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## United Kingdom

### Solid Wood Products

#### Annual

#### 2000

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**Report Highlights:** U.S. hardwood sawn lumber imports into the UK for 2000 are expected to be up around 9% to 115,000 m<sup>3</sup>. Improving activity in both the UK construction industry and furniture sector has contributed to the upward trend. However U.S. hardwood sales have been partially constrained by the volatile dollar-sterling exchange rate this year.

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Executive summary ..... Page 2 of 44

Strategic Indicators ..... Page 4 of 44

1. UK Domestic Production ..... Page 10 of 44

    1.1 UK Forests ..... Page 10 of 44

    1.2 UK Solid Wood Situation ..... Page 11 of 44

2. Trade ..... Page 14 of 44

    2.1 Overview and Outlook ..... Page 14 of 44

    2.2 Competitors’ Market Promotion Activities ..... Page 18 of 44

    2.3 Environmental Certification ..... Page 19 of 44

    2.4 U.S. Market Development Strategies ..... Page 21 of 44

3. Market Segment Analysis ..... Page 21 of 44

    3.1 Construction sector ..... Page 21 of 44

        3.1.1 Overview ..... Page 21 of 44

        3.1.2 Marketing ..... Page 25 of 44

        3.1.3 Policy ..... Page 27 of 44

    3.2 Furniture Sector ..... Page 28 of 44

        3.2.1 Overview ..... Page 28 of 44

        3.2.2 Trade ..... Page 28 of 44

        3.2.3 Marketing ..... Page 29 of 44

        3.2.4 Policy ..... Page 33 of 44

    3.3 Materials Handling Industry ..... Page 33 of 44

        3.3.1 Overview, Marketing and Trade ..... Page 33 of 44

        3.3.2 Policy ..... Page 34 of 44

PSD Tables ..... Page 35 of 44

Trade Tables ..... Page 38 of 44

## Executive summary

Forecasts of UK timber production for the next 20 years show a potential 67% increase in softwood production over the period. The UK industry plans to double market share for domestic sawn lumber from current levels of 20% to over 40%. UK softwood sawn lumber production in 2000 reached 2,295,000 m<sup>3</sup>. However short term trading conditions for UK softwood have been difficult due to ready availability of cheap low priced imports, notably from Scandinavia and the Baltic States, and the relative strength of sterling. UK softwood sawn lumber imports increased from 6,920,000 m<sup>3</sup> in 1999 to around 7,300,000 m<sup>3</sup> in 2000. Reasonably strong U.S. demand, the strength of the dollar relative to sterling, and high freight costs, have meant that U.S. sawn softwood lumber has been generally uncompetitive on price in the UK market. UK imports of U.S. softwood sawn lumber should continue at relatively low levels of around 55,000 m<sup>3</sup> in 2000.

UK domestic panel products has seen significant inward investment over the last 5 years. The UK market for MDF, OSB, and particleboard is now almost wholly satisfied by domestic production. UK markets for panel products have experienced over-supply and price weakness during 2000. Plywood remains the only panel product imported in any volume. Overall imports of plywood into the UK have been relatively high in 2000 reaching around 1.14 million m<sup>3</sup> compared to 1.07 million m<sup>3</sup> in 1999. There has been particularly strong growth in UK imports of Brazilian elliotti pine plywood. Unfavorable exchange rates and relatively high prices for U.S. plywood mean that UK imports have continued at relatively low levels this year – around 50,000 m<sup>3</sup>. Nevertheless, APA–Engineered Wood Products’ campaign to raise UK market appreciation of the high quality standards of U.S. softwood plywood is having some impact on demand.

British hardwood timber supply is very restricted and no increase is expected in the foreseeable future. Overall hardwood sawn lumber imports into the UK are expected to rise from around 437,000 m<sup>3</sup> in 1999 to 450,000 m<sup>3</sup> in 2000. Temperate hardwood sawn lumber imports should increase from around 277,000 m<sup>3</sup> in 1999 to 285,000 m<sup>3</sup> in 2000. U.S. hardwood sawn lumber imports into the UK for 2000 are expected to be up around 9% at 115,000 m<sup>3</sup>. Improving activity in both the UK construction industry and furniture sector has contributed to the upward trend. However U.S. hardwood sales have been partially constrained by the volatile dollar-sterling exchange rate this year. The partial recovery of tropical sawn hardwood lumber imports, which began last year, is expected to continue into 2000 rising from around 160,000 m<sup>3</sup> in 1999 to 165,000 m<sup>3</sup> in 2000.

The UK’s imports of value added wood products have increased strongly this year. Despite the relative strength of the dollar, the United States continues to benefit from the trend. However other countries are seeing stronger growth, notably euro-zone countries like Italy and Belgium, and Asian countries including Malaysia, China and Indonesia.

U.S. competitors’ marketing in the UK received a major boost during 2000 with the launch of the “Wood for Good” promotional campaign funded primarily by Nordic and UK interests. Funding amounting to £9 million (\$13.5 million) is assured by a consortium of eight organizations, led by the Nordic Timber Council (NTC). Simultaneously, NTC launched Nordic First, a £1.4 million

(\$2.1 million) promotional campaign.

Overall activity in the UK construction sector has been rising steadily since the start of 1999. However some signs of slowing growth emerged in the third quarter of 2000 as housing starts fell below levels of the previous year. Housing start data mirrors the progress of the overall economy. UK annualized GDP growth during the first and second quarters of 2000 was running at 3.0% and 3.2% respectively, but dropped to 2.9% in the third quarter. However recent surveys of opinion in the UK construction sector have revealed reasonable levels of optimism about future activity. Optimism is underpinned by expectations of increased public spending on infrastructure during 2001. There are also encouraging signs for wood in construction. New regulations to improve building quality and energy efficiency have increased demand for timber frame construction and wooden window frames. Current fashion also favors wooden flooring and decking. There is a significant trend towards pre-fabrication. Interest in engineered wood products is growing.

Demand for furniture in the UK has had a bumpy ride over recent years, but now seems to be on a firm upward trend. However, UK manufacturers have been losing market share to overseas competitors, notably in low cost countries of Asia and Eastern Europe. There is an on-going trend towards increased out-sourcing of components by UK furniture manufacturers.

## Strategic Indicators

Strategic Indicator Table:	Forest Area (million hectares/million m3)		
Country:	United Kingdom		
Report Year	2000		
	Previous	Current	Following
	Calendar Year	Calendar Year	Calendar Year
Total land area	24.41	24.41	24.41
Total forest area (productive and unproductive)	2.54	2.57	2.59
.....of conifer high forest (productive)	1.54	1.55	1.56
.....of broadleaves (productive)	0.61	0.62	0.63
.....of coppice (productive)	0.02	0.02	0.02
Forest type			
.....of which virgin	0	0	0
.....of which plantation	N/A	N/A	N/A
.....of which other commercial	N/A	N/A	N/A
Forest ownership			
.....totally publically owned	1.1	1.1	1.1
.....totally privately owned	1.44	1.46	1.48
Total volume of standing timber	317	321	325
.....of which commercial	293	296	299
Annual Timber Removal	10.33	10.33	10.33
Annual Timber Growth Rate	14.59	14.59	14.59
Annual Allowable Cut	N/A	N/A	N/A

Strategic Indicator Table:	Construction market		
Country:	United Kingdom		
Report Year	2000		
	Previous	Current	Following
	Calendar Year	Calendar Year	Calendar Year
Total Housing starts (000s of units)	178.3	182.6	180
.....Of which wood frame	N/A	N/A	N/A
.....Of which steel, masonry other materials	N/A	N/A	N/A
.....Of total starts, residential	N/A	N/A	N/A
.....Of residential, single family	N/A	N/A	N/A
.....Of residential, multi family	N/A	N/A	N/A
.....Of total starts, commercial	N/A	N/A	N/A
Total Value of Commercial Construction market (U.S.\$ million)	19233	19930	19500
Total Value of Repair and Remodeling Market (U.S.\$ million)	48380	50600	50600
Are tariffs on softwood from the United States higher, equal, or lower than softwood imported from other countries?	equal	equal	equal
Are tariffs on plywood from the United States higher, equal, or lower than plywood imported from other countries?	higher	higher	higher

Are non-tariff barriers on softwood from the United States higher, equal, or lower than softwood imported from other countries?	higher	higher	higher
Are non-tariff barriers on plywood from the United States higher, equal, or lower than plywood imported from other countries?	N/A	N/A	N/A
Are there market development programs for construction, softwood or plywood imports funded by foreign governments?	N/A	N/A	N/A
Remaining questions	All N/A	All N/A	All N/A

Strategic Indicator Table:	Furniture and Interiors Market		
Country:	United Kingdom		
Report Year	2000		
	Previous	Current	Following

	Calendar Year	Calendar Year	Calendar Year
Total Housing starts (000s of units)	178.3	182.6	180
Total Number of Households (thousands)	24700	N/A	N/A
Furniture production (U.S.\$ million)	N/A	N/A	N/A
Interiors market size (U.S.\$ million)	N/A	N/A	N/A
Total furniture imports (U.S.\$ million) (wood furniture only)	1440	1700	1900
Total furniture exports (U.S.\$ million) (wood furniture only)	623	638	645
Are tariffs on hardwood from the United States higher, equal, or lower than hardwood imported from other countries?	equal	equal	equal
Are non-tariff barriers on hardwood from the United States higher, equal, or lower than hardwood imported from other countries?	higher	higher	higher
Are there market development programs for furniture or interiors market expansion funded by foreign governments?	Yes	Yes	Yes
If yes, identify the following:			
.....Country	Malaysia	Malaysia	Malaysia

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.....Form of competition	Trade shows, 3 permanent market representatives (London)		
Remaining questions	All N/A	All N/A	All N/A

Strategic Indicator Table:	Material Handling Market		
Country:	United Kingdom		
Report Year	2000		
	Previous	Current	Following
	Calendar Year	Calendar Year	Calendar Year
Total Value of Industrial Output (\$U.S. million)	297	N/A	N/A
New pallet production (million units)	14.9	N/A	N/A
Are consumer preferences for solid wood pallets and packaging materials vis-à-vis non wood materials high, medium or low?	medium	medium	medium
Are industry/trade preferences for repaired/recycled pallets over new pallets low, medium, or high?	N/A	N/A	N/A
From posts experience, is the willingness of U.S. suppliers to deliver product per importers specifications low, medium or high	medium	medium	medium
Identify leading source (s) of price quotes	N/A	N/A	N/A
Are there market development programs for the materials handling market expansion funded by foreign governments?	unknown	unknown	unknown
Remaining questions	All N/A	All N/A	All N/A

## 1. UK Domestic Production

### 1.1 UK Forests

#### Structure

The current area of forest in the UK amounts to 2.54 million hectares, or about 10% of land area. In theory all forests may be regarded as "productive" as there are no forest areas where felling is legally prohibited or ruled out for technical or environmental reasons. In practice, 11% (0.25 million hectares) of Britain's forests are not managed for timber production and are either unmanaged or managed chiefly for amenity or recreation.

Of Britain's forests managed for timber production, 1.57 million hectares (62% of total forest area) are principally of conifer species, 0.67 million hectares (25%) are principally of broadleaved species, and 21,000 hectares (1%) consist of coppice. Coppice is broadleaved woodland managed on a short rotation basis involving the cutting of stems at base and subsequent harvesting of regrowth from the cut stump.

The species composition of productive forests by area (excluding coppice) is as follows: 65% conifers comprising 32% sitka spruce; 9% Scots pine; 6% Lodgepole pine; 6% Larch; 4% Norway spruce; and 8% other conifers; 35% broadleaves comprising 8% oak; 6% birch; 4% ash; 3% beech; 2% sycamore; and 12% other broadleaves.

Plantations dominate the UK's productive forest resources. Over half of Britain's forest area has been established since 1945, and 20% has been established in the last 20 years. Until recently, most plantations were established with non-native conifer species which are generally more productive and adaptable to UK soils and climate. However, UK government forest policy now favors the establishment of broadleaved species for environmental and amenity reasons.

The total growing stock of UK forests available for wood supply amounts to 293 million m<sup>3</sup> comprising 188 million m<sup>3</sup> of coniferous species and 105 million m<sup>3</sup> broadleaved species. Net annual increment (NAI) in timber volume amounts to around 14.6 million cubic meters, of which 87% is accounted for by conifers.

According to the UN-ECE/FAO report "Forest Resources of Europe, CIS, North America, AU.S. tralia, Japan and New Zealand", UK forest area (excluding "other wooded land") increased from 2,174,000 hectares in 1980 to 2,469,000 hectares in 1995, an average annual increase of 20,000 hectares per year. However data issued by the Forestry Commission shows that rates of new planting were lower during the 1990s than the 1980s. The change reflects the removal of tax concessions for new plantation forestry in 1988, together with the introduction of restrictions on the establishment of non-native conifer plantations for environmental reasons. New planting in the UK is now supported through direct grant schemes which, also for environmental reasons, favor broadleaved trees.

The Forestry Commission is currently undertaking a full scale national forest inventory, the results of which will be available in 2001.

## Ownership

According to the UN-ECE/FAO report “Forest Resources of Europe, CIS, North America, AU.S.tralia, Japan and New Zealand” 45.8% of productive forests are on Forestry Commission land and owned by the state. The remaining 54.2% of forest land is owned by a range of private owners. Average holding size of Forestry Commission forests amounts to 1659 hectares. There are around 106,000 private forest owners in the UK, and the average holding size in the private sector is only 13 hectares.

As there is a larger percentage of post-war plantations in the State sector, state forests are at present more productive. The balance will change over the next 10 years as more privately owned forests come into production and as government policy directs that the bulk of new planting should be undertaken by the private sector.

## Regulation

UK forestry is heavily regulated. With only a few specific exceptions, trees cannot be felled on either public or private land without prior government approval under a management plan or felling licence issued by the Forestry Commission. During 1999, the UK forest authorities published an extensive set of regulatory forestry standards, which are mandatory for most forest operations, designed to ensure forest development in accordance with the Pan-European (formerly “Helsinki”) Criteria for sustainability.

## **1.2 UK Solid Wood Situation**

### Domestic Softwood

Starting from a small base, the UK sawmilling sector is increasingly a force to be reckoned with in the UK sawn softwood market. Forecasts of British timber production for the next 20 years show a potential 67% increase in softwood production over the period (Forestry Commission, 1996). It is anticipated UK conifer production will rise from current levels of 8.4 million m<sup>3</sup> per year (standing overbark) to peak at 15 million m<sup>3</sup> in 2025. This rapid increase is a consequence of maturing post-war expansion of conifer planting. The majority of new production will focus on spruce, with more limited volumes of pine. An increasing volume of supply will derive from private as opposed to publicly owned forest.

The primary market focus for this expanding resource is expected to be the sawnwood sector, with the volume of sawlogs doubling over the next 20 years. The UK industry hopes to double its market share for homegrown sawnwood from current levels of about 20% to over 40%. As the fencing and pallet markets are already well supplied, the industry is concentrating on increased share in the construction timber category, from less than 10% now to 30% by 2025.

Increasing supplies will build on significant increases in the productivity of British sawmills over the past 20 years. Improved productivity has been achieved through investment in imported technology from North America, Sweden and Germany. UK businesses are actively developing relationships with downstream markets, notably the construction sector, in order to improve levels of service. UK sawmillers are also seeking to exploit their ability to respond almost

immediately to orders for closely specified components and dimension stock for timber fabricators.

Considering the short term market position for UK softwood sawn lumber, the UK delegation to the European Softwood Conference in October 2000 reported that UK softwood sawn lumber production rose from 2,165,000 m<sup>3</sup> in 1999, to a forecast 2,295,000 m<sup>3</sup> this year. Production is forecast to rise again in 2001 to 2,324,000 m<sup>3</sup>.

Despite rising production levels, trading conditions for UK softwood sawmillers are difficult. Over the last two years the sector has been struggling to compete with cheap imports, notably from Latvia, Estonia, and Sweden. The problem has been exacerbated this year by the relative strength of sterling against the euro, which has tended to favor imports from European countries. The competitiveness of the UK softwood industry has also been hit by high haulage costs due to the relatively heavy burden imposed by the UK Government through duty on fuel and high rates of Vehicle Excise Duty. The UK now has the most expensive diesel in Europe.

Other factors have contributed to declining profitability in the UK softwood sawmilling sector this year. Prices for sawmill residues have been falling due to over-capacity and weak demand in the panel products sector, and the growing use of waste paper by the chemical pulp industry. Poor weather has undermined sales of UK softwood in the fencing and timber garden products sector. Demand for domestically produced timber decking has also been relatively weak, partly due to inroads made by imported timber decking.

In an intensely competitive environment, UK customers have become increasingly demanding – requiring low prices, ready availability and a high quality of service. UK softwood sawmillers have therefore focused heavily on raising efficiency and cutting costs, and have been shaving prices in an effort to compete. While some producers have gone out of business, a new mill is expected to open in South Scotland later in 2000, strategically placed to exploit the rapidly rising timber harvest from forests in that area.

Interestingly, some smaller UK softwood merchants and sawmillers in the south and west of England, especially those who have diversified, or have developed niche markets, report more active trading during 2000, although price competition from imported timber remains significant.

### Domestic Hardwood

British hardwood timber supply is about 12% of the overall UK domestic production. Production has been static for many years at around 1.1 million m<sup>3</sup> per year (standing overbark). The annual cut is well below increment – probably less than 50%. However, prospects for significantly increasing production are very low due to fragmentation of ownership, lack of active management, and increasing environmental controls. With some notable exceptions, hardwood timber quality is generally poor. The financial yield of broadleaved crops is low by comparison with conifers and therefore planting is not favored by the commercial sector.

The limited volume of quality hardwood produced in the UK is particularly valued for its aesthetic and perceived environmental benefits. It finds a ready market in veneer, furniture and

prestige building applications. It is supplied from well-established family businesses that, rather than holding speculative stock, generally buy only for known customers.

Demand for good quality UK grown hardwood during 2000 has been steady but unspectacular. Interest in the pale colored hardwoods continues, with British ash particularly retaining its popularity for furniture, trim and shopfitting. The problem of how to utilize lower quality hardwood in an economically viable way remains a problem for the UK hardwood sector. The sector is also suffering from a labor shortage - there are many other more profitable opportunities for employment in the main hardwood growing areas of southern England. Many contractors have also relocated to France to help harvest windblown logs following the severe storms in December 2000.

### Domestic Panel Products

The UK's wood panel products sector has seen significant inward investment over the last five years. Most recently, two new MDF mills owned respectively by Nexfor (formerly CSC Forest Products) and Kronospan came on stream during 1999 and 2000, effectively doubling UK MDF capacity. A large new particleboard mill was opened by the Sonae/Tafisa Group near Liverpool in early 2000. Also this year, Nexfor expanded OSB production capacity at its Inverness mill by 35% to 320,000 m<sup>3</sup>/year. Almost all UK production of wood panel products is owned by foreign companies, with leading players including Nexfor, Kronospan, Egger, Willamette (Europe) and Sonae/Tafisa. The UK market for MDF, particleboard/chipboard and OSB is now almost wholly satisfied by domestic production. However limited availability of large diameter logs in the UK has meant there are no domestic plywood manufacturing facilities. There is now very little scope for further expansion of wood panel products capacity in the UK.

UK producers of most wood panel products have had a difficult year. Rising oil prices have led to increased costs of energy, transport and binding resins. Product prices have been falling due to rising domestic and European capacity, and the relative strength of sterling against other European currencies which has led to price cuts for competing overseas products.

However some signs of improving market conditions were evident in the MDF sector late in 2000. UK manufacturers succeeded in forcing through the first price rise for some time in September. Underlying demand for MDF in the UK has been improving as the product continues to gain market share in the furniture and interior joinery sectors. Recent trade reports suggest UK MDF producers are confident that the market is beginning to soak up the huge capacity growth of recent years, and that demand and supply is expected to be more-or-less in balance by 2002.

Difficult trading conditions led to the closure of the UK's only hardboard plant in South Wales during 2000. Hardboard is a high density fibreboard used primarily for non construction applications such as furniture, kitchen cabinets, doors, and motor vehicle manufacture. The market for hardboard in the UK has been in long term decline due to substitution by thin MDF, and relatively high energy and environmental costs associated with its manufacture. The limited UK market for hardboard is now being supplied by other European producers, notably in Finland, the Baltic States and Russia.

## 2. Trade

### 2.1 Overview and Outlook

#### Imported Hardwoods

Overall hardwood sawn lumber imports into the UK are expected to rise from around 437,000 m<sup>3</sup> in 1999 to 450,000 m<sup>3</sup> in 2000. Temperate hardwood sawn lumber imports should increase from around 277,000 m<sup>3</sup> in 1999 to 285,000 m<sup>3</sup> in 2000. The partial recovery of tropical sawn hardwood lumber imports, which began last year, is expected to continue into 2000 rising from around 160,000 m<sup>3</sup> in 1999 to 165,000 m<sup>3</sup> in 2000.

American hardwoods now form the mainstay of the UK hardwood lumber import trade – a tribute to the marketing efforts of the American Hardwood Export Council (AHEC). Growing confidence in the economy led to a pick up in UK demand for U.S. hardwoods during the second half of 1999, which continued into the first half of 2000. According to statistics from the U.S. Bureau of Census, during the first six months of 2000 American hardwood lumber exports to the UK were up 13% on the previous year. Cherry, maple and white oak volumes were all up, and the trend to rising ash exports to the UK continued to be strong following a dynamic year for the species in 1999 (when volumes increased 47%). The UK is now the second largest importer of U.S. ash after Canada. Overall levels of U.S. hardwood sawn lumber imports into the UK for 2000 are expected to be up around 9% at 115,000 m<sup>3</sup> compared to 105,000 m<sup>3</sup> in 1999.

Nevertheless, trading conditions for U.S. hardwoods in the UK have not been entirely favorable. Strong demand in the United States during the first half of 2000 contributed to continuing price rises for many American species, a trend which only started to abate during the third quarter. While the UK lies outside the euro-zone and has therefore not been so affected by the euro's weakness, wildly fluctuating sterling-dollar exchange rates over the last 12 months have added to the uncertainty. Importers have not had a clear idea how much each new parcel of wood is going to cost. This has resulted in a great reluctance to buy forward and increased reliance on just in time trading - a trend which is set to continue. UK importers are maintaining lower stock holdings of American hardwoods compared with previous years. Cross trading between importers has increased to fill gaps in inventories as they appear, while the trend for UK importers to buy U.S. hardwoods from concentration yards in continental Europe has continued.

There is also some evidence that Eastern Europe is becoming an increasingly important competitor for U.S. hardwoods in the UK. UK traders report rising levels of sawn oak imports from Russia, the Ukraine and Poland and of sawn beech and oak from Italy which has been processed from logs derived originally from the former Yugoslavia. Exact volumes are difficult to assess due to inconsistencies in UK import data from Eastern Europe, although it seems volumes are still small compared with the U.S. hardwood trade. To date, lack of infra-structure and processing capacity in Eastern Europe has constrained levels of trade, but this situation is gradually changing. Over the last five years there has been significant inward investment in wood processing in several potentially important hardwood supplying countries including Poland, the Czech Republic, and Romania.

The weakness of the euro has also encouraged some increased purchasing of French and German oak in the UK during 2000. However Western European oak is not available in square-edged form, nor are the grades immediately comparable with U.S. oak varieties, so there seems to be little direct substitution of this product for American oak in the UK market.

By the end of 2000, excess production of German and French beech sawn lumber as a result of the storm damage in continental Europe during December 1999 was beginning to be felt in falling prices. This trend, coupled with the weak euro, may have led to rising UK imports of beech sawn lumber in the second half of 2000 – but data to confirm this trend was unavailable when preparing this report.

After a decade of almost continuous decline, UK imports of tropical sawn lumber hit bottom in 1998, and have recovered slightly over the last two years. UK imports of tropical logs and sawn were up 23% by value and 11% by volume during the first six months of 2000 compared with the same period the previous year. Imports from Malaysia, the leading tropical supplying country, rose significantly despite the dollar's strength against the euro which has undermined Malaysia's competitive position. This rise however may be partly explained by heavy arrivals of sawn lumber on old contracts - notably from Sabah - during April, May and June of this year. Furthermore, UK traders report over-stocking and slow demand for Malaysian sawn lumber during the second half of 2000. African hardwood suppliers, who mainly invoice in Euros, have benefitted this year from the weakness of the European currency. UK imports from Cameroon and Ivory Coast rose significantly during the first half of 2000. By contrast, supply difficulties in Ghana have led to declining UK imports from that source.

The recent partial recovery of tropical sawn lumber imports into the UK is unlikely to reflect a lasting long term trend. To some extent the trend reflects the temporary collapse of demand in Asia during the financial crises of 1997/1998. Prospects for rising imports of tropical primary products are not particularly good due to cut-backs in log production and moves to value added processing in many tropical countries. More and more tropical wood is expected to be supplied to the UK as semi-finished or finished components.

### Imported Softwoods

UK softwood sawn lumber imports reached 6,920,000 m<sup>3</sup> in 1999 and are estimated to rise to 7,300,000 m<sup>3</sup> in 2000. However next year, imports are forecast to fall marginally to 7,100,000 m<sup>3</sup>. Growth this year reflects greater buoyancy in the UK economy and increased activity in the construction sector. However, UK economic growth and activity in the construction sector are both expected to slow again in 2001.

Underlying demand for softwood sawn lumber has been relatively good during 2000, but the market continues to be affected by over-supply, intensely competitive conditions, volatile exchange rates, and continuing substitution. Price levels have been generally weak – particularly from euro-zone countries (including Finland) due to the weakness of the euro against sterling, and Sweden where the krona has also been weak this year. UK imports of softwood sawn lumber from both Sweden and Finland have grown strongly during 2000. Meanwhile, due to the strength of the U.S. currency, products invoiced in the U.S. dollars in December 2000 are 10% higher to UK customers than at the beginning of the year.

As in other sectors of the trade, exchange rate volatility over the last 2 years has encouraged UK softwood importers to maintain generally lower stocks and shift increasingly to just-in-time ordering. Trade reports in the second half of 2000 suggest that overall stocks of softwood sawn lumber are around 50% lower than normal. Consolidation within the UK Builders Merchants sector has continued during 2000, a trend which is having a significant impact on the supply chain. Larger companies are increasingly focused on improved control of purchasing. Ability to serve customers is becoming more critical for suppliers.

Comparatively strong U.S. demand, the strength of the dollar relative to sterling, and relatively high freight costs, have meant that U.S. sawn softwood lumber has been generally uncompetitive on price in the UK market. U.S. softwood sawn lumber exports to the UK should rise slightly during 2000, largely in response to focused marketing campaigns by American Softwoods aimed at higher value niche markets. However, UK imports of U.S. softwood sawn lumber continue at relatively low levels of around 55,000 m<sup>3</sup> in 2000.

Over recent years, the Baltic States, notably Latvia, have been particularly price competitive and have made significant inroads into the UK's softwood market. Latvia supplies mainly carcassing timber and only limited volumes of kiln dried and joinery grades. In 1999 the UK imported nearly 1.7 million m<sup>3</sup> of Latvian softwood sawn lumber. Imports of Latvian wood continued to rise in the first half of 2000. However, trading conditions for Latvian traders became more difficult during the second half of 2000. Reports began to emerge in the Fall of tightening supplies and delayed arrivals of Latvian sawn lumber. Latvia's problems in recent months have been compounded by the relative strength of their currency, which is linked to the U.S. dollar, and by rising oil and freight costs.

Estonia, which supplies mainly scantlings, glulam boards and softwood furniture components to the UK has also lost ground during 2000. Due to relatively strong domestic demand, shortening supplies of good quality sawing logs, and rising freight costs, Estonian producers have found the prices on offer in the UK unattractive.

Russia has continued to recover some of the ground it lost in the UK softwood market during the 1990s. The UK's imports of Russian softwood sawn lumber increased from 321,000 m<sup>3</sup> in 1998 to 444,000 m<sup>3</sup> in 1999, and may hit 500,000 m<sup>3</sup> during 2000. Russian softwood shippers have benefitted from the weakness of the rouble against sterling. They have also sought to reduce their dependence on transshipments through large continental ports by increasing direct shipments to the UK from northern Russia.

The UK softwood sawn lumber market has not been significantly affected by the storms in France at the end of December 1999 which has led to a huge increase in availability of softwood lumber in continental Europe, much of lower quality. However some trade reports suggest that increased volumes of cheap scantlings from windblown French logs may start to infiltrate the market in the closing weeks of 2000.

Growth in the UK market for garden decking and other softwood garden products such as furniture has been spectacular this year, with some reports that the total demand has increased by up to 40% during 2000 compared with the previous year. However, the market has also become increasingly crowded and extremely competitive, a trend that has been further intensified through

increased use of recycled pallet wood and other substitute materials. Demand for garden products also tailed off during the second half of 2000 due to severe weather conditions. Nevertheless, there is probably still room for further growth in this market long term.

### Imported Panel Products

Overall imports of plywood into the UK have been at relatively high levels during 2000. Hardwood plywood imports are expected to rise from 550,000 m<sup>3</sup> in 1999 to around 560,000 m<sup>3</sup> this year, while softwood plywood imports are forecast to increase from 520,000 m<sup>3</sup> in 1999 to 580,000 m<sup>3</sup> in 2000. While underlying plywood consumption in the UK has been good, trading conditions have been difficult due to intense competition, excess production and low prices, notably of Brazilian and Indonesian plywood, rising freight rates; low prices for alternative panel products including OSB and MDF, and tightening margins.

Unfavorable exchange rates and relatively high prices for U.S. plywood mean that UK imports will be considerably lower in 2000 than in 1997 when they reached 254,000 m<sup>3</sup>. Nevertheless, APA – Engineered Wood Products campaign to raise UK market appreciation of the high quality standards of U.S. softwood plywood has had some impact on demand. UK imports of U.S. plywood this year are expected to reach around 50,000 m<sup>3</sup>, compared to 32,000 m<sup>3</sup> in 1999.

During 2000 there has been a very significant increase in UK imports of elliotti pine plywood from Brazil. Imports of this product are forecast to rise 100% from 160,000 m<sup>3</sup> in 1999 to 320,000 m<sup>3</sup> this year. Over recent years Brazil has seen considerable investment in softwood plywood manufacturing facilities based on plantation resources in southern Brazil, and this product is now being sold at low prices to European markets. Indeed prices are so low that elliotti pine plywood is taking UK market share from domestically produced OSB. There is also concern that Brazilian plywood is now being used in many applications for which it was not appropriate.

On the hardwood plywood side, Indonesia has maintained the relatively high level of shipments to the UK recorded in 1999. UK imports of Indonesian plywood are again expected to reach around 195,000 m<sup>3</sup> this year. Prices for Indonesian plywood have remained extremely weak during 2000 due to severe over-capacity in the nation's plywood sector. Generally lackluster demand in Indonesia's Asian plywood markets has also contributed to low prices. However in the second half of 2000, there was increasing evidence of supply difficulties from Indonesia, due to rising freight rates, resource constraints and the onset of rains in the Far East, with numerous reports of delayed shipments and quality problems for Indonesian plywood.

Brazilian hardwood plywood shipments to the UK may have increased slightly during 2000 to reach around 90,000 m<sup>3</sup>, but Brazilian hardwood plywood producers have had difficulties matching Indonesian prices and have focused their efforts on alternative markets – including the U.S. and Latin America. Malaysian shippers have also been unable to compete on price in the UK this year, and have focused instead on niche plywood markets, notably in Japan, and on sales of veneer.

The UK market for Finnish and Latvian birch plywood has remained relatively stable this year, with reasonable buying at consistent prices. However Finnish producers report increasing competitive pressure from Latvian suppliers and are responding by a shift to value-added

production and targeted end uses.

### Imported Value Added Products

There is a growing trend for non-EU exporters to the UK to concentrate on value added products, including prefabricated and dimension material, semi-finished and finished components and products. The trend is driven by a number of factors including the economics of the supply chain, which dictates that it is more cost effective to transport value-added products rather than bulky raw materials.

Forecasts for imports of the main value added wood products during 2000 suggest that the upward trend is progressing rapidly this year. Despite the relative strength of the dollar, the United States continues to benefit from the trend. UK imports of U.S. wood furniture and Builders Joinery and Carpentry look set to increase this year. However other countries are seeing stronger growth, notably euro-zone countries like Italy and Belgium, and Asian countries including Malaysia, China and Indonesia.

## **2.2 Competitors' Market Promotion Activities**

U.S. competitors' marketing in the UK received a major boost during 2000 with the launch of the "Wood for Good" promotional campaign funded primarily by Nordic and UK interests. The campaign is focused almost exclusively on softwood lumber and aims to increase significantly the use of structural and decorative wood through media advertising. The campaign was launched in London in October to coincide with newspaper and magazine advertising and will be followed up with a TV campaign early in 2001. The funding announced, amounting to £9 million (U.S.\$13.1 million) over the next three years, is currently assured by a consortium of eight organizations, led by the Nordic Timber Council.

Simultaneously, the Nordic Timber Council launched Nordic First, a £1.4 million (\$2.1 million) a year promotion for Nordic timber. The campaign has begun with retail/merchant targeted press advertising, and in the next phase will involve direct liaison with the retailers to develop point of sale products and a range of literature and guides that "will both inspire consumers and instruct them in using Nordic timber in a wide range of applications." The campaign is planned to run for three years.

In the hardwood sector, the Malaysian Timber Council undertakes the full range of marketing activities. During 2000, MTC has continued to focus on the furniture market, with a view to expanding market share for rubberwood. MTC have also been active in the environmental debate, marketing their national certification program directly to members of the UK's WWF Buyers Group and pursuing mutual recognition of their certification scheme with the Forest Stewardship Council.

Ghana is the only other tropical country with an active marketing presence in the UK. The Ghana Timber Export Development Board publishes an occasional newsletter for the UK trade. Activity is otherwise low-key.

Canada was formerly well represented in the UK by full time employees of British Columbia's

Council of Forest Industries (COFI) and industry representatives of the eastern Maritime Provinces. However both organizations have withdrawn their marketing presence. Canadian industry is now represented in the UK by independent consultants working on technical standards, and by an office of the Canadian Pulp and Paper Association based in Brussels.

It is notable that many of the major competitors of the United States- including continental and Eastern European countries, Canada, Brazil, and Indonesia – still have no effective market development organization based in the UK. Marketing, if carried out at all, is left in the hands of individual firms.

### **2.3 Environmental Certification**

In the context of trade and marketing, it is worth emphasizing the continuing steps of many U.S. competitors to exploit the development of forest certification schemes. These schemes are designed to provide customers with independent guarantees that wood derives from sustainable sources. The development of independent forest certification has been led by the Forest Stewardship Council (FSC). FSC was developed on the initiative of commercial certification companies, like SGS, and leading environmental groups, notably the World Wide Fund for Nature (WWF). Support for the initiative has since expanded to encompass a broader range of interests, including a section of the commercial forestry community.

Between 1995 and 1999, there were sure signs of increasing demand for certified forest products in the UK market. The development of demand for certification was led by members of a Buyers Group organized by the WWF. The “1995 Plus Group” has around 85 corporate members in the UK and is dominated by large home improvement retailers, such as B&Q and Sainsbury’s Homebase, and their direct suppliers. Members of the group have made a voluntary commitment to progressively increase purchases of FSC certified wood. Volumes of certified wood currently traded are still small, and the environmental credentials of forest products tend to be of lesser importance to consumers than price, availability and quality. Furthermore, during 2000 the size of demand for certified forest products seems to have reached a plateau. This year there have been no new announcements from large buying companies of their commitment to FSC certification.

In part, the slowing growth in demand reflects the fact that all the major DIY retailing companies, which have led the drive for FSC certification, are now already members of the WWF buyers’ group. But there have also been problems on the supply side, as FSC certified forest area remains relatively small internationally (currently around 19 million hectares), while the rate of growth in FSC certified forest area has been slowing. During 1998 and 1999, FSC certified around 6 million hectares of forest annually. This year only around 3 million hectares have been certified. However it should be noted that a significant proportion of the forests certified by FSC during 2000 were in the UK. By the end of this year, all of the UK’s publicly owned Forest Enterprise forest land will have been FSC certified.

The nature of demand for certified forest products is also beginning to change. In previous years, the demand was almost exclusively focused on the FSC. However there now seems to be increasing recognition from a large section of the trade that alternative forms of forest certification may be acceptable. This recognition is partly a pragmatic reaction to the huge

growth in the area of forests now certified by non-FSC schemes. In Europe the Pan European Forest Certification Scheme (PEFC) has made tremendous headway over the last 12 months, recognizing national forest certification schemes in Sweden, Finland, Norway, Austria and Germany, and certifying nearly 28 million hectares of forest.

One vivid sign of changing attitudes to forest certification in the UK came with the publication by B&Q, the UK's largest DIY retailer, of a draft new purchasing policy in June of this year. The draft policy gave a clear signal that B&Q may now be prepared to endorse certification schemes other than the FSC, which B&Q suggested was failing to provide commercial volumes of certified wood. It therefore called for much closer co-operation and eventual mutual recognition between the various certification schemes now being developed.

Although the pace of UK market shift to FSC may have slowed, the difficulties of FSC certification in the United States (notably the tendency for mills to rely on gate wood supplied from hundreds of land owners, and the firm resistance to FSC of many of these land owners) may still be a significant impediment to U.S. market access in the future, particularly in the retailer sector. On the other hand, the opportunity exists to improve market awareness of U.S. approaches to sustainable forestry through formal systems of mutual recognition with the emerging PEFC scheme.

Work on the development of mutual recognition criteria to link PEFC with schemes outside Europe, like AF&PA's Sustainable Forestry Initiative and the American Tree Farm System, has progressed rapidly this year. The International Forest Industry Roundtable (IFIR), a discussion forum for the world's leading forest industry associations, has been working out the details of an "International Mutual Recognition Framework System" for forest certification schemes. Two international seminars have been held to discuss mutual recognition, the most recent in Brussels in November 2000. Both the American Forest and Paper Association (AF&PA) and the UK Timber Trade Federation, which represents UK timber importing companies, have been closely involved in IFIR's work.

## **2.4 U.S. Market Development Strategies**

Analysis of best market prospects and options for furthering U.S. market share are described in detail under the relevant market sectors.

## **3. Market Segment Analysis**

### 3.1 Construction sector

#### 3.1.1 Overview

##### Structure and Size of the Sector

According to the Department of Environment, Transport and Regions (DETR), the value of UK construction output (at current prices) increased progressively between 1995 and 1999 from U.S.\$84.2 billion to U.S.\$105.1 billion. A large part of this activity comprises repair, maintenance and improvement work (RM&I). Work to expand the UK's existing stock of 24 million houses forms a comparatively small part of the sector. According to DETR, during 1999 the value of work in construction comprised:

- 1.5% on the development of new homes by the public sector;
- 11% on the development of new homes by the private sector;
- 9% new work on infrastructure;
- 6% private-sector new industrial buildings;
- 18% private-sector new commercial buildings;
- 7.5% public-sector new non-residential buildings;
- 47% repair, maintenance and improvement .

According to DETR figures, at least 65% of construction activity is funded by the private sector. Public sector spending on new houses and infrastructure progressively declined between 1995 and 1999, while public spending on RM&I remained static. Over the same period the value of private sector construction output has risen strongly: by 34% in the new housing sector; by 31% in the industrial sector; by 93% in the commercial sector; and by 22% in the RM&I sector.

##### Wood Use in the Construction Sector

Timber frame construction has been uncommon in the UK due to strong consumer preference for brick and block construction. In England, only around 3% of new homes are of timber frame. Timber frame is more common in Scotland, accounting for 40% of new homes. However nearly all new houses in the UK also contain a large softwood and panel product component including roofs commonly constructed of softwood prefabricated rafters and tiling battens. Treated softwood is the preferred option for window frames in new house construction, although PVCu still dominates in the replacement sector.

Upper floors are often constructed of wooden joists with chipboard floor decking. A variety of solid timbers and panel products are used for interior doors. A high proportion of exterior doors still comprise solid wood. Staircases typically comprise solid wood and some panel products.

Use of wood and panel products in the non-residential sector is generally restricted to rafters, joists, flooring, internal walls and other internal applications. Wood use in the sector faces stiff competition from alternative materials, although there is an increasing trend towards timber frame.

Overall, construction accounts for around 60% of all timber used in the UK. A large proportion

of the wood used in the construction sector is of softwood and panel products. Much of the volume is supplied from Nordic and Baltic countries, and increasingly the UK.

Considering U.S. products, U.S. softwood lumber is not being promoted for structural applications in the UK for reasons of price and distance. Instead U.S. softwood lumber is supplied to relatively high value niche markets, notably window and door manufacturers, flooring and timber decking. U.S. hardwoods are important in flooring and high quality joinery and finishing applications. U.S. hardwoods are very well represented in the shop-fitting sector. U.S. plywood is valued in the UK construction sector for its high quality and is used in a wide range of applications, including structural. The UK construction market has been relatively slow to recognize and exploit the advantages of U.S. engineered wood products. However U.S. I-Joists of engineered wood are making inroads into the traditional softwood lumber joist market, and efforts are also being made to extend the use of U.S. Laminated Veneer Lumber (LVL) in the UK.

### Construction Sector Trends

Overall construction activity in the UK has risen consistently from the start of the first quarter of 1999 until the end of the third quarter of 2000. Over that period, the total value of construction output has increased 11.5% with the most significant growth in private new housing (up 24%); private commercial construction (up 22%); and private RM&I (up 17%).

Housing start data has been less consistent this year. Housing starts were 2% higher during the first half of 2000 than the same period in 1999. However housing starts in the third quarter of 2000 were 1.5% down on the same period the previous year. Housing start data mirrors the progress of the overall economy. UK annualized GDP growth during the first and second quarters of 2000 was running at 3.0% and 3.2% respectively, but dropped to 2.9% in the third quarter. Falling housing starts may partly reflect relatively high interest rates in the UK. Base interest rates have been maintained throughout this year at 6.0%, compared with average levels of 5.5% during 1999.

Prospects for 2001 appear mixed. Numbers of mortgage approvals have been falling in the second half of 2000, while house prices stabilized, suggesting a general cooling in the UK housing market. Overall economic growth next year is forecast to slow to around 2.7% compared with 3% this year. Housing starts may fall again next year, and the relative strength of sterling against the euro, which has hit UK manufacturing, is likely to depress industrial building this year and next. At the end of 2000, there are reports that slowing housing starts are impacting adversely on mass production joinery sector sales of windows and external doors, and to a lesser extent staircases

On the other hand, recent surveys of opinion in the UK construction sector have revealed relatively high levels of optimism. Euroconstruct, a confederation of European construction industry associations, forecast in June 2000 progressive rises in the value of UK construction activity, from Euro 122 billion euros in 2000 to Euro 124.71 billion in 2001 and Euro 125.37 billion in 2002. Similarly, the results of the Construction Products Association's State of Trade survey for the third quarter of 2000 shows that a net balance of 38% of firms expect to see output increase in the next 12 months. Another research organization, Construction Forecasting and

Research, predicts the industry will see annual increases in workload rise from 0.9% last year to 2.5% from 2000-2002, with a particularly significant increase in repair and maintenance work.

Partly underpinning the optimism is an expectation that there will be increased levels of public investment in the built environment following the UK Government's Comprehensive Spending Review announced in summer 2000. In the Review the Government indicated its intention to increase spending to maintain and upgrade the nation's infrastructure. The Review, which was widely recognized as part of the Government's strategy to win the general election scheduled for 2001, amounts to a significant reversal of Government policy. Public investment fell sharply during the Labor Government's first three years of office. On paper the Government's renewed commitment to public investment looks significant – net capital spending by the public sector is scheduled to leap from £3.2 billion (\$4.8 billion) in 1999, to £7 billion (\$10.5 billion) in 2000. By 2003-04 the intention is to increase expenditure further to £18 billion (\$27 billion). Furthermore, the public investment figures do not include spending on public projects now being financed under the Private Finance Initiative, which encourages private sector involvement in construction projects to improve education and health facilities.

Other recent Government measures may provide further stimulus for specific construction activities during 2000. The Government has proposed a cut in VAT on the conversion into dwellings of non-residential properties in a move designed to help bring empty property back into use. VAT on church repairs is also to be reduced from 17.5% to 5%. An additional £200 million (\$300 million) for school repairs has already been made available during the current financial year, while recent problems on the rail network imply additional public investment may be directed into that sector.

There are also specific trends favoring increased wood use in the construction sector. For example there are now clear signs that the use of timber frame is increasing in the UK. According to the DETR, the UK's timber frame market grew by 25% in 1999 and is forecast to grow by 30% in 2000. The trend is being driven partly by concerted promotional efforts of organizations like the Timber and Brick Consortium and the Building Research Establishment. Another important factor has been recent changes in building regulations which have placed increasing demands on construction companies to meet energy efficiency targets. While timber frame and pre-fabricated timber building systems can readily achieve the targets, traditional brick and block construction techniques tend to fall short. A new quality scheme for timber and brick introduced in September 2000, designed to help eradicate bad practice and encourage prefabrication, may further boost the market for timber frame construction in the UK. The scheme introduces independent third party controls on the quality of workmanship of timber frame designers, manufacturers and erectors.

Wood is also regaining market share in the joinery sector. The reversal in the fortunes of the UK market for wooden window frames, first identified in 1999, has continued into 2000. This year there has been very strong demand for wooden fully glazed, factory finished windows. Some producers are now identifying insufficient production capacity and shortage of available workers as the main constraints on business. Two factors have been significant in generating demand: First, wooden window manufacturers have developed a Timber Window Accreditation Scheme allowing the supply of complete factory-finished wooden window frames on-site with a 10 year guarantee. The scheme has improved wood's competitive position vis-à-vis PVCu which has

been offering factory finished units with long term guarantees for some time. Second, environmentalists have switched the focus of criticism away from wood to PVCu.

Growth in the wooden window market has been particularly pronounced among Housing Associations. According to a recent report from Palmer Market Research, there has been an almost threefold increase in timber window market share among these associations over a two-year period from 11% of the total in 1997 to 30% last year. The main reason for the increase, the report suggests, is the improved perception of timber windows as an environmentally friendlier alternative to PVCu. While housing associations appear to be in the vanguard of this trend towards timber windows, house builders too - particularly those in the higher quality end of the market - appear to be leaning away from PVCu and in favor of timber. However, demand for timber windows from local authorities is comparatively less exciting, with the Palmer Market Research report indicating that market share within UK councils had remained at a static 14% between 1997-1999.

The environmental issues surrounding PVCu and timber windows has come into even sharper focus with the official launch in early October of the British Fenestration Rating Council. The organization is promoting a 0-100 rating system to indicate the total energy performance of a complete window, taking into account everything from solar heat gain to air infiltration. In general, timber windows are expected to emerge very positively from the ratings process, providing an extra boost to demand.

Demand for wooden decking has been increasing over the last 2 years, and this trend is expected to continue. The sector seems to have benefitted strongly from favorable reports in the increasingly ubiquitous home improvement programs on UK television.

The architectural joinery sector has been reasonably busy during 2000, and the outlook is fairly favorable, at least as far forward as the early stages of 2001. Particularly strong demand is coming from the commercial sector - notably, banks, building societies and corporate offices - as well as from the high quality residential/apartment end of the trade. Meanwhile, shopfitting has been slightly slower than last year. In terms of timber fashions in the sector, North American maple continues to be very popular despite rising prices. Oak has also enjoyed a reasonable level of demand while American black walnut has begun to appear on an increasing number of specification documents. There are also signs of rising interest in western red cedar.

### **3.1.2 Marketing**

Market constraints and opportunities for U.S. exporters supplying the UK construction sector are identified below.

#### Market constraints

Price – the UK construction sector is very sensitive to price. This factor often overrides considerations of quality. Due primarily to distance, U.S. softwoods are uncompetitive on price

in relation to the dominant Nordic suppliers of structural timbers. U.S. plywood is having difficulty competing on price with plywood from low cost countries, notably Brazil. In the shorter term, prices of U.S. softwood and panel products during 1999 and 2000 have been comparatively high due to firm U.S. domestic demand and the strength of the dollar.

Third party competition – related to the last point are the constraints placed on U.S. expansion of market share in the construction sector by third party competition. A number of factors are worth noting: The ready availability to the UK construction sector of competitively priced supplies from Nordic and Baltic countries; The weakness of the euro during 2000 which has given European suppliers a significant price advantage in the UK.; The continuing expansion of UK domestic softwood and panel products supplied to the UK.; The Nordic countries and UK domestic softwood sector are now very active in marketing their products in the UK through campaigns such as “Wood for good” and “Nordic First”; The huge growth in the availability of low priced elliotti pine plywood from Brazil, and continuing sales of Indonesian hardwood plywood at low prices to the UK.

Focus of U.S. producers on domestic markets – the strength of U.S. domestic markets over recent years has encouraged many U.S. producers to neglect export markets. However recent signs of slowing economic growth and weakening housing starts in the U.S. may increase availability for export during 2001.

Lack of trade and customer awareness continues to be a constraint in the marketing of U.S. wood products in the UK construction sector, although the efforts of U.S. marketing initiatives are having a beneficial effect. Lack of understanding of the technical qualities of U.S. softwoods is a major constraint to expansion of market share in the UK construction sector. UK trade and industry ignorance of plywood quality requirements under British and EN standards continues to contribute to an over-emphasis on price. The UK joinery sector has traditionally focused on a limited range of species, and lack of knowledge amongst joiners and architects of some of the “lesser known” U.S. hardwood species continues to be a significant constraint in this sector.

Attitude to U.S. red oak - At the AHEC European Convention in November 2000, UK suppliers to the construction sector made specific reference to UK architects continuing reluctance to specify red oak, despite this being one of the U.S. most readily available species, due to a lack of understanding of the species qualities.

Forest management certification – demand for certified wood has focused mainly on the large DIY retailers and has been less significant in the construction sector. However, 2 construction companies are members of the WWF Buyers Group (John Laing and Tarmac). So too are Meyer International, the UK’s largest timber importing company and a significant player in the UK builders’ merchant sector; and Timbmet, the UK’s largest hardwood importing company. Meyer International have set a target to ensure that 80% of their wood purchases are FSC certified within 5 years. Furthermore, both the World Wide Fund for Nature and the Timber Trade Federation’s Forests Forever campaign, have been active in raising awareness of environmental issues and forest certification among architects and local authorities.

ISO14001 Environmental Management Systems Standard – while not yet generating as much interest as ISO9002, or even FSC, voluntary public sector procurement guidelines make

reference to ISO14001. In time demand for this form of certification may increase in the construction sector.

### Opportunities

Timber frame construction – As a world leader in timber frame construction, the U.S. should be a significant beneficiary of the emerging trend towards this form of construction in the UK.

The strong development of demand for wood in specific construction applications, driven by changing fashion, environmental and health concerns, and concerted wood industry marketing is creating new opportunities. Particularly prominent during 2000 have been the continued growth in demand for wooden decking, wooden window frames, wooden flooring, and to a lesser extent wooden interior doors.

Product quality – in the past, the principal determinant of market share in the UK construction sector has been price. This factor has often over-ridden concerns for product quality. However, during the 1990s there was increasing recognition of the damage caused to timber's reputation through the use of sub-standard products in the construction sector. This led to a range of trade initiatives to improve the quality of products sold. For example, there has been a concerted effort to eliminate "wet" timber from supply for structural and timber manufacturing uses. An increased focus on quality should benefit U.S. suppliers compared to those suppliers, for example in the tropics and Eastern Europe, less concerned for product quality.

During 2000, APA-Engineered Wood Products has continued to play a lead role in raising trade and end-user awareness of the importance of following UK load-bearing standards for plywood in structural applications (BS5268 Pt2). While U.S. softwood plywood fully complies with these standards, many other softwood plywood products, including from Brazil, fall short of full compliance. APA's "Watchpoint" campaign, which has focused on these issues during 2000, has involved targeted advertising in the construction and architectural trade press and professional seminars for architects and building regulators. By the end of 2000, there are signs that the market is beginning to take on board APA's message. While U.S. plywood is unlikely to regain levels of market share prevailing prior to the market collapse in 1999, APA forecast that, over the next few years, UK imports of U.S. softwood plywood may rise again to levels of around 100,000m<sup>3</sup> to 150,000m<sup>3</sup>.

Off-site and pre-fabricated production – intense competition is tending to encourage greater efficiency within the construction sector. This trend has been intensified by concerted industry and government campaigns to promote efficiency. Furthermore, construction companies are having increasing difficulty getting skilled site labor. One significant outcome has been to increase the take-up of off-site and pre-fabricated production to provide consistent quality and faster construction. Broader experience of similar trends in the U.S. market should give U.S. suppliers an edge over many of their competitors in the supply of pre-fabricated materials.

Further development of the I-Joist market – U.S. exporters should be major beneficiaries of the continuing trend towards expansion of the UK I-Joist market. Expansion of this market is being driven partly by moves towards increased quality in the construction sector, and partly by APA and other U.S. industry promotional activities. APA has developed a set of common standards

for I-Joists which have been adopted by 4 mills in the United States. These mills are expected to achieve British Board of Agreement (BBA) approval very shortly. Three other U.S. manufacturers have already achieved BBA approval for their proprietary I-Joists. Of the 7 companies approved to supply I-Joists in the UK, 6 are from the United States.

Laminated Veneer Lumber (LVL) – APA-Engineered Wood Products are currently seeking BBA approval for their PRL-500 standard for LVL. BBA approval of the standard will open the way for greater expansion of the UK market for LVL. There is growing potential in the UK for increased use of LVL alongside I-Joists.

Use of American hardwoods in structural applications – To date, references to American hardwoods have not been included in the relevant British and European standards for hardwoods used in structural applications (EN338). However, AHEC has been working with the UK's Building Research Establishment to carry out the necessary testing on red oak, white oak, ash and tulipwood. Testing is due to be completed by mid 2001 when it will be submitted for inclusion in the standard. This should create new opportunities for efficient structural design using American hardwoods, and encourage greater utilization of these species in the UK construction sector.

Environmental certification – although identified above as a constraint, increasing interest in environmental certification also offers an opportunity for U.S. exporters to the UK. U.S. exporters are well placed to benefit from their long history of sound forest management, and from the presence of existing initiatives including the AF&PA's Sustainable Forestry Initiative and the American Tree Farm System. Mutual recognition between these and other certification schemes, such as the PEFC, should increase acceptance of U.S. sustainability approaches in the UK market.

### **3.1.3 Policy**

There is no overt policy to exclude imported wood products from consumption in the construction sector. However, a number of policy measures constrain UK imports of U.S. products:

Import duties – Import duties for panel products from the U.S. to the UK, at 7% for most items, remain an impediment despite a duty free quota for softwood plywood of 650,000 m<sup>3</sup> for the whole of the European Union. While the EU quota also applies to competing Brazilian plywood producers, the latter are able to switch to GSP quotas when the EU quota is exhausted. U.S. trade negotiators are aware of this discrepancy.

Technical standards – The need to comply with UK and European Standards is no longer a constraint for many U.S. wood products. For example, all U.S. softwood grades were accepted under BS/EN standards during 1998. Lack of inclusion of U.S. hardwoods in standards covering timber for structural use are now being addressed. However U.S. hardwoods are still not fully covered under BS/EN standards for durability.

Plant health regulations – U.S. shippers are required to kiln dry softwood prior to shipment under UK Plant Health legislation. This is mandatory even for those applications where kiln dried material is not required on technical grounds. Plant health regulations also apply to oak logs and

lumber imported into the United Kingdom to protect against oak wilt disease. Oak logs cannot be imported in-bark and must be fumigated. Oak lumber must either be kiln dried or fumigated. The American Plant Health Inspection Service (APHIS) is responsible for certifying U.S. oak as in compliance with these requirements. Plant Health regulations therefore add to U.S. costs vis-à-vis European competitors.

## **3.2 Furniture Sector**

### **3.2.1 Overview**

Demand for furniture in the UK has had a bumpy ride over recent years, but now seems to be on a firm upward trend. In 1998, UK furniture demand was hit by rising interest rates; an over-valued pound; and nervousness over the world economy. UK manufacturers also began to come under increased pressure from low priced imported goods. Economic conditions improved in 1999, and an upturn in home buying led to improved demand for furniture in the second half of the year. Overall, 1999 performance showed a healthy growth rate (+6%) for furniture production, driven partly by growth in residential purchases and construction, the easing of restrictive fiscal policy by the Government which had positive effects on the disposable income of families, and a significant increase in exports, mainly thanks to strong demand from the United States.

According to CSIL, the Milan-based furniture research organization, during the period 2000-2001 continuing increases in UK disposable income are expected to keep consumption growing at over 3%. Improving domestic demand will enable the industrial production of furniture to continue rising at rates of 3.3% in 2000 and 2.8% in 2001.

### **3.2.2 Trade**

The furniture market is significant to U.S. exporters for two reasons. First, the UK has a relatively large domestic furniture manufacturing sector. The UK's domestic forests are unable to supply significant volumes of furniture quality wood. The sector therefore absorbs large volumes of imported lumber and veneer. A wide range of U.S. hardwoods are used for the manufacture of furniture in the UK, notably cherry, maple, oak, and ash. The UK is an important market for U.S. hardwood veneer, absorbing around 10,000 m<sup>3</sup> per annum. The U.S. is the largest supplier of hardwood veneer to the UK. Small volumes of higher quality U.S. softwoods are also used in the furniture sector.

Second, the UK has provided an expanding market for U.S. furniture. Overall exports of U.S. furniture to the UK have increased significantly over recent years, from \$121 million in 1996 to around \$160 million in 1999.

Recent data on volumes of wood used in the furniture sector are not available. However, an extensive end use survey by TRADA estimated that, in 1995, the UK furniture sector absorbed around 160,000 m<sup>3</sup> of sawn softwood, 190,000 m<sup>3</sup> of sawn hardwood, and 1.8 million m<sup>3</sup> of panel products. The furniture sector accounted for 24% of UK sawn hardwood consumption, 36% of UK panel products consumption, and 2% of UK sawn softwood consumption.

The benefit to UK manufacturers resulting from the recent recovery in furniture consumption has been partly offset by a noticeable shift towards imported products. The strength of sterling is affecting foreign trade. During 2000, CSIL forecast that growth rates of British furniture exports should slow to around 4%, while imports, exploiting the gains in competitiveness due to the performance of exchange rates, should record lively growth rates of around 5%. In 2001, the increase in UK private consumption of furniture (+3%) should allow imports to continue to grow by 6% at constant prices, while the capacity of the United States and European markets should allow exports to maintain positive rates of growth. In absolute values UK furniture imports will continue to represent more than double that of exports and consequently there will remain a large deficit in the trade balance.

Recent data confirms the trends towards slowing growth in UK furniture exports and rising levels of import. In the first five months of 2000, UK furniture shipments to EU countries totaled £236 million (\$354 million), a 1% fall on the same period in 1999. However, exports to non-EU markets were valued at £165 million (\$248 million), a 3.2% increase on the same period in 1999. Meanwhile the value of furniture imports from EU countries during the five months to May 2000 were valued at £491.3 million (\$737 million), up by 14.5% on the year, while imports from non-EU manufacturers were worth £474.8 million (\$712 million), a year on year increase of 35.1%. There has been particularly intense competition for UK furniture at the middle and lower end of the price spectrum, as manufacturers in Eastern Europe and Asia have been able to exploit comparative advantage resulting from lower labor costs.

The major overseas providers of furniture to the UK continue to be Italy, Germany, Belgium and France, with Italy gaining ground at the expense of Germany and France. Specifically in the wooden furniture sector, Malaysia has made tremendous advances in the UK market over recent years and is now the second largest overseas supplier after Italy. The major overseas customers for British furniture are the United States, followed by Ireland, Germany and France.

### **3.2.3 Marketing**

Through competitive pricing, the development of efficient distribution systems, and professional marketing, U.S. exporters have assumed a leading position as suppliers of quality lumber to the UK furniture and interiors sector. Marketing constraints and opportunities for U.S. exporters are itemized below.

#### Challenges

Third party competition inevitably creates challenges for U.S. suppliers to the UK furniture sector. Competition derives from several major sources:

Tropical hardwoods – environmental concerns, coupled with supply constraints and uncompetitive pricing for some species, undermined the competitive position of tropical hardwoods during the 1990s. However plantation grown rubberwood derived primarily from Malaysia has seen a significant expansion of market share. Looking longer term, moves to expand plantation production in the tropics, where growth rates are high and labor costs low, may create new market challenges for U.S. hardwoods.

European hardwoods – European beech, oak and ash, primarily from France and Germany, have for long competed with U.S. hardwoods in the furniture sector. Their impact has tended to be limited by lack of effective marketing, fragmented ownerships, and inadequate distribution mechanisms. However, during 2000 the weakness of the euro has ensured that prices of Western European hardwoods have been particularly competitive. There are some signs that UK manufacturers are using increasing volumes of “rustic” grade European (mainly French) oak. Furthermore, UK manufacturers are showing growing interest in Eastern European hardwoods, which are of high quality and price competitive. Recent inward investment into Eastern Europe by foreign firms will tend to increase competition.

Canada – Canadian suppliers have been selling increasing volumes of hardwood, often of U.S. origin, to the United Kingdom. The trend partly reflects savings on freight due to differing weight restrictions for shipments from Canada, and the lower costs of kilning in Canada than in the U.S. due to lower energy costs. Canadian hardwood shippers have traditionally been more focused on exports than their U.S. counter-parts, and as a result are often more responsive to overseas customer needs. Canadian shippers are reputed to be willing to follow suppliers’ specifications to the letter. They will cut to European specifications when required, whereas U.S. shippers tend only to supply U.S. specifications.

Loss of markets by UK furniture manufacturers – UK furniture manufacturers, particularly at the lower end of the market, continue to come under intense competition from producers in Eastern Europe and Asia. A decline in the volume of furniture manufactured in the UK will tend to undermine markets for U.S. lumber.

U.S. hardwood supply constraints – tight supplies of certain species of hardwood, notably the higher grades of cherry and maple, have led to high prices during 1999 and 2000, undermining their competitive position. To some extent manufacturers have compensated by switching to lower grades. However the trend has also encouraged a search for cheaper alternatives.

Price volatility and exchange rates – related to the last point, UK importers and furniture manufacturers have been discomfited by the recent volatility of the sterling-dollar exchange rate and of prices for U.S. hardwoods. Some species, notably Cherry and Hard maple for which there are no real alternatives, have been less affected than others, but there is little doubt that exchange rates have been a significant constraint to sales during 2000.

U.S. hardwood mill cutting tolerances – as quality and efficiency have become increasingly significant to the UK furniture industry, the ability of suppliers to produce wood to precise size specifications has become more important. Some U.S. mills are responding effectively to this trend, through inward investment in new high tech equipment. However, many smaller U.S. hardwood mills are unable to cut to the size tolerances required and will be losing market share as a result. Unlike U.S. producers, many European mills have traditionally had a “custom” approach, producing wood to very specific sizes for their buyers, and have readily adapted to the new demands. Many competing French mills, for example, are already able to cut to very low tolerances. Many Malaysian mills have also specialized in the supply of lumber in custom sizes to the European market.

End user awareness of the quality, range and potential application of U.S. wood products in the

furniture sector remains a constraint. For example, despite strong UK demand for pine furniture, notably from Scandinavia, there continues to be resistance to furniture manufactured from U.S. softwood species. In the hardwood sector, although there is now growing interest in the full range of U.S. species, many manufacturers continue to focus too heavily on species with which they are familiar.

The continued shift away from solid timber in the UK furniture sector in favor of panel products with a thin covering of veneer, is a growing constraint for U.S. sawn lumber sales. The continuing growth of domestic wood panel production capacity in the UK will tend to intensify the trend.

Demand for environmental certification in the UK furniture sector has been subdued so far, and still tends to focus more heavily on tropical than on temperate hardwoods. However demands for specific forms of environmental certification not well suited to U.S. conditions could become a more significant constraint to trade in the long term. A trend towards increased furniture sales through large home improvement retailing groups that have already made public commitments to the sale of FSC certified products may add to the constraint. Recent trends on the supply side, notably the huge expansion of PEFC certified forest area in Europe and of FSC certified forest in the UK, also argue strongly in favor of rising interest in certified forest products. Furthermore, at the AHEC Convention in November 2000, UK hardwood importers identified continuing market confusion between various U.S. approaches to sustainable forest management certification as a potentially significant constraint to trade.

At the AHEC European Convention during November 2000, UK importers noted that there is some confusion in the UK furniture sector between the relative merits of soft and hard maple, perhaps indicating the need for further consumer education on these species.

Recently introduced legal requirements for prices of products sold in the UK to be displayed in metric units may create difficulties for U.S. exporters. Although the new law is primarily directed at retailers selling to the general public, UK wood importers are concerned that their sales to manufacturers and retailers may lie within the law's scope. This may create difficulties if importers are required to adjust all U.S. prices quoted in board feet into prices per cubic meter. Discussions on this issue are currently underway within the UK Timber Trade Federation.

### Opportunities

The continuing increase in demand for furniture in the UK should provide opportunities for U.S. exporters to the UK over the next 12 months. A number of particular areas of growth are anticipated.

During 2000, wood flooring - whether solid, engineered or laminated - has continued to be an area of particularly rapid growth. Natural wood flooring is now regarded as fashionable, while carpets are increasingly avoided partly due to concerns over their contribution to allergies and respiratory disorders. U.S. species valued for wood flooring, including white oak ash, cherry and maple, all saw significant growth in the UK market during 2000. Similarly, the 2000 has seen significant growth in UK imports of so called "lesser-known species" from the United States, such as American birch and hickory, both of which are being used for flooring applications

The continuing growth in new office and office refurbishment projects during 2001, should increase demand for office furniture

The shift away from the purchase of rough sawn lumber towards purchases of dimension and semi-finished components continues in the UK furniture sector. Furniture manufactures are increasingly outsourcing components, rather than manufacturing themselves. There are several reasons including improved control over costs; insurance of quality; reduced capital investment; lower cost of production outside the UK; and savings on transportation (since waste is removed prior to shipping). U.S. exporters continue to exploit this trend, being better adapted than some of their competitors to produce and provide reliable shipments of high quality components. Growth of this market is expected to continue.

As in other European countries, the shift away from solid wood to panel products with a veneer covering continues in the UK furniture sector as a cost-saving device. Opportunities to supply hardwood veneers to the UK should therefore continue to increase.

Although demand for lighter colored hardwoods in the furniture sector has been maintained during 2000, there are now signs of a partial reversal of the fashion as “darker light” species are gaining in popularity. This trend may particularly favor U.S. walnut in the UK, but is also creating new opportunities for competing tropical woods, notably plantation teak.

U.S. shippers have a geographical advantage over tropical producers in responding to consumer demands for just in Time ordering. Initially seen as a response to volatile trading conditions, JIT trading has now become established as normal business practice in the UK. U.S. importers continue to exploit advantages presented by shorter and more efficient shipping. They are also creating new opportunities through the establishment of concentration yards in Europe.

The American Hardwood Export Council has highlighted the potential for increased use of lower grade and “character” wood in the UK furniture sector. Evidence continues to mount that UK and European manufacturers are beginning to exploit growing interest in character wood. The trend is particularly noticeable in the flooring sector with growing interest in character and “rustic” grades.

As supplies of high grade hardwood of the traditional species used in the furniture sector are tightening, and prices rising in most areas of the world, there are still opportunities to broaden the range of species sold for UK manufacturing. This is a particular opportunity for U.S. shippers who - unlike their European counter-parts - are able to offer a very wide variety of wood species. There are signs of increasing use of tulipwood, for example for kitchen cabinets, and of birch for flooring applications.

Rising demand for environmental certification is both a constraint and opportunity for U.S. suppliers to the furniture sector. A significant opportunity continues to exist through raised awareness of U.S. approaches to sustainable forest management, including the Sustainable Forestry Initiative and American Tree Farm System. Mutual recognition between these schemes and other international forest certification schemes would serve to greatly reduce confusion and improve market acceptance in the UK.

### 3.2.4 Policy

There is no intervention by UK regional or national authorities in the supply of imported wood for the furniture sector, other than the plant health regulations impacting on softwood and some hardwood species (e.g. oak). Another minor exception is the resistance amongst publicly funded bodies to purchases of Brazilian mahogany furniture following intense environmentalist campaigning.

The EU imposes tariffs on veneers of between 3% and 6% depending on species. These tariffs give EU suppliers, and some tropical countries eligible for GSP, an edge over U.S. suppliers.

## 3.3 Materials Handling Industry

### 3.3.1 Overview, Marketing and Trade

#### Pallets

Most wood used in the pallet sector in the UK is low-grade softwood, of which a significant proportion derives from the UK and Europe, notably the Baltic States. This year has also seen a boost in availability of low grade softwood for pallets from France and Germany as a result of the damage caused by the severe storms in those countries during December 1999. Low-grade plywood is only occasionally used for pallets. Other materials have negligible market share.

Recycling is well established in the sector and a high percentage are recovered and reused. The introduction of far-reaching packaging waste regulations in 1997 have increased pressure to re-use and recycle pallets.

Opportunities for U.S. wood producers in the sector are extremely restricted due to transport costs and limited price competitiveness.

#### Other Packaging

In other packaging sectors, including crate manufacture, small quantities of U.S. plywood have been used in the past. However the recent U.S. price rises, coupled with increasing domestic and European production of substitutes like OSB, have further restricted opportunities for U.S. products in the sector.

#### Demand

Trading conditions for pallets and packaging materials have been difficult during 2000. Widespread gloom in the pallet sector has resulted from a combination of low prices, higher costs (notably for transport) and a lack of available orders. Overcapacity in UK and European pallet manufacturing sector has led to intense competition, with price pressure being exerted at both the raw material and manufactured product. Unlike last year, there is not even the prospect of a millennium boost to lift what has so far been a very slow year. Prospects for 2001 are not favorable.

### **3.3.2 Policy**

As in other sectors, UK regional and national authority policy is essentially one of free trade. Comments under construction and furniture relating to phytosanitary requirements for U.S. softwood lumber, and import duties on U.S. plywood equally apply to the materials' handling sector. There is very little interest in environmental certification in the sector.

**PSD Tables**

PSD Table						
Country	United Kingdom					
Commodity	Hardwood Plywood				1000 CUBIC METERS	
	Revised	1999	Preliminary	2000	Forecast	2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Production	0	0	0	0	0	0
Imports	0	550	0	560	0	540
TOTAL SUPPLY	0	550	0	560	0	540
Exports	0	6	0	6	0	6
Domestic Consumption	0	544	0	554	0	534
TOTAL DISTRIBUTION	0	550	0	560	0	540

PSD Table						
Country	United Kingdom					
Commodity	Tropical Hardwood Lumber				1000 CUBIC METERS	
	Revised	1999	Preliminary	2000	Forecast	2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Production	5	5	0	5	0	5
Imports	255	160	0	165	0	160
TOTAL SUPPLY	260	165	0	170	0	165
Exports	2	0	0	0	0	0
Domestic Consumption	258	165	0	170	0	165
TOTAL DISTRIBUTION	260	165	0	170	0	165

PSD Table						
Country	United Kingdom					
Commodity	Temperate Hardwood Lumber				1000 CUBIC METERS	
	Revised	1999	Preliminary	2000	Forecast	2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Production	150	145	0	145	0	145
Imports	350	277	0	285	0	280
TOTAL SUPPLY	500	422	0	430	0	425
Exports	10	8	0	8	0	8
Domestic Consumption	490	414	0	422	0	417
TOTAL DISTRIBUTION	500	422	0	430	0	425

PSD Table						
Country	United Kingdom					
Commodity	Hardwood Veneer				1000 CUBIC METERS	
	Revised	1999	Preliminary	2000	Forecast	2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Production	0	3	0	3	0	3
Imports	0	35	0	32	0	32
TOTAL SUPPLY	0	38	0	35	0	35
Exports	0	11	0	11	0	11
Domestic Consumption	0	27	0	24	0	24
TOTAL DISTRIBUTION	0	38	0	35	0	35

PSD Table						
Country	United Kingdom					
Commodity	Softwood Plywood				1000 CUBIC METERS	
	Revised	1999	Preliminary	2000	Forecast	2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Production	0	0	0	0	0	0
Imports	350	520	0	580	0	580
TOTAL SUPPLY	350	520	0	580	0	580
Exports	0	15	0	15	0	15
Domestic Consumption	350	505	0	565	0	565
TOTAL DISTRIBUTION	350	520	0	580	0	580

PSD Table						
Country	United Kingdom					
Commodity	Softwood Lumber				1000 CUBIC METERS	
	Revised	1999	Preliminary	2000	Forecast	2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Production	1930	2165	0	2295	0	2324
Imports	7150	6920	0	7300	0	7100
TOTAL SUPPLY	9080	9085	0	9595	0	9424
Exports	30	130	0	130	0	130
Domestic Consumption	9050	8955	0	9465	0	9294
TOTAL DISTRIBUTION	9080	9085	0	9595	0	9424

**Trade Tables**

Export Trade Matrix			
Country	United Kingdom		
Commodity	Hardwood Plywood		
Time period	1998	1999	2000*
Exports for:			
U.S.	0	0	0
Others			
EU	6	6	6
Total for Others	6	6	6
Others not Listed			
Grand Total	6	6	6

Import Trade Matrix			
Country	United Kingdom		
Commodity	Hardwood Plywood		
Time period	1998	1999	2000*
Imports for:			
U.S.	1	0	0
Others			
Indonesia	171	195	195
Brazil	64	75	90
Malaysia	140	99	65
Russia	83	63	80
Finland	40	29	30
Latvia	18	24	21
Lithuania	9	10	13
Guyana	6	11	16
Total for Others	531	506	560
Others not Listed	38	44	50
Grand Total	570	550	610

Import Trade Matrix			
Country	United Kingdom		
Commodity	Tropical Hardwood Lumber		
Time period	1998	1999	2000*
Imports for:			
U.S.	0	0	0
Others			
Malaysia	57	66	60
Ghana	27	21	15
Cameroon	21	28	40
Ivory Coast	16	12	15
Brazil	13	14	13
Guyana	6	1	0
Singapore	2	2	2
Indonesia	4	6	8
Total for Others	146	150	153
Others not Listed	4	10	12
Grand Total	150	160	165

Import Trade Matrix			
Country	United Kingdom		
Commodity	Temperate Hardwood Lumber		
Time period	1998	1999	2000*
Imports for:			
U.S.	110	105	115
Others			
Canada	22	34	30
Russia	2	4	2
Germany	43	45	45
France	11	15	20
Other EU	58	56	56
Total for Others	136	154	153
Others not Listed	11	18	17
Grand Total	257	277	285

Export Trade Matrix			
Country	United Kingdom		
Commodity	Hardwood Veneer		
Time period	1998	1999	2000*
Exports for:			
U.S.	1	0	0
Others			
EU	8	8	8
Total for Others	8	8	8
Others not Listed	2	2	2
Grand Total	11	10	10

Import Trade Matrix			
Country	United Kingdom		
Commodity	Hardwood Veneer		
Time period	1998	1999	2000*
Imports for:			
U.S.	11	9	12
Others			
Ghana	3	5	3
Zaire	2	0.4	0
Canada	1	1	1
South Africa	2	2.5	3
EU	10	13	12
Total for Others	18	21.9	19
Others not Listed	4	4.1	1
Grand Total	33	35	32

Export Trade Matrix			
Country	United Kingdom		
Commodity	Softwood Plywood		
Time period	1998	1999	2000*
Exports for:			
U.S.	0	0	0
Others			
EU	12	15	15
Libya	7	0	0
Total for Others	19	15	15
Others not Listed	0	0	0
Grand Total	19	15	15

Import Trade Matrix			
Country	United Kingdom		
Commodity	Softwood Plywood		
Time period			
Imports for:			
U.S.	200	32	50
Others			
Brazil	72	160	320
Finland	38	57	29
Canada	53	47	45
Indonesia	25	41	25
Chile	15	18	8
Malaysia	12	14	7
Russia	10	20	19
Latvia	11	12	17
South Korea	17	80	13
Total for Others	253	488	483
Others not Listed	31	39	47
Grand Total	484	559	580

Export Trade Matrix			
Country	United Kingdom		
Commodity	Softwood Lumber		
Time period	1998	1999	2000*
Exports for:			
U.S.	0	0	0
Others			
Irish Republic	92	80	80
Other EU	4	20	20
Total for Others	96	100	100
Others not Listed	7	30	30
Grand Total	103	130	130

Import Trade Matrix			
Country	United Kingdom		
Commodity	Softwood Lumber		
Time period	1998	1999	2000*
Imports for:			
U.S.	41	44	55
Others			
Sweden	2524	2317	2400
Finland	1318	1130	1300
Latvia	1279	1697	1800
Russia	321	444	500
Estonia	223	345	300
Canada	217	217	240
Irish Republic	133	186	190
Norway	114	124	115
Lithuania	88	78	80
			320
Total for Others	6217	6538	7245
Others not Listed	362	338	320
Grand Total	6620	6920	7620

\* Please note that all 2000 data are estimated.