



INTERNATIONAL TROPICAL

TIMBER ORGANIZATION

Tropical Timber Market Information

Towards Greater Transparency in the Tropical Timber Markets

Producers Report

The weather conditions are generally bad and the supply of logs is quite a problem.

Log Prices

Report from Malaysia

Domestic Log Prices

Log royalty rates have been increased in Peninsula Malaysia. The National Forestry Council decided on the increase at a meeting held on the 13th February 1996. The forest development cess collected by the various States has been increased from an average of Malaysian Ringgit (RM) 2.80 to a standard RM10.00 per cubic metre. Under the Seventh Malaysia Plan logging quotas for the Permanent Forest Estate have been reduced as follows; Peninsula Malaysia 46,000ha, Sabah 60,000ha and Sarawak 170,000ha.

Report from Brazil

Brazilian producers are reporting that generally the international market is slow, especially the European markets. There is some consensus that the US market is showing signs of improvement although it is too early to be confident that the changes represent a trend. The information available points to an apparent reduction of stocks of tropical wood products in both Brazil and in the consumer countries. If this is actually the case then some pressure could be exerted on prices.

Domestic Log Prices

Logs at mill gate

| | per Cu.m |
|------------------------|------------|
| Mahogany (first grade) | US\$226.00 |
| Ipe | US\$71.10 |
| Jatoba | US\$51.00 |

Report from Indonesia

Domestic log prices

Logs at mill gate

| | per Cu.m |
|--------------------|-------------|
| Plywood logs | |
| Veneer Logs (face) | US\$150-170 |
| (core) | US\$130-140 |
| Sawlogs | per Cu.m |
| Meranti | US\$140-150 |
| Merkusii | US\$70-80 |
| Falkata logs | US\$40-45 |
| Rubberwood | US\$32-33 |

Domestic Log Prices

(SQ)

Logs at mill Gate

per Cu.m

Meranti Bukit

US\$220

Kembang Semangkok

US\$180

Selangan Batu

US\$120

Merbau

US\$175

Rubberwood

US\$25-28

Export Log prices

Export Logs Sarawak (FOB)

(SSQ)

Per Cu.m

White/Red Seraya

US\$215-220

Yellow Seraya

US\$180-190

South Sea Logs

FOB

Per Cu.m

Pometia

US\$150-160

Calophyllum

US\$150-160

Terminalia

US\$130-135

Other mix species

US100

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Weather conditions in the Solomon Islands continue to affect logging and stocks are reportedly quite low, but the situation is improving.

Cameroon Export Log Prices

| | | |
|-----------------|-------------------|----------------|
| <i>N'Gollon</i> | <i>LM-C 70cm+</i> | <i>US\$270</i> |
| <i>Ayous</i> | <i>LM-C 80cm+</i> | <i>US\$97</i> |
| <i>Sapele</i> | <i>LM-C 80cm+</i> | <i>US\$304</i> |
| <i>Iroko</i> | <i>LM-C 70cm+</i> | <i>US\$249</i> |

West African log exporters are sustaining marginal prices in support of turnover.

Ghana

Ghana has a new export levy structure as part of its strategy to stimulate downstream manufacturing.

Export levies on logs as of the 1st March 1996 are based on a percentage of the FOB value:

| | |
|--------------------------------------|-----|
| <i>Afzelia, Canarium,</i> | |
| <i>Ceiba, Kyenkyen, Ogea</i> | 30% |
| <i>Kusia</i> | 25% |
| <i>Bombax, Dahoma,</i> | |
| <i>Kaku, Ofram, Otie</i> | 20% |
| <i>Albizia, Ananta, Aprokuma,</i> | |
| <i>Denya, Esa, Esia, Guarea,</i> | |
| <i>Potrodum, Sterculia, Tetekon,</i> | |
| <i>Wawabima, Wonton, Yaya</i> | 15% |

Sawnwood Prices

Domestic Prices

Report from Brazil

Brazilian domestic prices remain generally stable. Some companies have reduced their prices by 3-5%. The market remains very competitive and volume sales are showing some recovery. The industry is indicating that demand is likely to pick up. This is borne out by the fact that the demand in January was slightly higher than expected. All the tropical timber producers are anxious to improve prices.

Domestic Sawnwood Prices (green ex-mill Northern Region)

| | <i>per Cu.m</i> |
|-----------------|-------------------|
| <i>Mahogany</i> | <i>US\$719.00</i> |
| <i>Ipe</i> | <i>US\$422.00</i> |
| <i>Jatoba</i> | <i>US\$400.00</i> |

Report from Indonesia

Sawnwood (domestic construction material)

| <i>ex-mill</i> | <i>per Cu.m</i> |
|----------------|--------------------|
| <i>Kamper</i> | <i>US\$440-460</i> |
| <i>Keruing</i> | <i>US\$295-350</i> |

Malaysian domestic sawnwood Prices

| | <i>per Cu.m</i> |
|-------------------|----------------------|
| <i>Balau</i> | <i>US\$400 - 420</i> |
| <i>Kempas</i> | <i>US\$220 - 230</i> |
| <i>Rubberwood</i> | |
| <i>25mm</i> | <i>US\$250 - 265</i> |
| <i>50mm</i> | <i>US\$300 - 310</i> |
| <i>>75mm</i> | <i>US\$365 - 380</i> |
| <i>Sepetir</i> | <i>US\$280 - 290</i> |
| <i>Keruing</i> | <i>US\$275 - 285</i> |

Mixed hardwood piling (5"x5"; 6"x6") US\$245 -255 / m3 (CCA treated)

The domestic demand is very strong. Local production cannot meet the requirements.

Export Prices

Sawnwood Export Brazil

| <i>FOB</i> | <i>per Cu.m</i> |
|---------------------------------|--------------------|
| <i>Mahogany KD F&S</i> | |
| <i>UK Market</i> | <i>US\$980.00</i> |
| <i>Jatoba AD</i> | <i>US\$450-500</i> |
| <i>Jatoba KD</i> | |
| <i>European Market</i> | <i>US\$650.00</i> |
| <i>Curupixa KD</i> | |
| <i>European Market</i> | <i>US\$580.00</i> |
| <i>Marupa KD</i> | |
| <i>Second Grade Japan</i> | <i>US\$560.00</i> |
| <i>Mixed Species, Un-Graded</i> | |
| <i>Green, Asian Market</i> | <i>US\$230-280</i> |

European agents for Brazilian sawnwood continue to press for lower prices quoting competitive offers from African suppliers.

Sawnwood Export, Ghana

Order book positions are still very weak with the traditional markets still appearing very dull. The dull market is resulting in growing log stocks at the mills.

The growing domestic demand for building materials, coupled with the threatened reduction in the annual allowable cut (AAC), may lead to a lowering of export flows in lumber and veneer.

Saudi Arabia takes mixed redwood species of random length parcels of No.2 common and better grades, thus allowing sawmills to achieve a better recovery.

For the Saudi Arabia market
25-75mm, 100cm and up 180cm and up

| <i>FOB</i> | <i>per Cu.m</i> |
|-----------------------|-----------------|
| <i>Rough Sawn</i> | |
| <i>Mixed Redwoods</i> | US\$335.00 |
| <i>Odum (Iroko)</i> | US\$400.00 |
| <i>Wawa</i> | US\$200-220 |

For the Italian market
25-75mm, 150cm and up 180cm and up

| <i>FOB</i> | <i>per Cu.m</i> |
|--|-----------------|
| <i>Rough Sawn</i> | |
| <i>Wawa</i> | |
| <i>fixed dimensions</i> | US\$270.00 |
| <i>Wawa Boules</i> | |
| <i>70cm dia. Log, 25-75mm. thick, 450cm length</i> | US\$220.00 |

For France
Niangon Boules US\$490.00

Export levies on air dried sawnwood have been introduced as follows:

| | |
|--|-----|
| <i>Afrormosia</i> | 30% |
| <i>Hyedua, Odum</i> | 15% |
| <i>Edinam, Mahogany, Makore, Sapele, Utile</i> | |
| <i>Wawa</i> | 10% |

Sawnwood Export, Malaysia

| <i>FOB</i> | <i>per Cu.m</i> |
|--|-----------------|
| <i>Dark Red Meranti GMS select & better KD</i> | US\$645.00 |
| <i>Seraya Scantlings (3" x 5") KD</i> | US\$700.00 |
| <i>Keruing GMS AD Select & Better</i> | US\$395.00 |
| <i>Mengkulang GMS AD Select & Better</i> | US\$420.00 |

Taiwan Province of China Sawnwood Imports

| <i>FOB ex- Malaysia</i> | <i>per Cu.m</i> |
|-------------------------|-----------------|
| <i>Rubberwood</i> | |
| <i>25mm boards</i> | US\$370.00 |
| <i>50-75mm squares</i> | US\$400.00 |
| <i>75-100mm squares</i> | US\$460.00 |
| <i>Sepetir</i> | |
| <i>GMS AD</i> | US\$435-450 |
| <i>Oak 25mm board</i> | US\$510.00 |

Plywood and Veneers

Rotary Cut Veneer Brazil (ex-mill Northern Region)

| <i>FOB</i> | <i>per Cu.m</i> |
|---------------------|-----------------|
| <i>White Virola</i> | |
| <i>Face Veneer</i> | US\$181.00 |
| <i>White Virola</i> | |
| <i>Core Veneer</i> | US\$145.00 |

Plywood Brazil (ex-mill Southern Region)

| | <i>per Cu.m</i> |
|---------------------------|-----------------|
| <i>White Virola</i> | |
| <i>4mm MR</i> | US\$602.00 |
| <i>15mm MR</i> | US\$498.00 |
| <i>Mahogany Faced</i> | |
| <i>15mm MR</i> | US\$807.00 |
| <i>15mm Film Faced</i> | |
| <i>Concrete Formboard</i> | US\$770.00 |

Veneer Export Brazil

| | |
|------------------------------|------------------|
| FOB | <i>per Cu.m</i> |
| White Virola | |
| Face Veneer | |
| Rotary Cut 2.5mm | US\$270-320 |
| Sliced Mahogany | |
| 1st Grade | US\$2.20per Sq.m |
| Plywood Export Brazil | |
| | <i>per Cu.m</i> |
| White Virola BB/CC | INDO + 2-3% |
| Pine CDX 18mm | |
| USA Market | US\$270.00 |

Demand for Brazilian plywood on the international market remains generally weak although the US market appears to be moving forward. Brazilian WBP B/BB 6mm currently landing at CIF US\$481 in the UK compared to the same grade from Indonesia which is reportedly at US\$500 per Cu.m.

Indonesian Plywood

| | |
|-------------------------|-----------------|
| MR, Grade BB/CC | <i>per Cu.m</i> |
| 2.7mm | US\$460.00 |
| 5.0mm | US\$350.00 |
| 6mm and above | US\$370-380 |
| WBP, Grade BB/CC | US\$415.00 |

Indonesia will temporarily halt the export of Plywood to China for the first quarter of 1996, due to shortage of log raw materials. Five large plywood mills are currently facing serious problems reportedly due to poor management and, in addition, some mills are being accused of irresponsible logging practices. Some other mills are also facing log supply problems and this has been aggravated by the bad weather.

Malaysian Plywood

| | |
|----------------------|-----------------|
| Plywood (FOB) | |
| MR Type | |
| Grade BB/CC | <i>per Cu.m</i> |
| 3.2 - 6 mm | US\$450.00 |
| 9 - 12 mm | US\$360.00 |
| >18 mm | US\$380.00 |

WBP Type

| | |
|--------------------|-----------------|
| Grade BB/CC | <i>per Cu.m</i> |
| 3.2-6mm | US\$495.00 |
| 9-12mm | US\$396.00 |
| >18mm | US\$ 418.00 |

Phenolic overlaid

| | |
|------------------------|-----------------|
| WBP | |
| Grade BB/CC | <i>per Cu.m</i> |
| 12 -18 mm thick | US\$510.00 |

Taiwan Province of China

Import Price

| | |
|------------------------|-----------------|
| Plywood | <i>per Cu.m</i> |
| 2.7mm x 4' x 8' | US\$620.00 |
| 5mm x 4' x 8' | US\$580.00 |

Import prices are generally weak. The supply of MDF and particleboard is dominated by suppliers from N. America. The plywood trade is dominated by Indonesia and Malaysia. Rubberwood and other sawnwood are supplied largely from Malaysia and Vietnam.

Ghana

Sliced veneer sales to Germany are at reasonable levels while sales to the UK have slowed.

Sliced Veneer Ghana

| | | |
|---|-----------------|----------|
| per Sq.m | | |
| Asanfona | Face | US\$1.20 |
| | Interior | US\$1.00 |
| | Backing | US\$0.65 |
| Redwoods (Mahogany, Candollei, Edinam) | | |
| | per Sq.m | |
| | Face | US\$1.15 |
| | Interior | US\$0.90 |
| | Backing | US\$0.55 |

Other Panel Product Prices

Brazil

The woodbased panel market is still the focus of attention as MDF continues to penetrate the market despite its higher

price. The first Brazilian MDF plant is scheduled to come on stream in July 1997. The panel market will also be influenced by the availability of OSB. A new plant in the south of the country is expected to come on-stream in a few months although there has been no official announcement from the company as yet. The trade is anticipating that OSB will have some impact on the domestic market for only lower grades of plywood.

Particleboard, Domestic Price Brazil

| | |
|---------------------------|--------------------------------------|
| Particleboard 15mm | <i>per Cu.m</i> US\$300.00 |
|---------------------------|--------------------------------------|

Indonesia

| | |
|-------------------|---------------------------------------|
| Blockboard | <i>per Cu.m</i> US\$325-350 |
|-------------------|---------------------------------------|

Malaysia

| | |
|----------------------------|--------------------|
| Particleboard (FOB) | <i>per Cu.m</i> |
| 6 mm & above | US\$175-185 |

Two new particleboard lines with a combined annual output of 200,000 cubic metres will be coming on-stream in the 1st quarter of 1996.

| | |
|------------------|-------------------|
| MDF (FOB) | <i>per Cu.m</i> |
| 6mm | US\$275.00 |

Three new MDF lines have been under construction since 1994 and these mills are expected to come on stream by the second quarter of 1996. The annual combined capacity will be 300,000 cubic metres. This will bring the total capacity in Malaysia to 1 million cubic metres per annum by the 2nd quarter of 1996.

A new fibreboard plant is to be established in Sarawak. Glenealy Plantations Bhd has entered into a joint venture agreement with two Japanese companies. The plant is forecast to cost RM204 million and will be operational towards the end of 1997.

Taiwan Province of China

| | |
|--------------------------|--------------------|
| MDF | <i>per Cu.m</i> |
| 3-4mm | US\$320-340 |
| 12-25mm x 6' x 8' | US\$260-270 |

| | |
|-----------------------|-------------------|
| Particle board | <i>per Cu.m</i> |
| 18mm x 5' x 8' | US\$220.00 |

Prices of Added Value Products

Brazil

Finished, valued added products from Brazil seem to be less vulnerable to price changes at present. The demand for decorative veneer of the high value and well known species continues to be strong and prices are reported as stable.

| | |
|--------------------------|---------------------|
| Flooring | |
| FOB | |
| Jatoba Flooring | <i>per Sq.m</i> |
| 22mm | US\$22.00 |
| Other Species | |
| 10mm | US\$11-17.00 |
| Edge Glued Panels | <i>per Cu.m</i> |
| Clear Pine | US\$820.00 |
| Doors | |
| Mahogany Solid | <i>per pc</i> |
| Top Grade | US\$400.00 |

Indonesia

| | |
|------------------------|-------------------|
| Mouldings | <i>per Cu.m</i> |
| Ramin skirting | |
| Italian market | US\$900.00 |
| Pulai/Jeluton | |
| Japanese market | US\$650.00 |

Malaysia

| | |
|--------------------------|--------------------|
| Mouldings (FOB) | <i>per Cu.m</i> |
| Kembang Semangkok | |
| S4S to Japan | US\$835.00 |
| Rubberwood | |
| S4S to Japan | US\$415-430 |

Rubberwood parts and components

| | |
|---------------------------------------|-----------------------|
| Furniture | |
| Dining suite, solid rubberwood | |
| laminated top 3' x 5' | |
| with extension leaf and | |
| six hard seat chairs | US\$170per set |

| | |
|---------------------------|-------------------------|
| Shaped chair seats | US\$2.60-2.70/pc |
| Pedestal legs | US\$8-9/pc |
| Queen Anne legs | |
| (2 1/2"x2 1/2"x18") | US\$0.9/pc |
| (2 1/2" x 2 1/2" x 27") | US\$3.50-4/pc. |

| | |
|-------------------------------------|--------------------|
| | per Cu.m |
| Finger jointed lamin. boards | US\$800-880 |
| Doors (FOB) | |
| Meranti(red)panel doors | |
| Grade A | US\$58/pc |
| Grade B | US\$52/pc |
| Grade C | US\$46/pc |

**Taiwan Province of China
Imports**

Parts and components

| | |
|---|----------------------------|
| Chair seats | US\$3.40/pc |
| Unfinished Queen Anne Chairs | |
| (excluding soft seat) | US\$14-16/pc |
| Furniture FOB | |
| Dining suite, veneered MDF Tables and 6 Chairs | |
| | US\$270-290 per set |

Currently, prices are not very firm, there is intense competition for similar products coming from China. Windsor chairs are quoted at around US\$12.50/piece.

Freight Costs

Brazil

| | |
|----------------------------|----------|
| Sawnwood | |
| Paranagua-Rotterdam | |
| Container 20 ft. | US\$1300 |
| Container 40 ft. | US\$2000 |
| Paranagua-Baltimore | |
| Container 20 ft. | US\$1500 |
| Container 40 ft. | US\$1800 |

Bulk Sawnwood **US\$66per Cu.m**
(Hardwoods over 750kg/Cu.m)

Plywood
Paranagua-UK
Palletised **US\$42per Cu.m**

Significant reductions are possible on all rates.

Indonesia

| | |
|-----------------------------------|------------------|
| 40ft Container | |
| Jakarta-Rotterdam | US\$2,200 |
| Jakarta-LA(west coast USA) | US\$2,800 |
| Jakarta-NY(east coast USA) | US\$4,200 |

Ghana

Bundled Sawnwood

Ghana to Europe (Antwerp-Hamburg), US\$65 to US\$83 per Cu.m depending on quantity and the buyers' relation with the shipping lines.

Containers

Containerized sawnwood and other products from Ghana for N. European Ports
US\$2070 for a 20ft container
US\$3730 for a 40ft container

Taiwan Province of China

40ft. container

West Coast USA from Taiwan Province China US\$1900
East Coast USA from Taiwan Province China US\$ 2400

Malaysia

Bundled Sawnwood

Malaysia to Rotterdam US\$40-42 per Cu.m.

40 ft. container

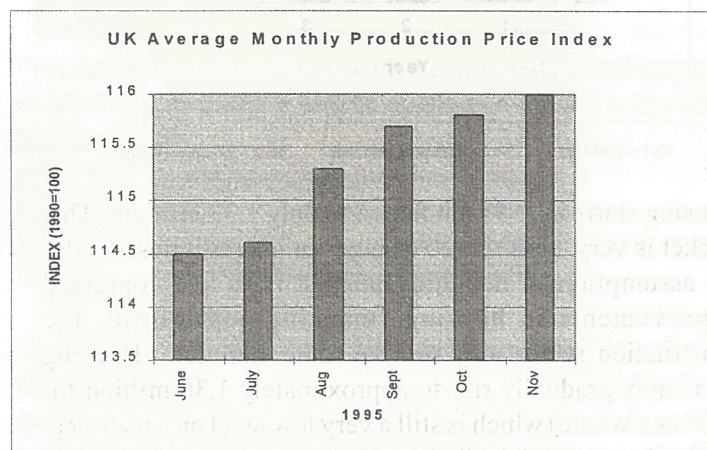
Malaysia to West Coast USA at US\$2400-2500
Malaysia to East Coast USA US\$3100-3200.

Consumers Report

From Europe, A Focus on The UK

1996 Growth in Demand

The economic climate is improving in the UK. Building activity rose by 21% in the last three months of 1995 compared to an overall decline in building activity of 4% for the year as a whole. High Street spending is on an upward trend and the January figures suggest that consumer confidence is returning. At present the sawnwood markets are very dull but the projections are that furniture production is expected to grow by +3.8% in 1996. In 1995 UK furniture production was stagnant, (down 0.2%), due to the decline in internal consumption of 1.4%. This decline was partly compensated however by the buoyancy of exports (+8.8%). It is forecast that in 1996 the UK furniture industry will witness a growth in domestic demand of about 3.3%. It is foreseen that industrial production is expected to increase by 3.8%



Company News

Although the UK consumer still does not regard furniture as a priority item, there has been greater interest over the last few years on lifestyle image furniture. The UK furniture buyer is now more conscious of the trend that furnishings reflect the personality of the owner. The impact of the sluggish market has been having a serious impact on the furniture sector. The largest UK producer and retailer of kitchen and bedroom furniture, MFI, reported a 30% fall in pre-tax profits to Sterling pounds 20.1 million in the second half of 1995, despite a 5% increase in sales at Sterling pounds 380.6 million. The fall in profits was attributed mainly to a nearly 30% rise

in raw material prices during 1995. MFI reported a decrease in gross margin from 52.9% to 51.2%.

The acquisition and merger activity in the UK furniture sector is attracting attention. Atreus is moving into kitchen furniture and is changing its name Atreus, the company founded by Bill Rooney (founder of Spring Ram), will change its name to Full Circles Industries and will move into the kitchen market. In another move HNB acquired Richard Graefe - Office and Contract furniture specialist. HNB bought veneered door and panel manufacturer Richard Graefe for an undisclosed sum. Richard Graefe, a long-time HNB supplier, will be run as an autonomous unit within HNB, which is now restructuring its factory to accommodate machinery from Richard Graefe's High Wycombe plant.

In the door market UK Regency Doors and Crosby Sarek have merged into a new company. Crosby Ltd. is a newly formed company of the Spring Ram Corporation PLC, the UK's leading home improvement manufacturers. Formerly known as Regency Doors, the new company was formed on January 1st 1996, after the take-over of Crosby Sarek. As a result of the merger Crosby Ltd is now one of the major manufacturers of top quality doors.

Wooden Windows

Upper Price Hardwood 120x135cm

Sterling, 293.00

Medium Price Hardwood 120x135cm

Sterling 215.90

Lower Price Softwood 120x135cm

Sterling 103.85

Solid Wooden Doors

Upper Price Meranti

76.2x198.1x3.5cm Sterling 239.00

Medium Price Sapele

76.2x198.1x3.5cm Sterling 141.30

Lower Price Veneered

76.2x198.1x3.5cm Sterling 40.75

Kitchen Chair

Upper Price Solid Oak

Sterling 323.00

Dining Chair

Upper Price African Mahogany

Sterling 328.00

Medium Price African Mahogany

Sterling 208.00

Dining Table

Upper Price African Mahogany

80x160cm Sterling 1019.00

Medium Price African Mahogany

80x160cm Sterling 884.00

Lower Price African Mahogany

80x160cm Sterling 693.00

Furniture and Components

Wardrobe Door

Lower Price 50x180cm

Sterling 51.60

Kitchen Cabinet Door 71.5x49.5cm

Medium Price Oak 71.5x51.60cm

Sterling 18.56

Drawer Front

Upper Price

Melamine Faced Particleboard

100x10cm Sterling 0.78/pc

Medium Price

Melamine Faced Particleboard

100x10cm Sterling 0.62/pc

Lower Price

Melamine Faced Particleboard

100x10cm Sterling 0.56/pc

The US Markets for Particleboard and MDF

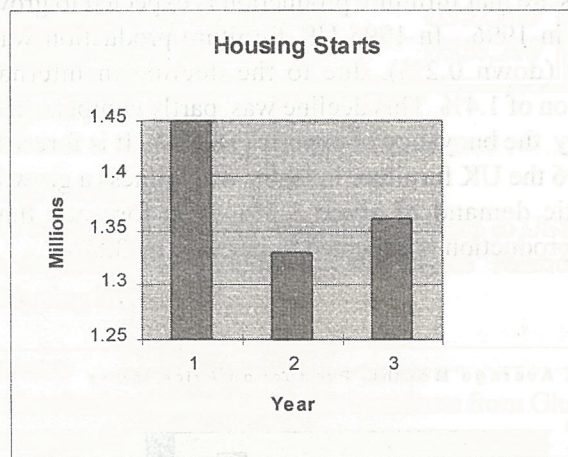
Market Forces

Approximately 75% of the U.S. domestic demand for MDF is for manufactured products and the main end-uses are furniture, cabinets, and doors. The remaining 25% of the domestic consumption is used for construction purposes, mainly for repair and internal remodeling, and in single-family housing.

The principal markets for particleboard are much the same as for MDF. However, there are some differences in the relative magnitude of the end-usage. Only some 56% of the demand is for manufactured product applications, that is furniture, cabinets and doors. The consumption of particleboard in construction at around 44% of total

consumption is mainly for repair and remodeling; much of this use is for floor underlays.

Demand for particleboard and MDF is very much influenced by the state of the economy and in particular the level of demand for housing, a market which is currently very subdued in the United States. GDP growth in 1995 was only 2.4% (in real terms) and for 1996 it is anticipated that an even lower performance of 2.1% will continue to hold the panel market under tight rein. On the positive side, inflation remains in check which may entice the Federal Reserve Bank to further ease the monetary policy making it slightly easier to finance new housing.



No.1 = 1994 Data No.2 = Estimated 1995 Data No.3 = Projections for 1996

Housing starts in 1995 amounted to only 1.33 million. This market is very sensitive to changes in interest rates. Under the assumption of declining interest rates and continued improvements in housing financing possibilities the construction sector may receive some stimulus. Housing starts may gradually rise to approximately 1.36 million for 1996 as a whole (which is still a very low level on a historical comparison). 1997 is likely to see housing starts in the 1.36 to 1.38 million range. Mobile home production has proved more resilient during 1995. For 1996, it is expected to remain stable at current rates.

Expenditures on residential repair and remodeling increased by less than 0.3% in 1995 but a healthy increase of 3.8% is expected for 1996. The rise in expenditure on home improvement and remodeling at a time of a sluggish new home market is predictable. The non-residential construction sector is one of the few bright spots in the economy, expected to grow by a healthy 7% in 1996.

The furniture industry is experiencing the effects of the economic downturn. After an encouraging first half of 1995,

household furniture production was substantially lower in the second half compared to the same period in 1994. On the positive side, office furniture production was 2% above 1994 levels and it is expected that, when the statistics become available, an accelerated growth in furniture output for the second half of the year will have been recorded. For the year as a whole it is estimated that overall furniture production will be showing a growth of around 2.3%. Office furniture output is projected to grow at a robust 5.3% in response to strong activity in non-residential construction.

In addition to the effect of economic cycles on the end-user markets, changes in buyers preference for different raw materials have a strong impact on the position of the various products. Such preferential demand shifts are, in part, determined by comparative price movements of the various products which, in turn, are at present largely influenced by environmental concerns.

The implementation of strict environmental regulations on timber harvesting, the deterioration in timber supplies and the subsequent price increase in primary wood products have resulted in generating a variety of reactions. The traditional domestic use of solid wood is increasingly being replaced by lower-cost reconstituted wood panels, such as particleboard, MDF and OSB. These circumstances guarantee good, long-term, prospects for both products.

Industry Performance

Consumption of all engineered boards ended 1995 on a weak note. During the second half of the year particleboard consumption fell to a level slightly below that for the same period in the previous year. MDF consumption was estimated to be more than 5% below the last half of 1994 as exports in particular continued to decline. For the whole of 1995, particleboard consumption is estimated at 5.27 BSF, which equals the 1994 record level. For MDF, it seems that 1995 consumption was down 4% to 5% from the 1994 level of 1.28 BSF.

The industry has a more optimistic economic outlook for 1996 than for 1995 (particularly for the second half of the year). It is expected that, in conjunction with rising usage rates, a 4% increase in total U.S. particleboard consumption and a better than 8% in MDF volumes may be achieved. At 5.64 BSF for particleboard and 1.36 BSF for MDF, both panels would set new consumption records in 1996. By the second half of 1996, particleboard consumption may be more than 5% above the same period of 1995, while MDF consumption is projected to be 14% over the last half of 1995.

Investment in New Capacity

At present, inventory levels are relatively low and capacity utilization's are still fairly high in both industries. However, capacity additions in both the U.S. and Canada seem to move ahead of consumption. In spite of a pick-up in demand, accelerating capacity growth is likely to lead to an oversupplied market for at least two years. The scarcity seen in early 1995 is over as demand/capacity ratios are altering and mill stocks are increasing.

MDF capacity will increase significantly in 1995-1998. Last year, the largest project involved Georgia Pacific with a new plant in Sault Ste. Marie, Ontario, Canada, with a capacity of 120 million sq. feet. The two largest projects planned for 1996 and 1997 are a 145 million sq. feet plant by MacMillan Bloedell, in Pembroke, Ontario, Canada; and a 150 million sq. feet U.S. facility in Eldorado, Arkansas, by Del-Tim Fiber L.L.C.

Additions to particleboard capacity are somewhat less, but two new plants stand out for their large size. Temple-Island Forest Products is just about to open a 170 million sq. feet plant in Hope, Arkansas, U.S.A. Another facility of equal size by International Paper Corp. will come on stream in Eastern Texas sometime in 1997.

Price Movements

As of February 1996, MDF (3/4ins) sold at US\$400/MSF in the South Central region. Prices on the U.S. West coast are generally lower than in the South and East of the country.

With the large additions of modern MDF plants, the industry cost structure will alter downwards over the years to come. Also as stock levels improve they will exert further downward pressure on prices and margins. These downward trends will continue as long as capital investments are booming in the new technologies and price declines may be particularly noticeable in 1997 and 1998.

As of February 1996, industrial particleboard (3/4ins) sold at US\$284/MSF in the South Central region. As with MDF, West coast prices are somewhat lower.

Since increases in production capacity for particleboard are more modest compared to MDF, operating rates, profits and prices will experience less pronounced downward trends. Additionally, consumer demand for particleboard is not strong enough to give rise to expectations for higher prices until at modest.

least the second half of 1996, and then any increase will be

International Trade

Total U.S. particleboard imports amounted to 1.3 million cubic meters in 1994 and is expected to reach 1.4 million cubic meters in 1995. Imports are from two main sources, over 80% from Canada and almost 10% from Mexico. While Canada and Mexico seem to have been gaining in market share, most other supplier countries are losing ground. In 1994, Canada shipped a record amount of 1.3 million cubic meters and it seems that this level may be surpassed in 1995. Mexico, too, is likely to surpass its 1994 shipments.

In 1994, U.S. imports of MDF amounted to only 108,000 cubic meters, which closely mirrored the weak performance for domestic shipments. Canada is the most important MDF exporter to the U.S.A accounting for an approximately 60% share of all foreign supplies. In 1995, Canada lost ground however. In fact, Canadian shipments to the U.S.A. for 1995 are likely to fall short by an estimated 15% from the 1994 level of 68000 cubic meters.

US exports of MDF are about three times as much as its imports. Also, exports take up an increasing share of the industry's overall shipments, but this is still only approximately 10%. This is different for particleboard; U.S. exports are substantially smaller than the country's imports, and make up less than 5% of the industry's overall shipments.

Abbreviations

| | | | |
|-------|---|------|---------------------------------|
| LM | Loyale Merchant, a grade of log parcel | Cu.m | Cubic Metre |
| FOB | Free-on-Board | SQ | Sawmill Quality |
| SSQ | Select Sawmill Quality | KD | Kiln Dry |
| AD | Air Dry | FAS | Sawnwood Grade First and Second |
| | Boule A Log Sawn Through and Through the boards from one log are bundled together | WBP | Water and Boil Proof |
| BB/CC | Grade B faced and Grade C backed Plywood | MR | Moisture Resistant |
| MBF | 1000 Board Feet | pc | per piece |
| Sq.Ft | Square Foot | BF | Board Foot |
| | | MDF | Medium Density Fibreboard |
| | | OSB | Oriented Strand Board |