks, for example) of sawn wood. The sawing machinery is computer-guided.

The nominal capacity of the sawmill situated in Posto da Mata in southern Bahia State was set at 75,000 m³/annum in two shifts and 100,000 m³ in three shifts. This scale is extremely large for hardwood sawmills in the southern hemisphere. In reality, the sawmill has a current capacity of around 44,000 m³ in one shift. The species used have been *Eucalyptus grandis* and a natural hybrid, *E. grandis* x *urophylla* (urograndis). Apart from the sawmill, the company operates 12 kiln-drying chambers of 150 m³ each. A combination of air and automated kiln-drying is used. The clear lumber from the operation carries the trade name Lyptus®, and is being marketed in North America by Weyerhaeuser Company as exclusive agent. In Europe, agents are used in Belgium-Luxembourg, France, Germany, Italy, Portugal and Spain.

The highest qualities go into the production of furniture and wood for interior uses. Lyptus® is marketed as an alternative for beech, birch, cedar, cherry, mahogany, maple, red alder, red oak, white oak and yellow poplar. According to the Weyerhaeuser website (www.weyerhaeuser.com) Lyptus is 'a premium-grade lumber ideally suited for flooring, cabinets, residential and commercial furniture, and indoor panelling. It is cherry tone in color and has the grain of fine mahogany. Its superior quality, remarkable beauty and dependable supplies make Lyptus an ideal hardwood for diverse high-end applications. This new premium hardwood is also winning accolades from manufacturers who prefer to use an eco-friendly, decorative hardwood that comes from a lasting, sustainable and renewable resource.'

Product diversification

Aracruz has four grades of sawn wood: Prime (Firsts and Seconds), Select, Grade 1 and Grade 2. Furthermore, it sorts its lumber into three densities: Low (up to 500 kg/m³), Medium (between 500 and 600 kg/m³), and High (more than 600 kg/m³).

Drying starts with air-drying; after this automated kilns are used to achieve a moisture content of 10%–12%. Standard thicknesses are 25 mm and 32 mm after kiln-drying and planing, but other thicknesses are available upon request. Lengths vary between 6 and 16 feet with two-foot intervals. Widths are between 76 and 50 mm. Boards are dressed (hit and miss planed) on both faces to ensure uniformity in thickness.

In addition to clear lumber, sawmill products include construction lumber and remanufactured products that consist of cut-stock, flooring, dowels and window casings.

Among the potential products are veneer, plywood, pallet stock, and engineered wood products such as oriented strand board, laminated veneer lumber and parallam (a beam for the building industry).

Marketing arguments

Aracruz conveys key marketing messages on its eucalyptus sawn wood. These are:

- ❑ Buyers can choose eucalyptus as an alternative for tropical woods, thus relieving pressures on tropical forests.
- ❑ Production is ‘fully sustainable and renewable’, which buyers can use as a tool for their marketing and for building a ‘green’ corporate image.
- ❑ Eucalyptus originates 3,000 km away from the Amazon rainforest.
- ❑ It is a noble hardwood, with density, strength and technical properties comparable with those of oak and beech.
- ❑ It can be processed with the same equipment and in the same finishes as other hardwoods.
- ❑ In appearance it resembles cherry, alder, mahogany, lenga (*Nothofagus pumilio*) and jatoba (*Hymenaea courbaril*). Its colour and texture make it highly recommendable for bedroom and dining room furniture and cabinet-making, and for fixtures and fittings as well as flooring.
- ❑ The sawn wood is sold mainly dried and planed on both sides (for furniture stock).

A summary of the Aracruz approach

- ❑ The shareholders’ demands for higher returns from investments in the eucalyptus plantations partly led to the establishment of solid wood products branch of the company.
- ❑ The company’s excellent knowledge of silviculture and business management was expected to guarantee the success of its solid-wood operations. The role of public sector incentives was fairly small.
- ❑ Thorough studies of markets, wood properties and processing technology were undertaken before the investment decision was made.
- ❑ The North American hardwood sawmilling concept was adjusted for application to eucalyptus and, after initial technical problems, the company mastered its basic processes.
- ❑ As a pioneer in the business, Aracruz Wood Products went through a learning-by-doing cycle, and aimed to increase profitability by moving from sawn wood to furniture components and flooring.
- ❑ The company tried to distance itself from the low-cost image of eucalyptus with a registered trademark and an emphasis on the nobility of the wood, but the opposite perceptions continued to hold firm in the markets for timber.

The current situation in Brazil

- ❑ The domestic market accepts eucalyptus sawn wood provided it is made available at a very low price. The maximum of \$20 per cubic metre for average grades is roughly half of the prices being paid for the traditional tropical woods for furniture manufacturing.
- ❑ The percentage of higher grades even among stocks of good logs is small (less than 10%), and most of the logs are used as packing material and for other similar purposes.

- There are several examples of failure in the Brazilian eucalyptus timber industry.
 - FLOSUL has closed down its mill. This followed almost 10 years of sawmilling and value-added production, and the attainment of FSC forest management certification.
 - The Aracruz sawmill is not profitable. After around three years of operation, several studies, and the application of various measures, Aracruz is still seeking remunerative markets for its value-added products.
 - CAF and its two sawmills are just breaking even, but most of their products are sold in the domestic market for packing material and similar end-uses at prices below \$100 per cubic metre. Volumes of higher-grade wood are small and the price is not as high as expected.
 - Boise Cascade's new mill will produce veneer for LVL and plywood from eucalyptus logs for export. It uses superior quality logs from a plantation purchased from Riocell (Grupo Klabin). It is reportedly facing problems of low yield and difficulties with its gluing processes.

Chapter 6

Technical standards in the furniture sector

Overview

European Union

The Comité européen de normalisation (CEN, or the European Committee for Standardization) is responsible for the harmonization of standards in the European Union. CEN has 20 national members, which are also national standards bodies. The members must implement European standards as national standards and withdraw all conflicting national standards on the same subject.

Table 6.1 Europe: CEN national members

Country	Abbreviation	Standards body
Austria	ON	Austrian Standards Institute
Belgium	IBN/BNI	Belgian Institute for Standardization
Czech Republic	CSNI	Czech Standards Institute
Denmark	DS	Danish Standards Association
Finland	SFS	Finnish Standards Association
France	AFNOR	Association française de normalisation
Germany	DIN	German Institute for Standardization
Greece	ELOT	Hellenic Organization for Standardization
Iceland	IST	Icelandic Standards
Ireland	NSAI	National Standards Authority of Ireland
Italy	UNI	Italian National Standards Body
Luxembourg	SEE	SEE (Service de l'énergie de l'État) – Organisme luxembourgeois de normalisation
Malta	MSA	Malta Standards Authority
Netherlands	NEN	Netherlands Standardization Institute
Norway	NSF	Norwegian Standards Association
Portugal	IPQ	Instituto Português da Qualidade
Spain	AENOR	Asociación Española de Normalización y Certificación
Sweden	SIS	Swedish Standards Institute
Switzerland	SNV	Association suisse de Normalisation
United Kingdom	BSI	British Standards Institution

Source: CEN.

CEN Technical Committee 207 'Furniture' (CEN/TC 207) is in charge of standards for furniture. TC 207 has eight working groups that deal with different aspects of standardization.

The eight working groups are:

- ❑ WG 1 – Domestic furniture
- ❑ WG 2 – Kitchen and bathroom furniture
- ❑ SC 3 – Office furniture
- ❑ WG 4 – Outdoor furniture
- ❑ WG 5 – Contract and educational furniture
- ❑ WG 6 – Test methods for fire behaviour
- ❑ WG 7 – Surfaces and surface finishes of furniture
- ❑ AH – Glass in furniture

The major aim of TC 207 is to have EN standards on furniture established at the European level. It is scheduled to finish its work programme in 2004, after which there will be approximately 90 voluntary EN standards on furniture, their finishes and materials.

The EN standards on furniture are not meant to serve protectionist aims. On the contrary, they are proposed as a basis for wider international work on furniture standards by ISO/TC 136 'Furniture'. All EN standards are voluntary in nature, and as there will be no harmonized product standard for furniture, furniture will not be carrying a CE marking.

Japan

Japan has three levels of industrial standards: national, industrial and company level. The Japanese Industrial Standards (JIS) are voluntary national standards covering industrial and mineral products. Industry associations and companies may also draw up their own standards for specific needs (e.g. operation manuals and product specifications).

There are 27 furniture-related national standards in Japan, and they deal with safety aspects, test methods, and dimensions.

North America

There are over 140 furniture-related standards and labelling requirements in the United States and Canada. Most standards are voluntary but some are regulated by State or federal laws. In addition to protecting end-users, standards are used to protect manufacturers and retailers against product liability suits.

Comparison of standards

Product quality standards on appearance, stability, materials, or other properties are atypical for the furniture sector. International and national furniture standards concentrate rather on safety and health-related aspects, test methods, dimensional coordination and terminology. A brief comparison of standards, from the point of view of aspects covered, is presented in table 6.2. The comparison encompasses ISO, EN, DIN, SFS and JIS standards.

ISO and EN norms are international in application and are used in many countries. The German DIN standards are examples of national European standards that coexist with ISO and EN standards. DIN standards are often used as benchmark standards if no comparable international standards exist. Eventually, all EN standards will be implemented as national standards by DIN and other CEN member organizations. The JIS norms are Japanese industrial standards used in the Japanese market.

Table 6.2 Comparison of furniture standards					
Aspects covered/Standards	ISO	EN	DIN	SFS	JIS
Safety requirements and test methods					
Beds and mattresses		•	•	•	
Built-in and free standing kitchen cabinets and worktops		•	•		
Bunk beds and high beds for non-domestic use		•	•		
Bunk beds for domestic use	•	•	•	•	
Chairs and tables for educational institutions		•	•	•	
Children's cots and folding cots for domestic use	•	•	•	•	
Children's high chairs for domestic use	•	•	•	•	
Cribs and cradles for domestic use		•	•	•	
Domestic storage furniture		•	•	•	
Foldaway beds	•	•	•	•	
Office furniture, screens		•	•	•	
Office storage furniture		•	•		
Office work chair		•	•	•	
Seating		•	•	•	
Seating and tables for camping, domestic and contract use		•	•	•	
Tables		•	•	•	
Work tables and desks		•	•		
Assessment of the ignitability of upholstered furniture					
Ignition source: smouldering cigarette	•	•	•	•	
Ignition source: match-flame equivalent	•	•	•	•	
Determination of strength, durability and/or stability					
Seating (upright, with tilting or reclining mechanisms and/or rocking chairs)	•	•	•	•	•
Tables	•	•	•	•	•
Work tables and desks		•	•		
Storage furniture	•	•	•	•	•
Bunk beds and high beds for non-domestic use		•	•		
Ranked seating		•	•	•	
Test for surface finishes					
Assessment of resistance to dry heat	•	•	•	•	
Assessment of resistance to fat on surfaces with scratches				•	
Assessment of resistance to impact	•			•	
Assessment of resistance to wet heat	•	•	•	•	
Assessment of surface resistance to cold liquids	•	•	•	•	•
Assessment of the light resistance of the surface		•			
Assessment of the surface gloss		•	•		
Assessment of the surface resistance to abrasion		•			
Assessment of the surface resistance to scratching		•			
Behaviour at abrasion			•		
Behaviour at chemical influence			•		
Behaviour at glowing cigarette			•		
Behaviour at scratches			•		
Behaviour on subjection to wet heat			•		
Behaviour on subjection to dry heat			•		
Measurement of the surface reflectance		•	•		
Dimensions					
Chairs and tables for educational institutions	•	•	•	•	
Fixed desks and chairs for lecture rooms					•
Kitchen furniture and kitchen appliances		•	•	•	
Kitchen sinks, connecting dimensions		•			
Office furniture, screens		•	•	•	
Office storage furniture		•			
Office work chair		•	•	•	
Work tables and desks		•	•	•	
Terminology					
Storage units, terminology				•	

Harmonization

At the international level, harmonization is implemented by the International Organization for Standardization (ISO). ISO is a worldwide federation of national standards bodies from more than 140 countries. Its mission is to promote the development of standardization and related activities in order to facilitate international trade and cooperation. ISO's work culminates in international agreements published as international standards. In the furniture sector, ISO has published the 24 standards listed below.

Reference number	Document title
ISO 4211:1979	Furniture – Assessment of surface resistance to cold liquids
ISO 4211-2:1993	Furniture – Tests for surfaces – Part 2: Assessment of resistance to wet heat
ISO 4211-3:1993	Furniture – Tests for surface finishes – Part 3: Assessment of resistance to dry heat
ISO 4211-4:1988	Furniture – Tests for surfaces – Part 4: Assessment of resistance to impact
ISO 5970:1979	Furniture – Chairs and tables for educational institutions – Functional sizes
ISO 7170:1993	Furniture – Storage units – Determination of strength and durability
ISO 7171:1988	Furniture – Storage units – Determination of stability
ISO 7172:1988	Furniture – Tables – Determination of stability
ISO 7173:1989	Furniture – Chairs and stools – Determination of strength and durability
ISO 7174-1:1988	Furniture – Chairs – Determination of stability – Part 1: Upright chairs and stools
ISO 7174-2:1992	Furniture – Chairs – Determination of stability – Part 2: Chairs with tilting or reclining mechanisms when fully reclined, and rocking chairs
ISO 7175-1:1997	Children's cots and folding cots for domestic use – Part 1: Safety requirements
ISO 7175-2:1997	Children's cots and folding cots for domestic use – Part 2: Test methods
ISO 7617-1:2001	Plastics-coated fabrics for upholstery – Part 1: Specification for PVC-coated knitted fabrics
ISO 7617-2:1994	Plastics-coated fabrics for upholstery – Part 2: Specification for PVC-coated woven fabrics
ISO 7617-3:1988	Plastics-coated fabrics for upholstery – Part 3: Specification for polyurethane-coated woven fabrics
ISO 8191-1:1987	Furniture – Assessment of the ignitability of upholstered furniture – Part 1: Ignition source: smouldering cigarette
ISO 8191-2:1988	Furniture – Assessment of the ignitability of upholstered furniture – Part 2: Ignition source : match-flame equivalent
ISO 9098-1:1994	Bunk beds for domestic use – Safety requirements and tests – Part 1: Safety requirements
ISO 9098-2:1994	Bunk beds for domestic use – Safety requirements and tests – Part 2: Test methods
ISO 9221-1:1992	Furniture – Children's high chairs – Part 1: Safety requirements
ISO 9221-2:1992	Furniture – Children's high chairs – Part 2: Test methods
ISO 10131-1:1997	Foldaway beds – Safety requirements and tests – Part 1: Safety requirements
ISO 10131-2:1997	Foldaway beds – Safety requirements and tests – Part 2: Test methods

Quality standards, certification and labelling requirements, environmental management systems

China

Quality standards and certification

In 1979 China joined ISO Technical Committee 136 and set up its furniture standard system and implementation plan in 1981. Under the implementation plan, five different players (furniture research institute, forestry university, quality inspection centre, furniture trading companies and furniture manufacturers) were responsible for drawing up various furniture standards. By 2000, the following authorized standards had been issued:

- ❑ General technical basic standard;
- ❑ Quality standards for furniture;
- ❑ Standard for testing methods for furniture;
- ❑ Standard for testing coatings for furniture;
- ❑ Standards for furniture parts and their testing method; and
- ❑ Green evaluation standards.

Furniture factories can use these standards as a basis for designing enterprise-level standards for production management and quality control.

By the end of the 1970s, China started to carry out research on furniture inspection equipment, and to establish quality supervision and inspection institutes or units for furniture. These were set up at different levels: national, provincial and entrepreneurial.

The main responsibilities of the quality supervision and inspection institutes are:

- ❑ To inspect the appearance of furniture, including wooden, metal, upholstered furniture;
- ❑ To test the physical, chemical and mechanical characteristics of furniture;
- ❑ To inspect processes, production lines, and prototypes in furniture enterprises; and
- ❑ To provide formal testing and inspection reports, including index values, testing values and inspection conclusions.

The implementation of the ISO 9001 and ISO 9002 standards have effectively helped control key quality factors in furniture production, such as wood drying, shaping and processing, gluing and coating. There are more than 500 furniture factories with these certificates.

Environmental management

The ISO 14000 Environmental Management Standards are widely used in many industrial areas. The State Environmental Protection Administration is responsible for certification to environmental protection standards. However, certification to ISO 14000 is not available to the furniture industry. At present, there are no mandatory recycling requirements for furniture in the country.

Certification and labelling of wood products remain a new concept for most Chinese enterprises. Because of the strong demand from international trade, more and more wood processing factories, especially export-oriented factories, have started to obtain chain-of-custody (CoC) certification.

By June 2001, China had 17 wood processing factories with CoC certificates. Eight were handled by Société générale de surveillance (SGS), six by Smart Wood, and three by Scientific Certification Systems (SCS). However, China has no forest certified under the FSC or similar system. All certified processing factories have to import certified wood raw material.

With the rise of younger and wealthier consumers who are aware and mindful of the current depletion of China's domestic forest cover, there is a large potential in the Chinese market for imports of environmentally friendly wood products. Convinced of the expanding demand, several of the world's leading retailers of wood and furniture products have established themselves in China.

In early 2000, the United Kingdom's B&Q, the world's third largest retailer of wood and building products, set up two stores in China. B&Q has committed itself to selling only FSC certified (or equivalent) wood products in the United Kingdom. It has also pledged to facilitate the access of certified wood products from China to European markets.

IKEA has opened two pilot stores in China. At the time of the preparation of this study, it was looking for Chinese partners able to undergo forest management and CoC certification.

France

French furniture makers have their own quality requirements which they apply rigorously. In addition, they ensure conformance with European Norms (EN), which have now almost completely replaced national standards (NF Ameublement), as well as with the national standards that remain in force.

There are numerous standards for furniture. Guidance can be obtained from the Wood and Furniture Technical Centre (CTBA) at www.ctba.fr.

Many standards concern the safety of both furniture and raw materials (e.g. NF-EN 1727 on the breaking level of pieces of wood). These can apply to tops, doors, beds (including children's beds: NF-EN 716); finishing must follow the requirements of NF-EN 71-3. Norms provide rules both for 'normal use' and 'non-normal use' which can be 'reasonably' foreseen. There are also quality standards which establish rules for long-term use of furniture. In this case the standards provide tests based on long and repeated cycles of use.

Certification agencies usually recommend obtaining certification to ISO 14001 first, and then to the EU Eco-Management and Audit Scheme (EMAS). The latter is a management tool to enable companies and other organizations to evaluate, report and improve their environmental performance. About 165 French furniture companies have obtained ISO 14001 certification (end-1999) and 18 have complied with EMAS requirements.

French forest owners have not actively supported FSC (Forest Stewardship Council) certification, and there were only around 13,000 hectares of FSC-certified forests in the country in mid-2001. By contrast, France had 250,000 hectares of forests certified to PEFC (Pan European Forest Certification) rules⁴ in 2002.

4 According to its website, PEFC is a global umbrella organization for the assessment and mutual recognition of national forest certification schemes. It has 13 certified schemes, which account for over 50 million hectares of certified forests. Other national schemes are at various stages of development and are working towards mutual recognition under the PEFC processes.

There is little demand for eco-certified furniture in France. The demand comes mostly from the large DIY store chains, such as Castorama and Leroy Merlin. These corporations prefer FSC certification, but are also assessing PEFC certification.

Germany

The German system of furniture technical standardization contained in the DIN collection of standards is comprehensive and often serves as an international benchmark in the absence of national standards. Relevant DIN standards on furniture are listed in appendix I. Contact information on the standards institute is provided below:

DIN – Deutsches Institut für Normung, e.V.

Burggrafenstraße 6

DE-10787 Berlin

Tel: +49-26-01-25-25

Fax: +49-26-01-1-11-80

Internet: www.din.de

The German sector for kitchen furniture in particular has been a forerunner in the adoption of quality standards. Many of the recent functional innovations and ergonomic improvements have emerged from German makers. ‘Made in Germany’ is an excellent sales pitch for high-technology kitchen brands. As the German manufacturing processes tend to be complex and the accessories demanding, standardization is proof of consistent product quality.

There are no legally binding requirements with regard to the labelling of furniture for retail sales. As a basic principle, one should assume that consumers expect to receive information on the producer, origin and quality of the product, as well as on the chemicals used. Service tips should also be provided. In several EU countries, standard labelling systems are being issued by the trade to harmonize consumer information in labels. The new labelling code set out by the German Furniture Trade Association (DGM) stipulates that the following information should be provided to the consumer:

- Product description/name;
- Model/type;
- Construction/material used;
- Availability of different models;
- Type of upholstery;
- Care and cleaning advice;
- Treatments/tests carried out;
- Guarantees.

In terms of environmental awareness, Germany continues to rank high among the European countries. This mostly centres on forest management certification and chain-of-custody certification on primary processed wood products, DIY products and garden furniture. The Blue Angel eco-labelling scheme has criteria for office furniture. Environmental criteria are discussed in greater detail in chapter 7.

Japan

According to the Japan External Trade Organization (JETRO)⁵ some furniture products are subject to the Household Goods Quality Labeling Law and the Consumer Products Safety Law. Furniture that uses leather from certain wild animal species may be subject to the Law for Conservation of Endangered Species of Wild Fauna and Flora.

Three categories of wooden furniture are required to bear labels specifying their dimensions and the materials used in each of their major components. The product groups covered are desks and tables, chairs and other seats, and chests and dressers. Table 6.3 indicates the type of labelling detail required for each furniture category.

Label detail	Desks and tables	Seats and other chairs	Chests and dressers
Dimensions	✓	✓	✓
Surface material			✓
Surface processing	✓	✓	✓
Structural members		✓	
Upholstery		✓	
Cushioning		✓	
Labeller	✓	✓	✓

Note: ✓ indicates the labelling detail required.

Labelling should follow these guidelines:

- **Dimensions.** All three types of furniture must carry information on external dimensions (width x depth x height in mm). The range of allowable error is ± 10 mm for desks and tables as well as chairs and other seats; for chests and dressers it is +5 mm and -10 mm. Also required are the seat height (height of seat centre) of chairs and other seats and, for chests and dressers, the inside dimensions of the drawers in mm (to an allowable error of ± 10 mm) and the maximum storage volume.
- **Surface materials.** Surface materials must be specified for the tops of desks and tables and the doors of chests and dressers. 'Natural wood' can include blockboards and similar 'boards made by pieces of natural wood assembled in a mosaic and adhered together'. Wood-veneered materials must specify the core material, e.g. 'plywood with natural wood veneer' or 'particle board with natural wood veneer'.
- **Surface processing.** This means the type of resin, varnish, paint, etc. used for the final finish coat, e.g. 'polyester resin' or 'urethane resin'. When different finishes are applied to different parts of a furniture piece, for example the top and legs of a table, each must be specified separately.

⁵ JETRO Marketing Guidebook for Major Imported Products (www.jetro.go.jp/en/market/reports).

- ❑ **Structural members.** The type of material used for the structural members must be given. The rules for wooden parts are the same as those for surface materials. For metal components, the word ‘metal’ must be followed by the name of the metal in parenthesis; a similar rule applies to plastics.
- ❑ **Upholstery.** The surface material of upholstered chairs and other seats must be given. In the case of leather, the kind of leather must be stated in parenthesis after the word ‘leather’.
- ❑ **Cushioning.** The material of each main part of the cushions must be indicated, e.g. ‘steel springs’ and ‘urethane foam’.
- ❑ **Handling instructions.** In principle, according to new guidelines, the label should also include any special usage requirements or restrictions, e.g. ‘Keep away from space heaters’, but these may also be relegated to a separate instruction manual.
- ❑ **Labeller.** This refers to the name and address of the company affixing the label and determining its contents.

Recent deregulation allows the label and its lettering to be of any size. It is now also permissible to include special features of the product, such as the use of plywood or particle board with low formaldehyde emissions. Some Japanese consumers may be looking for this since awareness has recently arisen about the so-called ‘sick house syndrome’.

Baby cribs designed for home use by infants up to 24 months old are subject to the Consumer Products Safety Law which designates some products whose structure, materials or mode of usage pose special safety problems as ‘specific products’. According to JETRO⁶, these products ‘must be self-confirmed for compliance with government safety standards and display the PS Mark on their labels’. Baby cribs without the mark may not be sold in Japan. Compliance testing is performed by a designated third party organization.

There are various Japanese Industrial Standards (JIS) for furniture (see list further below). Certain designated products meeting these standards may be labelled with the JIS Mark of approval. For furniture, the designated products are desks and tables for office use, chairs for office use, cabinets for office use, ordinary beds for home use, and desks and chairs for school use.

Wooden beds for home use are subject to three separate Japanese Industrial Standards: JIS S 1102-1993 for ordinary beds, JIS S1103-1995 for baby beds or cribs and JIS S1104-1995 for bunk beds.

Japan has a Consumer Product Safety Association which establishes safety criteria. Products that comply with these criteria may carry the SG (Safety Goods) Mark. In furniture, the SG Mark may be obtained for such products as bunk beds, cupboards, children’s dressers and chairs. According to JETRO, a consumer injured when using an SG-approved product may be eligible to receive up to 100 million yen in damages for personal injury.

6 JETRO Marketing Guidebook for Major Imported Products (www.jetro.go.jp/en/market/reports).

JIS STANDARDS FOR FURNITURE	
Reference number	Document title
JIS A 0016:1979	Modular coordination – Coordinating size of opening for built-in appliances in storage furniture
JIS A 1531:1998	Furniture – Assessment of surface resistance to cold liquids
JIS C 0364-7-713:1999	Electrical installations of buildings – Part 7: Requirements for special installations or locations – Section 713: Furniture
JIS S 1010:1978	Standard size of writing desks for office
JIS S 1011:1994	Standard size of chairs for office
JIS S 1015:1974	Sizes and dimensions of fixed desk and chair for lecture room
JIS S 1016:1995	Fixed desk and chair for lecture room
JIS S 1017:1994	General rule for test method for furniture
JIS S 1018:1995	Test methods for vibration and earthquake tumbling for furniture
JIS S 1021:2004	School furniture – Desks and chairs for general learning space
JIS S 1031:1999	Office furniture – Desks and tables
JIS S 1032:1999	Office furniture – Chairs
JIS S 1033:1999	Office furniture – Storage cabinets
JIS S 1037:1998	Fire-resistant containers
JIS S 1038:1994	Castors for office chairs
JIS S 1039:1989	Steel shelves
JIS S 1040:1994	Steel racks
JIS S 1061:1998	Domestic furniture – Student desks
JIS S 1062:1998	Domestic furniture – Student chairs
JIS S 1102:1993	Beds for domestic use
JIS S 1103:1995	Baby beds
JIS S 1104:1995	Bunk beds for domestic use
JIS S 1200:1998	Furniture – Storage units – Determination of strength and durability
JIS S 1201:1998	Furniture – Storage units – Determination of stability
JIS S 1202:1998	Furniture – Tables – Determination of stability
JIS S 1203:1998	Furniture – Chairs and stools – Determination of strength and durability
JIS S 1204:1998	Furniture – Chairs – Determination of stability – Part 1: Upright chairs and stools
JIS S 1205:1998	Furniture – Tables – Determination of strength and durability

United Kingdom

Standards in the United Kingdom are directly comparable and equate to EU Norms. EN-BS is the code given to those standards when tested in the United Kingdom, although testing can be carried out in most European countries and a number of registered test centres throughout the world. FIRA, the Furniture Industry Research Association (www.fira.co.uk), provides full details of the requirements; so does SATRA (www.satra.co.uk; email: admin@satra.co.uk) and its Furniture Technology Centre.

Checking quality criteria with these organizations and standards is always critical when entering the British market, unless the imported product has already met EU Norms or has a relevant certificate of conformity. Especially when seating is concerned, adherence to flammability regulations for fabrics

and surface materials and their fillings/foams is mandatory for all upholstery of British and imported manufacture. Non-compliance is a criminal offence. Glass in furniture is a particular hazard and the use of safety glass is mandatory.

FIRA or SATRA provide details of requirements within the context of the General Product Safety Regulations.

As an example, in children's furniture, standards are important for bunk-beds with a sleeping surface 800 mm or more above the floor. The Regulations of 1987 and BS EN 747 Parts 1 and 2:1993 are the key standards. Even if the bed is below 800 mm in height it should be checked and tested against structural failure.

Article 3 of the EEC Council Directive 92/59/EEC states that: 'producers shall be obliged to place only safe products on the market'. It is a criminal offence to supply or distribute consumer goods that are not safe. The Directive goes on to define a safe product and states that testing to standards is an important criterion for compliance, including standards that are not directly applicable but possibly relevant to the product. Standards of stability, function, fitness for purpose and flammability are available for household furniture and should be applied to children's items.

United States

Standards

There are at least 14 different standards for furniture (see list below) in the United States covering a broad range of aspects. They are issued mainly by the American Society for Testing and Materials (ASTM). The American National Standards Institute (ANSI) and the Business and Institutional Furniture Manufacturer's Association (BIFMA) have also promulgated a standard for small office/home office (SOHO) furniture.

There are two proposals to revise the standards for upholstered furniture, one from the federal Consumer Product Safety Commission (CPSC) and the other from the California Bureau of Home Furnishings. The latter is the more stringent of the two. Both seek to reduce the number of fires caused by cigarette lighters, candles and matches through the use of fabrics or barriers that have an open flame resistance of 20 seconds. The proposals, if approved, may be in place in a few years and will be applicable to all products, imports included. They will probably result in higher production costs and higher prices. The existing tests on the fire-resistance of upholstery fabrics and fillings are considered inadequate in view of the fact that new materials and products are coming onto the market.

<i>Reference number</i>	<i>Document title</i>
ASTM D3453-01	<i>Standard Specification for Flexible Cellular Materials-Urethane for Furniture and Automotive Cushioning, Bedding, and Similar Applications</i>
ASTM D5253-96	<i>Standard Terminology of Writing Care Instructions and General Refurbishing Procedures for Textile Floor Coverings and Textile Upholstered Furniture</i>
ASTM E1352-02	<i>Standard Test Method for Cigarette Ignition Resistance of Mock-Up Upholstered Furniture Assemblies</i>
ASTM E1353-99	<i>Standard Test Methods for Cigarette Ignition Resistance of Components of Upholstered Furniture</i>

<i>Reference number</i>	<i>Document title</i>
<i>ASTM E1375-90(2002)</i>	<i>Standard Test Method for Measuring the Interzone Attenuation of Furniture Panels Used as Acoustical Barriers</i>
<i>ASTM E1474-02</i>	<i>Standard Test Method for Determining the Heat Release Rate of Upholstered Furniture and Mattress Components or Composites Using a Bench Scale Oxygen Consumption Calorimeter</i>
<i>ASTM E1537-02</i>	<i>Standard Test Method for Fire Testing of Real Scale Upholstered Furniture</i>
<i>ASTM F1178-01</i>	<i>Standard Specification for Enameling System, Baking, Metal Joiner Work and Furniture</i>
<i>ASTM F1550-01</i>	<i>Standard Test Method for Determination of Fire-Test-Response Characteristics of Components or Composites of Mattresses or Furniture for Use in Correctional Facilities after Exposure to Vandalism, by Employing a Bench Scale Oxygen Consumption Calorimeter</i>
<i>ASTM F420-99(2003)</i>	<i>Standard Test Method for Access Depth Under Furniture of Vacuum Cleaners</i>
<i>ASTM F782-01</i>	<i>Standard Specification for Doors, Furniture, Marine</i>
<i>ASTM F825-93(1999)</i>	<i>Standard Specification for Drawers, Furniture, Marine, Steel</i>
<i>ASTM F826-94(1999)</i>	<i>Standard Specification for Tops, Furniture, Marine, Steel</i>
<i>ANSI/BIFMA/SOHO S6.5-2001</i>	<i>Small Office/Home Office Furniture – Tests</i>

The Information Technology Division of the American Furniture Manufacturers Association (AFMA) has developed approved bar code numbering systems, adapting the international standards of the Uniform Code Council (UCC) for use in furniture.

Certification

The industry is responding to environmental issues, a direction many of the relevant associations seeking consumer benefits for their members approve of. Various standards, rules and regulations, many of them closely linked with those of the European Union, are being considered or put in place.

The requirements are published and certification of compliance is required. Individual manufacturers must conform to these requirements and take them into account in planning for source materials and their subsequent conversion. As the playing field is thus level as far as the environmental aspect is concerned, the competitive challenge to the industry lies in pricing, delivery, quality and responding to design needs. In 2002, the major DIY chains, home centres and furniture groups, as well as regional and government buying organizations, were set to exploit these market aspects.

According to research conducted recently by APA, the United States wood manufacturing industries are increasing their supply of certified wood products. For public buildings and truck bodies, all the respondents covered by the APA survey supplied certified materials, whether or not these were asked for. About 67% of the respondents supplied certified wood products for general millwork, 40% for windows and doors, 40% for wooden household furniture, and 61% for

wooden office and store furniture. It would seem that the industry as a whole was well ahead of consumer demands and well prepared to make good use of its environmental awareness in its manufacturing activities.

According to other recent surveys, certified wood materials are being increasingly required by United States furniture manufacturers, who have so far been less affected by a sustainability debate among their consumers. The pressures appear to be coming from trade intermediaries like retailers, institutional buyers and lobby groups. As more forests are certified, the supply of certified wood is increasing along the production chain. The pressures on certification for downstream industries – such as furniture making – will become more evident also from the supply perspective.

What are the implications for foreign suppliers of components (China, the Philippines) which obtain their raw materials from numerous sources? It is apparent that demands for chain-of-custody (CoC) certification will increase. CoC is understood to be the identification of material through all the processing and transportation stages from the initial raw material source to the final product. In addition to forest certification, with which CoC certification is usually associated, it could be used to show that the wood comes from legal sources. In the short term, this would be a more pressing issue to be pursued by tropical producers than full-scale forest certification.

Conclusions

The objective of standardization is to ensure that all furniture available on the market is safe to use and is of solid and strong construction. Voluntary product standards can lead to an efficient exchange of information between the importer and the supplier. Instead of having to deal with the non-specific and constantly changing requirements of various counterparts, the supplier will have the benefit of working with a stable set of requirements.

Manufacturers normally use the standards voluntarily in product development, process control and marketing. Having a common language for test methods, dimensions, safety and strength characteristics is considered more important than giving explicit criteria on what a piece of furniture should look or feel like. This is a matter left for designers to decide.

Chapter 7

International and national certification schemes in the furniture sector

Product certification

Product certification is carried out against the requirements of one or several standards, and is closely associated with testing. The issuance of a certificate indicates that a product meets the requirements of the standard or standards concerned. In addition, it implies that continuous quality control is carried out by the manufacturer's own quality control system, that the manufacturer's quality processes are audited by a third party, and that product tests are undertaken on a spot-check basis. Companies apply for product certification mainly to fulfil customer requirements in the export trade but sometimes also for domestic marketing purposes. Product certification is usually publicized through the use of product labels.

In some countries, buyers are more prone to ask for certificates and product labels than in others. Buyers in France, Germany and Sweden, for example, may require product certification for imported furniture.

Many manufacturers are reluctant to apply for the certification of their products because it is expensive. Testing is time consuming: testing an auditorium chair, for example, could take three months if it is carried out to the full extent of the standards concerned. However, manufacturers testing for their own purposes may use accelerated methods that call for increased loads or exposures over shorter periods. The accelerated test for an auditorium chair, for example, can be completed in just two days.

Certification of environmental management systems

Many organizations have their environmental management systems certified to ISO 14001 or registered under the EU Eco-Management and Audit Scheme (EMAS). Environmental management systems cover elements of environmental sustainability other than forestry but may include some aspects of it as well.

ISO 14001:1996 *Environmental management systems – Specification with guidance for use*, is an international standard that outlines the requirements for environmental management systems (EMS). It can be adapted to any type of production in any kind of organization. There are probably tens of thousands of companies that have environmental management systems certified according to ISO 14001. Some of these companies may require their suppliers to obtain

ISO 14001 certification as well – but not necessarily. However, a furniture importer with a certificate may ask its tropical suppliers about the origins of their raw materials.

EMAS is a management tool for companies and other organizations seeking to evaluate, report on, and improve their environmental performance. EMAS registration was originally restricted to companies in industrial sectors but since 2001 it has been open to all sectors, including services. Participation is voluntary; EMAS registration can be obtained in 18 European countries. At the moment, there are more than 3,500 EMAS-registered sites – a few dozen operate in the furniture sector.

Forest management certification

Overview

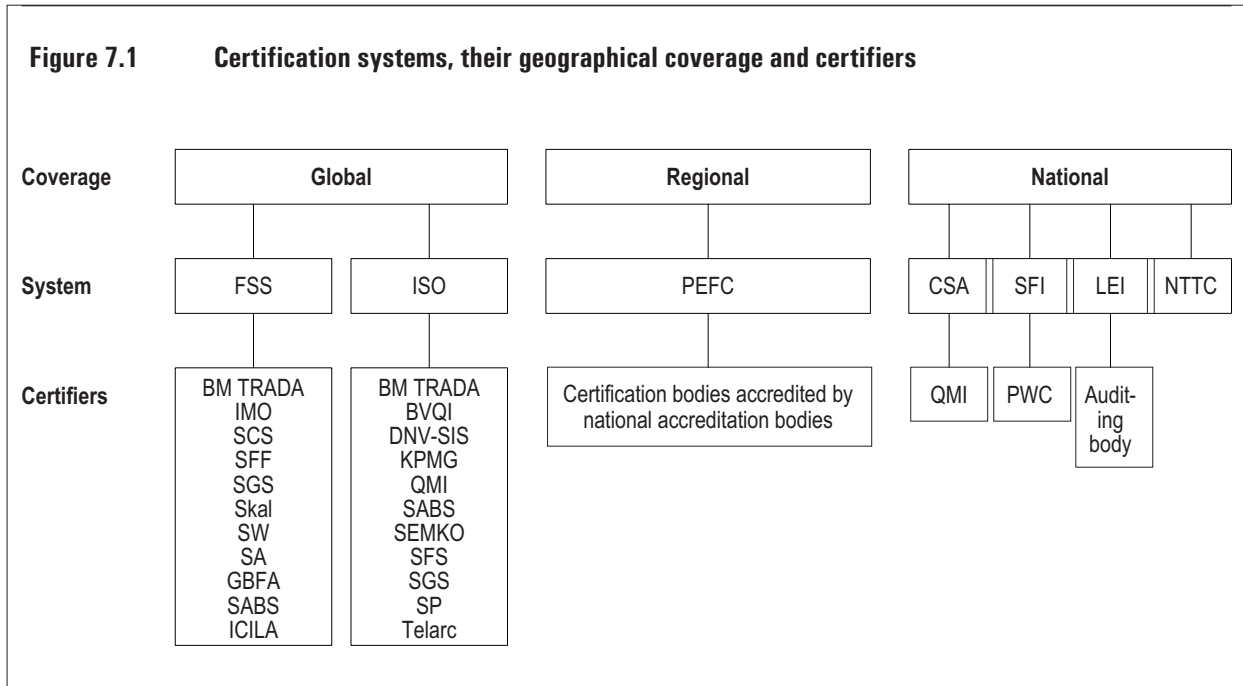
The certification of forest management has evolved rapidly in the past few years and numerous forest certification schemes have been developed around the world. The organizations and initiatives active in forest certification include the following:

- ❑ Forestry Stewardship Council (FSC);
- ❑ Pan European Forest Certification Council (PEFC Council);
- ❑ Canadian Standards Association (CSA);
- ❑ American Forest & Paper Association (AF&PA), United States;
- ❑ Malaysian Timber Certification Council (MTCC);
- ❑ Indonesian Ecolabeling Institute (LEI);
- ❑ Brazilian Association for Technical Standards (ABNT); and
- ❑ Netherlands Timber Trade Association.

Many other certification initiatives are being developed either independently or under various frameworks. Two major forest certification schemes – FSC and PEFC – are reviewed in greater detail below.

Forest certification is going forward at an unprecedented pace. Since 1998, the growth has been exponential. Nevertheless, certified forests still make up less than 4% of the world's forests.

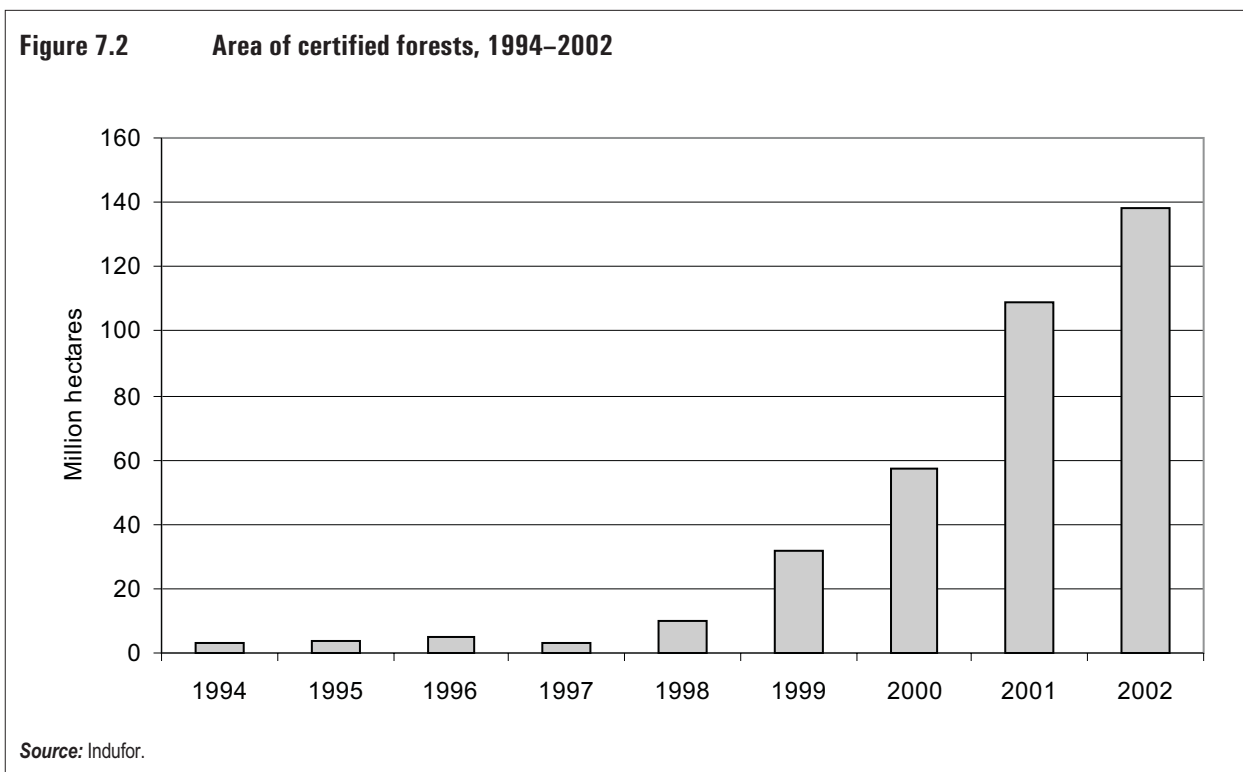
PEFC and the Sustainable Forestry Initiative (SFI) of AF&PA are currently the leaders in forest certification in terms of certified area. The largest concentrations of certified forests are in North America (49%) and Europe (45%). Only 7% of the certified area is in tropical or subtropical countries.

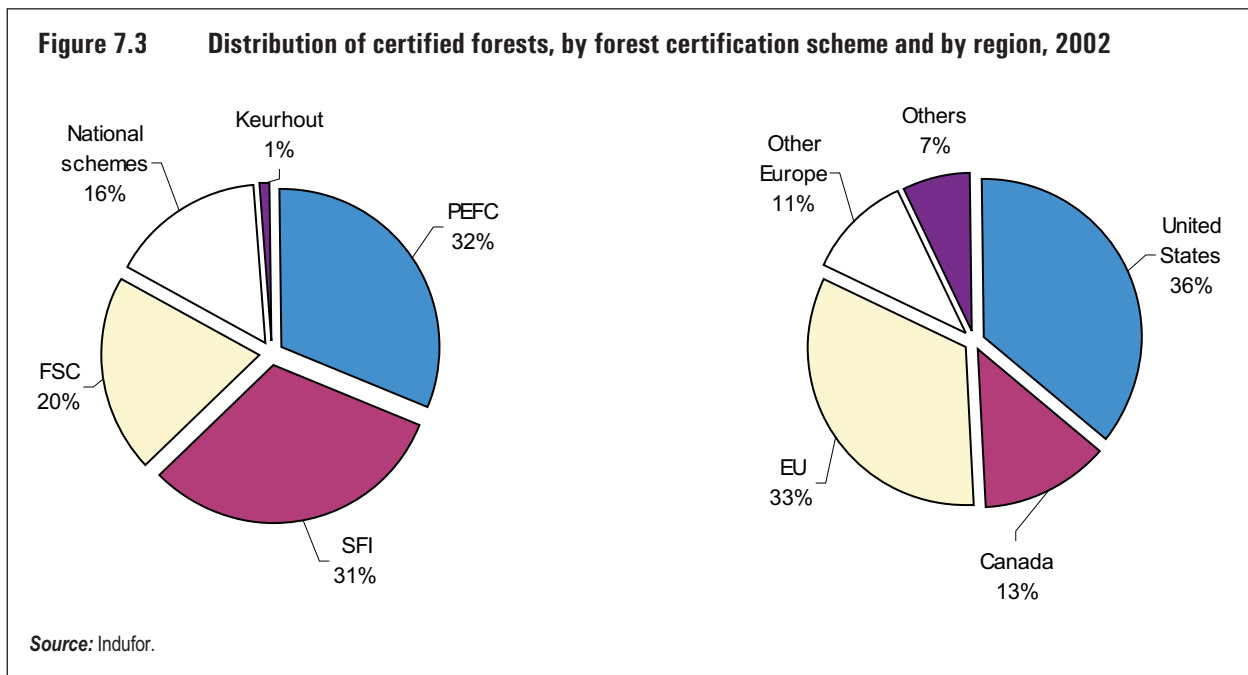


Sources: ForestWorld Group and Indufor.

Note:

- BM TRADA Certification is a multi-sector certification body accredited by the United Kingdom Accreditation Service (UKAS).
- IMO (Institut für Markökologie, Kontroll- und Zertifizierungsstelle im Ökologischen Landbau) engages in the certification of forest industry activities.
- SCS (Scientific Certification Systems) audits forest management practices and certifies forest areas to FSC criteria.
- SFF (Silva Forest Foundation) is FSC-accredited to conduct timber management and chain-of-custody certifications throughout Canada.
- SGS (Société Générale de Surveillance) carries out QUALIFLOR, a forest certification programme accredited by FSC.
- Skal certifies both forest management and production according to FSC criteria.
- SW (SmartWood) certifies chain of custody and forest management operations.





The Forest Stewardship Council

The Forest Stewardship Council (FSC) is an international non-profit organization founded in 1993 to support environmentally appropriate, socially beneficial, and economically viable management of the world's forests. It is an association of a diverse group of environmental and social non-governmental organizations (NGOs), the timber trade, the forestry profession, indigenous peoples' organizations, community forestry groups and forest product certification organizations from around the world.

Membership is open to those involved in forestry or with forest products and share FSC aims and objectives. FSC is strongly supported by environmental and social NGOs and to a certain extent by the forest industry and trade. Forest owners' organizations, on the other hand, are in general critical of FSC.

FSC supports and approves the development of regional standards that comply with the FSC Principles and Criteria on forest management. The standards are usually developed by national and regional working groups that should have a balanced representation of social, economic and environmental interests.

Pan-European Forest Certification Framework

The Pan-European Forest Certification scheme (PEFC) was established in 1999 to provide mutual recognition of national forest certification schemes. It was specifically developed to accommodate the small-scale forest ownership structure prevalent in Europe. PEFC was initiated by forest owners' organizations from six countries, and it has gained support from the forest industry and social non-governmental organizations (NGOs) but only to a limited extent from environmental NGOs. PEFC now has member organizations in 27 countries.

PEFC assesses and approves national forest certification standards submitted by national PEFC committees. The national standards are elaborated in a participatory process and should comply with pan-European criteria and indicators for sustainable forest management.

Mutual recognition of forest certification schemes

Because of the increasing number of forest certification schemes, several initiatives have been taken to facilitate the mutual recognition of certification schemes. Mutual recognition (MR) is a formal recognition that the incorporated certification systems are equivalent in their inputs, operations and outputs. PEFC and FSC have differing views on how MR should be implemented.

According to FSC, mutual recognition is the acceptance of different national initiatives under the FSC umbrella. FSC has reviewed national non-FSC standards in several countries (such as Indonesia, Malaysia and the United Kingdom) for FSC approval. In the United Kingdom, the effort led to the recognition of the national scheme, the United Kingdom Woodland Assurance Standard (UKWAS).

The PEFC Council, on the other hand, considers non-PEFC forest certification schemes and standards with a view to facilitating mutual recognition. The Council has determined the basic requirements for certification schemes to make them endorsable. The first non-European schemes applied for PEFC endorsement in mid-2003.

The Confederation of European Paper Industries (CEPI) established a framework for comparing certification schemes as early as 1996. The framework sets out 11 criteria for a 'perfectly credible' scheme with a number of indicators for each criterion. The schemes are rated, on the basis of the responses to a comparative questionnaire submitted by the schemes, on the extent ('fully', 'partially', 'does not comply') to which they comply with each of the indicators. The ratings are presented in a Comparative Matrix of Forest Certification Schemes. To date the matrix covers 25 national forest certification schemes and two international schemes (FSC and PEFC).

In February 2001, the International Forest Industry Roundtable (IFIR), an informal network of national industry associations and CEPI, proposed a set of 10 criteria and 59 indicators defining 'credible' forest certification systems and standards. The intention was to arrive at the mutual recognition of these systems and standards. The criteria would provide a template of 'credibility' against which systems could be assessed using a questionnaire methodology similar to the one developed by CEPI (see above). This initiative has been further developed under the World Business Council for Sustainable Development (WBCSD) which has proposed a 'legitimacy threshold model' with benchmarks for the assessment.

The European Commission cautiously agrees on the need to define criteria for credible certification systems which can be used, for instance, when implementing public procurement policies specifying wood coming from legal and sustainably managed sources.

Some certification bodies are also in various stages of entering into mutual recognition arrangements. They include the Malaysian Timber Certification Council, Indonesian Ecolabeling Institute, Canadian Standards Association (CSA) and the American Forest & Paper Association.

Chain-of-custody certification

One area of the certification debate is chain-of-custody certification. The chain-of-custody – or wood tracking – is a sequence of ownership or control from one operation to another along the supply chain (see figure 7.4). In more accurate terms, wood tracking is not a synonym for chain-of-custody but is an aspect of it. However, in this chapter the two terms are used interchangeably. Chain-of-custody can also be understood to be the identification of material throughout all the processing and transportation stages from the initial raw material source to the final product.

The chain of custody is required to be certified in connection with the labelling of forest-based products. A label shows that the wood raw material – or a known portion of it – comes from sources that are acceptable to a particular labelling system. In addition to forest certification, with which chain-of-custody certification is usually associated, it can be used to show that the wood comes from legal sources. In the short term, this would be a more pressing issue to pursue than full-scale forest certification.

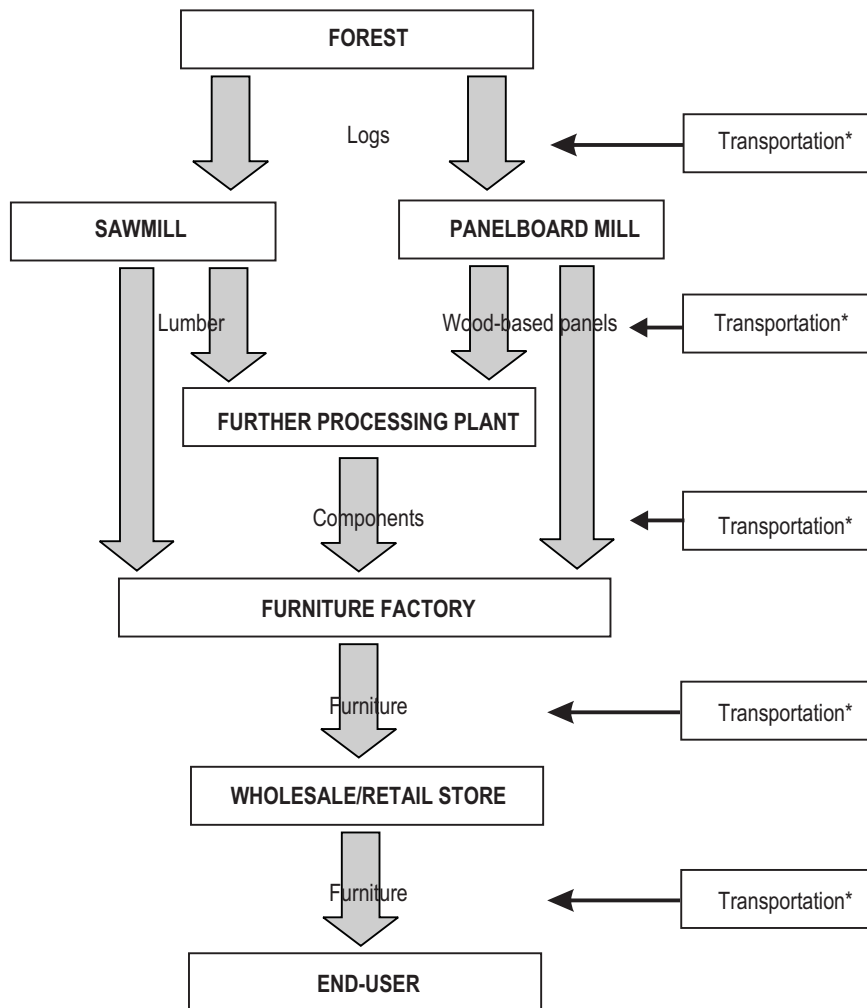
Wood tracking can be implemented in the following two alternative ways:

- As a sequence of separate stages which are verified individually.
- As one comprehensive system which considers all phases from forest operations to the final product.

Normally, processing and transportation stages are looked at and certified separately. The benefit is that each stage is connected only with the directly preceding stage. Therefore, a downstream manufacturer that obtains raw material from primary processors or intermediary component makers does not have to try to trace backward through several processing and transportation stages in order to find out whether the raw material is ‘acceptable’.

The role of intermediaries (sourcing agents, brokers, importers, wholesalers, retailers, etc.) tends to complicate the controllability of the chain. Even though each actor is responsible for its own part, the complication arises from the fact that as the number of actors increases, so does the number of materials used, making control and tracking difficult. In addition, the impact of an individual manufacturer on a finished product can get less and less significant. In garden furniture, this is less of a problem as the product is made of solid wood, often of one single species. For furniture made of wood of different forms and species and obtained from several sources, the chain-of-custody rules easily become problematic.

In September 2002, there were about 2,800 chain-of-custody certificates in the world, a relatively small number considering the size of the forest products sector and the complexity of wood and fibre flows. A main factor in the slow introduction of certified products in the markets has been the lack of certified timber. As more and more forests are being certified, the supply of certified wood is increasing along the production chain, and the pressures on certification for downstream industries – such as furniture making – will become more evident.

Figure 7.4 Simplified example of a chain-of-custody for wood in furniture

Certification of corporate social responsibility

Corporate social responsibility has been increasing its appeal in international forums in the past few decades. NGOs and the concerned public have organized campaigns, demonstrations, boycotts, etc., against companies that they feel are undermining human rights. In recent years, standardization and certification have been introduced to help resolve the issue. Currently, there are at least two standards related to corporate social responsibility:

- ❑ Social Accountability 8000 (SA 8000) standard (published by Social Accountability International, SAI) and
- ❑ AA1000 Series (published by the Institute of Social and Ethical AccountAbility, an ‘international, non-profit, professional institute dedicated to the promotion of social, ethical and overall organizational accountability, a precondition for achieving sustainable development’).

SA 8000 is a performance-oriented workplace standard that imposes requirements in regard to child labour, forced labour, health and safety, freedom of association and the right to collective bargaining, discrimination, disciplinary practices, working hours and remuneration.

The AA1000 Series consists of a Framework and specialized modules. Launched in 1999, the Framework was developed to address the need for organizations to integrate their stakeholder engagement processes into daily activities. It helps users to establish a systematic stakeholder engagement process that generates the indicators, targets and reporting systems required to ensure its effectiveness in overall organizational performance. The AA1000 Assurance Standard, launched in March 2003, is the first of the specialized modules. It helps in the assessment of sustainability performance and reports on three points:

- ❑ **Materiality.** Does the sustainability report provide an account covering all the areas of performance that stakeholders need to judge an organization's sustainability performance?
- ❑ **Completeness.** Is the information complete and accurate enough to assess and understand the organization's performance in all areas?
- ❑ **Responsiveness.** Has the organization responded coherently and consistently to stakeholders' concerns and interests?

The Assurance Standard can be used for stand-alone assurance, but is best understood and used in conjunction with the rest of the AA1000 Series and the AA1000 Framework.

The principle underpinning AA1000 is inclusivity. The building blocks of the process framework are planning, accounting, auditing and reporting. It does not prescribe what should be reported on but rather the 'how'. In this way it is designed to complement the Sustainability Reporting Guidelines, on which more below.

The SA 800 and AA1000 standards are tools that organizations may voluntarily decide to apply in order to show that they have nothing to hide. By the end of 2002, there were 150 facilities in 27 countries that had obtained certification for their social accountability according to SA 8000. Four furniture companies are included – one in Italy and three in Indonesia.

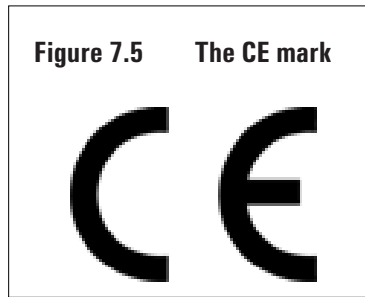
Sustainability reporting

In recent years, corporate reporting requirements have been extended to cover social accountability in addition to financial and environmental information. The Sustainability Reporting Guidelines (published at the Earth Summit in Johannesburg in September 2002 by the Global Reporting Initiative or GRI) were developed to combine these three aspects. About 150 companies worldwide have published reports according to these guidelines; one of them is in the forest products sector.

Product labelling trends

CE marking

CE marking is mandatory for 23 product groups sold in the European Union, but is not as yet too relevant for the furniture sector. It has been referred to as the 'trade passport to Europe' for non-EU products. The use of the mark by manufacturers informs the authorities that the product conforms to relevant EU safety requirements or directives.



CE marking is based on Council Directive 93/68/EEC and other relevant directives. No specific directive on furniture exists, but Council Directive 89/106/EEC on construction products could be applicable. A construction product is produced for permanent incorporation into buildings; fixed furniture, such as built-in kitchen cabinets, could be considered construction products.

Other product labels

Voluntary product labels are given as proof of conformity to specified standards on the basis of product certification carried out by accredited certification bodies. Product certification is usually based on national or international standards such as the ISO or EN standards. Every country probably has some kind of a mark or label that indicates conformance to quality, safety, health or other requirements. These marks are voluntary, but may be required by a particular customer or in a particular market.

Keymark is the European certification mark, jointly owned and offered by CEN (European Committee for Standardization) and CENELEC (the European Committee for Electrotechnical Standardization). It is a voluntary third-party certification mark indicating product compliance with the requirements of a European standard or standards. It is available for five product groups but not for furniture. Keymark has been proposed to be adapted also for furniture, but the European furniture industry strongly opposes such a development. They prefer a voluntary approach because testing is time consuming and expensive, and is considered of little additional benefit to the manufacturer or the consumer.

Möbelfakta is a Swedish reference system for furniture quality determination that helps designers, buyers, architects and others who use or work with furniture. The system is based on CEN and ISO standards. Furniture with a Möbelfakta label has been extensively tested against criteria for strength and durability (performance); surface resistance; fire resistance/flammability; safety; and upholstery covers.

The Möbelfakta label contains information on the identity of the certificate holder and the date of manufacture, and it should be permanently attached to the product. There are 21 furniture manufacturers in Sweden and one in Norway that have Möbelfakta certificates.

Figure 7.6 Examples of product labels



Keymark



Möbelfakta



SFS Mark



Nordic Mark

An example of a national product label is the Finnish *SFS Mark*, which is given to a product conforming to SFS and EN standards. Three Finnish companies have received the SFS Mark for kitchen furniture, indicating compliance with the following standards:

- ❑ SFS 2457 – Kitchen furniture. Quality requirements.
- ❑ SFS 4839 – Cupboards for dwellings, types and fittings.
- ❑ SFS 4969 – Fixed units for dwellings, functional characteristics, testing and requirements.
- ❑ SFS-EN 1116 – Kitchen furniture. Coordinating sizes for kitchen furniture and kitchen appliances.
- ❑ SFS-EN 1153 – Kitchen furniture – Safety requirements and test methods for built-in and free-standing kitchen cabinets and work tops.

The *Nordic Mark* is the mark used by all the national standards bodies in the Nordic countries. It provides proof of the product's conformance to Nordic standards and certification rules. The Mark indicates that the countries involved have uniform product standards.

Eco-labelling

Eco-labelling is a method for the certification and labelling of environmental performance. It identifies the overall environmental performance of a product on the basis of life cycle considerations. An eco-label is awarded by an impartial third party after the product has been determined to meet specific environmental criteria. There are many different voluntary (and mandatory) environmental performance labels, including those in the following countries/areas:

- ❑ European Union (Flower);
- ❑ Nordic countries (Swan);
- ❑ Germany (Blue Angel);
- ❑ Austria (Umweltzeichen);
- ❑ Netherlands (Milieukeur);
- ❑ Spain (AENOR Medio Ambiente);
- ❑ France (NF Environnement);
- ❑ United States (Green Seal);
- ❑ Canada (Environmental Choice); and
- ❑ Japan (Eco Mark).

The criteria for furniture in the various eco-labelling schemes have common elements. The wood must be certified or its origin indicated. The product must not contain or release more than a specified amount of formaldehyde. The manufacturer must guarantee that functionally compatible replacements for wearing parts will be available for five years.

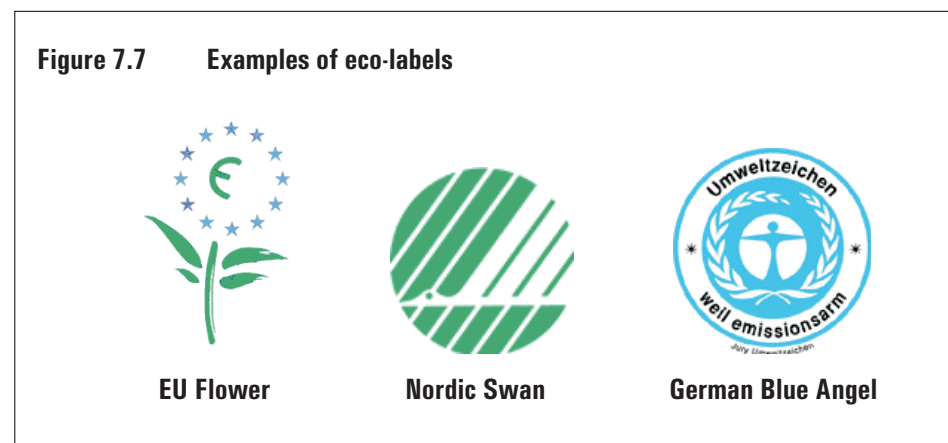
The *EU Eco-label* award scheme has been in operation since 1993, when the first product groups were established. In 2000, the scheme was comprehensively revised. In all product groups, the relevant ecological issues and the corresponding criteria have been identified on the basis of comprehensive studies of the environmental aspects of the entire life cycle of these products.

Appropriate testing and verification procedures for the criteria are elaborated in separate user's manuals. An individual product must comply with all criteria in order to be awarded the EU Flower.

The finalization of the criteria for furniture is under way. The criteria aim at promoting a reduction of the impact of furniture on the environment. More specifically, the objectives are:

- ❑ The use of materials produced in a more sustainable way;
- ❑ A reduction of the use of hazardous substances and of emissions of polluting substances; and
- ❑ The production of a durable product.

Issues that are addressed in the development work include criteria for different materials, durability and ergonomics, prevention of waste, and consumer information. For wood and wood-like materials including wood-based panels, bamboo and rattan, the issues include forestry, the use of chemicals, coatings and emissions of formaldehyde.



The Swan is the official *Nordic eco-label*, which demonstrates that a product is a good environmental choice. The logo is available for about 60 product groups, including furniture and fittings, and wooden outdoor furniture. To carry the label, products are checked by independent laboratories against Swan criteria.

The label is usually valid for three years, after which the criteria are revised and the company must reapply for a licence. This procedure guarantees the constant development of products that are more environmentally friendly. Issues that are addressed in the development work include criteria for different materials, upholstery, minimization of waste, packaging, and functionality. For wood and wood-based panels, the issues include origin of wood, use of chemicals, energy consumption, emissions into the air during production, coatings, glues and emissions of formaldehyde.

The Swan eco-label is voluntary, and it is given to the leading environmental performers in their respective fields. At the moment there are fewer than 20 furniture companies that have been awarded the label; all are in the Nordic countries.

The *German Blue Angel* has criteria for office furniture. The criteria refer to the manufacture of the products and their materials, the period of actual use as well as to the disposal of used wood products, wood-based products, old furniture and the packaging material used for the transportation of new wood products and furniture. The label may be awarded to furniture that:

- Mainly consist of raw materials of renewable wood;
- Are produced by an environmentally compatible manufacturing process;
- Are no risk to people's health; and
- Do not contain any hazardous substances that would make recycling difficult.

There are eight Blue Angel label users in the furniture sector in Germany and abroad.

Labelling on sustainable forest management

The Forest Stewardship Council

FSC has introduced an international labelling scheme for products made from FSC-certified raw material. The organizations wishing to use the product label must have an FSC chain-of-custody certificate. Chain-of-custody audits are carried out by certification bodies accredited for the task by FSC. In 2002, there were more than 2,500 FSC-accredited chain-of-custody certificates in the world. The number has increased sharply over recent years and, consequently, the number of FSC-labelled products is rising.

FSC sets minimum requirements for the content of wood in labelled products in its Policy for Percentage-Based Claims. The requirement for wood coming from FSC-certified forests is categorized for three product groups:

- Solid wood products. At least 70% by volume of the wood used in manufacturing the product line, or the collection of products.
- Chip and fibre products. At least 17.5% by weight of total chip or fibre and at least 30% by weight of the new virgin wood chip or fibre used in manufacturing the product.
- Assembled products. At least 70% of the wood volume used in manufacturing the products.

All percentages may be calculated according to a batch system. The minimum percentage has to be applicable to a batch length or a production unit. The recommended batch length is 30 days; the maximum is 60 days but exceptions may be allowed. The percentage must never drop below the minimum requirement, which is calculated as the moving average of the batch period.

FSC groups raw materials into four categories:

- Category A – FSC Certified.** Wood; pulp, paper, chips, fibres, etc., derived from FSC-certified sources; mill broke; sawmill co-products; and pre-consumer recycled wood and wood fibre or industrial by-products. ('Mill broke' is the term used for any paper waste generated in a paper mill prior to the completion of the paper-making process.)
- Category B – Neutral.** Pre-consumer recycled wood and wood fibre or industrial by-products, including mixed waste paper, but not including mill broke or sawmill co-products; post-consumer recycled wood and wood fibre; non-wood plant fibre; driftwood; and urban wood.
- Category C – Non-Certified Wood.** Wood unless covered by a valid FSC-endorsed chain-of-custody certificate: wood, mill broke, and sawmill co-products.
- Category D – Other.** Other non-wood materials such as metal, plastic, mineral fillers and brighteners.

FSC recognizes the use of claims and labels both on and off product. The on-product labels should show the FSC logo with the actual content of FSC-certified wood. If the product contains 100% FSC-certified wood, the label does not need to state 100%. The labels must include descriptive statements to explain the meaning of the FSC logo and to disclaim responsibility for other attributes of the product (see example in figure 7.8).

Figure 7.8 Example of FSC label and on-product claim



At least 70% of the wood used in making this product line comes from well-managed forests independently certified according to the rules of the Forest Stewardship Council.

As additional information, the labels may also provide a more detailed list of ingredients and their proportions. In all cases, the labels must state the mean minimum percentages of FSC-certified material as a percentage of the total wood, fibre and neutral raw materials used in the batch manufacturing process.

Pan-European Forest Certification

The PEFC Council has also introduced a logo to be attached to, or associated with, wood and wood products from PEFC-certified forests. Logo usage requires the verification of the chain of custody and a logo usage licence. In practice, a chain-of-custody certificate is required. At the moment, there are more than 250 PEFC chain-of-custody certificates.

The minimum requirements for the content of wood coming from PEFC-certified forests are differentiated according to the approach of the procedure used to verify the chain of custody. Applicants are offered three mutually non-exclusive options:

- In the input/output system, the percentage of the PEFC-certified output must not exceed the known percentage of the PEFC-certified input.
- In the minimum average percentage system, at least 70% of the wood must be PEFC-certified. This applies to all product groups (including solid wood, assembled goods, pulp, paper, chips and fibre).
- In physical separation, the wood must be PEFC-certified if so claimed.

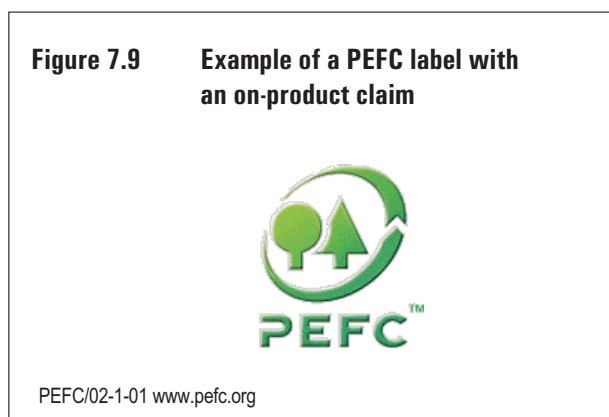
The percentages can be applied over a specified time period, or a batch, which may be up to 12 months. A batch is understood to mean a time slice of the production process. All calculations should be based on verifiable documentation.

The PEFC groups raw materials into four categories:

- Category 1.** PEFC-certified wood or wood certified under other certification schemes recognized by the PEFC Council.

- ❑ **Category 2.** Recycled wood and recycled fibres (post-consumer wood and fibres) and reclaimed pre-consumer by-products from processes in manufacture, where these are not traceable to virgin wood sources.
- ❑ **Category 3.** Non-wood material, starch and pigments as well as wood harvested from urban forestry.
- ❑ **Category 4.** Non-certified wood.

A PEFC-certified product can carry the PEFC logo without a claim, but a claim is recommended. Claims can be on- or off-product. When the PEFC logo is used on wood or wood-based products, it signifies that the logo user has a valid PEFC forest management or chain-of-custody certificate based on PEFC requirements and that the user can prove it. The registration number links the product label with the organization that has the right to use it.



The labels may provide additional voluntary information such as a PEFC claim and the name, designatory letters, logo or mark of the accredited certification body, or any combination of these with the PEFC logo. The PEFC claims that can be attached to the labels are:

- ❑ With inventory control and accounting of wood flows systems:
 - ‘www.pefc.org’
 - ‘Promoting sustainable forest management – For more info: www.pefc.org’
- ❑ With physical segregation system and a 100% certified wood content:
 - ‘From sustainably managed forests – For more info: www.pefc.org’.

The official claims are written in English, but translations are allowed, if and as approved by the PEFC Council. Voluntary product information may also be provided on the label.

The Keurhout logo

The Keurhout Foundation, established by companies and trade unions in the timber trade and timber processing industry with the support of the Netherlands Government, ceased operations at the end of 2003. Its role as the Netherlands’ gatekeeper for certificates on sustainable forestry, as well as its logo, was taken over by the Netherlands Timber Trade Association (NTTA or VVNH in Dutch). NTTA is the umbrella organization of around 300 timber wholesalers.

The Keurhout verification process looks at the following aspects:

- ❑ The forestry management system;

- ❑ The performance of the forestry management system;
- ❑ The certifying body; and
- ❑ The chain of custody.

The timber must be traced from the forest area from which it originated to the product reaching the ultimate consumer. Within the country where the forest is located, the tracing must be done by an independent certification body. In the Netherlands, the Keurhout system provides for chain-of-custody verification, which is carried out by independent third parties. Currently these are FSC-accredited certification bodies.

As of 2002, Keurhout had verified and accepted certificates in the following countries: Brazil, Canada, Finland, Gabon, Malaysia, the Solomon Islands and Sweden. The total area covered by these certificates was 36 million hectares.

Figure 7.10 The Keurhout logo



FSC and the Keurhout Foundation had entered into a partnership to avoid duplication of efforts and costs in chain-of-custody certification. As a result, FSC-accredited certification bodies are authorized to include in their assessments and reports additional items required by the Keurhout system. Under the arrangement, an FSC chain-of-custody certificate and report may also include Keurhout elements not covered by FSC requirements, and they may be submitted to the Keurhout system for recognition. After both schemes have approved the chain-of-custody certificate, market claims may be made in accordance with either (or both) scheme(s). The agreement provides for independent decision-making, acknowledgement and quality control by both schemes. This alliance allows third-party chain-of-custody certificates and/or reports within the Netherlands, thus reducing duplication and maintaining quality. The certificates are endorsed by both systems

Buyers' groups

Buyers have expressed their commitments to the use of materials from sustainable forest areas in differing ways where nuances are sometimes important. It is common for buyers' policies to call for FSC or 'equivalent' forest management systems. However, no guidance is provided on what equivalence means and how it should be established (other than through formal endorsement by FSC).

An example of a buyer's policy is that of the British home-improvement retailer B&Q. The policy makes it clear that, in the long run, only FSC certification will be good enough. However, because of the shortage of FSC-certified supply, a number of exceptions are allowed. The policy interestingly prejudices (mutual) recognition of national schemes excepted by FSC. No room appears to be left

for developing local solutions or associating with other certification bodies or agencies that could have an interest in supporting the efforts of tropical countries to achieve certification. The B&Q policy can be assumed to have environmental but also commercial objectives for promoting a strong link with potential qualified suppliers.

The Global Forest and Trade Network (GFTN), a network established by the World Wildlife Fund (WWF), is a group of organizations which promotes trade in FSC-certified forest products in order to improve forest management practices. GFTN has member organizations all over the world (see list below). While individual organizations are independently managed, their activities are coordinated by WWF.

GFTN member organizations	
Organization	Country or region
WWF 95+ Group	United Kingdom
WWF Skov 2000	Denmark
WWF Skog 2000	Sweden
Stichting Goed Hout!/FSC Netherlands	Netherlands
WWF Wood Group	Germany
WWF Wood Group	Austria
Club Per Il Legno Eco Certificato	Italy
Just Forests	Ireland
Club 97	Belgium
Club Pro Forêts	France
WWF-Grupo 2000	Spain
WWF Wood Group	Switzerland
Association of Environmentally Responsible Timber Producers of Russia	Russian Federation
WWF Sanshoukai	Japan
East Asian Forest and Trade Network – EcoWood@sia	East Asia
WWF's Oceania Buyers' Group	Australia and New Zealand
Certified Forests Products Council (CFPC)	United States and Canada
Mesoamerican and Caribbean Forest & Trade Network	Central America
Compradores de Produtos Florestais Certificados	Brazil

Source: World Wildlife Fund.

Each member organization builds a membership of companies committed to the production, purchase and advocacy of certified forest products. Participation within a given network is open to any organization that accepts its stated commitments. Member companies, numbering 700 in 2002, range from forest owners and timber processors to architects and home-improvement retailers. A list of these companies is given in appendix II. The European countries with the largest number of members are the United Kingdom 99 members; the Netherlands 78 members; Germany 64 members; Belgium 57 members; Austria 24 members; Italy 15 members; and France 12 members.

Demand for certification was initiated mainly by retailers and the companies that supplied them, but it has now spread throughout the supply chain in some key markets and market segments. As a result, there are now hundreds of companies developing and implementing policies to buy, use and sell certified wood. Most of them are part of GFTN.

Initially, most of the phasing stipulated by the policies formulated by this sector related to the proportion of their overall products which would be certified over a certain period. These stipulations were difficult to meet because of slow

progress in the development of supplies of certified timber. In addition, they did not always take into full account the difficulties that forest managers and producers faced in implementing sustainable forest management and undertaking certification. As a result, some organizations have recently established more sophisticated policies, which combine phasing not only in achievement for the buyer, but also in the requirements placed on suppliers. Good examples of this type of approach are B&Q's purchasing policy (figure 7.11) and IKEA's staircase model (figure 7.12).

Figure 7.11 B&Q timber buying policy

B&Q Timber Buying Policy – Revised August 2000

All virgin wood bought by B&Q will come from forests of known location where the supplier has given us sufficient reassurance that the forest is well managed and independently certified as such.

Certification must include the ability to trace the wood from the forest to the final processor with certified 'Chain of Custody'.

B&Q recognises that FSC currently has the best available standards and certification procedures and so will only buy products certified under the FSC scheme. B&Q strongly encourages all schemes and suppliers to work towards achieving FSC certification or mutual recognition.

The following exceptions do however apply, at present:

- Products certified by other schemes, which in our judgment are likely to achieve mutual recognition or accreditation by the FSC. Currently we find the LEI (Indonesian) scheme falls into this category, and we are in discussion with the NTTC (Malaysian) scheme.*
- Products certified by other schemes, which in our judgment require improvement before they are likely to achieve mutual recognition or accreditation by the FSC, but which nevertheless provide some reassurance on forestry standards. Currently we include the Finnish Forestry Certification Scheme in this category, although we acknowledge this scheme needs significant improvement.*
- Products which are on very limited sales trial within B&Q but only when certification is achievable and there is commitment from the supplier to achieve certification within six months of the trial commencing.*
- Products with a verifiable post-consumer recycled content exceeding 82.5% (over one year's production) are exempt.*

In every case equivalent FSC certified products will be stocked in favour of the above exceptions assuming that all the other purchasing requirements are satisfied.

In addition B&Q will, on a very limited basis consider buying timber from sources still under development, but only when there is an independently verifiable action plan being implemented to drive continuous improvement and ultimately certification. To qualify the sources must either be registered under the Certification Support Programme organised by SGS or be members of the Tropical Forest Trust. This exception will only be operated with the express and specific permission of the Sustainability Unit at B&Q, on a project by project basis.

To ensure that there is a simple message for our customers, B&Q will only use the FSC logo on its products and in its marketing. For all the listed exemptions or when the message is too complex because of a variety of sources within the same product B&Q will use a truth statement backed up, at all times, by an independent chain of custody.

A monthly random audit will be carried out. Any product not meeting this policy will not be stocked and if found in the business; discontinued.



➡

Criteria for assessing the suitability of certification schemes

- ❑ Existence and execution of an action plan which in our judgement will lead to recognition or accreditation by FSC, in a reasonable time scale.
- ❑ A mandate that prevents logging of ancient or endangered forests.
- ❑ A mandate which not only focus on the forest but also the final product. Certification must include chain of custody certification.
- ❑ An organizational ethos to provide their clients; the traders and retailers of wood a reliable and credible service.

Methodology

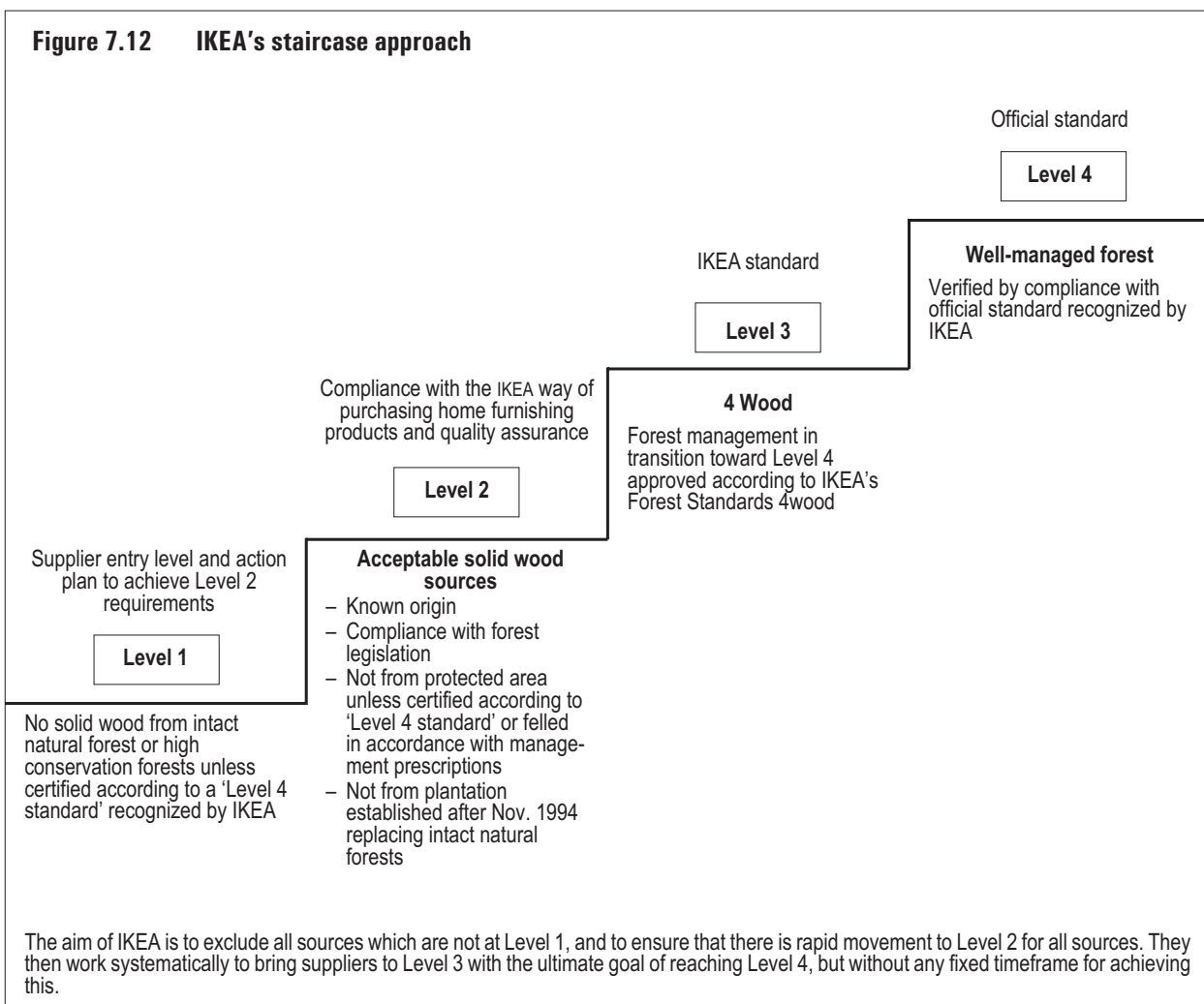
Compliance will be through the judgement of the B&Q Sustainability team. It will be based on a 6 monthly correspondence with all existing schemes, and any on-going dialogue.

In considering these schemes we will consider [...] the views of other interested parties.

For each scheme we will present a list of strengths and areas for improvement.

Our assessments will be publicly available as will the reason why we have chosen or not chosen to accept that scheme.

Figure 7.12 IKEA's staircase approach



Source: www.ikea.com.

Buyers' initiatives to develop stepped approaches are important in demonstrating that it is the responsibility of consumers, as well as producers, to address the issue of good forest management. If in their purchasing policies consuming companies distinguish between legal and illegal supplies and well-managed and badly managed forestry systems, they will provide incentives for the forest manager to improve forest management.

In 2002–2003, ITTO took an initiative to develop a common approach to the phased implementation of forest certification in tropical countries to facilitate the access of their producers to certification and to prevent differing buyers' requirements in importing countries from becoming an obstacle to the export trade in tropical timber and timber products, including furniture (Simula *et al.*, 2003).

Conclusions

As regards individual buyers – whether institutional, industrial or private – the decisive considerations for the buying decision will be based on the values of the individuals in question. Certification and labelling may (or may not) form part of expressions of these values and of the process of verifying that these values are respected in the supply chain.

Institutional buyers (in the public building and construction segment requiring furniture for public premises, offices, schools, etc.) often have procurement policies that include requirements on product quality. These may be specific to the institution in question. In addition to laying out bidding procedures, these policies may carry special conditions on:

- ❑ The environmental load (including materials and additives in the product as well as the energy used in production, packaging and transportation);
- ❑ Possibility for repair and recycling;
- ❑ Volatile compounds (e.g. solvents in glues, paints and varnishes);
- ❑ Ergonomics;
- ❑ Durability;
- ❑ Adaptability; and
- ❑ Availability of additional components.

Increasingly, public procurement policies and criteria are insisting on the use of certified wood.

Commercial and industrial enterprises (their building and construction projects; hotel, office and shop furniture, etc.) are more likely to emphasize safety, quality, functionality and the construction of furniture rather than the environmental or social aspects of furniture making. This is natural, as these organizations are more familiar with such day-to-day business needs as meeting deadlines, avoiding product liability suits and finding new contracts.

Retailers in the consumer market (mainly the market for household furniture, ready-to-assemble furniture, small/occasional furniture, garden furniture), on the other hand, must be more sensitive about the softer values. In order to ease their customers' concerns, some furniture chains have developed environmental management systems and to a certain extent monitor the origin of their products and raw materials or may give preference to certified wood.

Many furniture exporters in tropical countries are already confronting requirements that they should prove that their raw material does not come from illegal sources and that their operations do not contribute to desertification or to forest degradation. The safest way to curtail such claims would be to obtain a chain-of-custody certificate from FSC. This, of course, is impossible if there is no FSC-certified supply available. Any other forest management certification scheme may do as well, but the credibility – the buzzword for market acceptance – of these systems may not be as established as that of FSC.

Potential furniture exporters in tropical countries should discuss with their potential buyers (wholesalers, importers, traders, etc.) what their requirements are and how these can be met. The exporter should not obtain any label or certificate and expect that it will automatically open all the doors – it will not. On the other hand, it is important to understand that not having a certain label or certificate will not close the doors, either. As discussed earlier, certification may give an edge in marketing or in entry into a specific market, but the decision to obtain it should be based on the values of the organizations concerned or known client requirements.

The more alert – or responsible – companies may reap the greatest benefits, but that is not to say that the indifferent – or just plain irresponsible – ones will be forced out of business. Despite all efforts on standardization, certification, verification, assurance of quality, environmental performance, social accountability, and other aspects of corporate behaviour, there will always be some markets where anything goes.

Appendix I

Selection of German furniture standards

Reference number	Document title
DIN 12912	Laboratory furniture; ceramic tiles for laboratory bench tops
DIN 12915	Laboratory furniture; sinks for laboratory benches
DIN 12916	Laboratory furniture – Large size tiles for laboratory bench tops
DIN 12924-1	Laboratory furniture; fume cupboards; general purpose fume cupboards; types, main dimensions, requirements and testing
DIN 12924-2	Laboratory furniture; fume cupboards; fume cupboards for open decompositions at high temperatures; main dimensions, requirements and testing
DIN 12924-3	Laboratory furniture; fume cupboards; two-sided cupboards; main dimensions, requirements, tests
DIN 12924-4	Laboratory furniture; fume cupboards; cupboards for dispensaries; main dimensions, requirements and testing
DIN 12925-1	Laboratory and plant furniture – Safety cupboards – Part 1: For inflammable liquids; safety requirements, testing
DIN 12925-2	Laboratory furniture – Safety cupboards – Part 2: For pressure cylinders; safety requirements, testing
DIN 12927	Laboratory furniture – Ductless filtering fume enclosures – Requirements, test
DIN 12980	Laboratory furniture – Cabinets for handling cytotoxic drugs – Requirements, testing
DIN 16550	Office furniture – Tables for upright working position – Dimensions
DIN 4543-1	Office work place – Part 1: Space for the arrangement and use of office furniture; safety requirements, testing
DIN 4545	Office furniture; filing cabinets with socle; external dimensions
DIN 4550	Office furniture; self-supporting energized devices for the height adjustment of swivel chairs and armchairs; safety requirements and testing
DIN 4551	Office furniture – Office swivel chairs – Safety requirements, testing
DIN 4553	Office furniture; concepts
DIN 4554	Office furniture (excluding chairs); requirements and tests
DIN 4556	Office furniture; footrests for working position; requirements, dimensions
DIN 68840	Furniture fittings; cabinet suspension brackets; requirements, testing
DIN 68841	Furniture fittings; flap stays; requirements, testing
DIN 68851-1	Hardware for furniture; terms for furniture locks, latch lock, dead lock, espagnolette lock, central locking device
DIN 68851-2	Hardware for furniture; terms for furniture locks, surface mounted lock, inlet type lock, mortise lock
DIN 68851-3	Hardware for furniture; terms for furniture locks, left hand lock, right hand lock, bottom lock, top lock
DIN 68851-4	Hardware for furniture; terms for furniture locks, key, revolving elements, cylinder, combination lock
DIN 68852	Furniture locks; requirements, testing
DIN 68856-1	Hardware for furniture; terms for furniture fittings; assembly fittings
DIN 68856-2	Hardware for furniture; terms for furniture fittings; hinges and flap hinges
DIN 68856-3	Hardware for furniture; terms for furniture fittings; drawer slides and sliding door gears
DIN 68856-4	Hardware for furniture; terms for furniture fittings; holding devices, flap stays, lid stays
DIN 68856-5	Hardware for furniture; terms for furniture fittings; height adjusters, furniture legs, underframes
DIN 68856-6	Hardware for furniture; terms for furniture fittings; shelf supports, hanging rails, cabinet suspension brackets
DIN 68856-7	Hardware for furniture; terms for furniture fittings; handles, knobs, escutcheons, escutcheon insets
DIN 68856-9	Hardware for furniture; terms for furniture fittings; castors and glides

Reference number	Document title
DIN 68857	Furniture fittings; cup-hinges and their mounting plates; requirements, testing
DIN 68858	Furniture fittings; drawer slides; requirements, testing
DIN 68859	Furniture fittings; roller fittings for sliding doors; requirements, testing
DIN 68861-1	Furniture surfaces – Part 1: Behavior at chemical influence
DIN 68861-2	Furniture surfaces; behavior at abrasion
DIN 68861-4	Furniture surfaces; behavior at scratches
DIN 68861-6	Furniture surface; behavior at glowing cigarette
DIN 68861-7	Furniture surfaces – Part 7: Behavior on subjection to dry heat
DIN 68861-8	Furniture surfaces – Part 8: Behavior on subjection to wet heat
DIN 68871	Furniture-designations
DIN 68874-1	Shelves and shelf bearers in cabinet furniture; requirements and testing when mounted in the cabinet
DIN 68880-1	Furniture; concepts
DIN 68881-1	Concepts for kitchen furniture; kitchen cupboards
DIN 68889	Drawers for furniture; requirements, testing
DIN 68930	Kitchen furniture – Requirements, testing
DIN 68935	Coordinating dimensions for bathroom furniture, appliances and sanitary equipment
DIN 81412	Cupboard bolts, light type for furniture
DIN 81415	Turnbuckles for furniture and fitments
DIN 81416	Entering catches, light type, for furniture and fitments
DIN CWA 14248	funStep (Furniture Product and Business Data) – funStep Application Activity Model AAM; English version CWA 14248:2001
DIN CWA 14249	funStep (Furniture Product and Business Data) – funStep Application Reference Model – ARM; English version CWA 14249:2001
DIN CWA 14515	Model of different categories of furniture and types of products created to build a portal and an auction house over the Internet (English version CWA 14515:2002)
DIN EN 1021-1	Furniture; assessment of the ignitability of upholstered furniture; part 1: ignition source: smoldering cigarette (ISO 8191-1:1987, modified); German version EN 1021-1:1993
DIN EN 1021-2	Furniture; assessment of the ignitability of upholstered furniture; part 2: ignition source: match flame equivalent (ISO 8191-2:1988, modified); German version EN 1021-2:1993
DIN EN 1022	Domestic furniture – Seatings – Determination of stability; German version EN 1022:1996
DIN EN 1023-1	Office furniture – Screens – Part 1: Dimensions; German version EN 1023-1:1996
DIN EN 1023-2	Office furniture – Screens – Part 2: Mechanical safety requirements; German version EN 1023-2:2000
DIN EN 1023-3	Office furniture – Screens – Part 3: Test methods; German version EN 1023-3:2000
DIN EN 1116	Kitchen furniture – Coordination sizes for kitchen furniture and kitchen appliances; German version EN 1116:1995
DIN EN 1129-1	Furniture – Foldaway beds – Safety requirements and testing – Part 1: Safety requirements; German version EN 1129-1:1995
DIN EN 1129-2	Furniture – Foldaway beds – Safety requirements and testing – Part 2: Test methods; German version EN 1129-2:1995
DIN EN 1130-1	Furniture – Cribs and cradles for domestic use – Part 1: Safety requirements; German version EN 1130-1:1996
DIN EN 1130-2	Furniture – Cribs and cradles for domestic use – Part 2: Test methods; German version EN 1130-2:1996
DIN EN 1153	Kitchen furniture – Safety requirements and test methods for built-in and free standing kitchen cabinets and work tops; German version EN 1153:1995
DIN EN 12522-1	Furniture removal activities – Furniture removal for private individuals – Part 1: Service specification; German version EN 12522-1:1998
DIN EN 12522-2	Furniture removal activities – Furniture removal for private individuals – Part 2: Provision of service; German version EN 12522-2:1996
DIN EN 12528	Castors and wheels – Castors for furniture – Requirements; German version EN 12528:1998
DIN EN 12529	Castors and wheels – Castors for furniture – Castors for swivel chairs – Requirements; German version EN 12529:1998

Reference number	Document title
DIN EN 12720	Furniture – Assessment of surface resistance to cold liquids (ISO 4211:1979, modified); German version EN 12720:1997
DIN EN 12721	Furniture – Assessment of surface resistance to wet heat (ISO 4211-2:1993, modified); German version EN 12721:1997
DIN EN 12722	Furniture – Assessment of surface resistance to dry heat (ISO 4211-3:1993, modified); German version EN 12722:1997
DIN EN 12727	Furniture – Ranked seating – Test methods and requirements for strength and durability; German version EN 12727:2000
DIN EN 13198	Precast concrete products – Street furniture and garden products; German version prEN 13198:1998
DIN EN 13336	Upholstery leather characteristics – Leather for furniture; German version prEN 13336:1998
DIN EN 1334	Domestic furniture – Beds and mattresses – Methods of measurement and recommended tolerances; German version EN 1334:1996
DIN EN 1335-1	Office furniture – Office work chair – Part 1: Dimensions; Determination of dimensions; German version EN 1335-1:2000
DIN EN 1335-2	Office furniture – Office work chair – Part 2: Safety requirements; German version EN 1335-2:2000
DIN EN 1335-3	Office furniture – Office work chair – Part 3: Safety test methods; German version EN 1335-3:2000
DIN EN 13453-1	Furniture – Bunk beds and high beds for non domestic use – Part 1: Safety, strength and durability requirements; German version prEN 13453-1:1999
DIN EN 13453-2	Furniture – Bunk beds and high beds for non domestic use – Part 2: Test methods; German version prEN 13453-2:1999
DIN EN 13721	Furniture – Measurement of the surface reflectance; German version prEN 13721:1999
DIN EN 13722	Furniture – Assessment of the surface gloss; German version prEN 13722:1999
DIN EN 13761	Office furniture – Visitors chair; German version prEN 13761:1999
DIN EN 14056	Laboratory furniture – Recommendations for design and installation; German version prEN 14056:2000
DIN EN 14072	Glass in furniture – Test methods; German version prEN 14072:2000
DIN EN 14073-2	Office furniture – Storage furniture – Part 2: Safety requirements; German version prEN 14073-2:2000
DIN EN 14073-3	Office furniture – Storage furniture – Part 3: Test methods for the determination of stability and strength of the structure; German version prEN 14073-3:2000
DIN EN 14074	Office furniture – Tables and desks and storage furniture – Test methods for the determination of strength and durability of moving parts; German version prEN 14074:2000
DIN EN 1725	Domestic furniture – Beds and mattresses – Safety requirements and test methods; German version EN 1725:1998
DIN EN 1727	Domestic furniture – Storage furniture – Safety requirements and test methods; German version EN 1727:1998
DIN EN 1728	Domestic furniture – Seating – Test methods for determination of strength and durability of the structure; German version prEN 1728:1994
DIN EN 1730	Domestic furniture – Tables – Test methods for determination of strength, durability and stability; German version of EN 1730:2000
DIN EN 1743-2	Furniture – Outdoor tables for domestic, contract and camping use – Part 2: Mechanical safety requirements and test methods; German version prEN 1743-2:1994
DIN EN 1906	Building hardware – Lever handles and knob furniture – Requirements and test methods; German version EN 1906:2002
DIN EN 1957	Domestic furniture – Beds and mattresses – Test methods for the determination of functional characteristics; German version EN 1957:2000
DIN EN 312-3	Particleboards – Specifications – Part 3: Requirements for boards for use in interior fitments (including furniture) in dry conditions; German version EN 312-3:1996
DIN EN 424	Resilient floor coverings – Determination of the effect of simulated movement of a furniture leg; German version EN 424:2001
DIN EN 527-1	Office furniture – Work tables and desks – Part 1: Dimensions; German version EN 527-1:2000
DIN EN 527-3	Office furniture – Tables and desks – Part 3: Physical and mechanical characteristics of the structure; test methods; German version prEN 527-3:1996
DIN EN 581-1	Outdoor furniture – Seating and tables for camping, domestic and contract use – Part 1: General safety requirements; German version EN 581-1:1997

Reference number	Document title
DIN EN 581-3	Outdoor furniture – Seating and tables for camping, domestic and contract use – Part 3: Mechanical safety requirements and test methods for tables; German version EN 581-3:1999
DIN EN 597-1	Furniture – Assessment of the ignitability of mattresses and upholstered bed bases – Part 1: Ignition source: Smoldering cigarette; German version EN 597-1:1994
DIN EN 597-2	Furniture – Assessment of the ignitability of mattresses and upholstered bed bases – Part 2: Ignition source: Match flame equivalent; German version EN 597-2:1994
DIN EN 716-1	Furniture – Children’s cots and folding cots for domestic use – Part 1: Safety requirements; German version EN 716-1:1995
DIN EN 716-2	Furniture – Children’s cots and folding cots for domestic use – Part 2: Test methods; German version EN 716-2:1995
DIN EN 747-1	Furniture; bunk beds for domestic use; part 1: safety requirements; German version EN 747-1:1993
DIN EN 747-1/A1	Furniture – Bunk beds for domestic use – Part 1: Safety requirements; German version EN 747-1:1993/prA1:2000
DIN EN 747-2	Furniture; bunk beds for domestic use; part 2: test methods; German version EN 747-2:1993
DIN ISO 4211-4	Furniture – Tests for surfaces – Part 4: Assessment of resistance to impact; identical with ISO 4211-4:1988
DIN ISO 5970	Furniture, chairs and tables for educational institutions; functional sizes
DIN V ENV 1178-1	Furniture – Children’s high chairs for domestic use – Part 1: Safety requirements (ISO 9221-1:1992, modified); German version ENV 1178-1:1994
DIN V ENV 1178-2	Furniture – Children’s high chairs for domestic use – Part 2: Test methods (ISO 9221-2:1992, modified); German version ENV 1178-2:1994
DIN V ENV 12520	Domestic furniture – Seating – Mechanical and structural safety requirements; German version ENV 12520:2000
DIN V ENV 12521	Domestic furniture – Tables – Mechanical and structural safety requirements; German version ENV 12521:2000
DIN V ENV 13759	Domestic furniture – Seating – Test methods for the determination of the durability of reclining and/or tilting mechanisms and operating mechanisms for convertible sofa beds; German version ENV 13759:2000
DIN V ENV 1729-1	Furniture – Chairs and tables for educational institutions – Part 1: Functional dimensions; German version ENV 1729-1:2001
DIN V ENV 1729-2	Furniture – Chairs and tables for educational institutions – Part 2: Safety requirements and test methods; German version ENV 1729-2:2001
DIN V ENV 581-2	Outdoor furniture – Seating and tables for camping, domestic and contract use – Part 2: Mechanical safety requirements and test methods for sampling; German version ENV 581-2:2000

Appendix II

China: useful contacts

MAJOR RETAIL CHAINS, DISTRIBUTORS, WHOLESALERS, AGENTS

Top 10 furniture companies (private, joint ventures, State-owned)

Name of the firms year founded)	Province	Telephone	Number of employees	Ownership	Revenue ('000 RMB)	Profit '000 RMB (rank)
Dalian Huafeng Furniture Co., Ltd (1988)	Liaoning	+86-871-0411 8614156	1 427	Overseas Chinese-funded	343 572	44 330 (2)
Guangming Furniture Group Co., Ltd (1992)	Heilongjiang	+86-871-0458 3667066	2 799	Joint stock	307 254	35 684 (6)
Tianjin Longqing Co.,Ltd (1999)	Tianjin	+86-871-022 27471587	962	Joint stock	292 240	40 210 (3)
Markor International Furniture Co., Ltd (2000)	Xinjiang	+86-871-0991 3713688	327	Joint stock	242 467	37 144 (5)
Fujian Lianfu Forestry Co.,Ltd (1998)	Fujian	+86-871-0591 2249946	1 600	Overseas Chinese-funded	242 224	29 684 (7)
Xilinmen Group Co.,Ltd (1984)	Zhejiang	+86-871-0575 5160844	530	Privately owned	236 059	10 621 (23)
Markor International Furniture (Tianjin) Manufacture Co., Ltd (1997)	Tianjin	+86-871-022 66201276	2 400	Overseas Chinese-funded	217 642	52 770 (1)
Jilin Yasen Industrial Co., Ltd (1999)	Jilin	+86-871-0432 2550242	2 102	Overseas Chinese-funded	205 790	710 (255)
Wendeng Xingdu Arts & crafts Furniture Co., Ltd (1993)	Shandong	+86-871- 0631 8545027	160	Foreign funded	190 000	19 000 (8)
Zhaoqing Occident Furniture Factory (1993)	Guangdong	+86-871-0758 8471241	800	Overseas Chinese-funded	187 324	5 882 (37)

Selected wholesalers of wood furniture in other provinces

Kunming General Merchandise Purchase Supply Station

Kunming General Merchandise Company
Kunming, Yunnan
Tel: +86-871-3314846
Fax: +86-0871-3314961

Shanghai Agriculture & Industry & Commerce Supermarket General Corporation

Shanghai, Shanghai
Tel: +86-021-52706666
Fax: +86-021-52700200

Suzhou General Merchandise Co. General

Suzhou, Jiangsu
Tel: +86 0512-5222288
Fax: +86-0512-5222247

Hangzhou Huashang Group Corporation

Hangzhou, Zhejiang
Tel: +86-0571-87215588
Fax: +86 0571-87221339

Shandong Weifang General Merchandise Group Co., Ltd

Weifang, Shandong
Tel: +86-0536-8797057
Fax: +86-0536-8797057

Zhengzhou Baiwen Co., Ltd

Zhengzhou, Henan
Tel: +86-0371-3935993

Guangdong Light Industry Imp.& Exp. Group Corporation

Guangzhou, Guangdong
Tel: +86-020-83331499
Fax: +86-020-83330181

Chengdu General Merchandise Group Co., Ltd

Chengdu, Sichuan
Tel: +86-028-6666871
Fax: +86-028-6666775

Dashang Group Co., Ltd

Dalian, Liaoning
Tel: +86- 11-3640377
Fax: +86-0411-3630358

Xi Shan Shi Commerce Group Company

Wuxi, Jiangsu
Tel: +86- 0510-2442982
Fax: +86-0510-2443046

Selected furniture distributors, retailers, agents in Beijing

American Galleries

Rm. 88, Beijing International Club
21 Jian Guo Men Wai
Beijing 100020
Contact person: Amy Lau
Tel: +86-10-6501 2885
Fax: +86-10-6501 2886

Beijing Carpet Trading Co., Ltd

Gaomidian, Huangcun, Da Xing County
Beijing 102600
Contact person: Gu Tao
Tel: +86-10-6926 4806
Fax: +86-10-6926 4802

Beijing TML Collection Co., Ltd

No. 8 Huayuan East Road
Haidian District, Beijing 100083
Contact person: Lin Qiusheng
Tel: +86-10-6236 4347
Fax: +86-10-6236 4346

Beijing Xin Ding Long Industrial Co., Ltd

No. 70 Xisanhuan
Haidian Distric, Beijing 100044
Contact person: Wang Yanhua
Tel: +86-10-6846 1888,
+86-6500 3388- 5178
Fax: +86-10-6846 1818

Chengwaicheng Furniture City

Chengshousilu, Nansanhuan
Beijing 100078
Contact person: Xiong Jiantao
Tel: +86-10-6765 9805/10
Fax: +86-10-6765 3486

Dong Guan Fortworth Furniture Co., Ltd (LAMEX)

313 Fuchengmennei Avenue
Xicheng District, Beijing 100034
Contact person: Zhang Youjun
Tel: +86-10-6615 1347/54
Fax: +86-10-6615 1667

Haworth

30/F, Beijing Silver Tower
Dongsanhuan North Road
Chaoyang District, Beijing 100017
Contact person: Lam Fung
Tel: +86-10-6410 6601-222
Fax: +86-10-6410 6617

Jin Wu Xing Si Huan Furniture City

No. 201 Beisihuan Zhonglu
Haidian District, Beijing 100083
Contact person: Zhang Yang
Tel: +86-10-6232 6042
Fax: +86-10-6232 5801

Landbond Furniture Group Co., Ltd

Rm. 305, 306, 311
Guanghuayuan Mansion, No. 38
Dongsanhuan North Road
Beijing
Tel: +86-10-6503 3562
Fax: +86-10-6503 3580

Logic International Holdings Ltd

Unit 3330, 33/F, China World Trade Center
1 Jianguomenwai
Beijing 100004
Contact person: Peter W.K. Wong
Tel: +86-10-6505 5601/2288 3330
Fax: +86-10-6505 5031

Pacific Decor Limited

Room 2502 2505, Silver Tower

No. 2 Dongsanhuan North Road
Beijing 100027
Contact person: Ivone Guo
Tel: +86-10-6410 7479
Fax: +86-10-6410 7485

Pan Jia Yan Furniture City

No. 43 Huaweibeili, Panjiayuan
Chaoyang District, Beijing 100021
Contact person: Wang Zhengang
Tel: +86-10-6778 0480/0460
Fax: +86-10-6778 0409

San Huan Furniture City

No. 89, Beijing Lu, Xisanhuan
Beijing 100081
Contact person: Ms. Dong
Tel: +86-10-6344 0082
Fax: +86-10-6845 6036

Steelcase

Rm. 4H Estoril Court
No. 9 Gongti Bei Lu
Chaoyang District, Beijing 100027
Contact person: Todd Shepherd
Tel: +86-10-6415 5302
Fax: +86-10-6415 5298

World Furniture Garden

COFCO Plaze
No. 8 Jiannei Avenue
Dongcheng District, Beijing 100005
Tel: +86-10-6526 3696
Fax: +86-10-6526 3699

Yong Quan Building Material Supermarket

No.11 Yuquanlu
Beijing 100039
Contact person: Liu Yongge
Tel: +86-10-6816 4339
Fax: +86-10-6815 2909

Yuquanying Huandao Furniture City

Southeast of Yuquanying Huandao
Fengtai District, Beijing 100071
Contact person: Sun Yuan
Tel: +86-10-6383 2080
Fax: +86-10-6356 5620

DOMESTIC PRODUCERS OF FURNITURE

Selected furniture manufacturers in Beijing

Beijing Great Wall Furniture Corp.

No. 10 Songzhuang Road
Fengtai District, Beijing 100075
Contact person: Li Bingwen
Tel: +86-10-6762 2210
Fax: +86-10-6761 2372

Beijing Tian Tan Furniture Co.

A9, Xihuangzhuang
Caoyang District, Beijing 100013
Contact person: Yin Zhengwang
Tel: +86-10-6421 2631
Fax: +86-10-6421 2419

Beijing Sanyou Furniture Factory

No. 83 Baipengyao, Huaxiang
Fengtai District, Beijing 100070
Contact person: Qian Chuanhe
Tel: +86-10-6384 5473
Fax: +86-10-6851 4341

Beijing Qiangli Furniture Co., Ltd

Yongshun Guoyuan
Tongzhou District, Beijing 101101
Contact person: Zhang Fucai
Tel: +86-10-6053 2460

Beijing Qumei Furniture Co., Ltd

Huanggang
Chaoyang District, Beijing 100012
Tel: +86-10-6437 9554
Fax: +86-10-6437 9553

Beijing Hualida

Bajiacunxi, Beizang Village
Daxing County, Beijing 102609
Contact person: Liu Xingzheng
Tel: +86-10-6027 5389
Fax: +86-10-6027 5388

Beijing Jinghuan Furniture Co., Ltd

No. 97, Zhengwangfen, Huaxiang
Fengtai District, Beijing 100070
Contact person: Tian Baogui
Tel: +86-10-6371 5347
Fax: +86-10-6372 4383

Beijing Shidai Furniture Factory

Huyaopu, Heizhuang
Chaoyang District, Beijing 100024
Contact person: Zhou Youfu
Tel: +86-10-6589 1474

Selected furniture companies in Shanghai**Forte Furniture Trading Co., Ltd**

No. 962, Nanjing West Road
Shanghai 200041
Tel: +86-21-6217 4089/ 0421
Fax: +86-21-6217 5562

Bo Concept

5 B, Zeng Ze Shi Mao Building, No. 1590
Yan'an West Road
Shanghai
Tel: +86-21-6280 5816/5817
Fax: +86-21-6280 1695

Ousheng Office Furniture Co., Ltd JV; (Italy)

2nd Floor, No. 815 Dongfang Road
Pudong, Shanghai
Tel: +86-21-6875 6388
Fax: +86-21-6875 7288

Xing Dao Office Furniture Co., Ltd JV (Hong Kong)

No. 1435 Yan'an West Road
Shanghai
Tel: +86-21-6240 0455
Fax: +86-21-6251 0969

Far Eastern Furnishing Zheng Cheng Shanghai Ltd

Ground Floor, No. 1197 Fuxingzhonglu
Shanghai
Tel: +86-21-6445 5588
Fax: +86-21-6445 7788

Shanghai Furniture Corp.

349 Center Road
Huangpu District, Shanghai 200002
Tel: +86-21-6321 6948
Fax: +86-21-6321 8564

Shanghai Furniture and Decoration Exhibition Center

4F, 5F, 6F, 800 Quyang Road
Shanghai 200437
Tel: +86-21-6553 6258
Fax: +86-21-6553 2641

Shanghai Yidujin Furniture Co., Ltd

No. 2704, Longwu Road, Huajing Town
Xuhui District, Shanghai 200231
Tel: +86-21-64345566
Fax: +86-21-64345599

Shanghai Furniture Co., Ltd

No. 1000, Pushan Road
Zhabei District, Shanghai 200072
Tel: +86-21-56036688
Fax: +86-21-56034947

Shanghai Senhai Furniture Co., Ltd

No. 46, Jiyun Road, Miaoxing Town
Baoshan District, Shanghai 200435
Tel: +86-21-56403180
Fax: +86-21-56401137

Far Eastern Furniture (Shanghai) Co., Ltd

No. 1197, Fuxing Zhonglu,
Shanghai 200031
Tel: +86-21-64455588
Fax: +86-21-64457788

TRADE ASSOCIATIONS, CUSTOMS ADMINISTRATION, QUALITY STANDARD BODIES**Major trade associations, Customs administration****China National Light Industry Bureau**

No. 22B Fu Wai Street
Beijing 100833
Tel: +86-10-6831 4020
Fax: +86-10-6839 6451

Chinese Wood Industry Society

Wan Shou Shan
Beijing 100091
Contact person: Ding Meirong
Tel: +86-10-6288 9408
Fax: +86-10-62889334

China Furniture Association

Dixinju Building No.6
Andingmenwai
Beijing 100011

Contact person: Cao Yingcao

Tel: +86-10-6426 0344
Fax: +86-10-6426 0544

Beijing Furniture Association

No. 164, Gulou Dongdajie
Dongcheng District, Beijing 100009
Contact person: Yu Xiushu
Tel: +86-10-8404 4439
Fax: +86-10-8404 4439

Beijing Building Materials Association

Room 322, Building No. 1
No. 2 Huaibaishujie
Xuanwu District, Beijing 100053
Tel: +86-10-6302 1590
Fax: +86-10-6302 1590

China Council for the Promotion of International Trade

No. 1 Fuxingmenwai Street
Beijing 100833
Tel: +86-10-6839 6419/6460
Fax: +86-10-6839 6422

Chinese Trade Associations

No. 6 Dixingju, Anwai
Beijing 100011
Contact person: Cao Yingchao
Tel: +86-10-6426 0244/0344
Fax: +86-10-6426 0544

General Administration of China Customs

No. 6, Jiannei Dajie
Beijing 100730
Tel: +86-10-6519 4114

Furniture research and testing institutions, and quality standard bodies**General Administration of Quality Supervision, Inspection and Quarantine of China**

Jia 10#, Chaowai Dajie
Beijing 100020
Tel: +86-10-65994600

China Consumer's Association

Jia 1#, Zhanlanguan Lu
Beijing 10044
Tel: +86-10-68359318
Fax: +86-10-68359334

State Quality Supervision and Inspection Centre of Plywood

Chinese Academy of Forestry
Yiheyuan Hou
Beijing 10091
Tel: +86-010-62889426
Fax: +86-10-62888332

National Furniture Quality Inspection Centre

No. 76, Shitan Nong, Nanjing Dong Lu
Shanghai 200001
Tel: +86-21-65689448
Fax: +86-21-65689448

State Testing Centre of Construction materials

South Building
Chinese Construction Material Academy
Guanzhuang
Chaoyang District, Beijing 100024
Tel: +86-10-65728538
Fax: +86-10-65715991

China Indoor Adorn Association

No.6 building, Dixing Ju, Ande Lu
Andingmenwai
Dongcheng District, Beijing 100011
Tel: +86-10-64260711
Fax: +86-10-64260322

Beijing Wood Furniture Quality Inspection Centre

No.8, Dongmen Li, Donghongmen
Fengtai District, Beijing 100075
Tel: +86-10-64260322

Guangdong Bureau of Quality and Technical Supervision

No.3, Taishan Miao, Nancun Lu
Haizhu District, Guangzhou 510220
Tel: +86-20-84429294
Fax: +86-20-84237292

China Indoor Adorn Association

Indoor Environment Test Center
Suzhou Branch, No.24 building
Minzhi Lu, Suzhou
Jiangsu
Tel: +86-512-65157188
Fax: +86-512-65157288

Beijing Control Center of Disease

No.16, HepingLi Zhongjie
Dongcheng District, Beijing 100031
Tel: +86-10-64212461

Beijing bureau of quality and technical supervision

No.3, Yuhui Nanlu
Beijing 100029

Furniture Institute of Nanjing Forestry University

No.9, Xinzhuang, Longpan Lu
Nanjing, Jiangsu 210037
Tel: +86-25-5427206

Shanghai Furniture Institute

No.290, Haizhou Lu
Yangpu District, Shanghai, 200090
Tel: +86 21-63517831

OTHER CONTACTS**Major trade fairs in 2002****The 1st Dongguan International Woodworker Fair**

10–13 January: Dongguan, Guangguan
Website: www.365f.com/zl/dongguan

The 1st Dongguan International Furniture Materials & Part Fair

10–13 January: Dongguan, Guangguan
Website: www.365f.com/zl/dongguan

Sino-international Furniture Dongguan Fair

14–17 March: Dongguan, Guangdong
Website: www.iffd.com.cn

The 10th Shenzhen International Furniture Fair

15–19 March: Shenzhen, Guangdong
Website: www.cn-furnitures.com

2002 2nd Yuecong International Furniture Exposition

15–20 March: Shunde, Guangdong
Website: www.lcifec.com

The 3rd Dragon Classical Furniture Fair

17–20 March: Shunde, Guangdong
Website: www.qianjin.com

China Guangzhou 9th International Furniture Exposition

18–21 March: Guangzhou, Guangdong
Website: www.ciff-gz.com

China Dongguan 7th International Furniture Fair

19–22 March: Dongguan, Guangdong
Website: www.2f.com.cn

2002 9th China Construction & Decoration Exposition

1–4 April: Shanghai

West International Furniture & Woodworker Fair

9–12 April: Xi'an, Shanxi
Website: www.365f.com/zl/xibu

The 9th National Furniture Fair

18–21 April: Shenyang, Liaoning
Website: www.365f.com/zl/cnfs

The 8th China Beijing International Printing & Packaging Equipment Fair

24–28 April: Beijing

The 2nd China Shijiazhuang Furniture & Woodworker Fair

11–14 May: Shijiazhuang, Hebei

The 6th Chengdu International Furniture Industry Fair

18–21 May: Chengdu, Sichuan

Xi'an International Furniture Exposition

24–27 May: Xi'an, Shanxi
Website: www.365f.com/zl/xian

China Nankang 2nd China Furniture & Woodworker Fair

27–29 May: Nankang, Jiangxi

The 2nd Jiangxi International Furniture Industry Exposition

27–29 May: Nankang, Jiangxi

Zhejiang International Timber, Plywood, Facing Board and Equipment Fair

10–13 June: Hangzhou, Zhejiang

Zhejiang International Furniture Fair

10–13 June: Hangzhou, Zhejiang

China Office Furniture Fair

18–21 June: Beijing
Website: www.365f.com/zl/bgjjz

Taipei International Woodworker & Supply Fair

5–8 July: Taipei, Taiwan Province
Website: www.taipeitradeshows.com.tw

2002 China Qingdao International Furniture & Woodworker Fair

2–5 August: Qingdao, Shandong

The 11th Shen International Furniture Fair

13–16 August: Shenzhen, Guangdong
Website: www.cn-furnitures.com

China International Furniture Exposition

18–21 August: Guangzhou, Guangdong
Website: www.ciff-gz.com.cn

The 5th China International Packaging Technology Fair

2–5 September: Beijing

The 3rd China International Label Brand Printing & Materials Fair

9–17 September: Shanghai

The 8th China International Furniture Fair

11–15 September: Shanghai
Website: www.cmpsinoexpo.com

The 3th Chengdu International Furniture Industry Fair

23–26 September: Chengdu, Sichuan
Website: www.neweastfair.com

China Dalian 5th International Fashion Furniture & Classical Furnish Fair

1–4 November: Dalian, Liaoning

The 5th China Beijing International Furniture & Woodworker Fair

20–23 November: Beijing
Website: www.furniture-cn.net.cn

Appendix III

Members of the Global Forest and Trade Network

Company	Sector	Type of operation
BRAZIL		
Distribuidora Elza Arena Ltda.	Charcoal	
Hans Distribuidora de Carvão Ltda.	Charcoal	
JCAS Distribuidora de Carvão	Charcoal	
Mundial Distribuidora de Carvão Plantar	Charcoal	
P. Quintiliano & Filhos Ltda.	Charcoal	
Replant Ltda.	Charcoal	
Indusparquet	DIY	
Industria Madeireira Uliana	DIY	
Marinepar	DIY	
Shalon Indústria Madeireira	DIY	
Churrascaria Baby Beef Rubaiyat	End users	
André Marx Design e Meio Ambiente	Furniture and kitchen	Manufacturer
Básica Design	Furniture and kitchen	Manufacturer
Estúdio Capital Cultural	Furniture and kitchen	Manufacturer
Etel Interiores	Furniture and kitchen	Manufacturer
Eurocentro Projetos e Participações	Furniture and kitchen	Manufacturer
Famossul	Furniture and kitchen	Manufacturer
Grupo Rudnick	Furniture and kitchen	Manufacturer
Ind. De Madeira Guilherme Butzke	Furniture and kitchen	Manufacturer
Julia Krantz	Furniture and kitchen	Manufacturer
Mahogany Indústria de Móveis da Amazônia Ltda.	Furniture and kitchen	Manufacturer
Maurício Azeredo	Furniture and kitchen	Manufacturer
OC Design	Furniture and kitchen	Manufacturer
Pro-Mob Móvelia Planejada Ltda.	Furniture and kitchen	Manufacturer
Rosemberg e Ring	Furniture and kitchen	Manufacturer
Sindicato das Ind. de Mad. e Mobiliário Brasília	Furniture and kitchen	Manufacturer
Space Ind. Com. Móveis e Dec. Ltda	Furniture and kitchen	Manufacturer
Studio Vero	Furniture and kitchen	Manufacturer
Sylvania Certified	Furniture and kitchen	Manufacturer
Tropic-Art Artefatos de Madeiras e Metais Ltda.	Furniture and kitchen	Manufacturer
Universun do Brasil Indústria Moveleira	Furniture and kitchen	Manufacturer
Urmas Mart Ltda.	Furniture and kitchen	Manufacturer
Tok Stok	House ware products	
Tramontina	House ware products	
Casema	Other	
Cikel	Other	
Eldorado Exportação e Serviços Ltda.	Other	
Gethal Amazonas	Other	
Governo do Estado do Acre	Other	
Governo do Estado do Amapá	Other	
Indústria Pedro N. Pizzato	Other	
Milenium Incorp. De Móveis Ltda.	Other	

Company	Sector	Type of operation
Prefeitura Municipal do Guarujá	Other	
Vimaden Projetos e Casas	Other	
Editora Pini Ltda.	Paper products	
Carplan-Com. de Carvão		
Cascol Indústria Madeireira		
Frederico Schütte Ltda.		
Mil Madeireira Itacoatira Ltda.		
Nordisk		
CANADA AND UNITED STATES		
Built-e Inc.& the Environmental Home Center	Floors and ceilings, furniture, lumber, panel	Broker, distributor, retailer
Coldham Architects		Architecture
Design Harmony, Inc.		Architecture
Douglas White Architects		Architecture
Flad & Associates		Architecture
Jones and Jones		Architecture
Paul Castrucci Architect		Architecture
theGreen Team, Inc.		Architecture
Volz Clarke & Associates		Architecture
William McDonough + Partners		Architecture
EcoForm	Bender boards	Broker, distributor, retailer
Central American Investments		Broker, distributor
Key Publishers		Broker, distributor
Owens Forest Products		Broker, distributor
The Magellan Group, Ltd		Broker, distributor, trading
World Wide Wood Network, Ltd		Broker, distributor
Edensaw Woods	Custom millwork and mouldings, floors and ceilings, lumber (North American hardwood, softwood), plywood, veneer	Broker, distributor, retailer
West Wind Hardwood Inc.		Broker, distributor, retailer
Ochs Forestry Consulting, Inc.	Wood chips	Broker, distributor
Collins Products, LLC (Lakeview Forest)	Building material	
Endura Wood Products	Butcher blocks, cabinets, custom millwork and mouldings, fencing and lattices, floors and ceilings, furniture, lumber, panel products, plywood	
Neil Kelly Cabinet Division	Cabinets	
Natural Forest Products	Cabinets, doors and windows, floors and ceilings, Glu-Lams, lumber, panel products, plywood, pressure-treated products, veneer	Broker, distributor
Woodworkers Northwest Member (Holloman Woodworking & Design)	Cabinets, doors and windows, floors and ceilings, furniture, outdoor products	
Woodworkers Northwest Member (Kelly Stockton Furniture Artisan)	Cabinets, furniture	
Berkeley Mills & Furniture Co.	Cabinets, furniture, retailer	
Irving Forest Products- Veneer Sawmill	Chips	
J.D. Irving, Ltd.	Chips, pulpwood	Landowner, primary manufacturing
Deep Water Ventures	Corporate	
ForestWorld.com	Corporate	
Linnet – The Land Systems Company	Corporate	
Moresby Consulting Ltd	Corporate	
Nike, Inc.	Corporate	Retailer
Norm Thompson Outfitters	Corporate	Retailer
Scientific Certification Systems (SCS)	Corporate	
Starbucks Coffee Company – SCM1	Corporate	Retailer

Company	Sector	Type of operation
Colonial Craft Specialties	Custom millwork and mouldings	
Colonial Craft	Custom millwork and mouldings, doors and windows	
Certified Wood Source	Custom millwork and mouldings, decking, lumber	Broker, distributor, retailer
EcoTimber	Custom millwork and mouldings, decking, fencing and lattices, floors and ceilings, Glu-Lam, lumber, veneer	Broker, distributor, retailer
Earthsource (A Division of Plywood and Lumber Sales, Inc.)	Custom millwork and mouldings, decking, floors and ceilings, lumber, plywood	Broker, distributor, retailer
Timbergreen Forestry	Custom millwork and mouldings, floors and ceilings, furniture, household accessories, lumber	Retailer
Red Hills Lumber Company	Custom millwork and mouldings, floors and ceilings, panel products	Landowner
Randall Custom Lumber, Ltd	Custom millwork and mouldings, floors and ceilings, lumber	
Kane Hardwood	Custom millwork and mouldings, floors and ceilings,	Landowner
Cascadia Forest Goods LLC	Custom millwork and mouldings, floors and ceilings, panel products	Broker, distributor
Muench Woodwork	Custom millwork and mouldings, furniture, doors and windows, mantels, panel products	
Big Creek Lumber Company	Custom millwork and mouldings	Landowner
Sustainable Forest Systems LP	Custom millwork and mouldings, lumber: hardwood	Manufacturing
Sylvania Certified, LLC	Decking, doors and windows, floors and ceilings, furniture, lumber	Broker, distributor
Timber Holdings Limited	Decking, floors and ceilings, lumber	Broker, distributor
Menominee Tribal Enterprises	Decking, lumber, panel products	Landowner
Harwood Products	Decking, lumber: softwood, timbers and trusses	
Casper Design Group		Designer
Chinquapin Mountain Design		Designer
Dovetail Designs		Designer
I & I Design		Designer
Anakin Timber Company Limited		Distributor
BR-111 Imports & Exports, Inc.		Distributor
J.E. Higgins Lumber Co.		Distributor
LAT-O		Distributor
Golden State Flooring (A Division of Higgins Lumber Co.)	Floors and ceilings	Distributor
Hardwood Artisans	Furniture	Distributor, retailer
Forest Management Specialists		Manufacturer, distributor
Exotic Woods		Distributor, secondary manufacturing
Deschenes & Cooper Architectural Millwork	Doors and windows, floors and ceilings, furniture	
Architectural Forest Products, Inc.	Doors and windows, panel products, veneer	Broker, distributor
A.E. Sampson & Son Ltd	Doors, windows, floors and ceilings	
Mendocino Forest Products – Fort Bragg Stud Mill	Fencing and lattices	
Creative Wood Industries, Ltd	Flooring and ceilings	
Green River Lumber	Flooring and ceilings	
Plaza Hardwood, Inc.	Flooring and ceilings	
Environmental Building Supplies	Floors and ceilings, furniture, lumber	Broker, distributor, retailer
Arnold d'Epagnier Woodworking	Furniture	

Company	Sector	Type of operation
Gary Weeks and Company	Furniture	Manufacturer
Norse Furniture Company	Furniture	
Woodworkers Northwest	Furniture	Retailer
Creative Wood Industries, Ltd	Furniture parts, stairs	
CD Woodworks	Furniture, household accessories	Secondary manufacturing
The Joinery	Furniture, retailer	
Wiggers Custom Furniture, Ltd	Furniture, veneer	
Irving Forest Products- Veneer Sawmill	Garden supplies, lumber	
Clark Sellars Building & Remodeling		General contractor
Gregg Abel Construction Inc.		General contractor
Scott McBride Carpentry Co.		General contractor
Sellen Construction Company		General contractor
Adirondack Hardwoods/ Saranac Hollow Woodworking	Housing material	Retailer
Austin Energy- Green Building Program		Institution, association
Cerritos Community College		Institution
Community Forestry Resource Center		Institution
N. Alberta Inst. of Technology		Institution
Landing School of Boat Building		Institution, secondary manufacturing
O'Neill Pine Company		Landowner
Western Forest Products Limited		Landowner
Seven Islands Land Management Company	Logs	Landowner
The Collins Companies	Plywood, sheathing, underlay	Landowner, primary manufacturing
Anderson-Tully Company		Landowner, primary manufacturing
Lignum Ltd		Landowner, primary manufacturing
Maine Woods Company LLC	Lumber	
Northland Forest Products, Inc.	Lumber	Broker, distributor, retailer
Windfall Lumber and Milling	Lumber	
Copperhead Road Logging and Lumber		Lumber company
Hayward Lumber	Lumber	Lumber company, secondary manufacturing
DiSalvo Woodworking Inc.		Manufacturer
Golden Furniture Maker		Manufacturer
JELD-WEN- Research & Development		Manufacturer
Master Garden Products		Manufacturer
Nien Kamper Furniture		Manufacturer
Precious Woods Amazon		Manufacturer
Steves & Sons, Inc.		Manufacturer
Modulus Guitars	Musical instruments	Secondary manufacturing
Canadian Woodturners Association		Non-profit organization, professional organization
Heartwood Industries, Inc.	Outdoor products, shelving, store fixtures	Manufacturer
States Industries	Panel products, plywood	
GN Plywood, Inc. dba Mt. Baker Plywood	Panel products, plywood	Secondary manufacturing
VIDA (a division of Architectural Forest Enterprises)	Panel products, veneer	
New Leaf Paper	Paper	Broker, distributor
Collins Products, LLC (Klamath Falls)	Particleboard	
California Cedar Products Company	Pencil slats	
Cataumet Sawmill		Primary manufacturer
Cut & Dried Hardwoods		Primary manufacturer
LWO Corporation		Primary manufacturer
Pioneer Millworks		Primary manufacturer
Norske Skog Canada		Primary, secondary manufacturer
Diana LJ Harrison CPA, P.C.		Professional organization

Company	Sector	Type of operation
GMO Renewable Resources		Professional organization, association
Habitat for Humanity		Professional organization, association
International Design Center for the Environment (IDCE)		Professional organization, association
Kootenay Woodvine		Professional organization
National Audubon Society		Professional organization
Northwest Natural Resources Group		Professional organization, association
Oxygen for Thin Air		Professional organization
Rainforest Alliance		Professional organization, association
Rainforest Relief		Professional organization, association
The Forest Management Trust		Professional organization, association
The Natural Step		Professional organization
The Wilderness Society		Professional organization, association
USAID/Nicaragua		Professional organization, association
World Resources Institute		Professional organization, association
World Wildlife Fund – Centroamerica		Professional organization, association
World Wildlife Fund US		Professional organization, association
Resource Management		Resource manager
Lowe's Home Improvement Warehouse		Retailer
Pittsford Lumber & Woodshop		Retailer
The Home Depot		Retailer
Wickes Lumber		Retailer
Windsor Building Supplies Ltd		Retailer
About Wood		Secondary manufacturer
Alden Lee Company		Secondary manufacturer
Andersen Corporation		Secondary manufacturer
Bass Guitar Systems		Secondary manufacturer
Blue Streak Woodworks		Secondary manufacturer
Bontex, Inc.		Secondary manufacturer
Bruce King Yacht Design		Secondary manufacturer
Christopher D. Hess, Inc.		Secondary manufacturer
Concord Flooring Company		Secondary manufacturer
Cox Woodworking		Secondary manufacturer
Daiek Woodworks		Secondary manufacturer
Frank's Cabinet Shop		Secondary manufacturer
Gannon & Benjamin Railway		Secondary manufacturer
General Woodcraft		Secondary manufacturer
Gibson Guitar Corporation		Secondary manufacturer
Heartwood Creations		Secondary manufacturer
Jonathan Clowes Sculpture		Secondary manufacturer
Knudsen Woodworking		Secondary manufacturer
Lie-Nielson Toolworks		Secondary manufacturer
Mohon International Inc.		Secondary manufacturer
Moxwood (Pty) Ltd		Secondary manufacturer
Old Time Woodwork, Inc.		Secondary manufacturer
Ralston Furniture Reproduction		Secondary manufacturer
Silas Kopf Woodworking		Secondary manufacturer
Taylor Snediker Boat Builders		Secondary manufacturer
Terry Anderson Woodworking		Secondary manufacturer
The Kenlin Company, Inc.		Secondary manufacturer
The Stanley Works		Secondary manufacturer
Twin Birch Woodworking		Secondary manufacturer
Whitney Wood Work		Secondary manufacturer
Woodland Network Co., Ltd		Secondary manufacturer
Industries Maibec, Inc.	Shingles	Secondary manufacturer

Company	Sector	Type of operation
Hayward Truss L.L.C (a division of Hayward Lumber)	Timers and trusses	Secondary manufacturer
A & M Wood Specialty, Inc	Veneer	Manufacturer
Columbia Forest Products: Craigsville, WV	Veneer	
Columbia Forest Products-Presque Isle, ME	Veneer	
The Freeman Corporation	Veneer	Manufacturer
HONG KONG SAR		
Key Technologies International Ltd	Building material	Retailer
Tai Wah Construction Limited	Doors and flooring	Manufacturer
Business Environment Council	Other	
Kingfisher Asia Limited		Retailer
JAPAN		
Yamano Kakouba Network Co., Ltd		Architecture
Aidca Inc.	DIY	Wholesaler
WWF Japan	Environmental NGO	Association
Asahi Breweries, Ltd.	Food	Manufacturer
Shinrin Kumiai Owase		Forest cooperative
Yusuhara Forest Owners Cooperative		Forest manager, lumber mill
Hayami Forest		Forest owner and manager
Yamaiwa Co., Ltd.		Forest owner and manager
Asplund Co., Ltd.	Furniture	Retailer, wholesaler
Bell Institute Co., Ltd.	Furniture	Designer
M.J.C., Inc.	Furniture	Retailer
Common Facility Coop Woodwok	Furniture and housing Material	Manufacturer
Ikegawa Mokuzai Kogyo Co., Ltd.	House ware products	Manufacturer
Marumi Kogei Co., Ltd.	House ware products	Wholesaler
Kinugasa Mokuzai Co., Ltd.	Housing material	Manufacturer
Mitsubishi Paper Mills, Ltd.	Paper products	Manufacturer
AUSTRIA		
Holzkultur PBK Wieser Ges.m.b.H.	Carpentry	Manufacturer, architecture
Massivholztischlerei Neumair	Carpentry	Manufacturer
BauMax AG	DIY	
OBI Baumärkte	DIY	
Praktiker Baumärkte	DIY	
Puchegger&Beisteiner GmbH	Flooring	
Wohngesund	Flooring and furniture	
GEA	Furniture	Retailer
Lutz GmbH / Gröbl Möbel	Furniture and kitchen	Retailer, manufacturer
Kaufhof Möbelcenter	Furniture and kitchen	Retailer, manufacturer
Kriechbaum Freizeitmöbel	Garden furniture	
Lignum B.u.T Trade GmbH	Hammocks	
Neckermann Versand Österreich	Mail order company	Publishing
Otto Versand GmbH	Mail order company	
Panda Versandhandel	Mail order company	
Musikinstrumente Peter Mürnseer	Music instruments	
Cretacolor-Bleistiftfabrik Hirm	Pencils, arts utensils	
MESSAGE VerlagsgmbH	Publishing house	Publishing
Die Holzer Stiege	Stairs	
Frey-Amon Holzhandel	Timber	Trading
J.u.A. Frischeis	Timber	Trading

Company	Sector	Type of operation
Alco Bauelemente	Winter gardens	
Lenzing AG	Viscose fibre	Manufacturer
Wood Machines GmbH,	Wood processing	
BELGIUM		
PDC Brush nv	Brushes	Manufacturer
ECOM@-Antwerpen	Building materials	
De Noordboom	Carpentry	
Fabribois	Carpentry	Manufacturer
Verniers	Carpentry	Manufacturer
Brico International	DIY	
Bricorama	DIY	
Gamma België	DIY	
Hanssens-Hout nv	DIY	
Brems Houtimport	Flooring and doors	Retailer
Decospan nv	Flooring and panels	Manufacturer
Extremis nv	Garden furniture	Manufacturer
United Teak Producers nv (UTP)	Garden furniture	Manufacturer
Royal Botania (K&F Int.)	Garden furniture	Manufacturer
HARBO Benelux	Garden furniture	Manufacturer, importer, trader
Eurabo	Mouldings and wooden floors	Producer
Agglo nv	Panels	Manufacturer
Blankedale vzw	Stillages, shelves	
Carpentier W. Houtindustrie	Timber	Retailer, trading
Cras nv	Timber	Retailer, trading
CRA-VAN nv	Timber	Retailer, trading
Gravy Bois sa	Timber	Retailer, trading
Lagae Hout nv	Timber	Retailer, trading
Martens Houthandel nv	Timber	Retailer, trading
Wouters Houthandel nv	Timber	Retailer, trading
Bomaco nv	Timber	Trading
Hoebeek nv	Timber	Trading
Houtwijk	Timber	Trading
Indufor nv	Timber	Trading
Microtim (Janssens & Van Noten nv)	Timber	Trading
Plasschaert G. bvba	Timber	Trading
Saelens Trading bvba	Timber	Trading
Somex nv	Timber	Trading
Stevens Ets & C ^o nv	Timber	Trading
Van Hoorebeke Panels	Timber	Trading
Van Hoorebeke Timber	Timber	Trading
J. Van Reeth Houtinvoer nv	Timber	Trading
B.J. Parket	Timber, flooring	Trading
Bilterynt bvba	Timber, hydraulic works	Trading
Amerhout bvba		Retailer
Counet Maison sprl		Retailer
De Deurwaerder Fr. & C. nv		Retailer
De Pourcq nv		Retailer
Genk Hout nv		Retailer
Goffaux Camille Ets sa		Retailer
Leveque & Vandenberghes sa		Retailer
Modest Houthandel		Retailer
Rammant Houthandel nv		Retailer
Frans Trap nv Houtimport		Retailer

Company	Sector	Type of operation
Kinnarps Büromöbel GmbH	Furniture	Manufacturer
Möbel Walther AG	Furniture	Retailer
Münchner Boulevard Möbel	Furniture	Manufacturer
Schröno Polstermöbel	Furniture	Manufacturer
B.-J. Steinacker GmbH	Furniture and kitchen	Manufacturer
Fa. Naturschutz-Management	Garden and park furniture	
Garpa Garten & Park Einrichtungen	Garden and park furniture	
Büscher + Hofschulz GmbH	Garden furniture	
Fischer Möbel GmbH	Garden furniture	Manufacturer
Garten und Holz Dirk Hartmann	Garden furniture	
Hillerstorp GmbH	Garden furniture	Manufacturer
Ploß & Co. GmbH	Garden furniture	Manufacturer
STERN Garten- & Freizeitmöbel	Garden furniture	Manufacturer
Villa tectona GmbH	Garden furniture	Manufacturer
Westefel Werke GmbH	Garden furniture, other garden products	Manufacturer
ecoMANDANT GmbH	Housing	
Bibliographisches Institut & F.A. Brockhaus AG	Paper products	Publishing
maul+co. – Chr. Belser GmbH	Paper products	Printing
MOHN MEDIA Mohndruck GmbH	Paper products	Printing
ExNorm Haus GmbH	Prefabricated houses	
Baufritz GmbH & Co.	Prefabricated houses and other wood products	
Holzland Holzhandels GmbH		Specialized trading
Unternehmensgruppe Lüghausen	Timber	Trading
WERTH-HOLZ GmbH	Timber	Trading
Zimmermann GmbH	Timber	Trading
Zimmermann Holzwerke GmbH	Timber	Trading
Adolf Münchinger Holz-Import-Export GmbH & Co. KG	Timber	Trading
AssiDomän Forst & Holz	Timber	Trading
claro Holz GmbH	Timber	Trading
ESPEN AG	Timber	Trading
Heinrich Fahlenkamp GmbH & Co. KG	Timber	Trading
Heinrich Freudenberg (GmbH&Co.) KG	Timber	Trading
JOLYKA Im- und Export GmbH	Timber	Trading
KHC Heinrich Kleine Holzgroßhandel GmbH	Timber	Trading
Horst Kampmann Holz	Timber, flooring	Trading
Garant Fenster und Wintergärten	Windows and garden furniture	
BSV GmbH	Windows and other wood products	
NIVEAU Fenster GmbH	Windows, other wood products	
Sorpetaler Fensterbau GmbH	Windows, other wood products	
Volmer Fenstertechnik GmbH	Windows, other wood products	
Variotec Sandwichelemente GmbH & Co. KG	Wood products	
Karstadt Warenhaus AG		Retailer
memo AG		Retailer
The Body Shop C/O Cosmo Trading		Retailer
IRELAND		
Stewart & Sinnott Ltd		Architecture
Richard Burbidge (IRELAND) Ltd	Decorative wooden mouldings and other furniture items	
Just Forests		Forest conservation organization
True Temper Ltd	Garden products	Manufacturer
Galtee Wood & Veneer Ltd	Kitchens, other wood items	Manufacturer

Company	Sector	Type of operation
Abbey Woods Ltd	Timber	Trading
WoodCom Ltd	Timber importer	
ITALY		
Minelli Group	Brush handles, turned beech components	
Technoform	Caravan furniture and kitchen doors	Manufacturer
Raffaele Rigato snc	Carpentry	
ICILA		Certification body
SGS ICS srl		Certification body
ON-FU-TON snc	Furniture	Retailer
TUPA	Furniture	Retailer
ONY-KI snc	Furniture	Retailer
ILCAM	Kitchen doors	Manufacturer
Girasole SpA	MDF transformer	
Arquati Cornici SpA	Picture frames	
Arespan	Plywood	Manufacturer
UNITAL		Association of small enterprises
Coop Italia	Supermarket	
Decorlegno srl	Wood products	Manufacturer
NETHERLANDS		
AVIH		Timber association
Platform Hout Nederland		Association of forest and timber organizations
ABN AMRO Bank N.V.		Bank: end user
Rabo bank		Bank: end user
Haasnoot Bruggenbouw B.V.	Bridges	Manufacturer
SGS AgroControl		Certifier
SKAL International		Certifier
KIWA N.V. Certificaties en Keuringen		Certifier of timber qualities
Kompan/Bommelland		Developer of children's playgrounds
Borgman Beheer Advies		Consultants on forestry
Fikszo B.V.	DIY	Manufacturer
Intergamma B.V.	DIY	Retailer
JéWé Handelsmaatschappij B.V.	DIY	Manufacturer
Praxis	DIY	Retailer
Hivos		Development aid NGO, association
ICCO		Development aid NGO, association
NC-IUCN		Development aid NGO, association
Novib (Oxfam)		Development aid NGO, association
SNV		Development aid NGO, association
Greenpeace International		Environmental NGO
Milieudefensie, Vereniging		Environmental NGO, association
Wereld Natuur Fonds		Environmental NGO, association
Albers Parket Groothandel B.V.	Flooring	Retailer
Eemland Parket	Flooring	
Ede, Gemeente		Forest owner
Stichting FACE		Forest owner
Koninklijke Houtvesterij Het Loo		Forest owner
Natuurmonumenten, Ver.		Forest owner
Gemma Boetekees		FSC member
André de Boer		FSC member
Jan Nico van der Stadt		FSC member

Company	Sector	Type of operation
Art of Living	Furniture	Manufacturer
Harbo Fritid	Garden furniture	Manufacturer, trading
Hartman Groep B.V.	Garden furniture	Manufacturer, trading
Johns Garden Furniture/Greeza Meubelen B.V.	Garden furniture	Manufacturer
Rijkswaterstaat		Government agency for waterworks
Woningstichting De Vuurkuul		House-building society
J.C. van de Voort Houth. & Zagerij BV	Timber building products	Manufacturer
Uithoorn, Gemeente		Municipality
Stichting Ecohout		NGO, consultant
Kinnarps Office Furniture B.V.	Office furniture	
Ned. Ver. Van Boseigenaren		Association of forest owners
Federatie Particulier Grondbezit		Landowners' association
ANWB		Tourism association
KNBV (Kon.Ned.Bosbouw Ver.)		Organization of foresters
Iboma Lopik B.V.	Panel board	Trading
Buhrmann Ubbens Papier	Paper products	
Johan Matser Projectontwikkeling B.V.		Real estate, property developer
Expertisecentrum Natuurbeheer		Research organization
HEMA		Retailer (multiple)
Staatsbosbeheer		State forest service, forest owner
Bekol International B.V.	Timber	Trading
A. van den Berg Houthandel	Timber	Trading
Dekker Hout Den Haag B.V.	Timber	Trading
Fransen Houtverwerkings Industrie	Timber	Trading
GWW Houtimport B.V.	Timber	Trading
A. Hoogendoorn en Zn. B.V.	Timber	Trading
Plato Hout B.V.	Timber	Trading
Reef Hout B.V.	Timber	Trading
RET-DHZ	Timber	Trading
Symaco Trading	Timber	Trading
Hakwood	Timber products	Manufacturer
Fetim	Timber for DIY sector	Trading
Dennebos B.V.	Timber, flooring	Trading
CNV Bedrijvenbond		Trade union
FNV Bouw		Trade union
Mac-Lean Products B.V.	Trader boards	
Unie van Bosgroepen		Association of forest groups
TimmerSelekt Doornenbal B.V.	Window frames	Manufacturer
De Kock van Gelder B.V.	Window frames	Manufacturer
Aalberts Hout	Window frames, flooring	Manufacturer
Eco Direct Nederland B.V.	Wooden products	
Eurofar International B.V.	Wooden products	
Nibo N.V.	Wooden products	
N&V Forest Products	Wooden products	
Ver. Klimaatverbond Nederland		
Kwantum Nederland B.V.		Retailer
RUSSIAN FEDERATION		
Lemo Group	Harvesting	Producer
Chuguevskiy Leskhoz	Harvesting	Producer
JSC Volga	Paper products	Manufacturer
Plywood Mill	Plywood	Manufacturer
ArkhBum	Pulp	
Vologadlesprom Corporation (Ecotimber)	Roundwood	Producer

Company	Sector	Type of operation
Krona-M Company	Roundwood, sawn wood	Producer
Evenkiyskaya Timber Company	Sawn wood	Producer
East-West Timber Company	Sawn wood	
Dep-Les	Sawn wood	Producer
Ust-Pokshengskiy Lespromkhoz	Sawn wood products	Producer
Pricebatch (Altai UK) Ltd.	Wooden products	Manufacturer
SPAIN		
Fundación Terra		Association
Grupo Losán (Losan Industries, Losa Boards, Pina, Aserpal)	Boards	Manufacturer
Biofusta, S.L.	Building	Retailer
Puertas Puig Oliver, S.L.-Puertas Luvipol	Doors	Manufacturer
Puertas Visel, S.A.	Doors	Manufacturer
Maderas Iglesias, S.A.	Flooring	Manufacturer/Importer
IMFYE, S.A.		Forestry consulting
Mueblas Lasao, S.L.	Furniture	Manufacturer
Grupo Alvic	Furniture: office, kitchen	Manufacturer
Bosques Naturales, S.A.	Plantations of hardwood species	
Nuñez y Cañadas, S.A.	Kitchen	Manufacturer
El Prat de Llobregat		Municipality
Tamalsa Compañía de Maderas, S.A.	Wood products	Importer, distributor
Maderas J. Redondo	Wood products	Import
SWEDEN		
Byggtrygg	Building material	
Interpares	Building material	
Beijer Byggmaterial AB	Building material	Retailer
Landmann Skandinavia AB	Charcoal briquettes	Wholesaler
JM AB		Construction and projects development
NCC		Construction and projects development
Skanska Sverige		Construction and projects development
Forbo Forshaga AB	Flooring	Manufacturer
Tarkett AB	Flooring	Manufacturer
AB Berg & Berg Parkett	Flooring	Manufacturer
AB Gustaf Kähr	Flooring	Manufacturer
Svenska McDonalds	Food	
Skogsutveckling Syd AB (timber)		Forest management
Stiftelsen Skogssällskapet		Forest manager
Mio	Furniture	Retailer
IKEA International A/S	Furniture	Retailer, designer
Berga Form AB	Garden furniture	Wholesaler, designer
Hillerstorps Trä AB	Garden furniture	Manufacturer
Knäreds Werkstads AB	Garden furniture	Manufacturer
Harbo Fritid AB	Garden furniture	Manufacturer, wholesaler
BRA Fritidsprodukter AB	Garden furniture	Wholesaler
Classic Garden AB	Garden furniture	Wholesaler
Gnosjö Konstsmide AB	Garden furniture	Manufacturer, wholesaler
BoWo	Hardwood products from Bolivia, flooring, garden furniture, etc.	Wholesaler
Gårdstunet AB	Houses	Manufacturer
HSB Riksförbund	Housing	Association
Kinnarps AB	Office furniture	Manufacturer
Corporate Express	Office supplies	Retailer

Company	Sector	Type of operation
SCA Forest Products	Paper products, pulp, sawn timber products, bio-fuel	Manufacturer
ICA Handlarna AB		Consumer retailer, publisher
Sveaskog		State forest authority
Fellessons Byggvaror AB	Timber and wood products	
Elmia AB		Trade fair organizer
AssiDomän AB	Wood products and timber	
Västerås Stift	Wood products and timber	
KF Kooperativa Detaljhandelsgruppen AB		Retailer
SWITZERLAND		
Brütsch Schreinerei GmbH	Carpentry	
Ernst Wieland AG	Carpentry	
Sommer Holzwerkstatt	Carpentry	
Werkbetrieb Hardau	Carpentry	
Cremer und Bruhin AG	Carpentry	
Triplex	Carpentry, interior design	
DO IT + GARDEN MIGROS	DIY	
Holz Zollhaus AG	DIY	
Sorex AG	DIY	
Berchtold Trommelbau & Perkussion GmbH	Drums	
Fairworld GmbH	Fair trade products	
Kronospan AG	Flooring	
Graf Parkett + Holz AG	Flooring	
MICASA	Furniture	
Möbel Pfister	Furniture	
Bürgerhaus AG Wood and Nature	Furniture	
Schreinerei und Möbelbau Hanspeter Geering	Furniture, carpentry	
Genossenschaft Handwerkskollektiv	Furniture, carpentry	
Passepartout Company	Garden furniture, picture frames, charcoal, chewing gum, toys	
WWF Panda SA	Various products	Mail order
Die Fliegenden Register	Organs	
Gabriel Schill AG	Planed goods, boards, parquet	
Ropress Genossenschaft	Print shop	
Rey Holz AG	Sawmill and timber trade	Trading
DOC AG	Sleeping systems	
Metanoia Marketing	Solid wood furniture, consulting	Consulting
WohnGeist GmbH	Solid wood furniture, interior design	
GEWA	Toys and kitchen furniture	
Precious Woods (Schweiz) AG	Tropical timber	
UNITED KINGDOM		
Jacuzzi UK	Bathroom	Manufacturer
Jewsons Ltd		Builders merchants
Saint-Gobain Building Distribution Ltd.	Building material	
Bioregional Charcoal Co. Ltd	Charcoal	
CPL Chartan-Aldred	Charcoal	
Parlour Products Ltd	Charcoal	
Rectella International Ltd	Charcoal	
Bovis Lend Lease Ltd		Construction
Carillion		Construction
Morrison Construction Group plc		Construction
Newell Window Fashions UK	Curtain poles and accessories	

Company	Sector	Type of operation
B&Q plc	DIY	
Focus Do It All Ltd	DIY	
Great Mills	DIY	
Homebase	DIY	
Magnet Ltd	DIY	
Wickes Building Supplies Ltd	DIY	
International Decorative Services	Decorative and panel products	
Balfour Beatty Rail Projects Ltd	Design, manage and construct rail projects	
Fairwinds Europe Ltd	Furniture (particularly bathroom and bedroom)	Furniture
BBC Magazines	End users	
Design for Nature	FSC certified bird feeders and related products	
David Craig	Furniture and kitchens	Manufacturer
Doorvale	Furniture and kitchens	Manufacturer
Moore's Furniture Group Ltd	Furniture and kitchens	Manufacturer
Newcastle Furniture Company	Furniture and kitchens	Manufacturer
Symphony Group plc	Furniture and kitchens	Manufacturer
T&G Woodware Ltd	Furniture and kitchens	Manufacturer
E C Walton & Co Ltd	Garden buildings	Manufacturer
Grange Fencing Ltd	Garden fencing and garden structures	
Forest Garden plc	Garden products	
Style Gardens	Garden products	Retailer
True Temper Ltd	Garden products	
Royal Institute of British Architects (RIBA)		General supporter (architects' professional organization)
Oxfam		General supporter (fair trade products)
Friends Ivory and Sime		General supporter (investment manager)
Just World Trading Ltd		General supporter (timber traders)
Douglas Kane	Hardware and furniture	Manufacturer
Laing Homes Ltd	House builders	
Charles Bentley & Son	House ware products	
H & L Russel Ltd	House ware products	
Impress Group Ltd	House ware products	
Shireclose Housewares Ltd	House ware products	
Premium Timber Products Ltd	Importer and distributor of DIY products	
Future Publishing Ltd		Magazine publishers
Richard Burbidge Ltd	Moulded wood products	
Railtrack PLC	National railway infrastructure	
Office Furniture	Office furniture	Manufacturer
Boots The Chemist	Other	
The Body Shop	Other	
Indian Ocean Trading Company	Outdoor furniture	
Tetra Pak UK	Packaging manufacturer	
Stanley Tool	Paint brushes, rollers, decorator's materials	
Kronospan Ltd	Panel	Manufacturer
F.R. Shadbolt & Sons Ltd	Panels and doors	Manufacturer
A M Paper Converters Ltd	Paper products	
Azko Nobel Decorative Coatings Ltd	Paper products	
Chilwood Ltd	Paper products	
Consuma Ltd	Paper products	
Crowley Esmonde Ltd	Paper products	
Englewood Ltd	Paper products	
F H Lee Ltd	Paper products	

Company	Sector	Type of operation
Graham & Brown Ltd	Paper products	
Perstop Surface Materials Ltd	Paper products	
Speciality Coatings Darwen Ltd	Paper products	
National Railway Supplies Ltd	Railway infrastructure products	
Spur Shelving	Shelving systems	
Core Products Ltd	Shelving, storage units, etc.	Manufacturer, importer
F W Mason & Sons Ltd	Solid wood products	Manufacturer
Paperback Ltd	Specialist paper	Merchant
Calders & Grandidge	Specialist timber products	
Dudley Stationery Ltd	Stationery	
Fantasia Ltd	Stationery	
Guilbert Ltd	Stationery	
Hunt & Broadhurst Ltd	Stationery	
John Dickenson Stationery Ltd	Stationery	
Remarkable Pencils Ltd	Stationery	
W.H. Smith Highstreet Ltd	Stationery	
Tesco plc	Supermarket	Retailer
CWS Retail	Supermarket	Retailer
Sainsbury's Supermarkets Ltd	Supermarket	Retailer
Beacon Certified Timber	Timber	Trading
C Blumson Ltd	Timber	Trading
Clarks Wood Company Ltd	Timber	Trading
Conven Limited	Timber	Trading
Ellis Hill Ltd	Timber	Trading
Timbmet Ltd	Timber	Trading
Ecotimber Ltd		Timber agent
International Timber		Timber distributors
Eastern Hardwoods	Timber importer supplying FSC timber for the manufacture of certified office furniture	Importer
West Dowels and Mouldings Ltd	Timber mouldings	
John Wilman Ltd	Wall coverings	
Vymura plc	Wall coverings	
Cova Products Ltd	Veneer	
Wooden Wonders	Wood products	
Chindwell Company Ltd	Wood products	
The Woodland Trust	Woodland management and conservation	
Scottish Woodlands Ltd	Woodland Manager	
Woodhouse		
AUSTRALIA AND NEW ZEALAND		
Schamburg + Alvisse	Design	Consulting
Ecos Corporation	Environmental Consultants	Environmental consultants
The Body Shop	Healthcare and lifestyle products	
Leo Wood Products	House ware products	
Patagonia Australia	Outdoor adventure products	
The Woodage		

Source: World Wildlife Fund.