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The Project: ITTO Project PD 107/90 (I):

## Strategies for Sustainable Wood Industries in Sarawak

### A Market Study of Finished Wood Products

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## CONTENTS

			<i>PAGE</i>
	Executive Summary		<i>2.</i>
	Introduction		
1	Background		<i>3.</i>
2	Parameters of this report	- historical The products The markets	<i>7.</i>
	Conclusions & Recommendations		<i>9.</i>
3	The market potential	- historical The markets - European Union America Japan Rest of World The products	<i>14.</i> <i>19.</i>
4	The Sarawak opportunity	- historical The products The markets - European Union America Japan Rest of World	<i>36.</i> <i>56.</i> <i>69.</i>
5	Strategic marketing	- what is it How it can be effective	<i>82.</i> <i>84.</i>
	Annexes	The sources The markets	

## EXECUTIVE SUMMARY

The State Government of Sarawak undertakes to meet the ITTO 2000 requirements for sustainability for its forest industries.

Sarawak is intent on replacing 'volume of material' shipments by an increased value of its own processed exports. Currently these go to regionally local destinations who then value-add and often export the processed product.

In the last decade, the global trade in forest products has steadily expanded whilst trade in logs and some primary processed tropical timber products has declined. This trend is expected to accelerate.

There has been a marked move in the tropical timber industry towards globalisation, both in supply and in sourcing to meet the greater demand. Also as substitution, as species become harder to extract and/or are being protected in the need for sustainability of the forest environment.

There is a growing need in newly industrialising nations, which whilst continuing to supply the demands of OECD countries, who wish to feed their own national needs and consumer society with wood consumer products.

This trend towards secondary processed wood products being shipped is seen in the growth and importance of these items from other countries in S.E. Asia and Africa.

It is a dynamic response and proactive trading strategy that offers some measure of independence for the exporting country. It depends on positive transport systems and a clear knowledge of the target customers. It must be aggressive, competitive and yet refined in its implementation, offering clear benefits for buyers of Secondary processed Wood Products (spwp).

The current major markets for absorbing the growth in secondary processed wood products is found within developed nations – essentially the three major trading blocks of North America (23.4%), the European Union (55.4%) and Japan (10%). This strong growth for such products to over US\$27 billion in 1996 is followed by recent demands coming from newly industrialised nations.

The most important value-added item produced from tropical hardwood has tended to be finished furniture. This accounted for over 67% of the secondary wood products imported by OECD countries in 1996. Its multiplier of at least 10 x represents the highest value-added from that of a log.

Builder/joinery products accounting for 15.7% have multipliers of value-added at 7 to 8 times and board products between 3 and 5 that of the log.

It is to these sectors and the substitution by board products with secondary processed wood products that the most value can be gained in exports.

The test is to match the indigenous tropical timber specie to spwp markets.

## INTRODUCTION

The State Government of Sarawak, responsible for the implementation of ITTO recommendations in respect of the project PD 107/90 (I): Strategies for Sustainable Wood Industries in Sarawak, through the Forest Department, Sarawak as its executing agency, has commissioned a market study of finished wood products.

The appropriate bodies in Sarawak seek to understand what is required in order to convert an increasing percentage of its volume reduction in log output, into value-added product. An objective would be for Sarawak to continue to enjoy the benefits of the income generated from timber and primary processing, as a major component in the Gross Domestic Product of the country, but from an appropriate volume designated to secondary processed wood products (SPWP).

This report on selective world markets for Secondary Processed Wood Products (SPWP) is a direct result. It was commissioned in 1997 and account was taken of the relevant studies that applied to this sector during that year and early 1998. The Asian monetary crisis has an effect on the conclusions.

### 1 Background

As a background to this study a report completed in 1995 entitled the 'Sector Plan' had as its introduction specific detail concerning the overall ITTO programme. Paragraphs of the introduction to this 1995 report are reproduced here.

*The Project, 'Strategies for Sustainable Wood Industries in Sarawak' PD 107/90 (I), is one of several projects approved and financed by the International Tropical Timber Organisation (ITTO) to support forest production and environmental protection in Sarawak, Malaysia. The need for the Project was identified by the ITTO Mission to Sarawak, which was fielded by ITTO in 1989/90, upon the request of the Government of Sarawak, to assist the State Government in identifying action which need to be taken to safeguard sustained timber production and environmental values.*

*Project PD 107/90 (I) shall, according to its objective, prepare a basic plan for the development of sustainable forest industries in Sarawak, based on assessments of the forest resources of the State and the long-term market outlook for forest products. It should, in other words, prepare a basic forest sector plan for Sarawak. Such a plan needs to take into account the economic and financial environment in which the sector development is to take place and be in harmony with the economic development aspirations of the State. It should support the sustained production of the natural forest resources and aim at utilising the forest product market opportunities available to Sarawak, nationally as well as internationally.*

*The Project (the 1995 report) had only limited budget allocations for data collection and analyses. It was assumed that all relevant information would be*

*available and could be extracted and compiled with small inputs of Project resources. This attempt (the 1995 report) to develop strategies and plans for forest sector development in Sarawak is, therefore, based mainly on existing information, supplemented by limited efforts to obtain additional data.*

The Executive summary of the 1995 report outlined specific assumptions.

- *That the primary processing industry will be encouraged to build up its capacity to a level that enable it to process the total sustainable log out-turn volume, and to expand and add secondary processing, in order to provide new employment opportunities to compensate for the anticipated reduction of employment in logging.*

It also identified certain actions for promoting and assisting industry development and re-structure. Six of these were stated, two being important to the value-added wood industry and the outcome of this 1998 report -

- *Agreements by importers of timber from Sarawak to remove import taxes on processed timber should be sought, as the removal of these taxes would contribute substantially to making local, primary processing financially attractive by increasing the export value of processed wood products.*
- *Studies of markets for secondary processed timber products should be conducted. These studies should be in first hand focusing on markets for furniture and furniture parts, for mouldings and for packing case, boxes and pallets.*

Since the 1995 report, investment in a number of primary processing plants has seen the growth of particleboard and medium density fibreboard mills and veneer slicing plant of international quality for export markets. The move into secondary wood products, especially furniture items, has not been as strong.

The establishment of the 2000 hectare Tanjung Manis timber processing zone by the State Government is a further example of emphasis being placed on the total infrastructure needed to intensify the development of wood-based industry along with the appropriate facilities of a full amenity township and supportive industries.

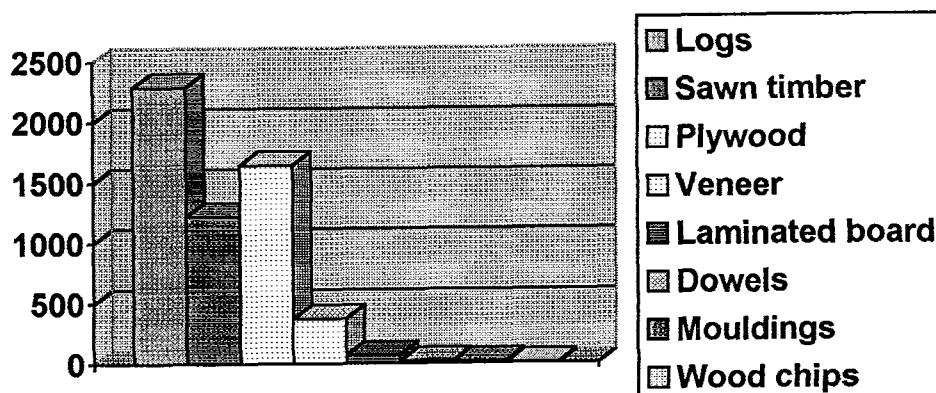
In the marketplace, away from the rigours of reports the practical situation for Sarawak indicated the following during 1996. The timber sector in Sarawak is estimated to contributed 47% of the State's total revenue for 1996 at RM5.56 billion. This was up some 5.7% on 1995. As expected log exports dominated the scene with 40%, followed by plywood at 30% and sawn timber 23%. Downstream processing of mouldings, dowels and laminated boards, is slowly coming into account here reached over 3%. Furniture exports hardly register, neither does that of builder's joinery, nor decorative products.

Whilst this share continued in 1997, the retrenchment of SE Asian economies and the recession in Japan and Korea is likely to see this export value decline.

Sarawak and its timber exports is affected, but by how much is not known to the writer at present, beyond the current reports that there is a shortage of logs for internal plywood conversion. This maybe a result of higher export prices being gained and more logs being diverted to export markets, or a cut back of the logging volumes to provide a balance against lower prices and poor demand from SE Asia, Japan and Korea.

This acute crisis of confidence is a massive and fast response at the commodity end of the markets. Down-stream processed products is less responsive and slower to react. They have broader based markets and wider markets to dissipate sales. It is beneficial to invest in the circumstances of selective down-stream processing as secondary processed wood products. The furniture and decorative markets should be able to offer good price points to OECD buyers and expand their product delivery to meet these demands. It

### Export earnings Timber and Products (RM billion) 1996



is unlikely that the down-stream processors in Sarawak will be able to capitalise on this position just yet.

The industry target for the year 2000 of sustainable forestry with logging from defined areas requires a reduction in the log cut and thus log exports. This will lead to a fall in income that needs to be compensated by the equivalent development of down-stream processing capability and the strong entry into world markets.

The log figures quoted give a reduction from 18 million cubic metres in 1989/90, through 16 million m<sup>3</sup> to an agreed 9.2 million m<sup>3</sup> in the year 2000 from PFE land and 2.8 million m<sup>3</sup> from State Forests. Of this figure some 60% is scheduled to plywood with 40% for saw-logs. How these quantities are processed, either as original exports or for conversion in Sarawak to offer down-stream value-added is not exposed in detail from the sources researched. Most certainly they need to have value added in Sarawak.

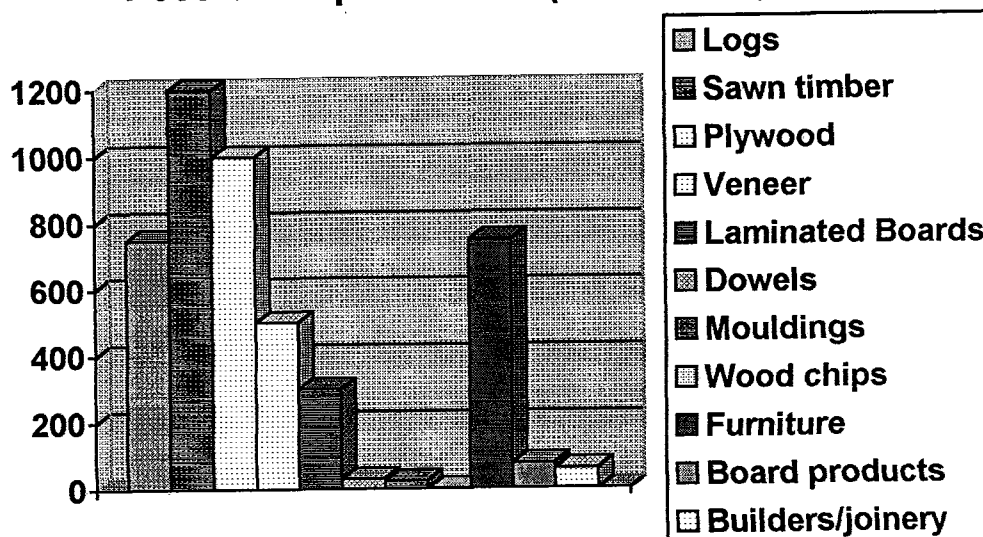
However the visible loss of an export trade of at least RM2 billion (which at today's rates is \$500.000, but in comparable rates of 18 months ago was \$1

million) suggests the need for a strong investment and marketing programme of secondary processed wood products to be developed.

As an example of what this value means in terms of product development, Peninsular Malaysia has generated a \$ billion business in furniture products – but it has taken eight years and required the major use of rubberwood as the raw material. Additional exports are in decorative and other wood products, some of which rely on rubberwood.

Sarawak has no known major resources (usually as working rubber latex producing plantations) of rubberwood with which to exploit. Nor is it currently planning to plant any in the 8 year plantation programme.

### Possible Export Values (RM billions) 2008



Thus a search must be for other indigenous species that may have particular aspects of feature and usage that can be utilised for any major marketing in such secondary processed wood products successes to meet this \$1 billion replacement target of export earnings.

The chart makes a suggestion of products that are feasible in terms of export earnings by the year 2005. Three new sectors have been added, whilst sawn timber and plywood are still the strongest, with log exports halved. The earnings are on a par to that of 1996 (RM5 billion). They do not take into account inflation, but do assess the value-added commitment to new and diverse products and the investment needed to create a strong secondary processed wood industry.

## 2 Parameters of this report - The products

Within the scope and briefing of this report (ITTO Project NO. PD107/90(I)) on 9<sup>th</sup> April 1997 and within the overall title of "Strategies for Sustainable Wood Industries in Sarawak") is an agreed set of products that have been designated as 'secondary processed wood products'. They comprise :-

Essentially product used within a building structure that tends to be found in markets of a consumer purchasing nature, rather than those of purely a commercial function -

- Wood based furniture products and parts, of solid nature, including products made of and from reconstituted boards.
- Outdoor furniture; garden and conservatory structures, as adjuncts to domestic housing.
- Flooring of parquet, strip and laminated variety.
- Turned Components, mouldings and internal woodworking joinery items, stairways.
- Doors and windows for domestic dwellings.
- Toys, nursery.
- Shopfitting.
- Builders woodwork
- Pallets/boxes

It does not include:- logs; sawn or other; exterior wood for buildings; shuttering; structural house flooring or structural timbers for buildings or housing; whether as components, cut-to-size or complete fabrications; board products such plywood, veneer, particleboard, medium density fibreboard.

The Product sectors are covered under specific codes and are found in the Standard International Trade Classification (STIC), Revisions 2 and 3 and the Harmonised Commodity Description and Coding System (HS) of the Customs Co-operation Council

SITC.Rev 3.	HS
635 – Secondary wood products.	44 series
635.1 series (Packing, boxes, crates .12 (Pallets, boxes etc),	4415.10 4415.20
635.2 (Casks, barrels, vats, cooper's products)	4416.00
635.3 series (Builders woodwork)	
.31 (Windows and frames)	4418.10
.32 (Doors and frames)	4418.20
.33 (Shingles and shakes)	4418.50
.39 (Other builders carpentry)	4418.30
	/40/90



635.4 series (Domestic/decorative products)	44 series
.44 (Frames for paintings)	4414.00
.42 (Tableware/kitchenware)	4419.00
.49 (Marquetry, cases for jewelry etc)	44.20
635.9 series (Other articles of Wood)	44 series
.91 (Tools and handles for brooms etc	4417.00
.92 (Other articles)	44.21
821 – Wooden furniture	9401 series
821.13 (Seats of cane)	9401.50
821.16 (Seats of wood)	9401.61
821.5 series (Furniture n.e.s.)	9403 series
.51 (Office furniture, wood)	9403.30
.53 (Kitchen, wood)	.40
.55 (Bedroom, wood)	.50
.59 (Other furniture, wood)	.60
821.79 (Other material like bamboo).	9403.80
821.80 (Parts of furniture)	9403.90

The markets for secondary processed wood products (SPWP).

#### Markets for study:

- Europe; SE Asia; Japan: USA, with minor market informational views of S Africa and S America. In the time/cost parameters available is intended that only selected countries and sectors of the prime markets of Europe and SE Asia be visited, with desk work and personal communications contact being used for the USA, Japan and the stated minor markets.

#### Objectives:

- To compare the appropriate world markets for value-added finished wood products to the available 'export' finished product potential of wood industries in Sarawak, as expressed in the first 4 Annexes of the 'Strategies for Sustainable Wood Industries in Sarawak' report.
- To formulate a realistic business and marketing strategy to meet this export opportunity.

#### Methods:

- To study, from desk work, direct contact and visits where necessary, the current and evolving criteria of the world markets for value-added finished wood products. Provide a resume.
- Prepare a review of the business needs of suitable markets most applicable for finished wood products from Sarawak, along with the current market entry demands from buyers.
- Present a strategy that responds to these demands and recommends a course for action for the wood industries in Sarawak to develop.

## Conclusions & Recommendation

6.1 In the last decade, global trade in forest products has steadily expanded whilst trade in primary processed tropical timber products has declined. This trend is expected to accelerate as globally the tropical timber producers especially are introducing sectoral policies aimed at developing their own competitive downstream, value-added wood processing industries.

This will take a continued high level of investment in equipment and training.

6.2 At the same time there has been a marked move in the tropical timber industry towards globalisation, both in supply and in sourcing.

This move is to meet a greater demand as well as a need for substitution, as species become harder to extract and/or are protected.

6.3 The result is seen, not only in the amount and variety of species available in the marketplace, but also in the growing need for these industrialising nations, which whilst continuing to supply the demands of OECD countries, now also seek to feed their own national needs.

Consequently there is a need for ever-more value-added employment for their own progressively educated and trained workforce as a part of their own industrialisation – and this employment provides for the increasing sophistication of their own growing consuming society.

6.4 Buyers and markets are reacting to this national change by source globalisation. In many cases, the use of plantation timbers and sustainability are crucial to their purchasing decisions.

They offer strategies that seek locations where costs are lowest, where sourcing is most efficient, labour most productive and skills that are available or trainable. Understand these strategies and Sarawak can benefit.

6.5 How these 'needs' are brought about depends greatly on the effect of the Asian crisis and its ripples affecting OECD countries.

If a world recession occurs much of the change will be held back, as nations retrench for some years. This is exactly the time to reposition wood products.

6.6 Much of the forecast decrease in primary processed exports from Sarawak is a direct result of the Government of Sarawak undertaking to meet the ITTO 2000 requirements for sustainability for its forest extraction, thus cutting the availability of supplies. It is also an awareness of the consumerist forces that are progressively controlling the market for wood and wood products.

Sarawak is intent on replacing 'volume of material' shipments by an increased value of the items exported. This is good, financially and for the management of the indigenous forest property.

- 6.7 The impact of this change is seen currently in the increase in diversity in shipment (and export) of wood and wood products from Sarawak. Log and sawn wood volumes have decreased whilst value-added items, such as processed board products, mouldings and finger-jointing, are taking a higher value of the export business. Plywood still takes a proportionally large percentage and needs to be marketed to achieve higher value exports, whilst furniture products exports hardly figure yet.

This trend towards secondary processed wood products being shipped is seen in the growth and importance of these items from other countries in S.E. Asia and Africa that are further down the road to value-added product.

- 6.7 A dynamic response by the exporter/producer to this buyer global source strategy is the need to gain stronger market access for countries with valuable wood product exports, such as Sarawak.

It is not to remain passive and rely on buyer interest to take the productive capacity on offer. A pro-active product sector niche is demanded.

- 6.8 This proactive trading should be achieved as a part of the consumerist and marketing process that should be designed to match buyer needs. It is a counter strategy that offers some measure of independence for the exporting country. It depends on positive transport systems and a clear knowledge of the target customers.

It must be aggressive, competitive and yet refined in its implementation, offering clear benefits for buyers and their customers.

- 6.9 Underlining this strategic challenge is the market change in the product mix and the demand for those items as they are offered in processed items, such as Secondary processed Wood Products (SPWP).

This logical change over the last 5 years in the trading (marketing) of tropical wood items is providing an opportunity for developing countries as they tend to have the greatest volume of tropical timber resource. The competition is from softwood and temperate hardwood producers who are attempting to carry out the same exercise. Each timber resource has its adherents.

- 6.10 The current major markets for absorbing the growth in secondary processed wood products are found within developed nations – essentially the three major trading blocks of North America, the European Union and Japan. This strong growth for such products to over US\$27 billion in 1996 is followed by recent demands coming from newly industrialised nations. The smallest sector, but a growth market

within a decade, is found in the developing countries, as might be expected due to lack of a current strong consumerist society.

So far the growth pattern in most of the six different product sectors is similar within the first group of countries. It should be repeated in the DMEC growth.

6.11 As this market expands into the newly industrialised nations, the growth pattern may show some differences but the time frame in implementation will be shorter for each one, as it develops.

This time frame is likely to be effective by 2004 and completed with strong markets by 2008 in all most of the now designated DMEC countries. This is the recommended implementation span for Sarawak to meet its commitments.

6.12 A crucial point to consider is any increase in tropical hardwood prices onto the costs and prices asked for secondary processed wood products is likely to be resisted by importers and exploited by competitors.

Higher tropical timber prices will stimulate the development of substitutes such as MDF, unless the physical and technical advantages of tropical wood are promoted. Sarawak needs to be in greater control of its destiny, rather than in the control of timber converters in other countries, as it is now with almost 90% of its wood exports.

6.13 Promotion is a difficult task with the environmental situation seeking to reduce the global tropical forest cut.

Hence the logical move is to use tropical timber against a precise specification of secondary processed wood products as a market response.

6.14 Competitive producers to S E Asia (and thus Sarawak) are likely to arise from Africa and Latin America. Currently these countries are used as sources of logs and sawn wood.

Their own industries will move into value-added secondary processed wood products in due course. Sarawak needs to be ahead of this move.

6.15 The most important value-added item produced from tropical hardwood is finished furniture. This accounted for over 67% of the secondary wood products imported by OECD countries in 1996. It has a multiplier of at least 10 x representing the value-added from that of a log. Builder/joinery products have multipliers of value-added at 7 to 8 times and board products between 3 and 5 times that of the log.

It is to these sectors that the most added value can be gained in exports.

6.16 The major stumbling block for secondary processed wood products from Sarawak is the nature of the timber available. It is suitable for sawn log and plywood, mainly as construction, builder/joinery, backing

and supportive uses, plus mouldings and some decorative, but is not suitable for mainstream furniture.

There is a colour and aesthetic problem that needs to be overcome, especially in the meranti (*Shorea*) species. Ramin, highly suitable for furniture and decorative is in restricted supply.

6.17 Few, if any, plantation timbers are available or being considered.

Rubberwood (*Hevea brasiliensis*) is an example of a superb plantation timber that has seen its acceptance on world markets for furniture making, board products and some plywood. It is suitable for rapid growth tropical plantations.

6.18 An assessment should be made of the availability and volumes of lesser used/known species for value-added manufacture.

The criteria is lighter coloured woods or medium figured woods that can take various stains and lacquers, suitable for either processed furniture manufacture. Some species need also to take carvings. Cut-size is not critical as finger-jointing and reprocessing techniques allow the preparation of suitable board and cutting lengths. *Alstonia* and *Agathis* species are some possible examples.

6.19 It should be realised that the export of log and sawn timber is helping the manufacturing industry of Thailand, Taiwan, Singapore (as a transshipment point), Korea and Japan. It is detrimental to the future of industrialisation of selected wood product manufacture in Sarawak

It is these other countries that are value adding and gaining the benefits of the multiplier factor for their own manufacture into exportable consumer products to OECD importing countries.

6.20 In terms of valuable markets to enter – furniture, builder/joinery and decorative - hold strong possibilities.

In particular: wood flooring systems, doors and windows plus made-to-measure systems, architectural joinery, outdoor furniture – leading to indoor styles, either as mass market manufacturing, or a mix with designer targets.

6.21 A realistic in-depth study that compares the timbers available with the consumer requirements of market sectors would be required to set up a raft of choices and directions for consideration.

The availability of a market for secondary processed wood products is assured. The matching of the manufacturing potential for Sarawak and its tropical timbers now needs to be researched, assessed and promulgated.

## Recommendation

This Market study of Finished Wood Products indicated the extent, importance and distribution of secondary processed wood product exports and imports to OECD countries. It looked at the potential of reaching such markets and the situation in those markets.

The documented report should not be looked upon as the final stage in the overall sequence of events begun in 1990 for the ITTO supported programme of Strategies for Sustainable Wood Industries in Sarawak.

It should and must be looked upon as the direction for action and activity in meeting the changing needs of the consumer to the changing needs of the Sarawak economy and sustainability for the forestry industry in wood products. As such the following is recommended for the next stage.

- 1 **That a market business study is instituted** that assesses the real potential for (designated) wood products from Sarawak in terms of the substitution of current export levels with progressively value added exports as the expertise is provided. A timetable will be prepared.

The study would evaluate the costs of achieving this substitution and its effects on the existing infrastructure of timber exports, as investment is put in place to meet the changing markets for secondary processed wood products.

- 2 **That a second independent market business study**, working in parallel and conferring with the first one, sets out the marketing arrangements, training, systems and infrastructure necessary to set up a progressive export substitution programme that is able to be proactive to buyer demand. The timetables will coincide.

The target would be the industrialisation of sectors of the (designated) wood product industry in Sarawak to meet export earning targets in keeping with sustainability of forest materials, the workforce, national and imported investment levels alongside the social environment of Sarawak, its peoples and needs.

- 3 **That a third concurrent study and implementation programme** be quickly instituted that investigates and then implements a rapid and purposeful timber plantation programme. This will meet the timetable of timber supply indicated by the two studies.

The timber plantations will take into account the nature of the most suitable timber for the eventual consistent and repetitive supplies for the furniture and decorative industries, amongst others so designated.

These three proposed studies need to be activated immediately and be a part of the existing ITTO programme, or a new one designated to meet downstream business and market activity. ITTO would benefit from this new direction and to help it move away from a concentration on primary industry.

### 3 The market potential -

- historical

The products expressed as secondary processed wood products are value-added by definition. Accordingly they are somewhat down the manufacturing chain, depending on the actual item – be they components, assemblies or finished furniture. These products are dependent on swifter and more precise distribution systems and that are closer to the actual consumer and user demands than are primary wood products.

Their demand curve in a country and region is largely dependent on a basic set of economic factors, such as rate of economic growth, level of personal disposable income, rate of unemployment, interest rates, changes in population structure, household formation and level of housing construction.

Questions to ask of a target country and its marketplace are progressive -

- has such a consuming society developed in depth?
- is this society acquisitive over time, for the purchase of goods for leisure and labour saving devices?
- is the required growth (building, renovation and enlarged space) in housing being made to accommodate these purchases?
- are these consumers in a position to spend freely?
- are they saving for the future, or are they being squeezed by taxes and prices into spending less, according to the economic cycle of the country?

These aspects are found more strongly in nations that trade freely and operate progressively in a consumer marketplace. They generally work in improving the living standards of the people and involve a fair degree of governmental and commercial activity to encourage this. Trade cycles of growth and recession tend also to be a function of this type of society.

Hence a sound awareness of the business trade cycles and their situation at a given point of time within a country or region is of importance in understanding secondary processed wood product markets and their growth or decline.

Trade cycles are a factor in the health of OECD countries. Governments often attempt to lessen their impact and frequently cause deeper, perhaps longer recessions or stronger booms than are necessary to sustain a longer term and more stable economic benefit. Cycles are operative regionally for a group of countries and often function in series across a region with some degree of synergy. If a number of trade cycles come together, a slump or recession of varying magnitude can take hold in a region that will take longer to erase, as local relief in the form of trade opportunities is further away.

Such a case would seem to be developing in Asia now as recession bites hard and developing consumerism reins back. In a period of strong market growth and prosperity local boom conditions may cause price pressures as consumers chase goods and the workforce is unable to meet demand.

For instance the United Kingdom (and Netherlands) is more in phase with the USA trade cycle. Over the last decade they have mirrored the USA cycle by 6 months, but both differs by some 18/20 months with those of France and Germany. In the last decade the USA and the UK have had sharp recessions – mainly in the period 1989-1992 with a resurgence to 1993 and then levelling off in 1995, before a stronger 1996-97. Germany and France had the opposite and are only now, in mid 1998, are they coming out of their latest heavy and prolonged recession.

During 1998 economic growth the UK is likely to slow-down, with perhaps a recessionary period to 2000, whilst most of the European trade will benefit from stronger growth. Germany, France and to some extent Italy will provide the powerhouse of this annual growth to over 3.5% for 1998/99. It is the effect of the Asian crisis and its ramifications on Russia that may see weaker growth and some downswing before 2000.

The USA (and Canada) seems to be enjoying a prolonged period of sustainable growth and this is suggested to continue with some slowing down of the demand curve. The 1999-2000 period is seen as a world slowdown as America enters a period of slower growth with no strong counterbalance, even from the EU countries as they move into the monetary union phase of the single european market.

Countries such as Japan, now the second largest economy in the world, had trade cycles which whilst showing a continuous period of growth, albeit with some period of weaker growth – were progressive, until now and the officially recognised strong recession of 1998. Not before 2000 and beyond will any growth return to this economy, as it tries to export its way out of recession and yet boost the internal market with confidence at the consumer level.

Newly industrialised countries, mainly in Asia, have hardly shown cyclical effects over the last 10 years, with their 8% and more annual growth. They now have hit a recession, perhaps depression, with the fall in their currency values against the major currencies and consumer confidence has collapsed.

It is not the brief to look further into this subject of trade cycles, only to indicate the pressures on the market for these products. Care should be taken to understand the nature and importance of trade cycles as a factor on the growth of products and their reasons for success or decline.

Country	GDP growth %	Inflation %	Industrial Output %	Current Account (\$bn)	Unemployment Rate %
Euroland*	2.9	1.5	6.3	119.9	11.5
America	3.5	1.7	3.7	-115.2	4.5
Japan	-3.7	0.4	-7.6	65.2	4.3
UK	2.5	2.8	2.6		4.7

Source: Eurostat economic statistics. 1997/8.

\* presenting all 11 'euro-monetary union' countries as a single economic entity.



Another aspect of importance is the rise of Asian economies. This has diluted the European Union member states' own share of global merchandise trade.

The EU share of world imports has fallen from 22.2% to 18.9% between 1985 and 1995 and for exports from 22.7% to 19.4%. America and Japan have seen their shares fall with south-east and east Asian taking up the difference as their share doubled to 23% in the 10 years to 1995. Asian influence on European trade is 20.7% compared to 31.8% for America and 21.6% for Japan in 1995. Thus the effect of the current Asian crisis and the likely pricing policies of the next 18 months will be crucial for these OECD countries as the Asian economies seek to export themselves out of the crisis.

Whilst these trade cycles and macro-economics are all important for the broader economic picture, there is a further relationship between these basic factors. That is often manifested in the rise and fall of housing construction. Essentially this single factor is the visible investment in the livelihood of people and has links with the strength of a consumer society in any country economy.

The secondary processed wood products in this study are used mainly in, or are a direct result of, new housing (as builder's woodwork, flooring and furniture), or in households (as DIY, replacement/renovation work and furniture purchases) and mostly their demand is influenced by the amount of housing construction activity. This activity is seen in the health of a country and its need to meet the changes in consumer demand.

Hence a closer view of this housing statistic is useful in indicating current and future changes in the secondary processed wood products market.

A good source for this background and some forecasting is the Forest Products Annual Market Review from the United Nations in Geneva. (ECE/TIM/BULL/50/3 1996-7) is the latest. It is published annually in September. Page 16 details residential construction, building modernisation and renovation output for OECD countries and discusses detail for a few.

The importance of type of secondary processed wood product also reflects when it is likely to be in greatest demand.

- For instance a strong supply of building products will be needed sooner and for longer covering the growth and mature part of the trade cycle of a country.
- Flooring is being used for new construction and renovation and is currently a boom product, after many years of poor returns.
- Furniture has a regular consumer market, but this can vary in the short-term by as much as 20% either way, depending on the size of the local retail industry, product quality, pricing policy and sourcing. The furniture business is a mature market in many OECD countries, with restrained longer term growth, whereas flooring and DIY materials are often found as stronger growth sectors.

For instance in Western Europe the overall construction sector output fell by 0.7% in 1996, caused mainly by significant drops in France (minus 3.7%) and Germany (minus 2.7%) – the third year of a prolonged recession for this sector. These countries represent 43% of the West European total. This drop continued in 1997 but has shown some indications of growth to 0.5% in early 1998, possibly leading to over 1% increase for the full year 1998. The growth part of the trade cycle.

The three areas of construction demand - housing, commercial and public property – are displaying positive growth in 1998. This pattern has not been seen since the late 1980s when they began to show different trends. However the rebound is geographically split, with 2.3% growth in southern Europe (Spain, Italy and Portugal representing one third of the orders) and contrasting with slow movement in the north.

The German bloc (including Austria and Switzerland) accounts for one third of European orders so the 1% growth in Austria was overshadowed by the larger German volume decline of 1997. Construction growth in Germany was during the period 1992-1994, mainly held up by investment in the former Eastern sector, before the recession hit and orders in the former West Germany declined by 25% and recently in the East by 50%. Some stabilisation is now seen for the German bloc during 1998, a steady increase for the southern countries, but in France is expected to move from a decline of 1% in 1997 to a growth of 1% in 1998.

Looking at new residential housing construction movements, these fluctuate more than has those of construction as a whole. In 1996, new residential construction fell by 1.5%, with steep declines in small and large countries (Finland down 9%, France 6.1%, Italy 3.3%, Switzerland 8.5% and UK 3.3%). With Germany falling by 1.5% for 1996 caused significant falls in activity in major wood products. It seems that the resurgence hoped for in 1997 will be delayed a year, leading to stronger wood product sectors then.

Other influences exerted in this secondary processed wood products sector stems from consumer confidence in spending for the home. This is always a low priority for wood products such as furniture and floor-coverings.

**Furniture** is a major component of the spwp market (67.1% in 1996) with 27.8% coming from DMEC countries). Historically furniture is purchased in times of easier consumer spending patterns when other more supposedly important durables (such as electrical items, computers, cars and leisure effects) for the home have been obtained. Thus major furniture buying trade cycles come some 6 – 12 months after a general trading upturn in a country and some 6-9 months before a downturn. Imports target this 'window'.

This is the case now for the UK with strong furniture sales for 1997 and into 1998, before a sharp decline later this year. Purchasing patterns in Germany and France are seeing some signs of their furniture growth recovering as their country economy increases. The production in western Europe of furniture has reached a plateau with some \$59 billion, but \$11 billion of this is traded

within the European Union. Imports to the EU are \$4 billion. Since the last growth peak in 1992/3, a 15% increase for production has been gained.

The USA has seen strong furniture growth, especially from imports for the last 2.5 years to reach over \$7 billion and the forecast of the home production in US factories is put at a 12% increase for 1998 to reach \$23.9 billion.

In both Europe and the USA furniture consumption is increasing, mainly from the design and refurbishing impetus backed by released consumer spending.

To conclude these views on the trade cycles and the dominant aspects of selected product groups it is important to appreciate the continuous growth patterns that are found for most of the secondary processed wood products under review. Whether it is indigenous growth within a country, or the flow of imports, the annual consumption of these items has and is increasing. This is not so for the movements (imports) of raw materials they are manufactured from. Consequently opportunities exist for the transfer of manufacturing and the development of trading relationships that are beneficial to Developing market economies and China. Whilst the majority of these exports will be to OECD countries, there is also a growing set of opportunities for markets within DMEC countries as is seen from the recent and growing strong consumer spending patterns seen in S E Asian economies and China.

Within OECD countries in the northern hemisphere much of the trade currently is seen in temperate hardwood and softwood spwp items, with tropical items to suit the consumer circumstances and design demands, as is the trade within North America. Manufactured materials of reconstituted wood products are making strong headway into the solid wood markets for these competitive spwp items. That move allows a wider world manufacturing and technical resource to develop, with transportation, delivery schedules and quality standards to become powerful influences against which positive price points can be positioned.

- The Markets

OECD countries. (Organization for Economic Co-operation and Development)

Expressed in current dollars, imports of secondary processed wood products indicated a growth of 20% between 1992 and 1996, from \$23.1 billion to reach \$27.9 billion. In real terms and using a median annual rate of inflation of 2.6% in OECD countries during this period then growth was more moderate, at about 8%. This is slightly more than the overall growth found in total OECD countries in this period. It indicates a positive market penetration for secondary processed wood products rather than a surging market opportunity. However with the largest two major importer countries, such as the USA and Germany accounting for 23.4% and 19.0% respectively, the position in trade cycle will provide boom conditions for a stronger market in one country and a weak market in the other. Both conditions affect the overall world trade in these products.

There are 3 major importing blocs, as might be expected, accounting for a total of 86.4% in 1988, 88.5% in 1992 and 88.7% in the final four year period:

Table 1a: OECD: Imports of secondary processed wood products  
by major bloc. (in millions of US dollars)  
– total imports – 1988 to 1996)

	1988	%	1992	%	1996	%
The European Union (15 countries) index (1988=100)	9,268.00	58.2	15,298.37 165	66.1	15,444.46 166	55.4
The United States index (1988=100)	3,632.00	22.8	3,930.22 108	17.0	6,508.71 179	23.4
Japan index (1988=100)	858.00	5.4	1,247.45 145	5.4	2,749.69 320	9.9
Rest of OECD index (1988=100)	2,165.00	13.6	2,666.23 123	11.5	3,167.50 146	11.4
(of which Switzerland)	1,059.00	6.6	1,213.82	5.2	1,430.66	5.1)
Total Index 1988=100	15,923.00	100.0	23,142.27 145	100.0	27,870.36 175	100.0

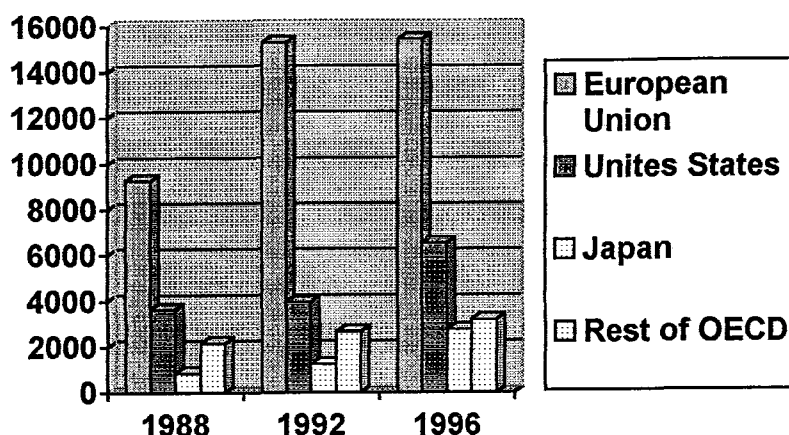
Source: Analysis of ITC/UNSO Comtrade Database

This table expresses the change in the markets. It indicates clearly the effect of the early 1990s recession of the USA (and the strength of at least 2 EU countries between 1988-92). In the latest 4 year period to end 1996 the strong growth of the USA has rolled forward inexorably. This is manifest in the 65.6% increase in imports for the United States over 1992 as it sucks in secondary processed wood products to meet its rebounding economy, indicating an actual 55% market growth in real terms.

The fifteen European Union (EU) nations recorded a strong surge in imports during the early 1990s, but fell back dramatically in 1996 to record only a visible 1% increase and a decline in market share by nearly 9% in value when

using average deflated prices. Their share fell from a high of 66.1% (1992) to 55.4% in the five years including 1996. With the emergence from recession of Germany and France it is expected that these European countries, representing 27% of EU imports in 1996, will regain some of their share by the year 2000. In the process the overall market will be enlarged as the USA maintains its volumes albeit with falls seen for Japan as the recession bites.

### OECD: Imports of secondary wood products - by major bloc. (\$m)



Japan has recorded a strong and consistent growth with a tripling of the imports over the 8 year period with an increased surge in the last four years to take nearly 10% of the market. It is expected that this will fall back somewhat by the year 2000 before recovering as that market moves into growth again.

The rest of OECD countries recorded a useful 20% and 18.8% increase over each four year period, indicating an overall 12% growth at deflated prices. However this reflected a falling market share in the 8 years to what may now be a plateau of about eleven percent of spwp imports.

#### European Union (EU) countries

Seven key countries dominate the EU region (of 15 countries) with a total of 83.4% of EU spwp imports and almost 50% of OECD imports. Germany, the strongest importer (and largest of the EU countries in population and GNP at 27.4% of total EU) increased its market share to 22.45 before falling back to 19% during the 1990s recession. Germany, at twice the value of the next country, whilst indicating a monetary increase of 2%, actually recorded a 6% decrease in value, when using the deflated price indicator. France also lost share and value over the whole period, whilst the UK with a monetary increase of 7%, only marginally lost share. Austria, a small importer actually grew both in share and in real terms to 4.6% of spwp imports.

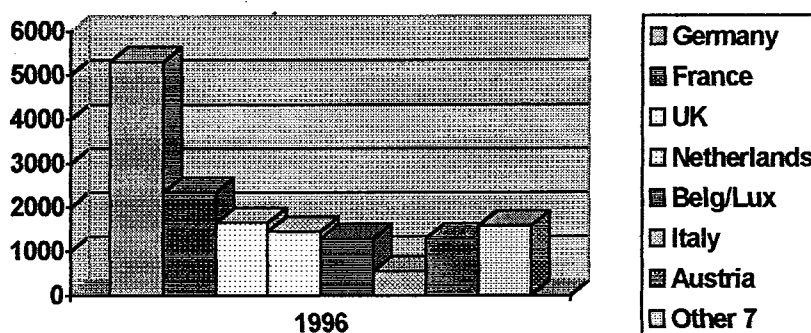
Table 1b: OECD: Imports of secondary processed wood products  
by key European Countries. (in millions of US dollars)  
– total imports – 1988 – 1992 – 1996)

## Major EU countries:

	1988	%	1992	%	1996	%
The European Union (15 countries) index (1988=100)	9,268.00	58.2	15,298.37 165	66.1	15,444.46 166	55.4
of which:						
Germany	2,256.39	14.2	5,179.00	22.4	5,304.39	19.0
France	1,985.12	12.5	2,335.80	10.1	2,330.92	8.4
United Kingdom	1,417.00	8.9	1,553.74	6.7	1,655.70	5.9
Netherlands	1,046.34	6.6	1,612.18	6.9	1,452.58	5.2
Belgium/Lux	761.60	4.8	1,347.54	5.8	1,278.86	4.6
Italy	279.19	1.8	622.09	2.7	543.87	2.0
Austria	564.77	3.5	945.06	4.1	1,286.55	4.6
S/total (83.4%)	8,308.00	52.2	13,595.41	58.7	13,852.87	49.7
Other 7 countries	960.00	6.0	1,702.96	7.4	1,581.59	5.7

Source: Analysis of ITC/UNSO Comtrade Database

EU: 7 Key countries - 1996 (\$m)



In studying the overall secondary processed wood products markets for this definitive 8 years it is important to extract the share accounted for by Developing market economies and China (DMEC) countries. This has risen from 22% in 1988 to 23.2% in 1992 and to 29.7% for 1996 – a penetration of 35%, with the major effort coming in the last 4 years.

There is a clear improvement of market share accounted for by imports from DMEC countries over the eight years to reach nearly 30% of the spwp market. This growth has been at the expense of non-DMEC imports in the last 4 years, especially to the EU countries and USA.

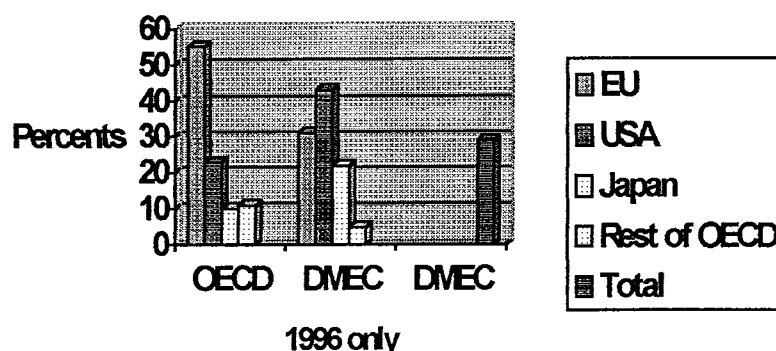
Table 1c: OECD: Imports of secondary processed wood products by major bloc. (in millions of US dollars) – total imports).  
Sourced comparison - OECD & DMEC.

	1996	%	1996	%
	OECD		DMEC	
The European Union (15 countries) percent of EU imports	15,444.46 100.0	55.4	2,533.00 16.4	30.6
The United States percent of USA imports	6,508.71 100.0	23.4	3,530.88 54.3	42.7
Japan percent of Japan imports	2,749.69 100.0	9.9	1,787.80 6.5	21.6
Rest of OECD percent of Rest imports (of which Switzerland_	3,167.50 100.0 1,430.66	11.4 5.1	414.70 13.1 27.38	5.0 0.3)
Total OECD imports	27,870.36	100.0		
Total DMEC imports percent of OECD imports			8,266.38 29.7	100.0
Total Non-DMEC imports	19,604.00	70.3		

Source: Analysis of ITC/UNSO Comtrade Database

The chart expresses the share of DMEC against OECD secondary processed wood product imports for the 3 major blocs and the 29.7% overall share.

### OECD: Relationship of DMEC imports to all OECD imports (percents)



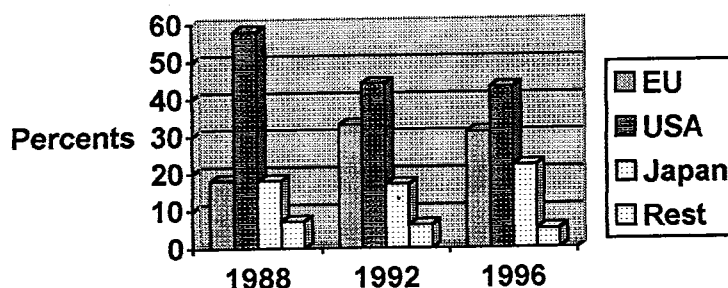
How the Developing market economies and China (DMEC) imports are distributed among the key OECD nations is shown next.

Table 2a: OECD: Imports of secondary processed wood products  
by major bloc. (in millions of US dollars) – total imports).  
Sourced from DMEC (Developing Market Economies and China).

	1988	%	1992	%	1996	%
The European Union (15 countries) index (1988=100)	642.01	18.3	1,800.09 280	33.5	2,533.00 394	30.6
The United States index (1988=100)	2,017.31	57.6	2,340.37 116	43.6	3,530.88 175	42.7
Japan index (1988=100)	640.24	18.3	911.22 142	17.0	1,787.80 279	21.6
Rest of OECD index (1988=100) (of which Switzerland_	242.00	6.9	316.36 130	5.9	414.70 171	5.0
	11.58	3.3	27.12	0.5	27.38	0.3)
Total DMEC imports index (1988=100)	3,503.75	100.0	5,368.04 153	100.0	8,266.38 236	100.0
DMEC as percent of All imports:		22.0		23.2		29.7
Total All imports Index 1988=100	15,923.00	100.0	23,142.27 145	100.0	27,870.36 175	100.0
Non-DMEC imports Index 1988=100	12,420.00	78.0	17,774.00 143	76.8	19,604.00 158	70.3
DMEC as percent of All imports:		22.0		23.2		29.7

Source: Analysis of ITC/UNSO Comtrade Database

OECD: Imports of spwp by major bloc -  
sourced from DMEC (percents)





As with the overall statistics covered in the first two tables, it is useful to provide details on key European Union countries over this 8 year span.

Almost all of the key European countries except Germany show a more positive picture for spwp product from DMEC sources over the eight years. Much of this picture is represented by substitute sales for DMEC product against the strong decline seen in non-DMEC imports for this period. DMEC imports to the 15 countries regained and increased its share to 16.4% in 1996 against a lower 11.8% in 1992, itself a decline from the higher 14.4% in 1988.

Germany is the strongest market, even in recession, with nearly 9% of DMEC imports (and 29% of European bloc DMEC imports). The \$733 million accounts for nearly 14% of all German spwp imports, up from 5% eight years ago. The UK, the next most important at 6.0% (and 22% of European bloc), has DMEC imports accounting for 30.5% of its spwp imports, a doubling over eight years, whilst France accounted for \$353 million of DMEC imports at 14%, increasing its imports by 50% to reach 9% of its total spwp imports.

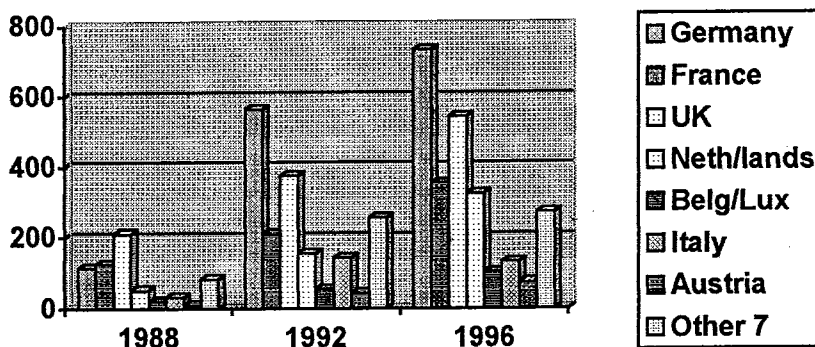
**Table 2b: OECD: Imports of secondary processed wood products  
by key European Countries.**  
(in millions of US dollars) – total imports).  
**Sourced from DMEC (Developing Market Economies and China).**

	1988	%	1992	%	1996	%
DMEC c/ Index 1988=100	3,503.75	22.0	5,368.04 153	23.2	8,266.38 236	29.7
Of which:		100.0		100.0		100.0
The European Union (15 countries) index (1988=100)	642.01	18.3	1,800.09 280	33.5	2,533.00 394	30.6
of which:						
Germany	112.76	3.2	564.42	10.5	733.65	8.9
France	123.64	3.5	210.90	3.9	353.96	4.3
United Kingdom	210.27	6.0	375.77	7.0	543.47	6.7
Netherlands	51.52	1.5	155.84	2.9	324.41	3.9
Belgium/Lux	20.84	0.6	52.69	1.0	101.34	1.2
Italy	32.13	0.9	142.01	2.6	131.44	1.6
Austria	8.71	0.2	43.13	0.8	73.80	0.9
S/total (83.4%)	559.87	16.0	1,544.63	27.9	2,261.27	26.5
Other 7 countries	82.14	2.3	255.46	5.6	271.73	4.1
All imports:						
The European Union (15 countries) index (1988=100)	9,268.00	58.2	15,298.37 165	66.1	15,444.46 166	55.4

Source: Analysis of ITC/UNSO Comtrade Database

The 41% increase in the 4 years to 1996 in DMEC imports to the EU, came at a time when the actual overall European spwp import market was static and

### EU imports from DMEC countries (\$m)



actually declined in real value terms. Much of these imports were substitution as the buyers sought competitive prices, plus a change of attitude to spwp products, with supply coming from less expensive sources outside the EU.

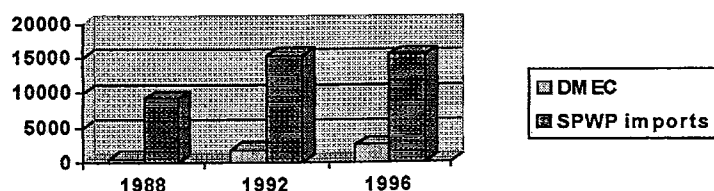
The actual penetration of imports from DMEC countries into the overall imports of secondary processed wood products indicates the importance of the recipient economy and its situation in the trade cycle at that time.

This analysis has been prepared for each of the three major blocs. Japan accounts for the highest penetration at 65% with 21.6% of DMEC imports. The United States seems to be fluctuating in its share at the mid-fifty percent level as its overall imports increase strongly by 65% in the last 4 years. The EU countries are much lower at 16%, but this has shown a growing share as the EU level of imports from non-DMEC countries fall by 5% in value and 10% in real terms over the 1992-96 period. The points are highlighted next.

Table 3a: OECD: Imports of secondary processed wood products by major bloc. (in millions of US dollars) – total compared to DMEC imports – 1988 to 1996)

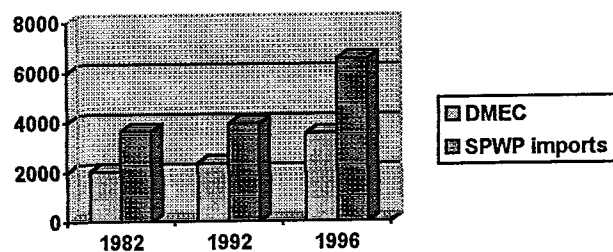
	1988	%	1992	%	1996	%
3.1 European Union (15 countries)						
All imports (15 countries)	9,268.00	58.2	15,298.37	66.1	15,444.46	55.4
index (1988=100)			165		166	
DMEC imports (15 countries)	642.01	18.3	1,800.09	33.5	2,533.00	30.6
index (1988=100)			280		394	
DMEC proportion		6.9		11.8		16.4

### EU: SPWP imports of DMEC (\$m)



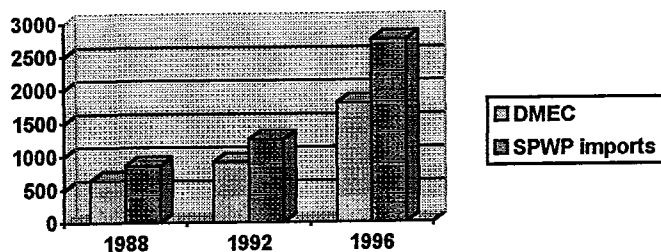
3.2 The United States	1988	%	1992	%	1996	%
All imports index (1988=100)	3,632.00	22.8	3,930.22 108	17.0	6,508.71 179	23.4
DMEC imports index (1988=100)	2,017.31	57.6	2,340.37 116	43.6	3,530.88 175	42.7
DMEC proportion		55.5		59.5		54.2

USA: SPWP imports cf DMEC (\$m)



3.3 Japan	1988	%	1992	%	1996	%
All imports index (1988=100)	858.00	5.4	1,247.45 145	5.4	2,749.69 320	9.9
DMEC imports index (1988=100)	640.24	18.3	911.22 142	17.0	1,787.80 279	21.6
DMEC proportion		74.6		73.1		65.0

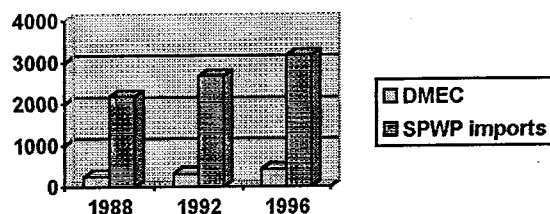
Japan: SPWP imports cf DMEC (\$m)



## 3.4 Rest of OECD

	1988	%	1992	%	1996	%
All imports	2,165.00	13.6	2,666.23	11.5	3,167.50	11.4
index (1988=100)			123		146	
(of which Switzerland_	1,059.00	6.6	1,213.82	5.2	1,430.66	5.1)
DMEC imports	242.00	6.9	316.36	5.9	414.70	5.0
index (1988=100)			130		171	
(of which Switzerland_	11.58	3.3	27.12	0.5	27.38	0.3)
<b>DMEC proportion</b>		<b>11.1</b>		<b>11.8</b>		<b>13.1</b>
(of which Switzerland		0.1		0.2		0.2

## Rest of OECD: SPWP imports cf DMEC (\$m)

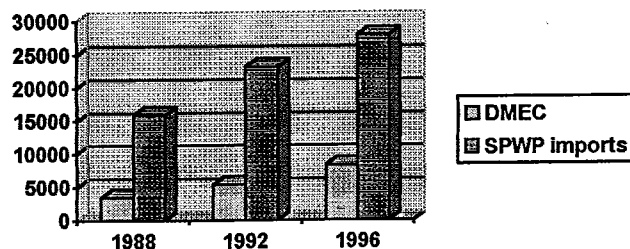


## 3.5 Total secondary processed wood products

	1988	%	1992	%	1996	%
All imports	15,923.00	100.0	23,142.27	100.0	27,870.36	100.0
Index 1988=100			145		175	
DMEC imports	3,503.75		5,368.04		8,266.38	
index (1988=100)			153		236	
<b>DMEC as percent of All imports:</b>		<b>22.0</b>		<b>23.2</b>		<b>29.7</b>
Non-DMEC imports	12,420.00		17,774.00		19,604.00	
Index 1988=100			143		158	
Non- DMEC						
percent of All imports:		78.0		76.8		70.3

Source: Analysis of ITC/UNSO Comtrade Database

## OECD: SPWP imports cf DMEC (\$m)



## Real Values

The statistics are all supplied in current dollar terms and they are affected by inflationary inputs. Using an average deflator of 2.5% per year then the overall market is seen to grow by 40%, with the DMEC imports by 90%, mainly in the last 4 years.

Table 4: OECD: Imports of secondary processed wood products by major bloc. (in millions of US dollars – total imports).

(Average Deflated prices. 1992 = 113.2 and 1996 = 124.8)

	1988	%	1992	%	1996	%
Total All imports Index 1988=100	15,923.00	100.0	20,443.46 128	100.0	22,331.73 140	100.0
Total DMEC imports index (1988=100)	3,503.75	100.0	4,742.20 135	100.0	6,623.39 189	100.0
Non-DMEC imports Index 1988=100	12,420.00	78.0	15,701.40 127	76.8	15,708.33 127	70.3

Source: Analysis of ITC/UNSO Comtrade Database

The overall market increased by 40% in the eight years with 28% in the first 4 years and by a further 9% to 1996. Imports from DMEC countries created the second 4 year period increase as they raced ahead to supply the USA and Japanese markets and to some extent the European countries in these last 4 years as the overall market grew 9% in constant terms.

Non-DMEC imports grew by 27% with growth in the years 1988-92 with the last 4 years to 1996 showing virtually no growth in real terms.

The indices of supply from DMEC sources increased by three times as much as the overall market during the period 1992-96 at 135 against 109, but it is only in selected countries has the penetration of DMEC supplied products really kept up with the market change.

For instance in the USA its DMEC share of spwp imports has fallen back to its 1988 level of the 54/55% from a high of 59.5% in 1992. In Japan this is also true falling to 65% from 73/74% in the previous 4 and 8 year points. This fall is disheartening as these two markets showed the highest growth of 66% and 120% respectively over these 5 years to reach one third of the total 1996 market as European imports declined. Clearly more emphasis on the correct products and the markets to enter is a major promotional and sales activity needing support.

SPWP items from DMEC countries is not the only source of competitive products as the growth from Eastern Europe shows.

## Changing sources

An awareness of changing sources, the siting of factories and the movement of buyers to seek more economic product is often the result of buyers chasing cheaper production bases to maintain low prices at the point of sale to the consumer. The cost of raw materials, enhanced at developing country labour costs and backed by efficient low cost labour for conversion to secondary products is a feature of developing countries seeking to industrialise.

This next table indicates how imports are sourced from the 3 regions of Developed countries, Eastern Europe and DMEC (Developing market economies and China).

Eastern Europe sees its share of the secondary processed wood products imports has moved from 5.9% in 1988 to 9.5% in 1996 – a doubling of trade.

Table 5a: OECD : Imports of secondary processed wood products a/,  
by origin (main economic area), 1988-1992-1996.  
(in millions of US dollars)

	1988	%	1992	%	1996	%
WORLD Index 1988=100	15,923.99	100.0	23,142.27 145	100.0	27,870.36 175	100.0
Developed market economies Index 1988=100	11,461.30	72.0	16,258.55 141	70.3	16,965.38 147	60.9
Eastern Europe b/ Index 1988=100	942.68	5.9	1,515.68 160	6.5	2,638.60 279	9.5
DMEC c/ Index 1988=100	3,503.75	22.0	5,368.04 153	23.2	8,266.38 236	29.7
Of which:						
NIEs d/ Index 1988=100	2,115.50	13.3	1,817.32 86	7.9	1,315.00 62	4.7
Other DMEC Index 1988=100	1,404.18	8.8	3,550.72 252	15.3	6,951.38 495	24.9

Source: Analysis of ITC/UNSO Comtrade Database

Notes:

a/ Products covered are detailed at the end of report.

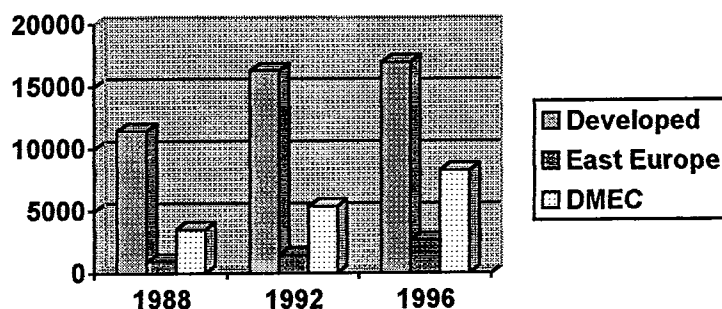
b/ Including the former USSR.

c/ Developing market economies and China.

d/ Newly industrialised economies: Hong Kong, Republic of Korea, Singapore, and Taiwan Province (China)

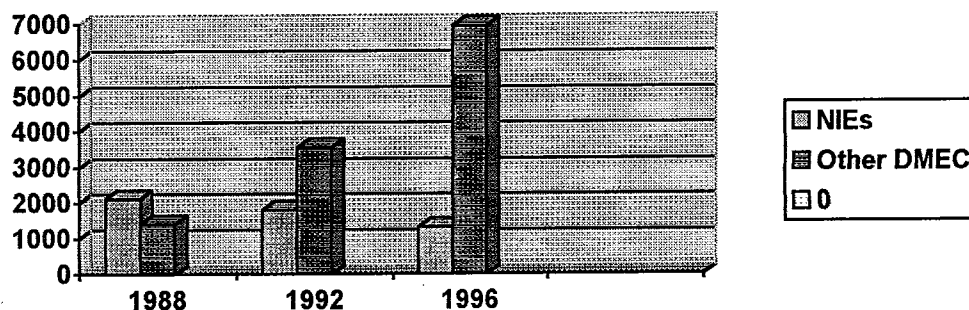
The changing supply of secondary processed wood products has a major impact on the growth of countries. Eight years ago 72% was supplied by developed economies and this has declined to 61% with some increase coming from Eastern Europe, with the prime growth coming from the 'Other DMEC countries' as they replace the manufacturing effort of the NICs.

### SPWP imports by origin (\$m)



The importance of regions and cost effective manufacturing can be assessed as can the already important change from manufacturing in the 'early tigers' of S E Asia and the more recent countries. Here imports from NIES countries declined from 13.3% of totals to 4.7% in 8 years, whereas other DMEC countries increased 4-fold.

### Change in imports sources: NIEs cf other DMEC (\$m)



c/ Developing market economies and China (DMEC).

d/ Newly industrialised economies (NIEs): Hong Kong, Republic of Korea, Singapore, and Taiwan Province (China)

Already one quarter of the world supply comes from these sources, up four-fold in 8 years. With the move out of recession of major European countries this penetration is likely to double again by 2002 to \$14 billion and 40% of the market as the developed economies demand ever-more value-added items for secondary processed wood products.

Two caveats exist. The first is that - 1998 heralds the first major Asian recession for decades and its effect on the world economy for at least the next 2 years is important. Should this be catastrophic, clearly trade barriers and other non-tariff barriers being erected to safeguard 'home' industries, will be hard to deny in the search to ensure a suitable level of employment and trade for any country. Investment will fall and new building programmes will cease, until specific packages for growth are put in place on a regional and international scale. Japan and China are likely to be the key to this issue. One has the need to revitalise their own economy, the other to ensure that a 'planned' devaluation does not impinge too heavily on the rest of S E Asia.

Other Asian economies may have to devalue further in order to keep their own exports competitive if the worst happens. A flood of cheap goods from Asia could undermine profitability and most certainly cause strife in western markets. It is to be hoped that reasonable sense prevails and all sources (governments) are able to handle the possible world slow-down in trade in a suitable manner to ensure a cyclic resurgence occurs within two years.

The second is the use and availability of tropical woods. Most of the 'Other DMEC countries' are tropical in nature and rely or use a majority of tropical timbers for their resource and conversion secondary processed wood products. It is the realisation that these lower cost economies can also produce efficient secondary processed wood products from any source of suitable timber that is crucial to their growth. Tropical timbers are not necessarily the only source.

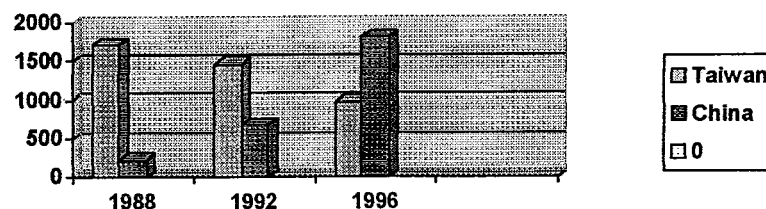
A realistic view is the awareness of consumerism in developing economies. How long will their population take to become 'consumer conscious' and demand a personal means to satisfy the ever growing level of disposable income that is being generated by their own industry?

SPWP exports from selected countries.

A different perspective is given when assessing the exports from selected countries. The table deals with this and is able to relate to regions and countries. The startling aspect is the growth of China, coming from 1.5% in 1988 to 6.5% in 1996 with a shipment of \$1.81 billion. China is now the leading exporter of secondary processed wood products having replaced Taiwan in the last 4 years. Much of this change is caused by the relocation of factory sites to mainland China and investment by Taiwanese furniture manufacturers in 2 special manufacturing regions. Similarly so, with Singapore and its need to place factories 'off-shore' in both Malaysia and Indonesia as well as taking sites within mainland China. Other ASEAN countries have performed well in the pursuit of value-added manufactures - Indonesia (\$1.37 billion), Malaysia (\$872.5 million), Thailand (\$772.8 million) all show impressive gains, with the Philippines providing a strong resource at \$378.3 million. Vietnam is the latest entry into this exporter market.

This latter region has been further analysed by NIEs (Newly industrialised economies) of 4 countries and 'Other' DMEC.

SPWP exports: Taiwan cf China (\$m)





Exports;  
Table 6a: DMEC: exports of secondary processed wood products to  
OECD, by key major exporter. 1988 – 1992 – 1996.  
(in millions of US dollars)

	1988	%	1992	%	1996	%
WORLD movement Index 1988=100	15,923.99	100.0	23,142.27 145	100.0	27,870.36 175	100.0
DMEC c/ Index 1988=100	3,503.75	22.0	5,368.04 153	23.2	8,266.38 236	29.7
Of which: NIEs d/ Index 1988=100	2,115.50	13.3	1,817.32 86	7.9	1,315.00 62	4.7
Of which: Taiwan Province	1,709.64	10.7	1,459.18	6.3	978.70	3.5
Hong Kong	87.04		87.01		123.33	
Singapore	157.32		178.66		108.95	
Korea Rep.	161.42		92.47		104.02	
Other DMEC Index 1988=100	1,404.18	8.8	3,550.72 252	15.3	6,951.38 495	24.9
Of which: China Index 1988=100	232.08	1.5	684.62 292	2.9	1,813.12 781	6.5
Indonesia	130.11	0.8	679.94	2.9	1,373.36	4.9
Malaysia	87.00		347.10	1.5	872.49	3.1
Thailand	274.14	1.7	503.63	2.1	772.84	2.8
Philippines	291.18	1.8	279.95	1.2	378.29	1.4
Vietnam	n/a		9.49		113.39	0.4
S/total Index 1988=100	1,014.51	6.3	2,504.73 247	10.8	5,323.49 527	19.1
Mexico	163.69		270.94		499.11	1.8
Brazil	70.07		168.60		395.23	1.4
Honduras	16.05		20.75		37.14	
Dominican Rep.	n/a		21.04		35.30	
Ecuador	1.15		8.48		20.30	
Costa Rica	8.63		15.95		18.97	
Peru	n/a		1.96		16.49	
Guatemala	4.69		8.10		14.09	
Chile	n/a		32.12		59.50	
S/total Index 1988=100	264.28	1.6	547.94 207	2.3	1,096.13 415	3.9
Slovenia	n/a		157.40		324.59	1.2
Croatia	n/a		47.09		94.38	0.3
S/total Index 1988=100	n/a		204.49 204	0.8	418.97 419	1.5
Others Index 1988=100	125.39		293.56 234		112.79 90	

Source: Analysis of ITC/UNSO Comtrade Database

Notes: a/ Products covered are detailed at the end of report.

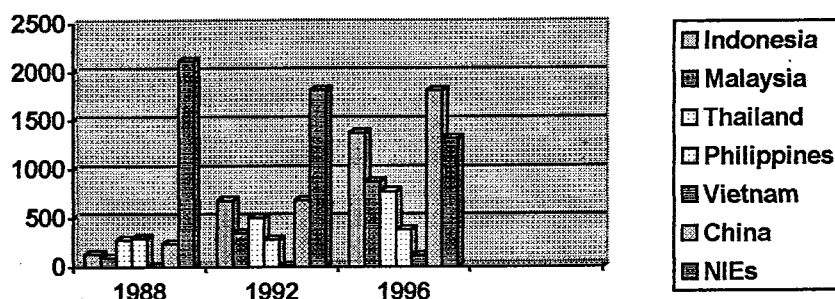
b/ Including the former USSR.

c/ Developing market economies and China.

d/ Newly industrialised economies: Hong Kong, Republic of Korea, Singapore,  
and Taiwan Province (China)

Asia has doubled its trade in value terms, moving from 19.5% in 1988 to 28.4% in 1996 of SPWP exports. The performance has increased strongly in the last 4 years as China has substituted for Taiwan and the ASEAN countries have added their strength to manufacturing.

### SPWP exports: SE Asia (\$m)



A point to consider is the growth of exports from Eastern Europe from only a third the size of Asia to half the size at \$3 billion to Asia's \$6.6 billion.

Table 6b: OECD : Imports of secondary processed wood products a/,  
by region (main economic area), 1988-1992-1996.  
(in millions of US dollars)

	1988	%	1992	%	1996	%
WORLD	15,923.99	100.0	23,142.27	100.0	27,870.36	100.0
Index 1988=100			145		175	
Developed market economies	11,461.30	72.0	16,258.55	70.3	16,965.38	60.9
Index 1988=100			141		147	
Eastern Europe b/	942.68	5.9	1,515.68	6.5	2,638.60	9.5
Index 1988=100			160		279	
Other E. Europe	n/a		204.49	0.8	418.97	1.5
Index 1988=100			204		419	
S/total: E Europe	942.68	5.9	1,720.17	7.4	3,057.57	11.0
Index 1988=100			182		324	
Asia NIEs d/	2,115.50	13.3	1,817.32	7.9	1,315.00	4.7
Index 1988=100			86		62	
Other Asia	1,014.51	6.3	2,504.73	10.8	5,323.49	19.1
Index 1988=100			247		527	
S/total: Asia	3,130.01	19.7	4,322.05	18.7	6,638.49	23.8
Index 1988=100			138		212	
Latin America	264.28	1.6	547.94	2.3	1,096.13	3.9
Index 1988=100			207		415	

Source: Analysis of ITC/UNSO Comtrade Database

Notes:

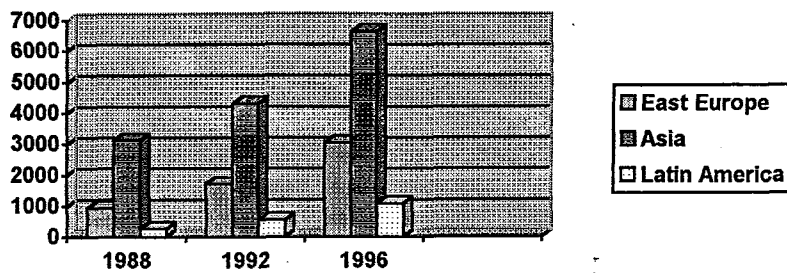
a/ Products covered are detailed at the end of report.

b/ Including the former USSR.

c/ Developing market economies and China.

d/ Newly industrialised economies: Hong Kong, Republic of Korea, Singapore, and Taiwan Province (China)

OECD: SPWP sources - by region (\$m)



The information is able to differentiate between origins for secondary processed wood products.

The next table puts this in perspective for the origins of DMEC product.

The prime source is from developing Asia (80% in 1996), primarily from China and ASEAN countries.

Latin America is growing strongly to 13.3% and over \$1 billion, soon to overtake the NIEs of Asia as Latin America responds to the maquiladora aspect of trading with the US and the North American Free Trade Area.

Exports from Africa have moved forward a little and should see a stronger growth in the next 4 years.

This next table looks at the DMEC origins and the major regions supplying it in relation to other developing regions.

Table 6c: OECD : Imports of secondary processed wood products from DMEC, by origin/region, 1988-1992-1996.  
(in millions of US dollars)

	1988	%	1992	%	1996	%
Total DMEC c/ Index 1988=100	3,503.75	22.0	5,368.04 153	23.2	8,266.38 236	29.7
Of which:		100.0		100.0		100.0
Developing Asia Index 1988=100	3,130.01	89.3	4,322.05 138	80.5	6,638.49 212	80.2
Of which:						
NIEs d/ Index 1988=100	2,115.50	60.4	1,817.32 86	33.8	1,315.00 62	15.9
Other Asia Index 1988=100	1,014.51	28.9	2,504.73 247	46.6	5,323.49 527	64.3
Latin America Index 1988=100	264.28	0.7	547.94 207	10.2	1,096.13 415	13.3
Developing Europe Index 1988=100	n/a		400.69 400	7.5	434.71 434	5.3
Developing Africa	n/a		36.89	0.7	73.57	0.9
Developing Oceania	n/a		2.18	0.0	2.61	0.0

Source: Analysis of ITC/UNSO Comtrade Database

Notes:

c/ Developing market economies and China.

d/ Newly industrialised economies: Hong Kong, Republic of Korea, Singapore, and Taiwan Province (China)

Exports of primary wood from tropical countries have significantly declined over the last decade, whilst production and trade in secondary processed wood products are playing an ever increasing role in the sustaining of the timber industry in these countries. The development sectoral policies for downstream processing, mainly for export is an important aspect of this role, albeit with a need for investment and training of the workforce. The production of secondary processed wood products is not the end of an Export Programme, it is perhaps the beginning. As such it requires a marketing expertise and a product awareness to meet consumer needs.

- The Products

Included in secondary processed wood products are a number of particular categories and items, many of which are developed to meet new and changed uses in building, as well as the regular and obvious products from value-adding of wood. The following section covers a number of these products.

New products, developing markets and changing methods of construction are crucial to the greater expansion of the secondary processed wood product markets and the imports supplying these sectors.

Even with furniture products this is an important issue, that can be related to the use of solid woods and the development of manufactured wood substitutes. How these sectors have progressed over the last 8 years is important for future investment. These are expressed in Table 7. A snapshot of the latest compiled detail is presented which compares directly the percentage of each product imported into OECD countries and that sourced from DMEC. The third column indicates the penetration of products from DMEC countries of each sector. Total DMEC imports reached 29.6% of spwp items.

There are six major categories of secondary processed wood products covered by import statistics. These are detailed in outline below:-

SIC code	Item	OECD (% of 1996 imports)	DMEC	DMEC/OECD %
635.1	Packings, cable drums, box pallets	2.9	0.6	58.7
635.2	Coopers' products and parts	0.6	0.1	11.9
635.3	Builders' joinery and carpentry	15.7	11.3	21.6
635.4	Products for domestic/decorative use	6.2	15.6	74.0
635.9	Other manufactured products	7.5	9.4	37.0
821.	Wooden furniture	67.1	62.3	27.8
(821.13+821.16+821.5+821.79)		100.0	100.0	29.6
Imports in \$ billions		27,870	8,266	

Source: Analysis of ITC/UNSO Comtrade Database

### Product sector imports - 1996 by OECD & DMEC (%)

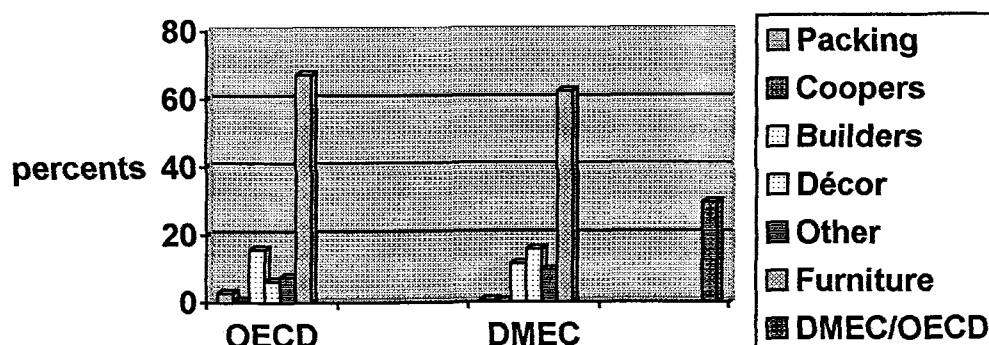


Table 7.1: OECD : Imports of secondary processed wood products  
by product category, 1988-1992-1996. (in millions of US dollars)

	1988	%	1992	%	1996	%
635.1 Packings, cable drums, box pallets index (1988=100)	298.64	1.9	603.22	2.6	801.11	2.9
			202		269	
635.2 Coopers' products and parts index (1988=100)	62.57	0.4	110.42	0.5	154.15	0.6
			174		244	
635.3 Builders' joinery and carpentry index (1988=100)	1,939.05	12.2	3,150.01	13.6	4,339.56	15.7
			162		224	
635.4 Products for domestic/ decorative use index (1988=100)	930.58	5.8	1,353.25	5.8	1,744.72	6.2
			145		187	
635.9 Other manufactured products index (1988=100)	1,022.58	6.4	1,519.88	6.5	2,109.25	7.5
			148		206	
821. Wooden furniture (821.13+821.16+821.5+821.79) index (1988=100)	11,670.48	73.3	16,405.49	70.9	18,721.57	67.1
			140		160	
WORLD movement Index 1988=100	15,923.99	100.0	23,142.27	100.0	27,870.36	100.0
			145		175	

Source: Analysis of ITC/UNSO Comtrade Database

Of the import sectors in these OECD secondary processed wood products, furniture product, has the largest share at 67.1% of the market accounting for \$18.7 billion in 1996. This is traditionally the strongest product sector but it has declined from 71% in 1992 and the high of over 73% in 1988. Its influence on the longer-term growth in this market is important, especially as finished furniture usually has the highest value-added price factor in the chain from primary products to the eventual downstream sale to the consumer. However the level of capital investment needed to meet increased demand for furniture products can be expensive and time consuming for the infrastructure of developing countries when they seek to replace rapidly declining sales of primary products. Equipment and job training are usually the initial key factors, which once put in place need to be continually updated.

Another growth market is that of Builders' materials, joinery and carpentry. This accounted for 15.7% (\$ 4.3 billion) in 1996 compared to 12.2 % in 1988.

The importance of these product sectors supplied from DMEC countries can be assessed from the following table. The DMEC countries account for nearly 30% of OECD imports against the 22% of 1988, increasing by 136%.

The product sectors are detailed below, firstly as OECD in total and then as DMEC countries as they represent 29.6% of imports for secondary processed wood products.

**Table 7.2: OECD: Imports of secondary processed wood products by product category, (in millions of US dollars) – total imports). Sourced from DMEC (Developing Market Economies and China).**

	1988	%	1992	%	1996	%
635.1 Packings, cable drums, box pallets	12.39	0.3	29.02	0.5	47.16	0.6
index (1988=100)			242		255	
635.2 Coopers' products and parts	0.86	0.1	1.45	0.1	1.83	0.1
index (1988=100)			168		213	
635.3 Builders' joinery and carpentry	283.80	8.1	615.31	11.5	936.82	11.3
index (1988=100)			216		329	
635.4 Products for domestic/ decorative use	622.58	17.7	945.17	17.6	1,291.97	15.6
index (1988=100)			152		207	
635.9 Other manufactured products	424.29	12.1	560.28	10.4	780.84	9.4
index (1988=100)			132		183	
821. Wooden furniture (821.13+821.16+821.5+821.79)	2,159.81	61.7	3,216.81	60.0	5,207.76	62.3
index (1988=100)			149		240	
Total DMEC c/ Index (1988=100)	3,503.75	100.0	5,368.04	100.0	8,266.38	100.0
			153		236	
DMEC as percent of All imports		22.0		23.2		29.7
OECD movement Index (1988=100)	15,923.99	100.0	23,142.27	100.0	27,870.36	100.0
			145		175	

Source: Analysis of ITC/UNSO Comtrade Database

Here wooden furniture products now account for 62.3% of secondary processed wood product imports from DMEC countries at \$5.2 billion for 1996. This value also represents 28% of OECD furniture imports in 1996 as opposed to 18.5% in 1988. The rate of growth in furniture exports from these countries increased slowly from 1988 to reach 19.5% in 1992 before moving forward rapidly to record a 140% gain to 1996. Furniture imports for OECD countries meanwhile only grew by 61% in this time.

Builders' joinery and carpentry is the next important product category. Its growth within secondary processed wood products has moved from 8.1% in 1988 to 11.3% of DMEC imports for 1996. The value accounted for by DMEC country imports has now increased to nearly a billion dollars and 21.6% of these OECD sector imports in 1996, having seen a 229% growth since 1988.

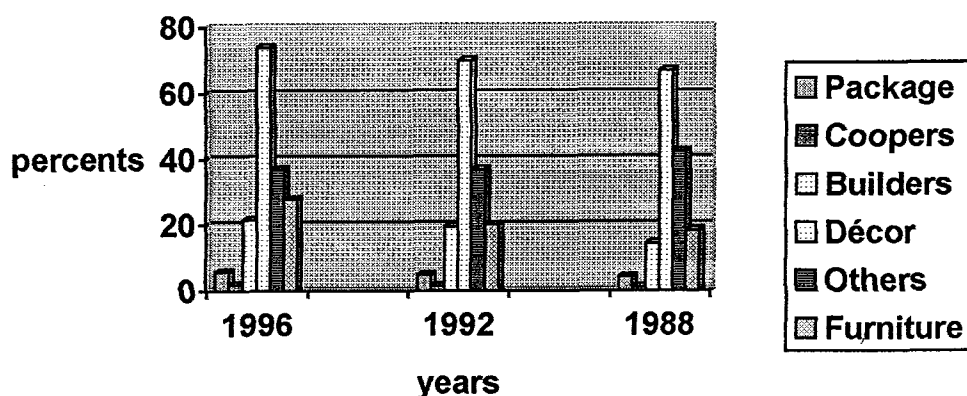
Although only 6.2% of the OECD secondary processed wood products sector entitled 'Products for domestic/decorative use' it enjoys the highest proportion of DMEC/OECD items at 74%. This includes tableware and kitchenware, wooden frames for mirrors and paintings, wood marquetry, jewellery cases, statues and other similar ornaments. The sector has doubled in size since 1988 and accounts for 15.6% of DMEC imports at almost \$1.3 billion in 1996.

A category dealing with other manufactured wood products has 7.5% or \$2.1 billion of the OECD 1996 imports (9.4% or \$780 million of DMEC imports) to reach 37% of this market. This is slightly below a doubling of market growth over the 8 year period for tools, tool bodies and handles, broom and brush bodies and handles of wood, including shoe lasts and trees of wood.

Of much smaller concern are the imports of packing cases etc. and cooper's products. Together they total under \$1 billion and have shown a doubling of trade since 1988 in both OECD and DMEC country sources.

The relative consistency of decorative products at over 60% continues to increase in importance reaching 74%, as does furniture to a high of 27.8% in 1996. Builders joinery is also increasing its share to 21.6% having shown a strong growth of 52% over the period.

### DMEC/OECD relationships



Product imports by major region play a role in the development of this market, especially by product sector. The 4 major regions covered reflect the importance of trading conditions in each region during each 4 year period.

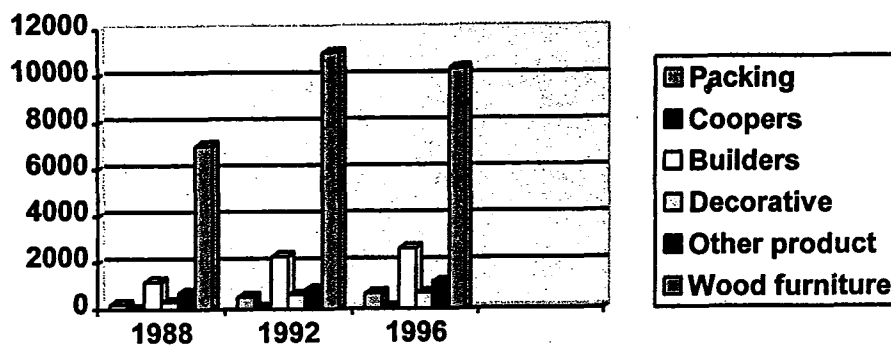
The bulk of the exports of secondary processed wood products from DMEC to OECD continues to originate in Asia (81% in 1996). Exports from Africa are small, accounting for less than 1% of the total for DMEC. Developing European countries have not shown strong growth to 1996, but as the major level of investment was occurring at that point, the intervening years to 1998 has seen a dramatic increase. Germany has been accused of 'exporting' jobs in the furniture and building industry to factories in Poland and other East Europe sites.



The product types can be assessed by the 3 major trading blocks and by selected countries within the European Union.

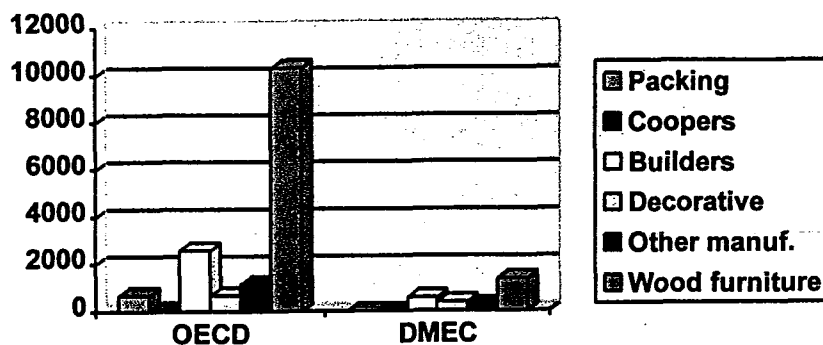
The European Union of 15 countries is the largest OECD importer of secondary processed wood products accounting for \$15.4 billion in 1996. This is a marginal increase over 1992 (of 1%) after the strong 4-year growth between 1988 to 1992. The slowdown is accounted for by the recession in Germany and France

EU: SPWP imports (\$m) by Product type.



Imports of wooden furniture to the EU reached \$10.3 billion for 1996 and account for 55% of the OECD total. Even so, the sector has declined in value by \$700 million (down by 6%) during this latter 4 years. Applying a deflationary figure to the values saw this decrease become a 14% decline, mainly due to the successive consumer recessions in the UK in the early 1990s, followed by Germany and France. During these 8 years the share accounted of by DMEC countries increased from 4.7% to 13%, mainly during the last 4 years.

EU: OECD cf DMEC imports (\$m) - 1996 by product type.



The proportion of DMEC secondary processed wood product imported into the EU is less than in other regions, only reaching 16.4% in 1996 (\$2.5 billion), from a low point of 6.9% in 1988. This 140% growth in 8 years has been uneven, with wooden furniture achieving a 13.1% share (\$1.4 billion) of OECD furniture imports (\$10.3 billion) as opposed to a higher 54% (\$367 million) for decorative products imports out of only \$678 million.

Table 8.1: European Union: Imports of secondary processed wood products by product category, 1988-1992-1996. (OECD & DMEC)  
(in millions of US dollars) (15 countries).

	1988	%	1992	%	1996	%
635.1 Packings, cable drums, box pallets	234.57	2.6	522.40	3.4	669.88	4.3
index (1988=100)			222		285	
DMEC	1.79	0.3	6.96	0.3	8.18	0.3
635.2 Coopers' products and parts	22.32	0.2	52.83	0.3	54.51	0.6
index (1988=100)			236		250	
DMEC	0.37	*	0.30	*	1.35	0.1
635.3 Builders' joinery and carpentry	1,186.48	12.8	2,268.04	17.5	2,588.5	18.1
index (1988=100)			191		218	
DMEC	127.7	19.8	422.41	23.4	564.58	22.2
635.4 Products for domestic/ decorative use	317.58	3.4	621.81	4.1	678.81	4.3
index (1988=100)			195		213	
DMEC	119.56	18.6	325.88	18.1	367.43	14.4
635.9 Other manufactured products	706.86	7.6	843.24	5.4	1,145.88	9.7
index (1988=100)			119		162	
DMEC	82.79	13.0	176.41	9.8	237.25	9.3
821. Wooden furniture (821.13+821.16+821.5+821.79)	7,030.19	75.8	10,990.03	71.8	10,306.85	66.7
index (1988=100)			156		146	
DMEC	303.46	47.3	864.85	48.0	1,347.29	53.1
Index (1988=100)			285		444	
DMEC as percent of EU imports		4.3		7.9		13.1
		100.0		100.0		100.0
The European Union (15 countries)	9,268.00	58.2	15,298.37	66.1	15,444.46	55.4
index (1988=100)			165		166	
DMEC (15 countries)	640.01	18.1	1,800.09	33.6	2,533.00	30.1
Index (1988=100)			280		394	
DMEC as percent of EU imports		6.9		11.7		16.4
<i>For cross-reference purposes/-</i>						
WORLD movement Index 1988=100	15,923.99	100.0	23,142.27	100.0	27,870.36	100.0
			145		175	
DMEC Index (1988=10)	3,503.75	100.0	5,368.04	100.0	8,266.38	100.0
			153		236	
Total All imports - Deflated prices Index 1988=100	15,923.00	100.0	20,443.46	100.0	22,331.73	100.0
			128		140	

Source: Analysis of ITC/UNSO Comtrade Database

In each of the other 5 categories, imports increased, even in real terms by a margin of between 2% and 15% in the 4 years to 1996.

Within Europe the United Kingdom is possibly the most open market for DMEC goods. Imports from DMEC increased rapidly to reach nearly 33% of the \$1.65 billion market to \$543 million (21% of the EU DMEC imports and 6.7% of world imports). Much of this occurred in furniture at \$308 million at 56% of DMEC imports and a third of the over \$1 billion furniture imports.

France in the last 4 years has been a declining market of OECD imports but has seen its DMEC imports gain share to \$354 million, again mainly in furniture (\$229 million at 65% of imports) and 12.6% of the £1.8 billion furniture OECD imports into France. This is followed by small but strong increases in builders' woodwork and decorative products.

Netherlands imports declined but their DMEC share increased to \$324 million and 22% share with wooden furniture at \$169 million, 52% of the imports and 16.9% of their \$1 billion furniture imports. The position of the Netherlands, due to shipping and access, allows this country offer scope as a major gateway into Europe.

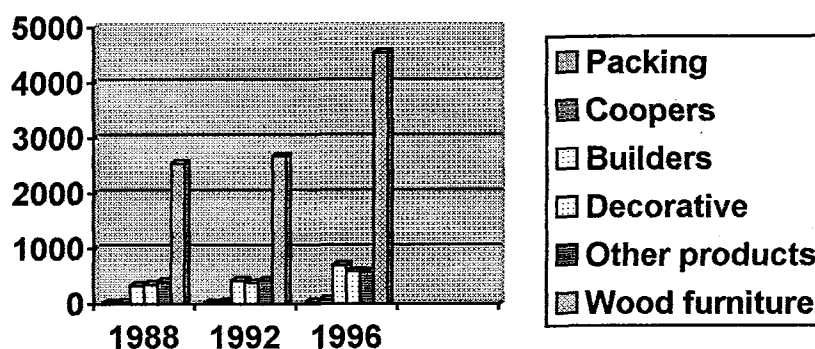
The move by eleven of the EU countries towards a single currency, the euro, scheduled to enter into force for January 1999, may have an effect on trading. The intention of this single currency is to decrease the amount of cross-border monetary transactions and eliminate Bank charges for currency conversion. It also is likely to provide a correlation of prices across these countries so that price points become similar and consumers can see the effects of competition product and market circumstances across Europe for the identical item.

Individual markets might disappear, but local styles, tastes, sizes and colours will still prevail, as they do across America. Even with this change, the EU should not be considered a totally single market and the language barrier will still be a factor in negotiations, other than english.

The UK and Denmark are 2 of the major countries not entering the single monetary currency of the euro at the outset. Although the banking and invoicing of goods will be applicable from January 1999, it will not be until 2000 and beyond that the actual notes and coins of the euro will be placed in circulation. Thus the interim of invoicing in euro, but with dual 'fixed' pricing on the actual products in the shops will apply for some 2 years or so.

The United States as an import market increased dramatically in the last 4 years, with DMEC countries providing a steady 54% of this, as opposed to an average of 30% for the world. The resurgence was mainly in the last 4 years and was driven by furniture imports that account for 70% (\$2.5 billion) of secondary processed wood product imports, after a short decline in 1992.

### USA: SPWP imports (\$m) by Product type

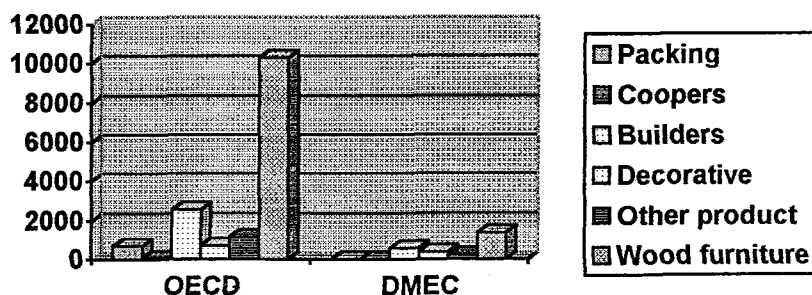


Builders' joinery is not a strong product sector when compared to the EU total of \$2.6 billion, but it still accounts for 10.7% at \$695.1 million, up from 6.9% and \$322.7 million in 1988. The current DMEC share of this 1996 import figure is 24% (\$164.6 million), down slightly from 1992.

The DMEC country share of regional furniture imports has one of the largest sectors here at 55% for \$2.5 billion in 1996 and twice the amount of EU countries. These last 4 years has seen the change-over from furniture manufacturing in Asian NIEs, especially Taiwan Province, the surge of productive capacity in Asean countries and then the transplanting of capacity into China.

The strongest share accounted for by DMEC countries is for decorative products at \$529 million which takes 90% of imports and this product sector grows steadily to keep a regular 9% of imports.

### USA: OECD cf DMEC imports (\$m) - 1996 by Product type



**Table 8.2: United States: Imports of secondary processed wood products by product category, 1988-1992-1996.**  
(in millions of US dollars)

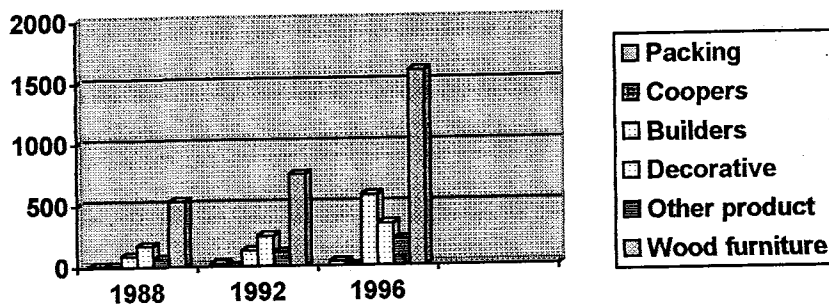
	1988	%	1992	%	1996	%
635.1 Packings, cable drums, box pallets	11.52	0.*	15.43	0.*	34.55	0.*
index (1988=100)			125		291	
DMEC	0.44	*	3.78		7.57	
635.2 Coopers' products and parts	21.63	0.*	40.18	0.1	67.45	0.1
index (1988=100)			182		304	
DMEC	0.31	*	0.93	0.4	0.06	*
635.3 Builders' joinery and carpentry	322.69	8.9	414.15	10.5	695.11	10.7
index (1988=100)			128		216	
DMEC	88.36	4.4	111.50	4.7	164.61	4.6
635.4 Products for domestic/ decorative use	347.40	9.5	375.10	9.5	587.66	9.1
index (1988=100)			108		169	
DMEC	305.73	15.3	339.70	14.5	529.26	15.0
635.9 Other manufactured products	394.83	10.8	414.61	11.2	574.20	8.8
index (1988=100)			105		145	
DMEC	268.38	13.4	260.97	11.1	328.19	9.3
821. Wooden furniture (821.13+821.16+821.5+821.79)	2,534.01	70.0	2,670.75	67.9	4,549.74	69.9
index (1988=100)			105		179	
DMEC	1,350.02	67.5	1,623.49	69.2	2,501.19	70.8
Index (1988=100)			120		185	
DMEC as percent of US imports		53.3		60.7		55.0
		100.0		100.0		100.0
The United States index (1988=100)	3,632.00	22.8	3,930.22	17.0	6,508.71	23.4
			108		179	
DMEC	2,017.31		2,340.37		3,530.88	
Index (1988=100)			116		175	
DMEC as percent of US imports		55.5		59.5		54.3
<i>For cross reference purposes/-</i>						
WORLD movement Index 1988=100	15,923.99	100.0	23,142.27	100.0	27,870.36	100.0
			145		175	
DMEC Index (1988=10)	3,503.75	100.0	5,368.04	100.0	8,266.38	100.0
			153		236	
Total All imports - Deflated prices Index 1988=100	15,923.00	100.0	20,443.46	100.0	22,331.73	100.0
			128		140	

Source: Analysis of ITC/UNSO Comtrade Database

Japanese imports of secondary processed wood products have grown over 200% since 1988 to \$2,7 billion, with the major growth coming from the last 4 years. As an individual country, Japan is the largest OECD market for developing country suppliers after the United States. Imports of nearly \$1.8 billion or two thirds of spwp items were registered as coming from DMEC countries in 1996. Much of this was through the opening up of Japan's import markets, especially in furniture which now accounts for 58% of secondary processed wood products (70% of which still comes from DMEC countries at almost \$1.1 billion), but also builder's joinery at \$573 million and 20.8% of imports.

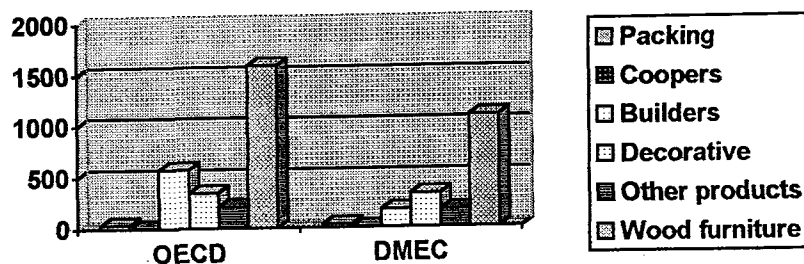
In joinery, with a doubling of the value to 30% coming from DMEC countries (\$172 million), but down from the high 56% in 1988, is possibly due to the use of more softwoods in the housing matrix and the direct marketing policies for temperate hardwoods which are now targeting Japan. Especially that of flooring which takes a possible 60% of other builders' woodwork, as opposed to doors and frames at 23%.

**Japan: SPWP imports (\$m) by Product type**



Decorative products take 12% of the imports with 84% of these being from DMEC (\$321.7 million in 1996). Packing and similar products have a small percentage by account for a high proportion of DMEC imports at \$30.5 million.

**Japan: OECD cf DMEC imports (\$m) - 1996 by Product type**



The importance of furniture to this market is slightly less than Europe or the USA, but it offers the highest proportion for DMEC countries at 68% of all furniture imports.

**Table 8.3: Japan : Imports of secondary processed wood products  
by product category, 1988-1992-1996.**  
(in millions of US dollars)

	1988	%	1992	%	1996	%
635.1 Packings, cable drums, box pallets	7.32	0.8	20.18	0.2	34.22	0.1
index (1988=100)			285		485	
DMEC	5.86	0.9	17.24	1.9	30.49	1.6
635.2 Coopers' products and parts	5.67	0.5	n/a	0.0	n/a	0.0
index (1988=100)			-		-	
DMEC	-	-	-	-	-	-
635.3 Builders' joinery and carpentry	85.78	10.0	124.04	10.0	573.16	20.8
index (1988=100)			144		666	
DMEC	48.07	7.5	50.53	5.5	171.77	9.6
635.4 Products for domestic/ decorative use	168.15	19.6	245.24	19.6	339.88	12.4
index (1988=100)			146		202	
DMEC	157.58	24.7	226.59	24.8	321.73	18.0
635.9 Other manufactured products	61.59	7.2	112.00	9.6	211.83	7.2
index (1988=100)			181		340	
DMEC	48.02	7.5	89.77	12.18	173.75	9.7
821. Wooden furniture (821.13+821.16+821.5+821.79)	529.46	61.8	744.25	59.6	1,588.58	57.7
index (1988=100)			140		300	
DMEC	380.61	59.4	526.97	57.7	1,089.74	60.9
Index (1988=100)			136		287	
DMEC as percent of Japan imports		71.8		70.8		68.6
		100.0		100.0		100.0
Japan index (1988=100)	858.00	5.4	1,247.45	5.4	2,749.69	9.9
			145		320	
DMEC	640.24		911.22		1,787.80	
Index (1988=100)			142		279	
DMEC as percent of Japan imports		74.6		72.8		65.0
<i>For cross reference purposes/-</i>						
WORLD movement Index 1988=100	15,923.99	100.0	23,142.27	100.0	27,870.36	100.0
			145		175	
DMEC Index (1988=10)	3,503.75	100.0	5,368.04	100.0	8,266.38	100.0
			153		236	
Total All imports - Deflated prices Index 1988=100	15,923.00	100.0	20,443.46	100.0	22,331.73	100.0
			128		140	

Source: Analysis of ITC/UNSO Comtrade Database

**Other countries** of interest are Switzerland, Austria, Canada and Australia. In the first 2 countries although OECD imports are high at over \$1.4 billion and nearly \$1.3 billion respectively, with strong growth since 1988 through 1992, only a small share is accounted for by DMEC imports. For Switzerland this has remained static at under 2% of imports whilst for Austria some growth is shown but DMEC imports are still only reach 5.7%, with furniture at a lowly 38% (\$28 million) and builders' woodwork stronger at \$29 million for 1996.

- Individual product sectors – the main 3.

This section looks at the imports of specific products from developing and other countries into the 3 largest OECD markets. An appendix 1 indicates the imports from DMEs and China and from developed countries for the complete product sectors and countries during the 8 year period 1988 –1992 –1996.

## WOODEN FURNITURE

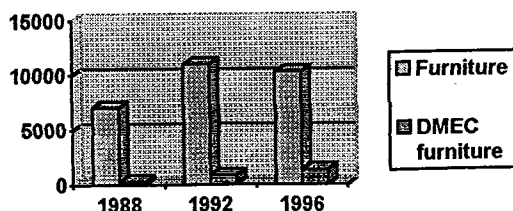
This heading includes items of wooden furniture and seats, as well as furniture and seats of rattan, cane and wicker materials and bamboo.

The OECD countries imported over \$18.7 billion worth of wooden furniture in 1996, of which nearly 28% (\$5.2 billion) originated from DMEC countries. This \$5.2 billion is 63% of all the DMEC exports of secondary processed wood products and of major interest as 80% comes from SE Asia. The largest share is taken with furniture and seats of wood, but with rattan or wicker accounting for 14% of exports (\$730.7 million) in 1996.

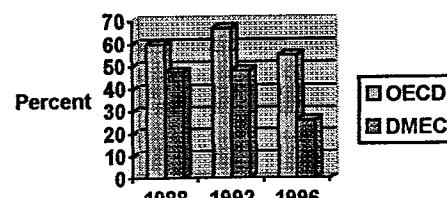
Table 9.1: Furniture : Imports of secondary processed wood products 1988-1992-1996. (in millions of US dollars)

	1988	%	1992	%	1996	%
<b>EUROPE</b>						
821. Wooden furniture (821.13+821.16+821.5+821.79) index (1988=100)	7,030.19	75.8	10,990.03	71.8	10,306.85	66.7
			156		146	
as percent of all OECD furniture imports	60		67		55	
DMEC (821.13+821.16+821.5+821.79) Index (1988=100)	303.46	47.3	864.85	48.0	1,347.29	53.1
			285		444	
as percent of all DMEC imports	14.1		26.8		25.9	

EU: Wood Furniture- all imports  
cf DMEC (\$m)



EU: EU Furniture share of total  
furniture OECD/DMEC imports  
(percents)





The European Union has the largest imports with 55% of the total but with a relatively small share for DMEC countries at \$1.3 billion or 26% of DMEC furniture exports. In real terms the imports declined to 1996, although recent growth has ensured that this decline is reversed, especially with product from east Europe where investment is heavy at the low and mid-end of the market.

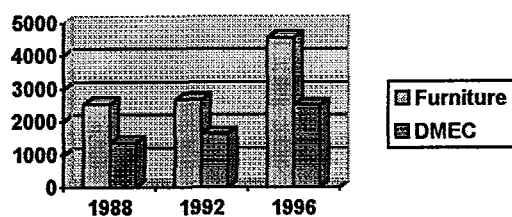
### The United States

America remains the largest individual importer and market for DMEC countries, accounting for 48% of all exports of wooden furniture from these countries in 1996, whilst importing 55% of its furniture from DMEC countries.

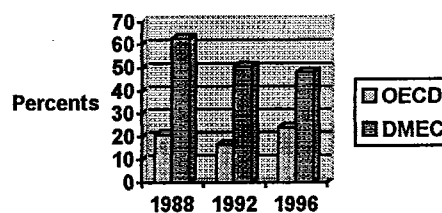
There is a major advantage in language terms – english - with a 'single' market once the distribution hurdle has been overcome. Even so, as a prime target for any developing country producing wood furniture America has become 'saturated' with imports that now account for well over 35% of the USA furniture trade. Imports in 1997 grew by over 20% to \$5.5 billion as the markets continued to grow and the US manufacturers sourced more product from SE Asia countries. The largest and newest supplier was China with \$1.2 billion, followed by Taiwan province (\$802 million) and Malaysia (\$406 million) after Italy and Mexico. Competition from industrialised countries remains strong, as they supplied 45% of wooden furniture and seat products especially Canada and Italy. The market is expected to remain strong and to draw in more imports, especially from China, although new sources are sought.

USA	1988	%	1992	%	1996	%
821. Wooden furniture (821.13+821.16+821.5+821.79) index (1988=100)	2,534.01	70.0	2,670.75	67.9	4,549.74	69.9
			105		179	
as percent of all OECD furniture imports		21		16.3		24
DMEC (821.13+821.16+821.5+821.79) Index (1988=100)	1,350.02	67.5	1,623.49	69.2	2,501.19	70.8
			120		185	
as percent of all DMEC imports		62.5		50.5		48.1

USA: Wood Furniture - all imports  
cf DMEC (\$m)

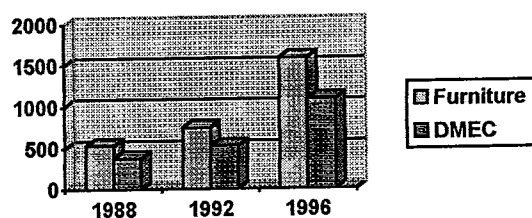


USA: USA Furniture share of total  
furniture imports OECD cf DMEC  
(percents)

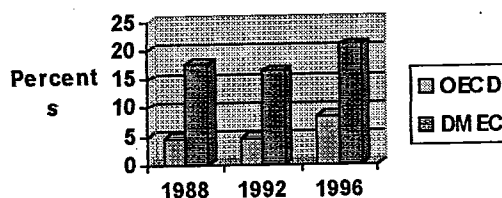


JAPAN	1988	%	1992	%	1996	%
821. Wooden furniture (821.13+821.16+821.5+821.79) index (1988=100)	529.46	61.8	744.25	59.6	1,588.58	57.7
			140		300	
as percent of OECD furniture imports	4.5		4.5		8.5	
DMEC (821.13+821.16+821.5+821.79) Index (1988=100)	380.61	59.4	526.97	57.7	1,089.74	60.9
			136		287	
as percent of all DMEC imports	17.6		16.4		21	

Japan: Wood Furniture - all imports of DMEC (\$m)

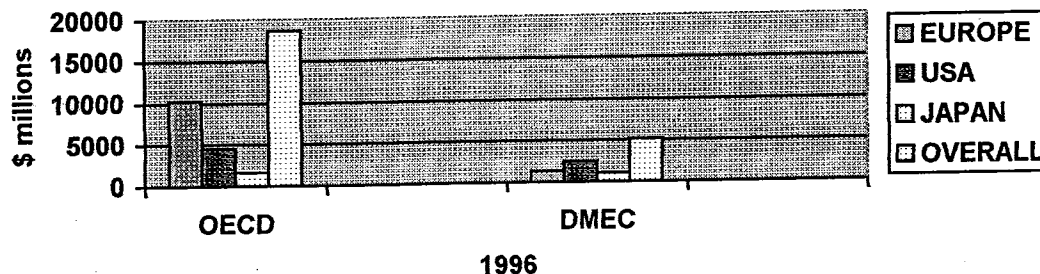


Japan: Japan Furniture share of total furniture imports OECD of DMEC (percent)



Japan is a major market for DMEC products taking 21% of their exports of wooden furniture to the OECD area. Nearly \$1.1 billion or 69% of furniture imports to Japan came from these DMEC sources. Consumption has increased significantly over the last 4 years as a contributing factor has been the shift away towards western furniture and lifestyles in the younger and more affluent generations. Increased wealth led this move. The current recession and consumer credit squeeze in Japan will not help the markets expand. The basic problem of inflation and other aspects is not present and the government needs to encourage the consumer to spend, rather than save to ensure a credible growth and confidence returns. It is expected that imports from most countries to Japan will fall until at least 2000.

Furniture relationships OECD of DMEC - 3 regions. 1996 (\$m)



## DECORATIVE ITEMS

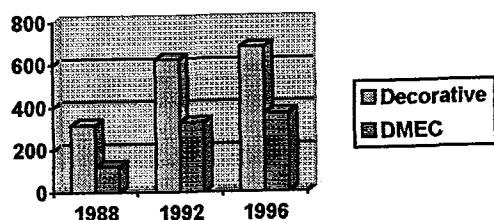
This product category covers wooden frames for painting, photographs, mirrors and similar objects (26%), as well as table and kitchenware of wood (28%), cases for jewelry, statues and ornaments (46%). The sector accounts for \$1.7 billion imports of domestic articles and 6.2% of spwp trade. The market has grown primarily from the DMEC sources that account for 74% of the market at \$1.29 billion in 1996. This product group is 15.6% of DMEC exports of spwp products to OECD countries, 87% of which came from Asia countries. The largest importers are the United States and Japan. The EU countries of Germany (\$185 million and 56% from DMEC), France (\$110 million and 58% from DMEC) and the UK (£106 million and 61% from DMEC) total 60% of the decorative imports and 64% of DMEC deliveries to the EU.

The major importer regions are expressed and compared to DMEC imports.

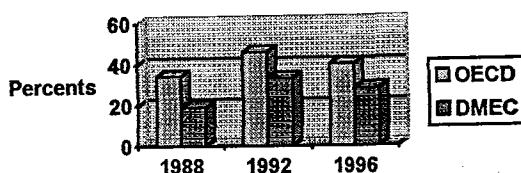
Europe	1988	%	1992	%	1996	%
635.4 Products for domestic/ decorative use index (1988=100)	317.58	3.4	621.81	4.1	678.81	4.3
			195		213	
as percent of OECD decorative imports		34.1		45.6		40
DMEC Index (1988=100)	119.56	18.6	325.88	18.1	367.43	14.4
			273		308	
as percent of all DMEC imports		19.1		33.4		28.5

Such decorative items only represent 4.3% of spwp imports to the EU, but are 40% of all decorative OECD imports. In contrast the importance to DMEC countries is seen by the higher 14.4% of DMEC spwp products and a 40% share to the EU. A large proportion of the European market is supplied by eastern Europe using Pine or temperate hardwoods of oak and beech making these items competitive with the tropical darker woods. It is the move into using rubberwood and the attractive nature of this light stainable wood that has caused the DMEC share to increase in 1996.

EU:Decorative - all imports of  
DMEC (\$m)



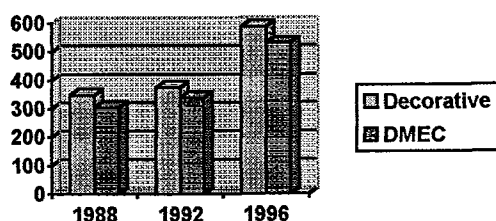
EU: EU Decorative share of total  
decorative imports OECD of  
DMEC (percent)



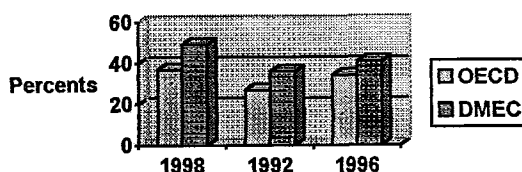
USA	1988	%	1992	%	1996	%
635.4 Products for domestic/ decorative use index (1988=100)	347.40	9.5	375.10	9.5	587.66	9.1
			108		169	
as percent of OECD decorative imports	36.6			27.4		33.6
DMEC Index (1988=100)	305.73	15.3	339.70	14.5	529.26	15.0
			111		173	
as percent of all DMEC imports	49			35.9		41

Whilst this sector only represents 9.1% of the USA imports of spwp items it is 33.6% of decorative product and thus a major market for them. The import

USA: Decorative - all imports of  
DMEC (\$m)



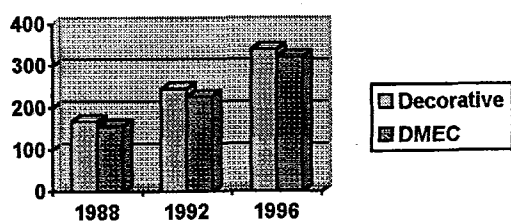
USA: USA Decorative share of  
total decorative imports OECD of  
DMEC (percents)



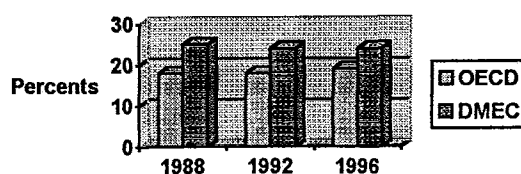
penetration for DMEC exports here also is high at 90% of the imports. This ensures that the USA is the major world market for such items on a relative basis. Probably because much of the softwoods and temperate hardwoods can be supplied from its own resources and thus do not register competitively at this stage.

JAPAN	1988	%	1992	%	1996	%
635.4 Products for domestic/ decorative use index (1988=100)	168.15	19.6	245.24	19.6	339.88	12.4
			146		202	
as percent of OECD decorative imports	18			18.1		19.4
DMEC Index (1988=100)	157.58	24.7	226.59	24.8	321.73	18.0
			143		204	
as percent of all DMEC imports	25.2			24.1		24

Japan: Decorative - all imports of  
DMEC (\$m)



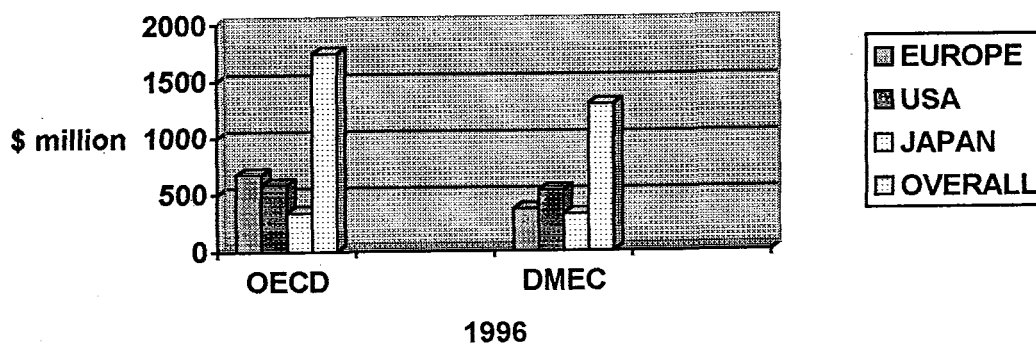
Japan: Japan Decorative share of  
total decorative imports OECD of  
DMEC (percents)



Japan has a higher percentage of its spwp items as decorative products at 12.4%, but this only accounts for a 19.4% share of decorative. However from DMEC sources comes 95% of these imports which representing 24% of DMEC decorative exports, mainly from SE Asia.

It is in these decorative products that DMEC countries have latterly been able to capitalise on the labour question and the use of manpower in turning out a range of products suitable to be priced at a consumer effective level. Often

### Decorative products relationships - 3 regions



the nature of the wood available and its colouring has allowed the product to meet changing consumer tastes easily and swiftly. Bulk transport was never a problem.

### BUILDERS' JOINERY and Carpentry

This product group, often called builders' woodwork, deals with window and door and their frames and threshold. It covers shingles and shakes, other builders' carpentry and joinery of wood, including staircases and balustrades, assembled flooring, architraves and some ranges of component building assemblies for housing and commercial properties.

The sector accounts for \$4.3 billion and 15.7%, the second largest sector of the spwp imports, having grown from 12.2% in 1988. Supplies from DMEC countries grew strongly to reach 21% of the imports at \$936 million for 1996, but this amount accounted for 11.3% of DMEC exports of spwp items.

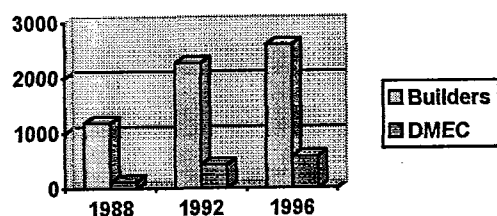
Much has been said about the environmentalist campaigns against tropical hardwoods and this sector is one that gets hit the hardest simply because of the exposure levels of commercial and governmental bodies to consumer pressure and voter's views. Certainly this effort and the use of lighter woods may have adversely affected the DMEC exports in the period to 1996. Publicity work on behalf of DMEC governments and professional bodies has explained and expressed the sustainability of certain selected timbers and their usage to an extent that many of the worst problems and trade in the last 2 years has been progressive, with many of the bans reversed.

A greater threat is the rise of manufactured and reconstituted panels, usually of MDF (medium density fibreboard) is now commonly used in partitions, mouldings and core materials, even of flooring bases.

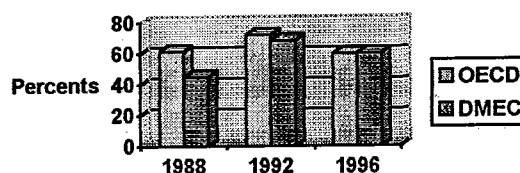
The information is presented for the 3 major regions. Europe accounts for the largest share at 59.6% at nearly \$2.6 billion, but only a fifth is from DMEC countries accounting for \$564 million and yet this is over 60% of DMEC exports of builders' and joinery products.

EUROPE	1988	%	1992	%	1996	%
635.3 Builders' joinery and carpentry index (1988=100)	1,186.48	12.8	2,268.04	17.5	2,588.5	18.1
			191		218	
as percent of OECD builders/joinery imports	61.2			72		59.6
DMEC Index (1988=100)	127.7	19.8	422.41	23.4	564.58	22.2
			332		444	
as percent of all DMEC imports	44.8			68.6		60.2

**EU: Builders/joinery - all imports cf DMEC (\$m)**



**EU: EU Builders share of total builders imports OECD cf DMEC (percent)**



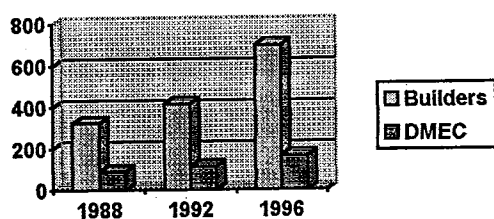
Germany is still the largest importer of builders' joinery at \$1.1 billion in 1996 and nearly twice the amount of the USA, but with 20% from DMEC countries mainly as doors and windows. The major trade of Germany is 50% with other EU countries and 28% from east Europe. Indonesia was the highest placed supplier from Asia. The strongest market is for parquet flooring with Germany accounting for 32% (21 million square metres) of European consumption.

The UK accounts for \$278 million with 42% coming from DMEC countries with the Netherlands as further contender at \$252 million and 40%. These 3 countries account for 79% of DMEC exports to the EU, but only 63% of EU spwp imports for this sector

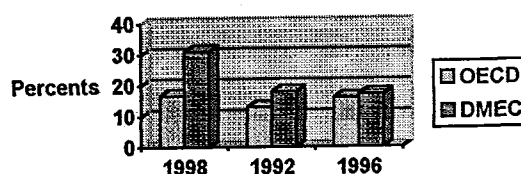
America accounts for 16% of OECD imports and of these DMEC takes 23.6%. It would seem that OECD imports grew strongly, but those from DMEC not so much, possibly due to the strong supplies of softwoods and temperate products for flooring, housing, millwork and mouldings in the North American manufacturing region. Specialist products tended to arrive from DMEC countries, especially South America with light coloured woods. Leading suppliers were Malaysia (\$33.6 million), Mexico (\$32.8 million), Brazil (\$24.2 million) and Indonesia (\$22.4 million). Access to light woods and pre-fabricated designs for building are important to met demands here.

USA	1988	%	1992	%	1996	%
635.3 Builders' joinery and carpentry index (1988=100)	322.69	8.9	414.15	10.5	695.11	10.7
			128		216	
as percent of OECD builders/joinery imports	16.6		13.1		16	
DMEC Index (1988=100)	88.36	4.4	111.50	4.7	164.61	4.6
as percent of all DMEC imports	31		18		17	

**USA: Builders/joinery - all imports of DMEC (\$m)**

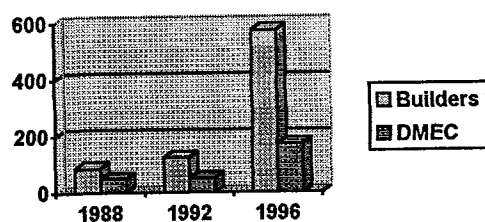


**USA: USA Builders share of total builders imports OECD of DMEC (percents)**

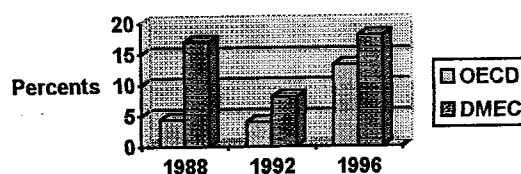


JAPAN	1988	%	1992	%	1996	%
635.3 Builders' joinery and carpentry index (1988=100)	85.78	10.0	124.04	10.0	573.16	20.8
			144		666	
as percent of OECD builders/joinery imports	4.4		3.9		13.2	
DMEC Index (1988=100)	48.07	7.5	50.53	5.5	171.77	9.6
as percent of all DMEC imports	17		8		18	

**Japan: Builders/joinery - all imports of DMEC (\$m)**



**Japan: Japan Builders share of total builders imports OECD of DMEC (percents)**

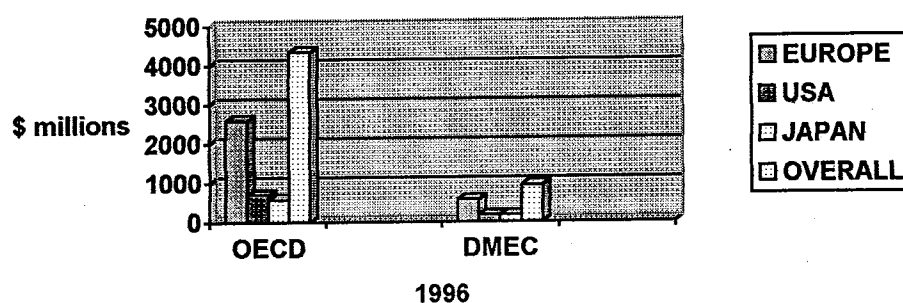


Japan has shown a strong market, fuelled by the housing sector to 1996. Recently this has declined dramatically and is not likely to renew its vigour until beyond 2000. The \$172 million is 30% of the OECD imports of builders materials, but this is a small 1.5% of apparent consumption compared to the domestic market. The bulk of imports consists of flooring, mainly from

Indonesia and Malaysia, with the USA a major supplier of wooden doors and windows.

The effect of national building codes and the need for certification has been a factor in the unspectacular increases in this sector. This backed by the awareness of predominantly darker woods from DMEC countries has led to buyers seeking imports from OECD sources. Flooring, doors and windows are the prime products and will find ready markets for durability and for fashion, rather than for price. Substitution in these items is also a reality.

Builders' Joinery relationships - 3 regions





#### 4 The Sarawak opportunity

- historical - The World Outlook

This section begins with a look at the opportunities open to Sarawak in its proposed move to a more industrialised export orientated wood product business. It is no good changing direction if the markets are not available.

In the first instance the timing of the move is important and the time taken to achieve this will be a function of investment.

It seems that an agreement has been reached that the Global economy is set fair, at least until the end of 1999. The International Monetary Union (IMF) and the Organisation for Economic Co-operation and Development (OECD) agree this, in spite of the Asian situation of mid-1997 onwards. Both these bodies saw an acceptable world growth, with Europe providing an upturn and Asia the downturn, leaving the USA to be a benign influence of stability.

These words were confirmed in late spring of 1998. The conclusion of observers then may have been somewhat optimistic. The domino effect of economic collapse around the world has begun and it will take some decisive effort from powerful market forces to ensure the world markets do enter a recession that could last for a decade. If that were so a measure of self-preservation and imports controls may be set-up in OECD countries to counteract the cheaper exports offered by industrialised (often over-industrialised) developing countries.

That is the pessimistic view and one that given the sensible circumstances of world trade, backed by the various organisations set up to counteract such understandable but selfish barriers, will not fully occur.

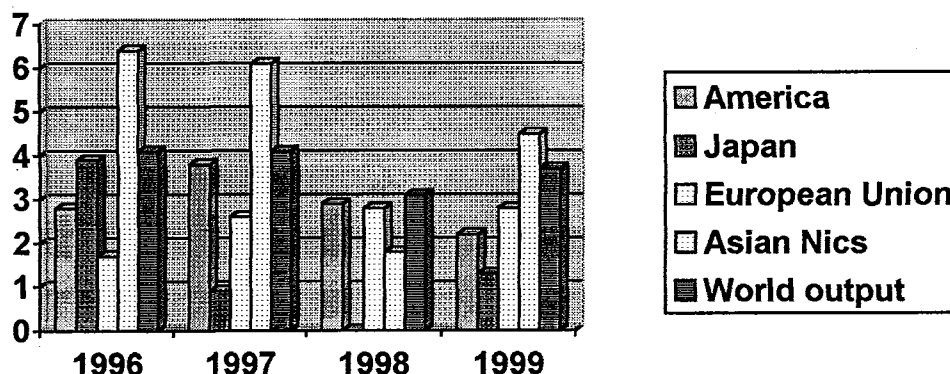
World Output, by selected country and region  
(percent change on previous year).

	1996	1997	1998	1999
America	2.8	3.8	2.9	2.2
Japan	3.9	0.9	0	1.3
European Union	1.7	2.6	2.8	2.8
Asian NICS*	6.4	6.1	1.8	4.5
World Output	4.1	4.1	3.1	3.7

\*(Newly Industrialised Countries)

Source: IMF World Economic Outlook.

## World Output - percent change on previous year (percents)



What is clear is that the Asian slowdown is being looked upon as taking out much more demand than was suggested when a simple overheating of economies might have occurred. Japan is in recession with below zero growth in 1998 and in 1999, rising to 1.3% in 2000.

The Asian – 4 countries of Indonesia, Malaysian, the Philippines and Thailand, will see a decline in gross domestic product of at least 2.7% this year, but little rise next. The Asian tiger economies - Korea, Taiwan, Hong Kong and Singapore – will suffer stagnant conditions (at 1.8% of growth) this year and 3.5% next.

The American economy will slow down, but not go into a recession, whilst the European economies will be flat, with individual countries pulling out of their cyclical recessions and others going into theirs.

World Output (percent change on previous year). This detail is for spring 1998 and not later. Thus it needs to be revised on the publication of new data in late summer 1998. That data will show a reduction of these figures.

The difficulty will be the length of time it takes for the NICS to re-establish their earlier dynamism whilst Japan may have settled into a long period of stagnation.

The other aspect of the global economy is the population.

It is increasing in total. In doing so, specific regions are more prolific and will cause demands for materials and commodities to underpin this growth. The servicing of a number of regions cannot be undertaken by their own economies as the raw materials do not exist in the volumes necessary. China, India and Africa are such countries. These countries will attempt to build up a major processing facility, which in the case of China and Africa is bound to include secondary processed wood products.

This processing will be for exports and for their own internal markets for construction and consumer products.

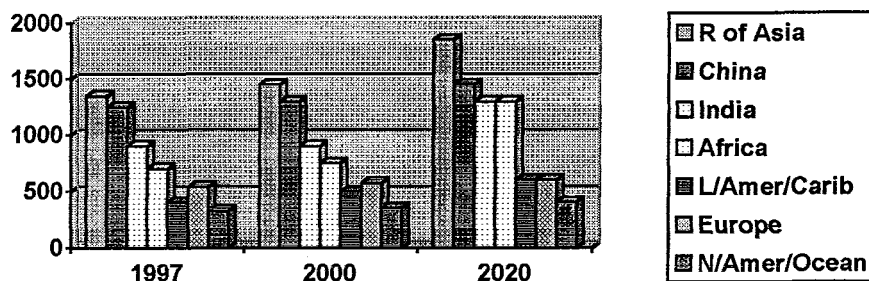
Raw materials and thus imports will be pulled in to cater for the processing, but funds need to be found to pay for these imports. It is the nature of these imports, preferably of processed products rather than raw materials that can affect the industrialisation of wood products for Sarawak.

Sarawak can supply raw and semi-processed primary products to these markets, and reap the whirlwind of denuded forests – or it can compete, ahead of these population increases and in the knowledge that they will occur to provide secondary processed product in competition.

World Population	1980	%	1997	%	2000	%	2020	%
Rest Of Asia	900		1350	22.9	1450	23.8	1850	23.4
China	1000		1250	21.2	1300	21.3	1450	18.6
India	700		900	15.3	900	14.7	1300	16.5
Africa	450		700	11.9	750	12.3	1300	16.5
L America/Caribbean	400		400	6.8	500	8.2	600	7.6
Europe	535		540	9.2	575	9.4	600	7.6
N America/Oceania	300		325	5.5	350	5.7	400	5.1
This total	4285		5465	92.5	5825	95.4	7500	95.0
Percent increase (1980)			28.3%		36%		75%	
World	4500		5900	100.0	6100	100.0	7900	100.0
Percent increase (1980)			31.1%		35.6%		75.6%	

Source: GAD.

**World Population changes (Million)**



Europe is a different situation. The birth-rate is falling and the old keep on living longer. This might be a problem. Not only on the need for greater industrialisation and automation to supply the goods needed for living, but also the need to supply, perhaps fund is a better word, the livelihood and living conditions of the elderly from a declining source of input – the actual working population.

Pension funding presents a problem of funding which most of the European Union countries need to solve. A change in the manner in which pensions are funded may result and this could be seen as the further growth of private pension and mutuality funds.

On this basis an additional \$1000 billion will have been generated by the year 2000 and it has to find a place for investment. It is said that over half the stock in London is owned by pension funds and institutions and that only 65% of their investment is in London, leaving opportunities for demand from other stock markets and investments. Such investments are available for the infrastructure of developing countries that seek to generate sustainable environments as a counter-balance to the needs of exports.

The products of secondary wood processing have ready markets in Europe with supply from well designed and efficient new manufacturing units closer to the source of raw materials. Competition from softwood and temperate hardwoods will be strong, but ready markets in aesthetic terms can be maintained given the sound environmental argument.

The USA is a different situation. It has a ready market for wood products (increases of 66% were registered in imports to \$6.5 billion between 1992-96), as long as they compete effectively with the entrenched and well-positioned home supplies from NAFTA, especially Canada.

### **Product - Board materials**

It is useful to assess the markets for board materials and their future needs as these countries grow economically (in wealth) and their populations increase.

The Food and Agricultural Organisation of the United Nations (FAO) outlook study on consumption in the Asia Pacific Region indicates that wood based panel consumption will grow to reach 96.4 million cubic metres by 2010.

This is consistent with the FAO forecasts that indicate growth at an overall average of 5.3% per year, to reach 105 million m<sup>3</sup> per year by 2010. This average is well above (by 32.5%) the average rate of 4% per year for the world as a whole.

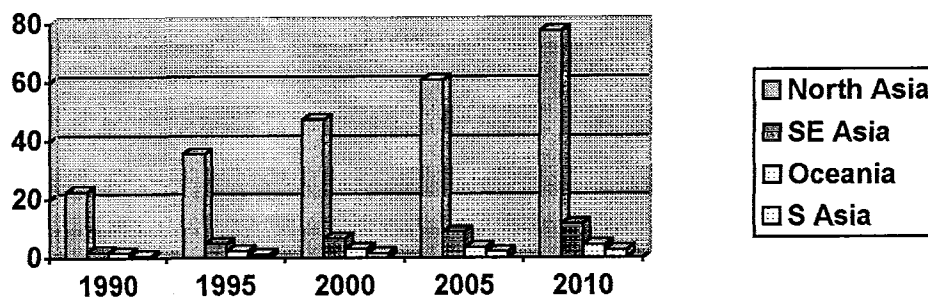
The forecasts take into account the long term historical perspective and the unusually high growth rates experienced in the span of 1990-95 for individual countries, products and for each year. Products covered are particleboard (dropping from 15% to 7% per year), plywood and veneer (dropping from 8% per year to 3.2%) and medium density fibreboard from the high of 30% to 7.5% per year, all between 2000-2010.

In all cases the forecasts are likely to fluctuate between optimistic and pessimistic depended on the economic climates of the countries and their neighbours. Certainly individual countries in Asia will stagnate, if not decline in their material usage in the run up to 2000 as a direct result of this financial crisis.

The region is divided into four sectors.

	Consumption.		Forecast		
	1990	1995 percents of	2000 millions m3	2005	2010
North Asia	84.3	81.3	81.4	81.0	80.8
South East Asia	7.2	10.9	11.3	11.8	12.2
Oceania	6.3	5.4	5.0	4.7	4.5
South Asia.	2.3	2.2	2.3	2.5	2.6
Total (million m3)	27.4	44.4	58.5	75.1	96.4
Growth each 5 year period		62%	31.7%	28.3%	28.4%

**Board materials consumption. Asia-Pacific region (million m3). Source FAO.**



The forecasts for North Asia indicate current consumption could grow from 36 million cubic metres in 1995 to a middle range of 78 million cubic metres by 2010, with a possibility of a high of 93 million m3. This region continues to account for nearly 81% of the consumption of wood based panels in the Asia Pacific region. All North Asia countries are dependent on forest product imports and will continue to be so, even at pessimistic consumption rates of 3.5% per year.

South East Asia has the primary wood based panel exporters in the region – Indonesia, Malaysia and Thailand, all suffering falling currency values helping to make their exporters more competitive in world markets. Panel prices are falling as South East Asian producers could move from 4.9 million cubic metres in 1995 to a median of 11.8 million cubic metres and a possible 16.4 million m3 in 2010.

Oceania and South Asia each account for a small share. They also show relatively smaller comparative increases and share as South East Asia develops.

South-east Asian countries have historically been the only region with a significant hardwood log surplus. Tropical hardwood forests here have played a significant role in meeting the demands of Asia Pacific and Europe, but the need to develop and secure a higher price for the volume logged and exported is causing these countries to examine the need for local processing of secondary products.

#### Medium Density Fibreboard (MDF)

One particular competitive board material that can meet and mimic the role of tropical wood is MDF. The industry has matured and is entering what may be the start of a cyclical phase of overproduction and scarcity as investors become careful in their risk management and placing of production capacity. That has implications for the wood industry in that price competition will become more pointed and the items for use design more to compensate for wood of various types, especially tropical woods.

Oversupply in 1998 is expected to peak at 3.2 million m<sup>3</sup> and decline to 1.2 million m<sup>3</sup> in 2000. By 2001, consumption should outstrip capacity to produce by over 200,000 m<sup>3</sup> on current consumption trends and expansion plans, calling for a further round of investment.

Undoubtedly this investment will begin in 1999/2000 for on-line in 2003 onwards. Sarawak needs to relate this timing for earlier investment to take account of the supply situation to be on-line for late 2001.

Over this time period of 1998 to 2001 prices should rise again. This should have a bonus of familiarity about the uses of MDF. Improved board quality, a broader range of products, better promotion and a stronger awareness of what MDF can do in relation to replacing the use of tropical hardwoods, either as solids, thin MDF for plywoods and against particleboard.

These projections are based on regional annual average growth of approximately 9% for production capacity and 16% for consumption. If either of these parameters change then the supply shortages will take longer to develop and further plant investment might be withheld.

The current situation in Asian currencies and the recession in these countries, mainly seen as an increased preference for consumer saving and slowing down in the development of the hitherto rapidly developing consumerist society, is likely to see this change happening in the short-term. After 1999 the reverse could be the result and a resurgence of growth seen.

On these figures Sarawak could usefully place at least 2 further MDF large capacity plants. They would supply the Asia-pacific markets, but would be linked to manufacturing facilities that convert a large proportion of the MDF into secondary processed products for the construction, builder/joinery and furniture markets.

## The markets - consumer

A recent workshop suggested that citizens of the 21<sup>st</sup> century will not only demand a superior wood product, but will expect it to be produced with consideration to environmental issues. It would be more cost efficient and use less raw material. It went on to suggest that world population growth will be a key factor in influencing the way in which wood products are traded in future, especially as a requirement for quality product and less waste would grow. The best method of ensuring less waste in wood products is to convert up-stream so as to ensure value added quality product is shipped for distribution. This requires a training and commitment to quality manufacturing with the skilled workforce and automation. Both factors are desirable in Sarawak with its shortage of indigenous population.

In connection with this goes the point that tropical climates offer distinct advantages for tree farming and in the competition for land use between this aspect and food farming (agriculture). Return on investment will be critical. Short-term opportunistic approaches must be replaced by responsible longer-term investments, perhaps with guaranteed results rather than political flavour of the day.

Most global outlook studies indicate that no major wood shortages are visible in the coming decades, although no abundant supply should be expected.

Occasional shortages, regional shortages and price pressures are expected.

In the next decade, North America could face a potentially tight supply of softwood, to be rectified by plantation maturity in the southern US and Pacific north-west.

Asia faces challenges with consumption equalling and soon exceeding Europe's with an accelerating trend. The Asian shortfall will be covered short-term by imports for North America and others, but in the long term, from Russia, Oceania and plantations, together with recycling, alternatives and lesser-known species. Other regions similarly have chances to succeed, often against the odds of infrastructure, and political realities.

Liberalisation of world commerce through the continuous and prospective lowering of trade barriers is creating levels of economic activity unprecedented in the world's history. Industry will move towards where the return on investment promises to give the highest yields.

An analysis of global regions can provide insights into the relevant markets. A case in point is the European Union. It accounts for 22% of Malaysian sawn timber exports, currently a declining proportion and one that might become more important again due to the slowing down of Asian economies. This will be a short-term situation, but one capable of exerting a strong influence on the processing characteristics of supplies.

In 1996 the EU accounted for Malaysian exports of 35% of builders carpentry/joinery, 16.5% of mouldings, 15% of dressed timber and 7.8% of wood furniture exports. However as the prices of Malaysian wood products have risen in recent years, EU buyers now look to African imports, especially into France. This has resulted in a dramatic decline of Malaysian exports – the worst being sawn timber falling at 58.3% in 4 years for 1992/96.

The recent dramatic devaluation of the Asian currencies has indicated a possible resurgence of exports to EU, given that good marketing can be rapidly employed. This unexpected advantage will not hold long for a number of reasons, possibly linked to upcoming currency crashes in Africa and these other supplier sources understanding the market changes in wood products.

To capitalise on this 'window' is the chance for Asian countries, Malaysia and Sarawak in particular, to set up a mechanism for rationalising sawn timber prices, to address the long-term log supply (of species and of plantations), quality standards, upgrading of production and design capabilities, increased marketing. The target should be an improvement in the profile of Malaysian wood products and their services to buyer markets – especially Europe.

An issue that does need to be addressed in this section is that of certification.

### **Certification**

Three global studies, all from ITTO, have been used to provide a view on this topic -

- (1994) - on Certification of timber and timber products;
- (1996) - the Development and implementation of certification schemes,
- (1998) as the most recent one - Timber Certification: Progress and Issues

The term 'timber certification' is used to cover forest management as well as certification of the origin of forest products. The evolution and implementation of certification schemes are gaining momentum as a direct result of the growing recognition of problems related to depleting forest resources and the way that they have been managed. Descriptive labelling at the product point of sale is the public view of this management process.

The concept of sustainable forest management is designed to ensure long-term forest health and productivity while providing continued social and economic benefits. It is a response to consumerist issues against the perceived destruction of forest environments.

Whilst tropical forests have been the main cause of environmental concerns, recently there has been a shift towards boreal and temperate forests as these owners understood the positive issues involved. This widening towards a global forest resource and the understanding that sustainability of any forest is linked to management responsibility, has ensured that governments as well as markets have begun to understand the need to look after these environments.



The use of certification has been the proffered solution. This has become recognised as a route able to sustain the forests (sustainable forest management) and perhaps provide the supplier with a tool to gain improved market acceptance. In the mechanism of certification are the seeds to technology transfer for greater value-added processing nearer the source of supply. The installation of manufacturing processes that eventually lead to a greater use and marketing of Secondary Processed Wood Products is a likely outcome. Sarawak needs to become aware of this linkage in its marketing.

It is known that only 15% of global roundwood production enters into international trade, the balance is used domestically. The share does vary by product and region and it tends to increase as a function of product unit value. Over the last few decades international trade has declined in roundwood and its derivatives towards a regime of more local processing and thus exporting of components and product.

A number of issues address this topic and are worth noting.

- An underlying assumption of the effective use of certification is the existence of a market where certified products are preferred by buyers and consumers. These products perhaps offer benefits that outweigh costs to make it a positive tool to consumers. The other is that forest owners and managers, processing industry, suppliers and distributors could enjoy equitable benefits from certification. Sustainable forest management, preferably on a global scale, is the objective.
- Currently the environmentally sensitive markets are in Europe (mainly N. Europe) and N America. Certification would have most impact in these markets from whatever source. Tropical timber from Asia has less volume to these markets than from Africa and Latin America.
- The general concern for environmental issues is reflected in international trade policy, especially as this comes down to individual products and their sources. National economies seeking to be competitive have the choice to select and work in this manner or risk that market led demands for certification may become lodged as definitive trade barriers. (That in itself is a bad thing, possibly leading to producers to contribute to more deforestation if the forests are forced into other uses to meet the demands of their people).
- The timber certification process should be looked upon as a positive aspect of marketing by the country, its producers and its workforce. It entails sound forest management, a transparency of operations, the custody chain of materials and their stages of conversion that should result in improved productivity within the extraction and conversion processes, cost savings and full use of timber materials. To move further into SPWP is logical.
- It can lead to information based production that ensures efficiency and credibility throughout the process and custody of timber to wood products.

The use and acceptance to ISO 14000 and 29000 series standards by the producer indicates that the producer has credible performance to meet the acceptable and recognised world criteria of quality. To achieve this close to the source of material is helpful for all concerned increasing the value of production to the material source.

- In a certification scheme it is essential that the timber entering the primary processing industries is documented. Its origins that can be verified and the resulting product labelled for future reference as the distribution chain expands. It is not the purpose of this study to discuss documentation or certification in and around the forest, nor for the processed product, but to state that such a situation is a powerful function of credible marketing, it allows the distribution process to offer a credible product. Certification is unlikely to reverse the substitution trends by reconstituted wood-based panels (mostly MDF and OSB) as well as laminated timber products and other non-wood materials. The higher costs, if these are seen to accrue from the certification of wood products, may well cause an increase in substitute use.
- Finally there must be international harmonisation and mutual recognition of the means of certification and the actual systems and processes that are used for this. This should allow for -
  - (i) a comprehensive covering of all types of forests,
  - (ii) be based on objective and measurable criteria,
  - (iii) produce reliable assessment results and therefore be fully independent from any vested interests,
  - (iv) be transparent and involve a balanced participation of the interested parties and stakeholders thereby ensuring their commitment,
  - (v) represent all the involved parties,
  - (vi) be institutionally adapted to local conditions
  - (vii) be goal orientated and cost-effective.

An aspect of certification could be in the continued use of tropical timber as it is seen to overcome the environmental problems of alleged deforestation. In the case of tropical timber the adverse publicity had stigmatised the product to the extent that it will be unlikely that certification will help it to assume full recovery in the affected markets. The high point of tropical timber usage has been passed and it is the suitable fuller use of tropical timber in value-added industry and trade that will ensure the income necessary to meet country strategies for funds.

- Certification should be viewed positively and used as a marketing tool for tropical timber products to improve market access while propagating a sustainably managed supply base, before certification is used for this purpose by boreal and temperate timbers.
- Market promotion is likely to be an important part in this continued market use. This assumes that certification is the cornerstone of any supply.

- In-depth market research will be required to identify the extent and characteristics of the demand for processed products, their prices and structures. Reason – to adjust to demand and assist in targeting.
- Development of new types of SPWP to offer price-positive advantages for distribution and efficiency of use.
- Market promotion of products and quality aspects in both the domestic and export markets through publicity campaigns and trade promotion. The target is to improve customer awareness on products from sustainable forests and the benefits that accrue from this effort.

### Challenges in the Marketplace

Diminishing supply of timber from existing resources will become more acute as the world population increases. That the increases are in different regions from the current major use of timber, especially of tropical origin, may alleviate some of this pressure. Over the next decade the world population is expected to increase by 20% with a possible corresponding increase in per capita consumption of forest products and growth in demand. With the limited resources available this could pose problems to producers and consumers.

Value-adding is a best option to optimise on these resources. Reducing wastage, and targeting premium prices for the products is a result of this.

- The supply of softwoods, mainly from re-forestation projects and the engineering into SPWP has firmed dramatically in the last decade and will continue to do so as the criteria for product use is tested and assessed for quality. Supplies from Canada, New Zealand, Chile and Russia are encroaching into traditional markets for tropical species. Growing stocks of softwood plantations around the world are sure to force this issue more strongly. Competition from tropical timber producers is intense as SE Asia, S America and Africa are all seeking strong and profitable markets for their species to be used in specialised applications.
- Substitution is already a core element of many markets moving away from tropical use due to environmental aspects and price. In house building the use of plastics, steel and aluminium for joinery and structural formations are used in place of wood materials.
- The growth (and decline) of some panel products, firstly plywood, then particleboard and now MDF has caused a progressive replacement of solid wood products, often to the benefit of log resources. However over-capacity in MDF is likely to lead to further incursions and a value price competition in a range of joinery, carpentry and furniture uses.
- The current estimate of roundwood production from certified forests (March 1997) is 9.5 million cubic metres per year. This would correspond to an average annual level of harvesting of 3.2 million cubic hectares. Of

this estimate production 4.6 million m<sup>3</sup>/year is from the three Polish State forests. The remainder is spread over 57 forests in 16 countries.

- Most certificates and labels have been issued to special products or products that enjoy market niche. The limited supply volume has represented a constraint for major promotional efforts. This is expected to change as more large-scale certifications are completed. In addition is the certification of environmental management schemes to ISO 14001. At least five have been reported (Brazil, Finland, Sweden and Indonesia) with Canada intending to apply the new standards to 8 million hectares and 11 million cubic metres.
- The impact of certification (implying sustainable forestry methods are practised), the chain of custody of the material for conversion and its application labelling in value-added secondary processing is a function of the market. This is likely to be driven by the buyers, either singly or in a group, at country level who seek to offer an advantage to their customers.
- Given that the quality and design of secondary products are to specification and at an attractive price and delivery timing, then positive product labelling resulting from and featuring certification systems is likely to favour that supplier. The growth and awareness of such an encouraging procedure will increase and the competitiveness of individual producers across the globe will enlarge the market demand. The fact that wood other than tropical is a part of this awareness is highly positive for all concerned.

### **The product - THE FURNITURE INDUSTRY and Sarawak**

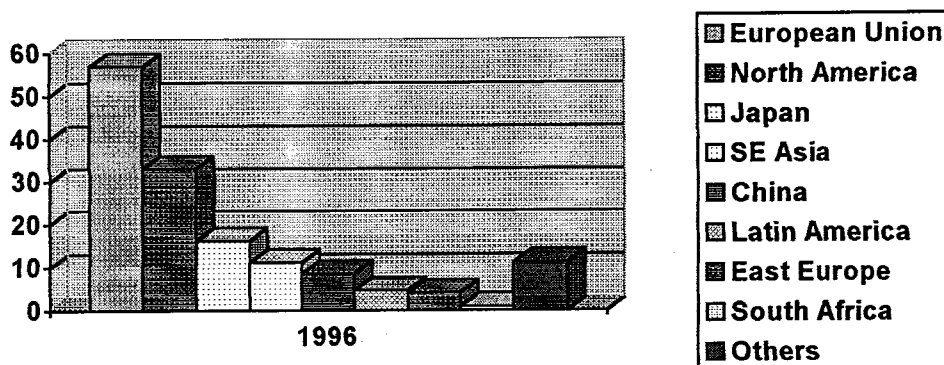
As furniture represents 67.1% of secondary processed wood product imports to OECD countries it is useful to provide a short over view of this market.

The world furniture production was estimated to be \$140 billion in 1995.

The progress of the major OECD economies since then will have increased this figure by up to \$2 billion (1.5%), mainly from increased sales in America. The major European countries of Germany and France were in recession at this time and the UK economy, although offering strong growth, was insufficient to counter balance the fall in the others.

It is in the distribution of this extra \$2 billion in manufacturing terms that is important as is the markets' change to meet the demands of buyers seeking better prices and economy of scale.

### World Furniture Production (\$Billion)



In 1996 the furniture sector of secondary processed wood products recorded some \$18.7 billion as being imported by OECD countries. This value for the wood sector, plus that of upholstered seating not counted under spwp items, would take the trade value of imported products to in excess of \$22 billion. This is (15.7%) of this total productive capacity of \$140 billion and traded mainly to the OECD countries. In total (all furniture of spwp and upholstery) reaching \$6 billion (27%) will have been sourced from DMEC countries with 80% coming from SE Asia. The major share of this increased trade will have come from China and was directed to the USA during 1997.

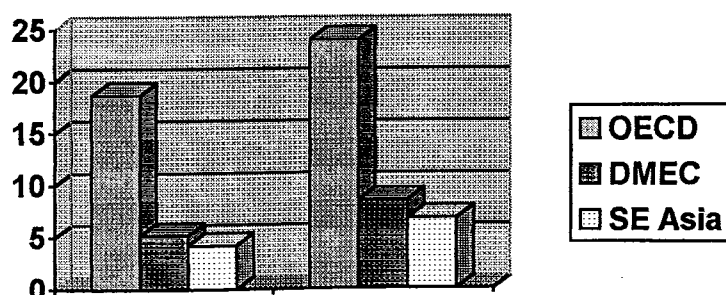
The economies of key countries are forecast to grow in the next few years and provide an estimated increase of nearly 6% to the world furniture production values to reach \$150 billion in 2000. That is the equivalent of \$8 billion from 1997, mainly from increased volumes rather than any indicators of inflation. Of this at least half will be accounted for by home manufacturing, either in the country itself or throughout the EU as 'internal exports'.

Imports to OECD countries, mainly America, Germany, France as the major recipients, plus other European countries and a host of smaller nations will see the OECD spwp imports rise to nearly \$24 billion (up 28% for 1996).

#### A Forecast

At least \$8.5 billion in total is forecast as being exported from DMEC countries, the majority from SE Asia and China origin. This projected growth will take the DMEC proportion of spwp imports into OECD countries to 34% for the year 2000 from the 27.9% of 1996, 4 years earlier.

### Furniture imports - OECD cf DMEC and SE Asia (\$billion)



In all a forecast of \$3.3 billion additional annual wooden furniture items will be required to meet the demand in key OECD nations and capable of being supply from SE Asia nations. Of this amount at least \$1 billion of this growth is accounted for at the end of 1997, mainly from China and thus leaving a further annual amount of \$ 2 billion to meet the year 2000 forecast of \$8.5 billion.

This additional annual \$2 billion is twice the current annual amount of exports from Malaysia that has been built up over a period of 8 years with the influence of rubberwood as the prime material for furniture.

For Sarawak alone to achieve a share of this available market would need the right wood materials and a vast amount of investment in machinery, training and manpower, not to say a vast backing of marketing and merchandising to reach the buyer markets in these key countries.

### **The European Union Furniture Market**

This is the largest overall market and some greater detail into the importance of imports and their sources is useful.

A paper was given late last year that looked at the competitive nature of furniture imports into the European Union for a particular country. It sets the scene for the EU furniture industry. A precis is given here and indicates the importance of East Europe to the supply of furniture to the EU.

The apparent consumption of furniture in the EU amounted to \$57 billion in 1996. The retail value of the furniture market in 15 Member States is estimated at \$96 billion. The furniture market can be looked upon as 'mature' and thus is not able to change strongly but reacts more slowly to consumer demand, fashion and refurbishing cycles of 5 to 10 years.

The EU furniture industry produced almost \$58 billion worth of furniture (+2.8% compared with 1995 in factory prices).

Furniture is one of the largest EU manufacturing industries employing 2.1% of the industrial workforce.

The furniture industry is subdivided in different sub-sectors manufacturing different types of furniture in different materials. The largest producing countries are Germany, Italy, France, the U.K. and Spain.

Presently, the EU furniture industry is composed of 92,000 Small, Medium sized Enterprises and directly employs 880,000 persons.

500,000 persons also work in the sector of distribution of furniture and more than 250,000 persons are employed in the suppliers industries of the furniture industry.

The European furniture industry is highly competitive in comparison with the furniture industry in the industrialised countries and in the developing countries.

Some important factors can be associated with high competitiveness are undoubtedly due to the individual countries competing with each other as an average of 25% of each country furniture consumption is the result of internal trade with its partners in the EU.

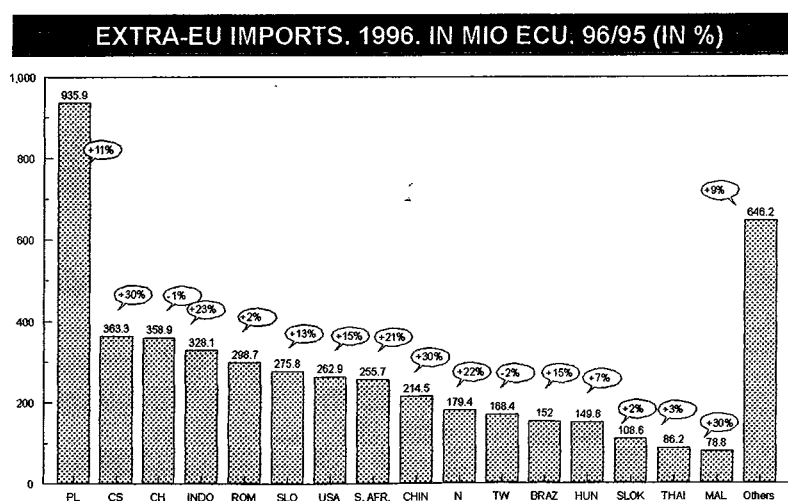
Furniture manufacturers are users of a mature technology and the automation in the production process is expanding. They gradually integrate a changing production technology (combination of workers and machinery for an optimal flexibility), several companies have invested in vertical integration, mass production and economies of scale.

They use new materials (wanted by the consumers or because they are of a better quality and they are cheaper) and they respect a growing environmental legislation.

The capacity of innovation, the use of advanced technology (allowing an extension of the capacities of production) and the regular introduction of new materials that are more resistant or cheaper than existing ones is a characteristic of the EU furniture industry.

Quality management and the reference to standards are other aspects of the competitiveness of the EU furniture industry. Moreover, most enterprises are design-oriented and have a long expertise of marketing their products in different difficult EU markets.

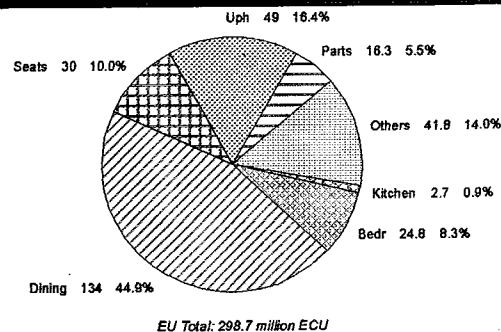
In 1996, the EU furniture manufacturers exported 10% of their production (\$5.5 billion, up 10.4% on 1995) outside the EU. This was mainly to the industrialised countries (USA, Switzerland, Japan, Norway), but also to the Central and East European countries (CEEC's): exports to the CEEC's recorded growth rates exceeding 20% over the last two years.



These countries are responsible for two thirds of the total \$25 billion international trade in furniture (including 43% of intra-EU trade).

In 1996, the EU imported \$4 billion from outside the EU, up 13% on 1995).

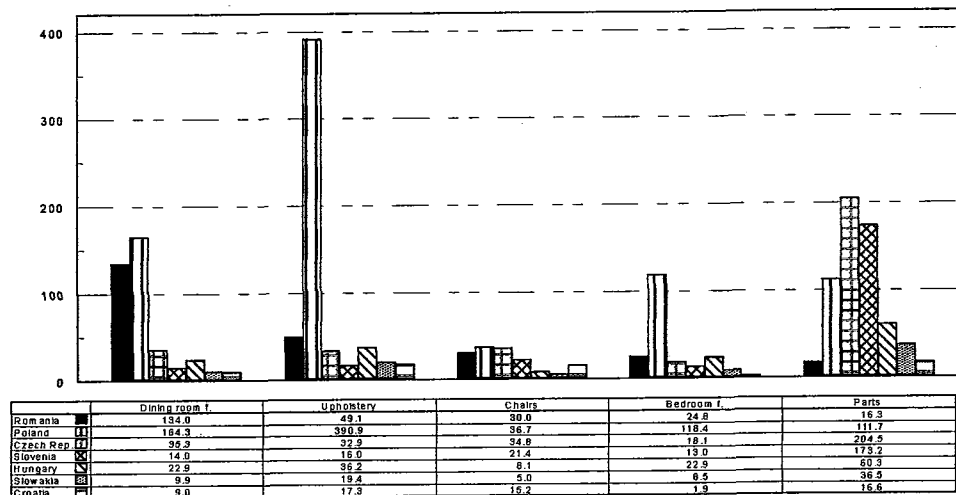
**EU IMPORTS FROM ROMANIA. FURNITURE TYPES. 1996. MIO ECU**



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The main suppliers are Central and Eastern European countries (CEEC's), among which Romania for a total of \$250 million: +1.6%). Seven CEEC's (Poland, Czech Republic, Romania, Slovenia, Hungary, Croatia and

**EXTRA-EU IMPORTS. 7 CEEC's. 1996. IN MIO ECU.**



Slowakia) were responsible for 45% of total extra-EU imports in 1996 (46% in 1995). Imports from Romania were maintained at their 1995 level. Romanian firms often sell their production for export to large EU furniture manufacturers and to large retailers chains (such as IKEA).

Romanian manufacturers mainly export four types of furniture accounting for 80% of total exports. In 1996, dining room furniture represented 45% of all EU imports from Romania, upholstery 16.4%, chairs 10.1% and bedroom furniture 8.3%. Globally, imports from Romania are increasing at a lesser pace than total extra-EU imports or than imports from other CEEC's.



### *Imports of dining room furniture*

EU imports from Romania mainly consist of dining room furniture (45% of total EU imports from Romania). Romanian manufacturers have a relative strong advantage in exporting this type of furniture. Exports of Romanian dining room furniture represented 1.7% of the total EU dining room furniture market estimated at \$6.7 billion in 1996.

Extra-EU imports of dining room furniture from Romania accounted for 18.5% of total in 1996 compared with 20.2% in 1995 whilst global extra-EU imports of dining room furniture rose by 8% in 1996. This means a relative reduction in the Romanian market share, not to the benefit of Polish manufacturers (extra-EU leaders in 1995 and 1996 but with decreasing market shares) but to the benefit of Indonesian, Chinese and Czech manufacturers.

### *Imports of upholstery*

The EU apparent consumption of upholstered furniture totalled \$8.2 billion in 1996. In 1996 upholstery represented 16.4% of total furniture imports (\$41 million, down 13% compared with 1995) from Romania in 1996. Romania is the second largest supplier of upholstery, but well behind the main extra-EU supplier of upholstery of Poland. Imports of upholstery from Romania represented 6.4% of EU imports of upholstery this accounted for 0.5% of the EU apparent consumption of upholstered furniture.

The main supplier is Poland. Whilst Poland gained nearly half percent of market shares in the EU market, its exports reached a value of \$325 million.

These good increases are the result of important investments in and take-overs of Polish companies by German manufacturers.

### *Imports of chairs*

EU imports of seats from Romania totalled \$25 million in 1996 (+10%).

They represented 1.2% of the total EU apparent consumption in 1996.

Most important extra-EU competitors for Romanian manufacturers are Indonesian, USA, Chinese, Polish and Swiss manufacturers. The EU market share controlled by Romanian companies was 1.2% or half of that of Polish ones.

### *Imports of bedroom furniture*

EU imports of bedroom furniture from Romania rose by 18.4% in 1996. The (\$20.1 million) accounted for almost 0.5% of the EU bedroom furniture market. Main competitor is Poland.

### *Imports of parts*

Parts accounted for only 5.4% of total EU imports from Romania but they show the largest growth: their level (\$13.5 million in 1996) tripled since 1994.

They accounted for only 0.1% of the total market, with 2% for South Africa, 1.7% for the Czech Republic and 56% of Czech exports to the EU. Slovenia had 1.5% or 63% of its exports to the EU. Both countries should see their market share improve in the next two to three years despite harsh competition from Czech and Slovenia manufacturers who are co-operating and subcontracting for EU furniture manufacturers.

Almost half of imports are purchased by Germany (48%) and 20% are shipped to France.

Romania has always been an important furniture supplier of furniture to the EU. However, whilst in 1990, its exports reached \$203 million (the leader with almost 1% of the EU market), in 1996, they totalled only \$248 million (6% of EU imports or 0.5% of the furniture EU market).

Whilst this clearly represents an increase in value of 23% in 6 years (1990-1996) (increase in volume should be slightly higher) it has to be compared with the greater increase from other countries. Such as 450% of imports from Poland (mainly upholstery), the 500% increase in imports from the Czech Republic (mainly parts: 56% of total) and the 275% increase of imports from Slovenia (mainly parts: almost two thirds of imports) from 1992 to 1996.

Several EU (mainly German) manufacturers have heavily invested in Poland and recently in the Czech Republic and import their production whilst neglecting Romania despite its long experience in furniture manufacturing.

### **The United States Wooden Furniture market**

Similarly some extra detail in the shape of an early 1998 report extract is useful to indicate the direction of this market.

Household furniture purchases over the last 5 years have declined slightly to 0.95% of US consumer expenditure. Even so, in 1997, consumer spending on household furniture is expected to reach \$53.3 billion, a 7.6% gain on 1996.

Furniture imports for 1996 reached over \$6 billion, a 71% increase on 1990 and in 1997 attained over \$7 billion. About 75%, or \$4.5 billion, comprised wooden furniture, components and parts. The increasing diversity of style, quality and value for money, either in the form of components and parts taken into US factories is affecting home production to account for up to 18% of the \$21 billion US factory shipments. These are for further value-added manufacture (\$900 million are parts and over \$600 million are seats and chairs), or as finished items to complement US produced ranges. This amount, plus sales of finished furniture directly imported by retailers and distributors, now accounts for over one third of US furniture spending in 1997,

the majority coming from Asia. In the mid-1980's it was below 10% with Asia's share less than 7% and European countries as a major supplier.

The import values from DMEC suppliers will increase as US firms seek more components and parts for assembly. There is a move on the part of buyers to work with newly industrialised countries in the supply of specific furniture items that match their known skills-base, not one just related to the cheaper labour costs. High value fully finished items now work with lower-cost manufacture.

In 1997 imports increased 17% to \$7.1 billion, with major growth coming from Canada at 21% of imports. China, the latest low cost source was responsible for 18.5% of imports (\$1.3 billion), a 46% increase and overtaking Taiwan now with \$802 million. Italy (\$728 m), Mexico (\$634 m), Malaysia (\$406 m) and Indonesia (\$275 m) performed well, with the top 7 countries accounting for 80% of imports. The Asian currency crisis of autumn 1997 will see a further surge in imports during the next 2 or 3 years. In the top ten were Philippines (up 17% to \$191 m) and Thailand with a 6% decline to \$159 million. The UK was number ten at \$107 million, up 19%.

US exports, mainly as finished furniture, have developed strongly since 1990, up 78% to an annual \$1.25 billion and 1997 a 15% increase to \$1.6 billion. The US was also successful in negotiating a 'Zero-Zero' tariff reduction for furniture from 2001 with 8 countries and the European Union.

After a positive 1996, furniture factory shipments for 1997 were 6.3% higher than last year and should reach \$21.2 billion. A strong housing market and consumer confidence is given as a reason for this surge. Housing starts, which affect furniture consumption, exceeded 1.45 million units in 1996, 7% higher than 1995 and have since surged to 1.53 thousand units, 5.5% above last year. With 30% of homes now including four bedrooms or more, as opposed to 18% at 10 years ago, it is likely that bedroom, study/computer spaces and bathroom ranges, rather than those for dining areas, will be the stronger mass-market sectors.

Crucial to the market is the 12.7% of US households who earn over \$70,000, have 38.5% of all income and also account for over 35.1% of all new furniture bought. The 77 million baby boomers, now in the 33-51 age bracket, have moved beyond the important volume 'cheap or promotional' stage of furniture buying into the more valuable and bespoke sectors of designer furniture. There are also 72 million children of these 'baby boomers' who are now aged 18 years or younger – what styles and items will they buy in the next decade?

In 1996 the top 100 retail furniture stores accounted for 41% of sales of furniture, bedding and decorative accessories.

	<u>1995</u>	<u>1996</u>
Upholstery -	34%	34%
Bedroom -	18%	18%
Dining Room -	11%	12%

Occasional -	9%	10%
Bedding -	9%	10%
Lifestyle/RTA	1%	2%
"Other" -	17%	13%

RTA (ready-to-assemble) furniture is at last becoming more sophisticated, especially as offered in the mail-order catalogues that seem to set the tone for so many US consumers today. Two major national retailers are now selling RTA to hasten this change. A major part of RTA is found in the juvenile market that is projected to reach \$4 billion in 1997, up from \$3.5 billion in 1993 and in the home-office sector, but sales of these is currently mainly through office superstores, warehouse clubs and specialist 'kids' stores. Besides the regular retailers, often with gallery product showrooms, are other distributors (often called wholesalers) who have now taken up importing as a major feature of the North American market. They are geared to supply just-in-time, often directly to consumers, irrespective of source.

Furniture companies (manufacturers and retailers) are using catalogues/mail order as an additional means of reaching consumers. Mail order catalogue sales have grown rapidly in the last five years and furniture has taken 1.4% of consumer sales. Well known are Ward's, Bloomingdales, Pottery Barn, Crate & Barrel, L.L. Bean, Neiman Marcus and Saks Fifth Avenue. The look of the catalogue pages is eclectic; style and price points are moving upwards, value and simplicity reigns. Rent-To-Own furniture at about \$1.55 billion (3% of consumer furniture spending) is a growing sector.

Styles and materials in the case (cabinet) goods market are important – in bedroom, prices to \$999 are mainly casual contemporary styles, with the Shaker style taking half the market in the \$2999 sector. Above \$3000 casual contemporary regains share, but at a much higher quality. Oak was the chosen wood/finish in 40%, with cherry 24%, pine at 12% and mahogany at 6% plus a declining polyester share at 3%. Formal dining ranges placed 18<sup>th</sup> century style as top at 36% with American country at 30%. Wood choices were seen as oak and cherry at about 34% each and mahogany 13% with burl at 11%.

Imports, mainly from SE Asia often using rubberwood, sometimes in natural colour, but mainly copying the temperate wood stains and finishes, are important for these promotional sectors, plus brushed light colour-effects for chairs and dining room and bedroom suites.

The growing trade of using American temperate woods for furniture manufacture in Asia has led to mid and up-market quality choices becoming more available as imports, affecting US production.

In almost all the major store sectors the influx of the Mexican rustic furniture, and of ethnic Indonesian and Indian country styles are prevalent across a wide range of outlets including the smaller craft and boutique outlets offering casual furniture and accessories to match. These woods will be in pine,

various mixed species tropical hardwoods, mahogany substitutes and shisham wood from India. Quality and finish can be dubious.

It is important to appreciate that these strong indicators for continuous growth in the furniture industry of OECD countries must be tempered with the overshadowing recession that seems to have sprung from the Asian crisis and the overdue cyclical situation for America.

## **Japan**

Japan continues to consume less wood at 113 million m<sup>3</sup> in 1997, with only 108 million m<sup>3</sup> forecast for 1998, mainly due to the continued decline in the housing markets, down 16% in 1997. 80% of wood is imported. Japan also has a growing share of the spwp world imports accounting for \$2.7 billion in 1996. Over \$1.8 billion came from DMEC countries and 61% of this was for furniture at \$1.6 billion in 1996.

Total consumption was \$20 billion including exports, which when the various additional wholesaler cost structures are calculated would reach 20% of the home market, 15% being accounted for by DMEC imports.

The market is opening up to new and varying styles, away from the traditional Japanese choices. It is here that the future lies in meeting these changing demands and the shift in the retail base to service larger furniture items and home sizes.

It is suitable to look at developing markets within DMEC countries.

## **An example is a short look at the market potential in China and Malaysia.**

China's furniture industry is developing rapidly. Projections from the plywood guild suggest that China's furniture industry will develop at the growth rate of 15% per year for several years to come. The rapid development of furniture will further fuel demand for plywood. To ensure the development of domestic plywood manufacture China will implement a package of measures including strengthen production license implementation, strengthening product quality checking policy, widening the campaign against smuggling and to strengthening marketing management in the sector. Currently 30% of plywood goes into furniture and 50% towards decorative uses.

China's furniture industry has taken a long time to modernise. After the reform and opening to the outside of the world, great changes have taken place in China's furniture industry due to reform and adjustment of its industrial structure, ownership and technology. Now there are about 30,000 furniture manufacturers in China with a total annual production of more than \$8.5 billion. A total of 650 of these enterprises involve overseas joint capital. With input of foreign funds and improvements in production technology, the export market for Chinese furniture is expanding. The export

of furniture reached more than US\$ 1 billion in 1997, over 12.5% of the available production and likely to be the quality sector with western designs.

According to the by the Chinese Furniture Association, China's furniture production will increase by 10% annually during the next 10 years. Domestic demand could reach \$12.2 billion annually. The international export market has potential for Chinese furniture manufacturers. The international furniture trade is estimated to be worth about US\$ 46 billion annually, but only \$22 billion when excluding EU intra-trading. China captures 2.2% of world trade and 5.5% of OECD trade.

China's domestic market for furniture will develop as a result of :

- **Expanding renovation of residential units**
- **Expansion and renovation of tourist units, hotels and restaurants**
- Building of some 10 millions sq. metres of office buildings annually, which require huge amounts of office furniture including furniture used in reception halls, conference halls as well as furniture for office automation. Demand for these types of furniture is expected to account for some 25-30 % of total demand in the next few years.
- An estimated 10 million couples will marry annually during the next 10 years.
- The residential house construction will develop at speed of 15% annually during future 15 years. During the Ninth five-year Development period, 1.2 billion cubic meters of residential house in cities and towns will be constructed with annual construction no less than 240 million cubic meters (about 3.1 million flats). At present, the furniture consumption of residential house occupies more than 50% of the total.
- Some 6.4 billion square metres of rural housing will be constructed in the next 10 years. It is expected that furniture purchases by rural households will increase by 30% annually.

## Malaysia

The Malaysian Furniture story is one of booming export success.

- Primarily this is based on the industrialisation of rubberwood (*Hevea brasiliensis*) as a light hardwood suitable for a range of decorative and furniture based products.

To achieve a 1600% increase to over RM 1650 million for exports with RM 1350 million coming from a new wood raw material in just 6 to 7 years is worthy of notice to Sarawak. This figure, mainly from peninsular Malaysia represents nearly 14% of total timber based exports from a negligible RM 100 million.

The demand for wooden furniture in the export market, particularly the solid wood product has been increasing steadily in 1998. Dining suites are the most popular items. However the prices have remained relatively unchanged, partly due to the high production capacity as well as the currency situation.

Whilst the above comments apply directly to the wood industry in Malaysia and especially Sarawak, it is the furniture industry, almost 90% based in Peninsular Malaysia that has seen strong growth as a value-added product.

It is useful to record the factors affecting the use of rubberwood, as this timber is generally unavailable in Sarawak and thus little or no competition can be foreseen from indigenous Sarawak timbers to build a similar market potential.

Rubberwood is still the cheapest raw material available and, despite the cheaper labour cost, China would have to import the lumber, from Thailand or Malaysia. Under the present situation the manufacturers in Thailand and Malaysia are very competitive, particularly in the solid wood sector. Many furniture manufacturers in China are switching to using Pine to produce furniture for the traditional USA and Europe markets in competition with Rubberwood.

At this point it is sensible to explain the marketing phenomenon of the Rubberwood tree (*Hevea brasiliensis*).

The Rubberwood tree (*Hevea brasiliensis*) is a native of the Amazonian rain forests. The tree was smuggled out of Brazil and transported to SE Asia via Kew Gardens in the UK. Various tree samples were placed in countries such as Sri Lanka, India and most SE Asian sites to be developed as a plantation tree for the extraction of latex – an integral ingredient of rubber.

The largest plantations were and are still found in the current day countries of Thailand, peninsular Malaysia and Indonesia. The managed plantations usually have a sustainable replacement cycle in the production of latex of 20-30 years with the felled timber once being burned and used for local heating. Any other usage problem was that the tree sustained a blue-stain after some 48 hours of felling and the invasion of powder-post beetle further ensured that the timber rapidly became weak and useless.

Research work in Malaysia and elsewhere led to the use of specialist treatment and pressure systems that have allowed the wood to become highly effective and valuable in the making of low and mid-priced furniture products since the mid 1980s. Given correct and accurate treatment and kilning, plus the storage, the visible blue-stain and the powder-post beetle attack is now in the past. This wood is now the mainstay of a thriving furniture export trade across the world, wherever the rubberwood tree can be grown.

In many SE Asia countries especially peninsular Malaysia and Thailand and to an increasing extent Indonesia and Vietnam, the mainstay of furniture exports (and now also for their own local markets) stems from the major commercial use of sustainable rubberwood.

Plantations offer a double-cash crop market for owners and in the planting cycle perhaps are able to offer a 4 cash-crop return from the site over the 20-30 years. Difficulties arise on trees that are outside plantations and small ownership levels, but the trade is ensuring the new valuable timber is able to

be exploited. In the case of Malaysia there are 1.6 million hectares of rubber plantations producing around 2 million cubic metres of wood a year for consumption. The export of logs has been banned and the need for a value added industry fully realised within the Malaysian economy.

The treated and kiln dried timber is naturally light cream in colour. The treated wood is of good quality as a light hardwood with the advantage of the sapwood being the same colour as the heartwood. It is easy to work and has an unused advantage of accepting excellent carving techniques. Its staining and lacquering abilities allow rubberwood to be used and to meet a wide range of customer demand led furniture fashion dictates.

Its main use is either as a solid wood that is manufactured into solid wooden furniture, or as edge-glued and finger-jointed panels for table tops. It is used for plywood, or for chips for particleboard products. More recently it has found success as the wood source for Medium density fibreboard. The log which is marketed at around US\$37-40 per m<sup>3</sup> for plywood quality has a market value-added of 1000 times when converted to furniture. Finger-jointed boards are reaching US\$780-800/m<sup>3</sup> and S4S is US\$430/m<sup>3</sup>. Currently the major markets for furniture and wood products from rubberwood are the USA, Western Europe and Japan. These industrialised countries offer strong markets for traditional furniture products. Exports to them of this versatile wood as furniture has allowed the competitive industrialisation of the wood conversion industries to develop strongly in SE Asia.

The quality of the original rubber tree plantation is of importance. There are clear colour differences between the early rubberwood produced from Thailand to that of plantations in Malaysia. The greatest difference is seen in the darker strains found in Indonesia, Sri Lanka and other peripheral sources. Such variation should allow the end product to be used in a variety of market sectors and perhaps will ensure that competitive factors in design and customer demand are able to accommodate these differences.

Further research is aimed at producing special clones of the rubber tree. These are designed to be quicker growing species directly aimed at the furniture manufacturer, rather than the current double-cash crop phenomenon for both latex and for timber.

A aspect of importance for Malaysia and at least 3 other countries in the region is the 'knock-on' effect of this industrialisation of furniture and wood products in creating positive manufacturing for export. This is the increase in exports and manufacturer of traditional tropical hardwoods that are indigenous to this part of the world.

Furniture exports of furniture not made from rubberwood, but manufactured in Malaysia were RM 100 million in 1988. Today these non-rubberwood products are approaching RM 300 million and growing. In other circumstances such a tripling of exports from native sources would be looked upon as a success!



This RM 300 million of native woods, use is made of other materials such as rattan, fibre from plantation rotated palm oil trees as well as the exotic native timbers of balau, dark red meranti, kembang, semangkok and nyatoh.

A further spin-off is visible as some importance is being placed on the importation of temperate species of oak, maple, walnut, teak, mahogany and rosewood to extend the range of woods and finishes on offer at competitive industrial factory prices.

#### Conclusions - sector 4

The tropical forest products industry – is just that – an industry. As such it needs to shape itself into a stable industry based on a stable and sustainable resource. In addition to encouraging improved forest management, extraction, processing and handling, is the need for deep and sustaining investment in plantations across a number of suitable species.

Wood-hungry markets accustomed to importing tropical logs have had to adapt, either by bringing in temperate logs, or shifting from processing logs to importing processed products. The market emphasis on the final product is crucial in lessening the emphasis on popular species and large dimension specification. This should lead to the freedom to extract lesser-known species, but this is difficult in areas already logged and with re-growth. Management for sustained yield requires the maintenance of forest integrity and the annual allowable cut governs extraction in total as well as by species.

Developing a secondary processed wood products industry is suitable and Asian countries are leading the way amongst developing countries.

For instance Malaysia's exports of spwp has risen from \$199 million in 1990 to \$993 million in 1995 and \$872 in 1996. 78% of this is in furniture items and 14% as builders woodwork.

Much of these items use rubberwood. Technologies have been created to deal with this hitherto vulnerable wood, to overcome staining, bugs, use of smaller pieces of wood through finger-jointing and the need to perform adequate lacquer finishing operations across a wide range of product sectors. Focused market research has identified end products. Investment in machinery, factory management and workforce training has been heavy over the last 10 years to back-up this industry change.

Market and product related research and development is an essential part of the dynamic and business strategies. The identification of potential customers – in depth and not necessarily large individual volumes – mutual trust in technical requirements and safe trading arrangements is essential.

The setting up of marketing and distribution arrangements for Asian countries is one step in this process. This applies for OECD countries and those entering their own consumer growth patterns for wood products.

An understanding of where the acceptance, and perhaps the installation of a certification process for timber sourced within forests in Sarawak for processing and for exports, can lead to in ready product acceptance to world markets is important. The closeness of certification and secondary processed wood product manufacture should help investment.

#### Recommendation

Sarawak needs to consider the swift implementation of plantation of rubberwood. These can be of a mixed variety - that for both latex and furniture, offering a 20-year double cash crop and - that for furniture wood and for wood chip material for board production, offering a 10 year plus cash crop.

In both cases it is feasible to grow intermediate cash crops of vegetables and other useful 1 to 4 year growth earners, before the tree canopy covers the ground. The concept is beneficial to the Sarawak economy and industry.

## 5 Strategic Marketing

### - What is it

Strategic marketing is long term and requires thought and reasoned response to be applied for the future effect of an action, that is applied to take account of the current situation. From strategic decisions come tactical responses and everyday activities that directly address the current situation. Strategy takes a longer term view and may not be pleasing to all users in its view of what should be done – or not done, as the objectives for action are applied.

It is the case in the timber industry.

The traditional production led approach (with its associated short term cost-driven orientation and re-active stance) is the basis on which the markets for the world-wide timber industry have developed during the last two decades.

This process has been led by the availability and the exploitation of the timber supply, along with the existing distribution systems backed by sales (rarely marketing) operations. It applies to tropical and temperate timbers and softwoods, although the market and value-added product development approach is much further down the line of acceptance and success for many temperate and especially softwoods producers, than for tropical timbers.

It is a case of supply and demand – the demand has been there – with the industrialisation of the Newly Industrialised Economies (NIC's), next the Developing Market Economies and latterly China (DMEC) – and compounded by the regular, but cyclical trading, of the OECD countries.

Timber resources have been utilised to an extent that global concern over forestry has become an issue of the people and governments. Today forests are becoming looked upon beyond simply a resource for timber. They are, as a 'product', being marketed for their 'best usage and potential'. Much has been said about how this 'best usage' can come about, with comment especially about the merchandising of forest amenities and their products and thus the need for greater market access and possibly a higher value being placed on timber products.

The cause and effect is clear, in that given a higher value for the timber products – less logs are needed – more conservation can be effected – the forests can be managed in a sustainable manner – for the benefit of all users. It is simplistic, but not an unreasonable concept. It is and does need vision, perseverance and especially marketing, to understand how achieve this value-added aspect for the timber product, when many millions of dollars are made from the simplistic cutting and exporting of log and primary products.

Certification is likely to become a stronger issue, not just from buyers and users, but for the forests as a whole as the need of sustainability becomes stronger – on all aspects of forestry husbandry – and not simply for logging.

Sarawak has gone down some-way the line of understanding this need for value-added for its forest products and in the importance of using the forest to benefit sustainability for the forest and the country. More is to be achieved and a greater insight on how this might happen must be through the use of marketing, rather than production led approaches in response to buyer demand. Again Sarawak has used foresight in this endeavour, with its avowed policy of sustainability for the year 2000.

The Asian crisis has in effect come at a time when Sarawak can make use of this decline in export demand (and thus less production from the concessions) as an additional impetus and turning point in its forest use. The rapid and consistent rise in the demand for logs, plywood and sawn timbers should abate for some 2 to 3 years, especially from the NIC's and DMEC countries.

Furthermore the trend in tropical log and sawn timber supply to SE Asia which was towards exploitation in Africa and S America and the buying of concessions, so as to provide a continuous supply of logs on demand from SE Asian countries, should now slow-down. The already obvious substitution of softwoods and the growth of prefabricated products in specific sectors will slow down and allow Sarawak time to make positive responses.

In the world of the seller and the buyer, markets come and go – products that service these markets also change in the nature of their appearance.

Currently tropical timber is (was) in great demand – mainly for logs to export for conversion to plywood and veneers, some solids; logs for local conversion to plywood and sawn timber for subsequent export; logs for conversion to sawn timber for various uses in the construction, decorative, joinery and furniture industries. In terms of the marketplace, tropical timber is (or was) relatively easy to extract, it was plentiful, it had good physical characteristics for its designated uses and it could be bought relatively cheaply, because of its cheap extraction prices. Historically, a number of selected species were valuable aesthetically and for specific design purposes such as furniture, mouldings and decorative items, plus heavy construction demands for longevity. This made tropical timber all the more important, but especially as a niche product. It had added value to a high degree and was sustained in its use to meet markets that could increasingly afford its resultant product use.

The widespread application for plywood, often for building sites and shuttering for concrete containment is truly wasteful of the potential of century old tropical timbers. This is especially so in SE Asia. Essentially many extraction points for tropical timbers have become commodity products on the marketplace and were used simply because they were available and distributed efficiently on a world wide basis.

This has caused the extraction industry to grow, leading to deforestation.

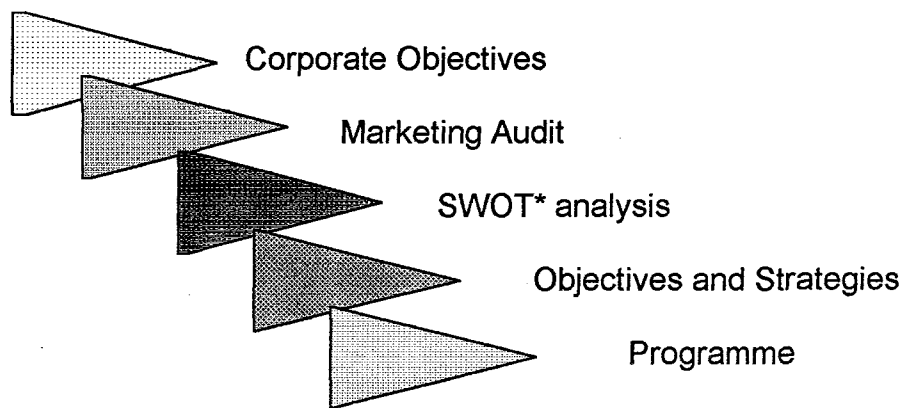
That view is now changing, to the extent that any 'substantial' increase in price, as a result of management and production costs will make tropical timber increasingly not competitive for world markets. Large quantities of

substitute commodity timbers are becoming available, as well as excellent reconstituted wood board products that can effectively provide 'tropical timber' quality and acceptance at a cheaper more consistent price.

### How marketing can be effective

To perform the marketing function, your organisation (the country) needs a framework for marketing planning which covers both the long term (strategic), and the short term (operational) planning issues.

The framework consists of five key multi-layered steps that integrate the strategic and operational planning. This is so that one does not work to the detriment of the other.



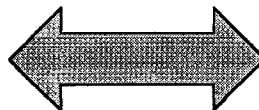
- SWOT. Strengths, weaknesses, opportunities, threats.

## MARKETING –

### WHAT IS IT ABOUT AND WHAT DOES IT MEAN?

The POWER of MARKETING lies in linking the

CAPABILITIES AND ABILITIES  
OF A COUNTRY



TO THE NEEDS OF  
THE CUSTOMERS

Building effective marketing is the responsibility of everyone in an organisation. The response of that market place will determine the prosperity of that organisation, or in this case the timber industry in Sarawak.

This means that Marketing is not an activity that can be confined solely to those specialists working in the Marketing Function. Everyone is involved. It is a marketing team – led essentially by the Chief Executive and his office. To strengthen this view is the basic definition of Marketing from The Chartered Institute of Marketing in the UK

**Marketing is the management process that identifies, anticipates and supplies consumer requirements efficiently and profitably.**

This is essentially a managerial approach to marketing and its role in business, as one would expect from an organisation seeking to legitimise marketing and place it at the core of the management of a business.

The original all-encompassing approach, increasingly used to bring a wider application to marketing is that of Kotler –

**Marketing is the human activity directed at satisfying needs and wants through exchange processes.**

This wording extends the approach to include many forms of non-commercial transaction, including education, community activities and most social and political processes.

In either case, it is the understanding of what makes a company wish to produce and a buyer wish to purchase that brings the need for discipline and skills at the point of communication – **that is what marketing is all about.**

Most of the definitions that abound share the major elements of modern marketing – it is in the punchy single sentence of the definition that seems to elude good translation! It is:-

**Finding out what your customer wants and providing it.**

**Essentially Sarawak lives off timber exports at over one third of its export earnings. Any decline in exports hits the country severely.**

The details of this level of export earnings can be calculated, accounted for and thus directions for action developed. It is not the function of this study to do that exercise, but it should be carried out soon and a strategic market plan developed from the results of that research.

An example of the initial procedure is set out below.

Example: A set of income figures should be used that can be compared. These can be over a sequential series and should be some 5 years of use, with the latest available, even at a half year set. The details can be set to allow for price increases and should be able to provide inflation free detail. The results can be also related to actual production costs and thus a full profit and loss account of the industry, by product sector can be set out, from which a business set of decisions can be found and made.

## Example

	1996/1997 figures RM (000)	Export		Home		TOTAL %
		%	RM	%	RM	
Turnover	5,263	100%	10.69	100%	34.00	44.69
Percent of total			xxx		xxx	100%
Logs	42%	36%	3.86	22%	7.82	11.68
Percent of total			xxx		xxx	100%
Sawn Timber	22%	32%	3.46	19%	7.82	11.28
Plywood	30%					
Veneer	5%					
Laminated Board	1%					
Dowels	0.45					
Mouldings	0.35					
Wood chips	*					
Furniture	*					

To be completed

(Figures and percents are rounded. They may not add to 100)

A further tabular exercise would relate each sector to its cost of production. This would encourage a distinct awareness of the profitability to the country of each sector and the allow estimates to be made of the effect and cost of developing value-added industry for downstream secondary processed wood products.

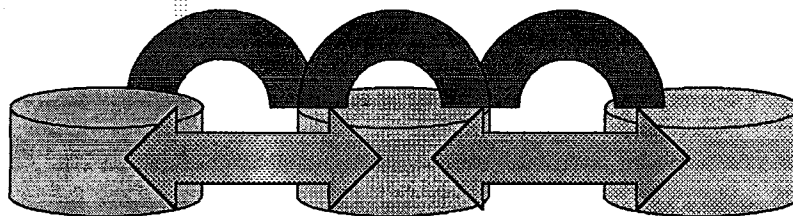
### A MARKETING SYSTEM for SARAWAK

**MUST REFLECT THIS NEED FOR EXPORTING SKILLS.**

**YET - The fundamentals of management activity need to reflect the importance and position of Marketing in the business of running a successful business.**

#### THE COMPANY/COUNTRY ORGANISATION

#### THE LINKAGES AT DIRECTOR LEVEL



#### <<<>> THE LINKAGES AT STAFF LEVEL <<<>>

PRODUCTION

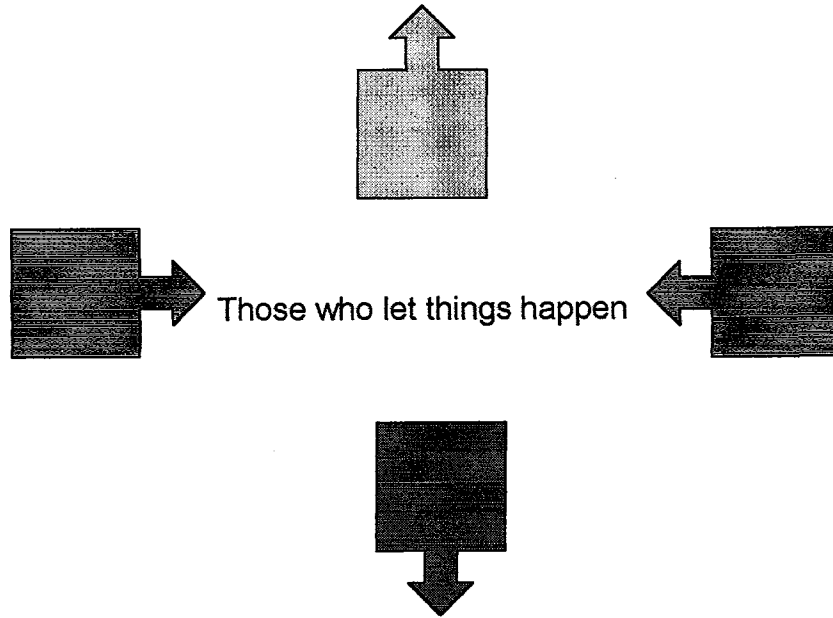
MARKETING

FINANCE



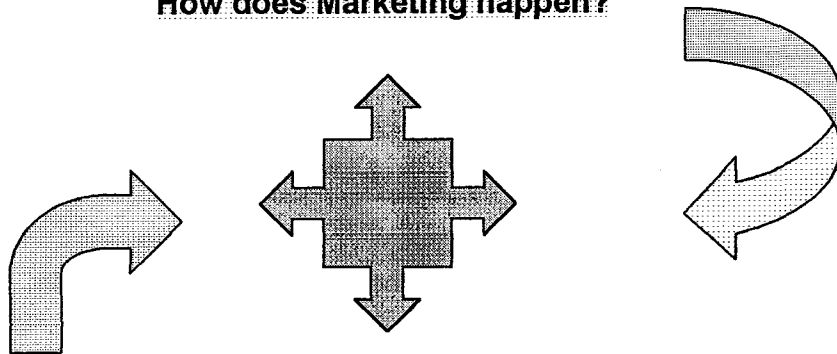
Of importance is to know that:-

Three types of business organisation seem to exist:  
Those that make things happen



Those who wonder what happened.

**How does Marketing happen?**



**Successful marketers rethink, review and redevelop their ideas constantly.**

Marketing can be placed at the centre of analysis of competitive advantage. Not only to perceive a new market or the potential for new technology, but actually to move early and aggressively exploit it.

The centre of modern marketing lies the skills of market analysis, market development and market policy. However marketing is not the panacea for good business. Lack of investment in R&D, poor product design, quality



problems, alienated staff and weak support systems are not resolved by clever packaging and promotion. It is to the benefit of the country/company that a good marketing policy encompasses and describes the need for these aspects in the business of a country/company.

There lies an important distinction between the reality of marketing and its appearance. The former focuses on the comprehensive consumer perspective of the market-orientated firm, while the latter possibly confuses certain of the techniques with the substance. Marketing provides the means to raise a country/company's horizons.

Advertising is the outward and visible signs of marketing to the consumer. It is by advertising that mankind can actually see the better lifestyles open to himself and for his family – better life, better clothing, better food. It can directly spur people on to individual exertion and great production.

The Concept of the FIRM (in the case of Sarawak – a country)

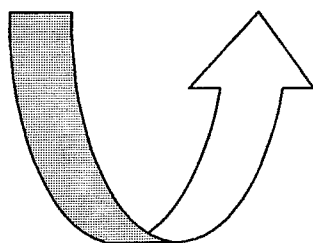
The concept exists that firms exist to satisfy customers' needs. This has not fitted easily into the operations of many organisations. Other notions are competitive to the first one – that a firm (and a country) exists to make profits; - they exist to create jobs; - they exist to survive; all are plausible.

The real power of the marketing concept lies in 3 areas:-

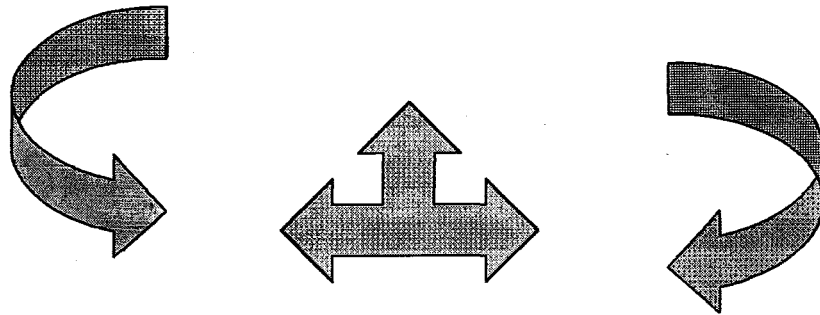
- **The reality of the market place** (the many alternatives mentioned above can only be achieved if the customer is satisfied with the offering – the goods made and delivered).
- **The recognition that**, firms will achieve their targets most effectively if they see that the closer they are to understanding the customer, the more likely they are to gain maximum profits, hence they save and create jobs and survive.
- **The awareness that adding value** to the customer offering provides the key to long-term and secure business development.

These points indicate that Marketing can be a formal recognition that a firm (and country) can adopt 2 routes to business development.

**It can produce an item to fits its convenience**, but in a competitive environment face and uphill struggle of pushing this on an unwilling public;



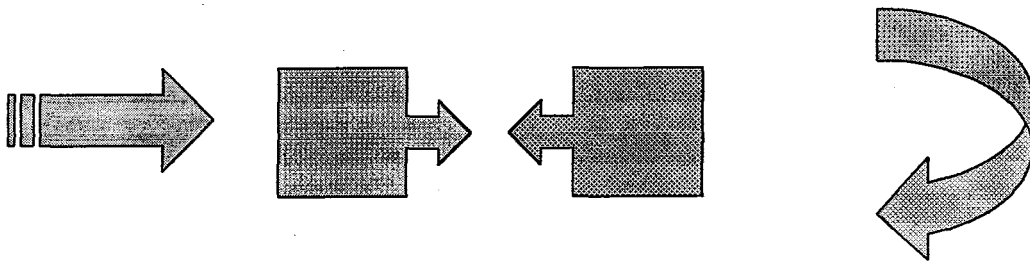
or it can use its knowledge of buyer needs to design, develop or modify its offerings to meet these needs.



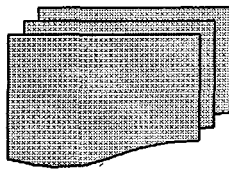
Acceptance and profitable returns are the targets to be earned in proportion to their understanding of these needs and the ability to provide an offering to match them.

**The power of marketing - lies in linking**

**the firm's capabilities and abilities > to the needs of the customers.**

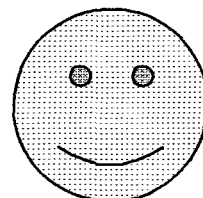


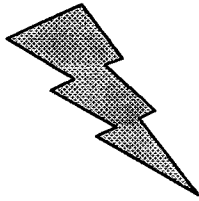
In clear and precise terms – Building effective marketing is the responsibility of everyone in a firm.



The response of that **market place**

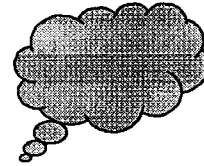
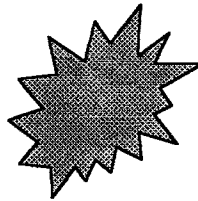
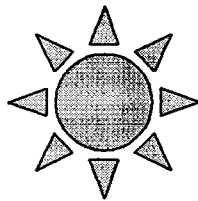
will determine its **prosperity**.





**RECOMMENDATION – THAT MARKETING AS A FUNCTION IS MANAGED IN SARAWAK TO PROVIDE INSIGHT TO PRODUCTION COMPANIES.**

**In most marketing relationships the key to successful management lies in effective communication, understanding and persuasion,**



**Not in authority and power.**



The building up of relationships and the understanding of the problems of the other company (country) functions will be vital in achieving the country/company marketing objectives, through an agreed strategy.

The formulation of objectives and strategies is the central task of senior marketing people. Wherever they are in position in the company. They are responsible for identifying opportunities in the market-place, relating to these to the capabilities of the firm and developing solutions and strategies designed to convert these opportunities into profitable business.

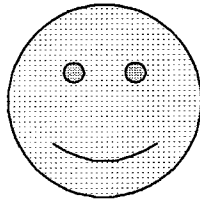
This ensures a continuous working relationship in that job to relate the externalities (**opportunities and threats**) to the internal capabilities (**strengths and weaknesses**) of the company. This is the SWOT analysis. Effectively this can only be done through teamwork, which of course goes beyond the immediate confines of the marketing function.

- It is a total company (or in case a country product sector) activity with an individual or group of marketers charged with bringing together these

criteria and setting mutually acceptable strategies for action. Senior management relates the marketing operations to the other functions in the firm and the corporate plan. The Marketing person will have an integral place on this senior management team.

The variables found in a company (the internal capabilities of the country) and the manner in which the country responds to the correction and balance of these, is often the visible aspect that a buyer sees when evaluating the wish to purchase.

What are his needs and are they satisfied by what the country is doing?



**These variables are often called the marketing mix.**

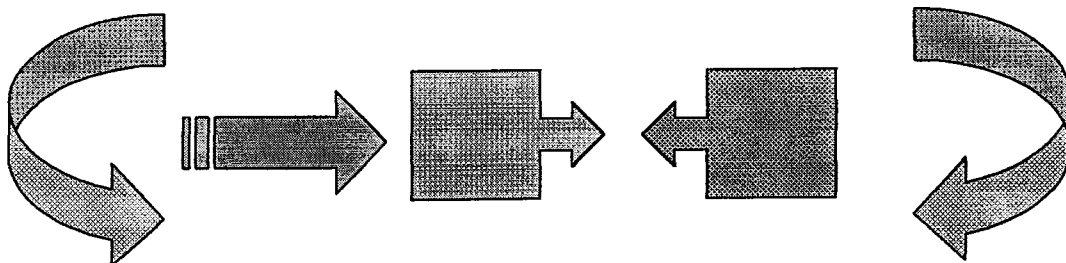
- Individually they are the product or offering, the price, physical distribution, intermediary or channel of distribution and promotion.

This is simplified to the 4 'P's of - **product: price: place and promotion.**

- These are the product proposition and as such provide the basic opportunity for satisfying customer needs.

Marketing calls for the effective management of the individual elements of the mix and their interaction.

The strength of the marketing approach lies in the different view taken by the country and its links with its customers and in the wider market. Buyer needs become the starting point for the production process. The firm defines its offering, products, services and the means of getting these to their actual and prospective customers on this basis.



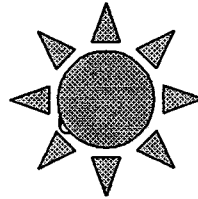
This market approach has distinctive and unique strengths:

- It recognises that a country/company will only remain fit, healthy and competitive if it meets customer needs.
- It highlights the real difference between the need and the means of satisfaction

### The Marketing Policy -

- integrates the different aspects of the marketing mix.

It involves:-

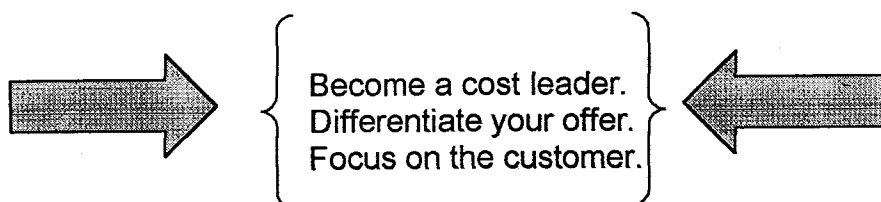


- Study of the **likely future situations** which the country/firm may face (scenario analysis).
- Considering the **different challenges** that will be posed by these alternatives.
- Careful examination of the **country/company's ability** to cope successfully with the challenges posed by changing conditions.
- Review of the **alternate strategies** that the country/firm can adopt to make the best use of the current or obtainable resources to achieve the best market position.
- Taking the **marketing management decisions**, allocating resources and choosing the tactics that will convert these **strategies into action** in the market place.
- Setting up procedures that enable the country/firm to **review progress** and take action to **adjust programmes** of action in the light of changing circumstances and experience.

### The Marketing System

Understanding the environment and marketing system in which the country/firm and its competitors, suppliers and customers do business is central to effective marketing.

Managing competition in the following manner.



### Critical success factors in gaining and sustaining strategic success

- A profound understanding of the competitive environment.
- Goals that are simple, consistent and long term.

Resources must be appraised, not just critically, but objectively and your efforts focused on implementation.

#### The 4 P's satisfy the 4 O's

Product	>>>	<<<	Options
Place	>>>	<<<	Opportunities
SATISFACTION			
Promotion	>>>	<<<	Objectives
Price	>>>	<<<	Organisation

As a part of this appendix it is useful to place on record two distinct definitions.

The activity that they relate to is the cause of many problems in any country and /or company.

- **Production orientation** – the notion that customers will buy well-made goods, produced in sufficient quantities to meet demand with little or no marketing effort needed to achieve adequate sales. Here the country/firm may attempt to focus on technically superior (or inferior) products, but applying appropriate technologies to maximise output and operating efficiently. **This is – Product Push.** It is assumed that the customer will respond favourably to these actions. It can be a successful route, but usually competitiveness comes into play and the market begins to receive a choice of similar products.
- **Sales orientation may dominate a country/firm.** This is based on the notion that the volume needed to sustain the output generated by the new production efficiencies or equipment can only be achieved by heavyweight promotional efforts. New products and decaying ones are often in this category. Invariably this activity strains cash resource and redirects money from investment in R&D, quality and process innovations. It is often seen as a range of smaller or supplier country/firms promote to compete for a declining share of business in a declining market sector.
- **The strength of the marketing approach lies in the different view taken by the country/firm and its links with its customers and in the wider market.** Buyer needs become the starting point for the production process. **This is called – Product Pull.** The country/firm defines its offering, products, services and the means of getting these to their actual

and prospective customers on this basis. This market approach has distinctive and unique strengths:

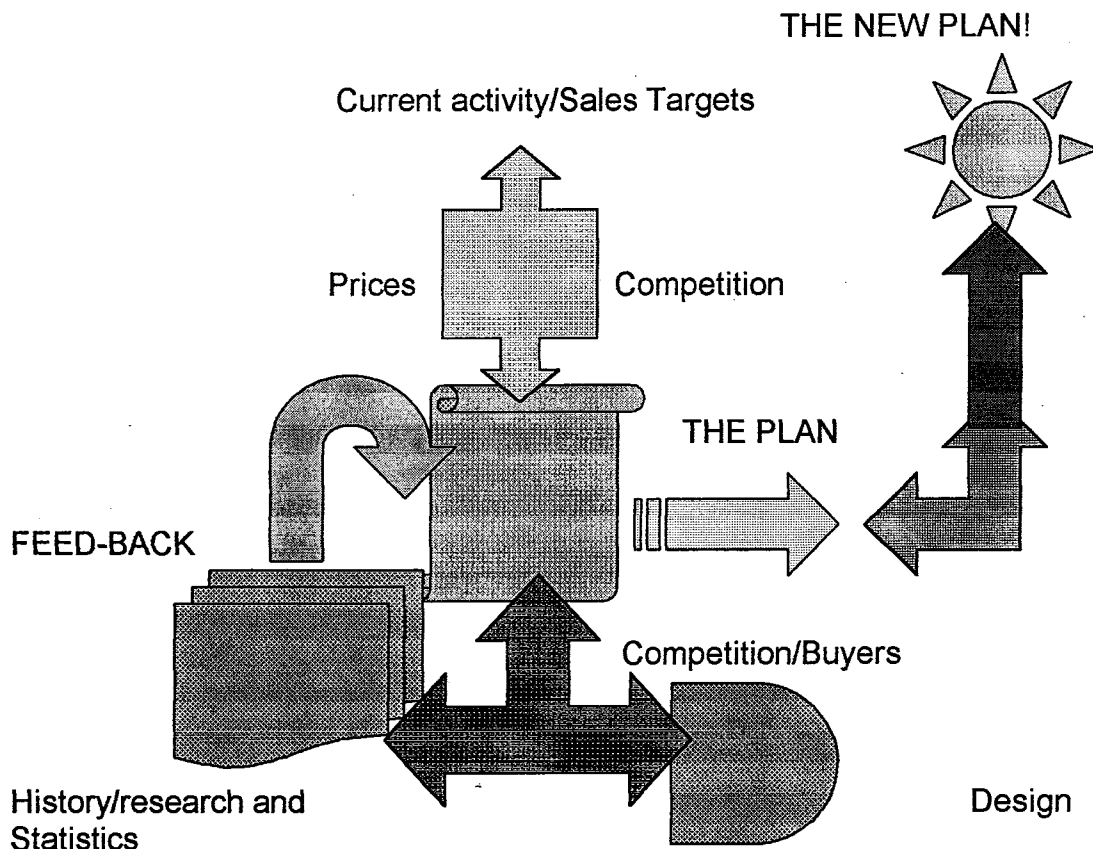
It recognises that a country/company will only remain fit, healthy and competitive if they meet customer needs.....

It highlights the very real difference between the need and the means of satisfying it.....

A country/company achieves this by preparing a

**Marketing Plan and Budget.**

The marketing plan and budget takes into account the historical facts, the current situation and a realistic future forecast of how the company can market its products to a changing and determined set of buyers.



**The Management at Director level approves that plan and the budget for the country/company is agreed for implementation by the well managed workforce.**

The Marketing and Sales departments action the plan and the Production Division supplies the product to strict and specific specifications of quality and timing to meet the distribution arrangements of the customers.

The Economic Division ensures that the country/company can afford to operate in accordance with the plan and the budget. Adequate Cash flow is crucial in ensuring that the country/company can meet its obligations of making product in response to the customer order. They work closely with marketing and with Production to ensure that the Plan is on-budget and that the results from a financial income and cost viewpoint are within the parameters set and agreed by Management.

The 5-line market core is crucial in ensuring that this procedure works well. Questions need to be asked and sound answers given when the 5-line market core is examined and reported upon once a month.

The Marketing staff are key to this role of establishing a quality level throughout the central country office. It is for this reason that these people must be allowed to travel and to benefit from the sights and sounds of quality at the customer and the competitive edge of business in the target countries.

Their offices need to be designed for product planning, research, statistical and customer orientated work. They are the thinkers and doers of the country/company and as such need to be able to do so efficiently. On their shoulders should lie the future profitability and safe keeping of the country/company to meet changing markets and demands.

They need to be customer orientated and respond to the customer country, lifestyle and methods of working.

They are to be computer and communications literate, by phone, fax, e-mail and Internet. They should be literate and able to write correspondence in the client language, if not, then in English.

Work stations and individual computer facilities are important as are secure international phone lines. The sharing of work and work information is necessary to ensure that the market and sales detail can be passed for comment and action around the department and to the various linkages in the company of Economic and Production Divisions.

Product design is a function of Marketing and the key designer should be within marketing. Translation of these design is needed into sound prototyped products. It requires the 'explosion' of the design into a bill of materials and costed parts section should be part of the linkages between marketing and production and that of companies in the country – hence the need for designers and production design staff. The design lead is with Marketing.

Product promotion and advertising is probably a new function for this team. They need advising and an advertising agency should be appointed. The marketing budget is usually a minimum of 5% of the company turnover.



## Appendix 2d

OECD Imports of secondary processed wood product\* by product and major market, 1992 and 1996. (in millions of US dollars)

		Belg.-Luxemburg		Canada		Norway	
		1992	1996	1992	1996	1992	1996
SECONDARY PROCESSED WOOD PRODUCTS	a	1,347.54	1,278.86	751.72	672.45	427.93	583.46
	b	52.69	101.34	135.37	141.87	24.61	31.73
of which:							
635.1 Packings, pallets etc.	a	67.07	77.78	15.89	13.30	8.14	12.68
	b	0.45	0.30	0.38	0.39	0.05	-
635.11 Packings, boxes etc.	a	23.95	20.90	3.91	3.69	2.58	2.40
	b	-	0.26	0.29	0.35	0.02	-
635.12 Pallets, other load	a	43.12	56.88	11.98	9.61	5.56	10.28
	b	0.45	0.04	0.09	0.04	0.03	-
635.2 Coopers' products	a	0.23	1.32	2.17	3.25	0.14	0.49
	b			0.05	-	0.02	
636.3 Builders' woodwork	a	189.29	149.28	85.77	89.83	58.48	106.90
	b	9.52	13.16	5.62	4.64	5.11	2.89
635.31 Windows & frames	a	44.25	38.36	21.44	15.35	3.00	8.46
	b	0.62	3.33	-	0.05	0.20	-
635.32 Doors and frames	a	44.64	40.99	30.69	32.62	26.94	42.91
	b	4.69	4.36	2.71	1.85	1.80	0.68
636.33 Shingles and shakes	a	0.19	0.22	7.02	6.31	-	0.07
	b						
635.39 Other builders' woodwork	a	100.21	69.71	26.62	36.55	28.54	55.46
	b	4.21	5.47	2.91	2.74	3.11	2.21
635.4 Domestic/decorative products	a	26.24	43.07	33.87	39.88	17.66	19.94
	b	7.90	10.90	20.98	25.84	5.12	7.18
635.41 Frames for paintings etc	a	8.73	10.40	10.26	12.23	7.53	8.55
	b	1.82	1.80	4.63	6.66	1.69	1.61
635.42 Tableware/kitchen	a	5.02	9.62	7.50	9.99	3.11	4.83
	b	1.21	2.49	4.81	7.44	1.09	2.13
635.49 Marquetry, cutlery	a	12.49	23.05	16.11	17.66	7.02	6.56
	b	4.87	6.61	11.54	11.74	2.34	3.44
635.9 Other articles of wood	a	92	80.86	56.61	63.23	14.26	20.38
	b	5.49	13.52	16.71	18.18	1.70	2.52
635.91 Tool handles etc.	a	5.04	9.33	4.85	3.78	0.96	1.37
	b	2.49	5.52	1.00	1.09	0.02	0.04
635.99 Other articles	a	59.88	71.53	51.76	59.45	13.30	19.01
	b	3.00	8.00	15.71	17.09	1.68	2.48
ex821 Wooden furniture	a	999.79	926.55	567.41	462.96	329.25	423.07
	b	29.33	63.46	91.68	92.77	12.63	19.12
821.13 Seats of cane etc.	a	11.05	12.33	3.87	3.15	4.36	3.19
	b	6.78	6.97	3.17	2.94	3.47	2.46
821.16 Seats, wood	a	274.62	254.71	228.85	161.39	90.17	111.26
	b	4.84	18.67	20.87	23.91	2.89	5.81
821.5 Furniture n.c.s.	a	684.95	641.60	307.91	287.15	231.40	305.56
	b	11.81	32.07	55.96	60.94	4.40	9.43
821-79 Other material like bamboo	a	29.17	17.91	16.78	11.27	3.32	3.06
	b	5.90	5.75	11.68	4.98	1.87	1.43

Source: ITC/UNSO Comtrade Database.

## Appendix 3

### Product codes and their contents.

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#### 635.1 Packings, pallets etc.

- 635.11 Packings, boxes etc.
  - 635.12 Pallets, other load
- 

#### 635.2 Coopers' products

#### 635.3 Builders' woodwork

- 635.31 Windows & frames
  - 635.32 Doors and frames
  - 635.33 Shingles & shakes
  - 635.39 Other builders' woodwork
- 

#### 635.4 Domestic/decorative products

- 635.41 Frames for paintings
- 635.42 Tableware/kitchenware.
- 635.49 Marquetry, cutlery .

#### 635.9 Other articles of wood

- 635.91 Tools/tool handles etc.
- 635.99 Other articles

#### ex 821 Wooden furniture

- 821.13 Seats of cane etc.
- 821.16 Seats, wood
- 821.5 Furniture n.e.s.
- 821.79 Other material like bamboo

## Appendix 1a

OECD: imports of **wooden furniture** \* from developing market economies and China, by major origin, 1988, 1992 and 1996  
(in millions of United States dollars)

Origin	VALUE			% share		Index 1996 (1988=100)	
	1988	1992	1996	1988	1992		
DMEC	2,159.81	3,216.81	5,207.76	100.0	100.0	100.0	241
of which:							
NIEs	1,337.46	1,167.40	859.53	61.9	36.3	16.5	64
of which:							
Taiwan Prov. (China)	1,052.90	951.49	661.34	48.7	29.6	12.7	62
Singapore	119.41	117.35	72.97	5.5	3.6	1.4	61
Hong Kong	60.44	53.95	66.84	2.8	1.7	1.3	111
Korea Rep.	104.71	44.61	58.38	4.8	1.4	1.1	56
Others	822.35	2,049.41	4,348.23	38.1	63.7	83.5	528
of which:							
Indonesia	64.94	437.68	903.59	3.0	13.6	17.4	389
China	125.67	294.47	811.58	5.8	9.2	15.6	644
Malaysia	32.36	182.47	659.11	1.5	5.7	12.7	2059
Thailand	179.14	325.44	495.60	8.3	10.1	9.5	276
Mexico	104.73	167.72	342.27	4.8	5.2	6.6	329
Brazil	28.87	99.65	262.68	1.3	3.1	5.0	903
Philippines	219.93	176.89	211.14	10.2	5.5	4.1	96
Slovenia	N/A	82.01	165.56	-	2.5	3.2	*202
Viet Nam	N/A	5.11	92.18	-	0.2	1.8	*1804
Croatia	N/A	36.61	70.96	-	1.1	1.4	*194
Chile	7.31	16.05	22.17	0.3	0.5	0.4	314
Egypt	2.28	6.54	20.86	0.1	0.2	0.4	*1050
Bosnia Herzg.	N/A	5.92	6.88	-	0.2	0.1	*116
Guatemala	N/A	2.02	6.37	-	0.1	0.1	*315
Argentina	5.18	6.71	6.09	0.2	0.2	0.1	120
Others	35.60	204.12	271.19	1.6	6.3	5.2	753

Source: ITC/7JNSO Comtrade Database.

\* SITC 821.13, 821.16, 821.5 and 821,79

\* 1992 base.

Appendix 1b

OECD: imports of articles for domestic or decorative use from developing market economies and China, by major origin, 1988, 1992 and 1996. (in millions of United States dollars)

SITC 635.4

Origin	VALUE			% share		Index1996	
	1988	1992	1996	1988	1992	1996(1988=100)	
DMEC	622.60	945.17	1,291.97	100.0	100.0	100.0	207
of which:							
NIEs	372.90	313.43	187.37	59.9	33.2	14.5	50
Of which:							
Taiwan Prov. (China)	331.13	279.82	147.75	53.2	29.6	11.4	44
Hong Kong	16.17	20.61	30.52	2.3	2.2	2.4	194
Korea Rep.	25.07	10.83	8.24	4.0	1.1	0.6	32
Singapore	0.53	2.17	0.86	0.1	0.2	0.1	162
Others	248.70	631.74	1,104.60	40.1	66.8	85.5	445
of which:							
China	61.44	248.18	536.49	9.9	26.3	41.5	878
Thailand	70.95	137.75	212.12	11.4	14.6	16.4	299
Indonesia	25.42	62.68	100.42	4.1	6.6	7.8	400
Mexico	27.67	48.77	80.41	4.4	5.2	6.2	296
Philippines	29.97	52.42	54.87	4.8	5.5	4.2	183
Malaysia	4.16	19.42	25.84	0.7	2.1	2.0	645
Viet Nam	N/A	2.61	11.89	-	0.3	0.9	*456
Slovenia	N/A	3.43	9.28	-	0.4	0.7	*271
Kenya	1.68	2.69	4.54	0.3	0.3	0.4	268
Sri Lanka	1.47	4.97	3.98	0.2	0.5	0.3	270
Others	12.48	48.82	64.76	2.0	5.2	5.0	541

Source: ITC/UNSO Comtrade Database.

- 1992 BASE.

Appendix 1c

OECD: imports of builders' woodwork from developing market economies and China, by major origin, 1998, 1992 and 1996  
(in millions of United States dollars)

SITC 636.3

Origin	VALUE			% share		Index 1996	
	1988	1992	1996	1988	1992	1996 (1988=100)	
DMEC	283.80	615.31	936.82	100.0	100.0	100.0	330
of which:							
NIEs	136.00	111.13	79.05	47.9	18.1	8.4	58
of which:							
Taiwan Prov. (China)	96.69	39.28	21.06	34.1	6.4	2.2	22
Singapore	21.23	41.88	25.43	7.5	6.8	2.7	119
Korea Rep.	14.71	28.95	28.95	5.2	4.7	3.1	193
Hong Kong	3.37	1.02	3.61	1.2	0.2	0.4	109
Others	147.80	504.18	857.77	52.1	81.9	91.6	583
of which:							
Indonesia	13.67	106.34	265.38	4.8	17.3	28.3	2038
Malaysia	32.90	106.63	135.92	11.6	17.3	14.5	412
Slovenia	N/A	60.52	124.29	-	9.8	13.3	*205
Philippines	31.89	39.74	91.30	11.2	6.5	9.7	293
Brazil	25.61	45.45	69.84	9.0	7.4	7.5	269
China	3.29	18.24	37.48	1.2	3.0	4.0	1233
Mexico	11.67	32.33	33.57	4.1	5.3	3.6	283
Thailand	9.30	20.57	29.44	3.3	3.3	3.1	322
Croatia	N/A	8.46	19.28	-	1.4	2.1	*228
Chile	N/A	3.85	8.46	-	0.6	0.9	*220
Others	13.64	62.05	42.81	4.8	10.1	4.6	300

Source: ITC/UNSO Comtrade Database.

\* 1992 BASE

## Appendix 2a

OECD Imports of secondary processed wood product\* by product and major market, 1992 and 1996. (in millions of US dollars)

		OECD		United States		Germany	
		1992	1996	1992	1996	1992	1996
SECONDARY PROCESSEDA		23,142.27	27,870.36	3,930.22	6,508.71	5,179.00	5,304.39
WOOD PRODUCTS	b	5,368.04	8,266.38	2,340.37	3,530.88	564.42	733.65
of which:							
635.1 Packings, pallets etc.	a	603.22	801.11	15.43	34.55	194.57	193.24
	b	29.02	47.16	3.78	7.57	2.52	1.27
635.11 Packings, boxes etc.	a	164.78	167.94	8.65	16.66	37.59	29.27
	b	7.39	13.42	2.67	4.18	0.61	0.82
635.12 Pallets, other load	a	438.44	633.17	6.78	17.89	156.98	163.97
	b	21.63	33.74	1.11	3.39	1.91	0.45
635.2 Coopers' products	a	110.42	154.15	40.18	67.45	2.64	0.71
	b	1.45	1.83	0.93	0.06	0.05	0.13
635.3 Builders' woodwork	a	3,150.01	4,339.56	414.15	695.11	886.43	1,110.10
	b	615.31	936.82	111.50	164.61	167.04	225.82
635.31 Windows & frames	a	426.13	677.85	24.70	53.23	92.40	238.32
	b	41.59	69.32	6.30	5.26	17.14	37.35
635.32 Doors and frames	a	806.84	1,095.59	88.51	197.42	184.11	191.12
	b	284.13	370.66	67.15	107.11	47.09	45.99
635.33 Shingles & shakes	a	230.48	205.37	214.30	188.22	2.94	2.94
	b	0.10	0.16	0.05	0.04	-	-
635.39 Other builders' woodwork	a	1,686.56	2,360.75	86.64	256.24	606.98	677.72
	b	289.49	496.68	38.00	52.20	102.81	142.48
635.4 Domestic/decorative products	a	1,353.25	1,744.72	375.10	687.68	201.89	186.15
	b	945.17	1,291.97	339.70	529.26	97.04	105.65
635.41 Frames for paintings	a	313.84	452.86	117.24	214.64	40.90	31.88
	b	182.52	332.40	109.31	204.64	9.41	12.68
635.42 Tableware/kitchenw.	a	341.50	466.92	66.82	91.28	32.66	41.59
	b	263.71	365.97	58.82	80.39	23.58	27.93
635.49 Marquetry, cutlery	a	697.91	825.14	191.04	281.74	128.33	111.68
	b	498.94	593.60	171.57	244.23	64.06	65.04
635.9 Other articles of wood	a	1,519.88	2,109.25	414.61	574.20	306.08	468.34
	b	560.28	780.64	260.97	328.19	64.74	69.26
635.91 Tools/tool handles etc.	a	111.03	134.04	28.82	33.89	23.00	23.26
	b	57.06	70.41	24.64	26.72	10.26	12.68
635.99 Other articles	a	1,408.85	1,975.21	385.79	540.31	283.08	435.08
	b	503.22	710.43	236.33	301.47	54.48	56.58
ex 821 Wooden furniture	a	16,405.49	18,721.57	2,670.75	4,549.74	3,587.39	3,356.85
	b	3,216.81	5,207.76	1,623.49	2,501.19	233.03	331.52
821.13 Seats of cane etc.	a	350.42	360.34	93.25	89.78	47.24	55.32
	b	290.13	321.84	92.32	89.04	32.49	45.98
821.16 Seats, wood	a	4,562.07	5,300.02	761.27	1,199.01	976.50	1,004.93
	b	806.48	1,364.02	414.56	630.61	67.56	96.41
821.5 Furniture n.e.s.	a	10,832.85	12,447.79	1,637.47	3,042.09	2,509.88	2,260.87
	b	1,738.78	3,113.00	960.31	1,586.96	115.78	69.54
821.79 Other material like bamboo	a	660.15	613.42	178.76	218.86	53.77	35.73
	b	381.42	408.90	156.30	194.58	17.20	19.59

Source: ITC/UNSO Comtrade Database.

## Appendix 2b

OECD Imports of secondary processed wood product\* by product and major market, 1992 and 1996. (in millions of US dollars)

		1992	Japan 1996	1992	France 1996	United Kingdom 1992	1996	
SECONDARY PROCESSEDA		1,247.45	2,749.69	2,335.80	2,330.92	1,553.74	1,655.70	
WOOD PRODUCTS	b	911.22	1,787.80	210.90	353.96	375.77	543.47	
of which:								
635.1	Packings, pallets etc.	a	20.18	34.22	64.14	99.41	27.35	70.51
		b	17.24	30.49	0.19	1.03	0.63	1.78
635.11	Packings, boxes etc.	a	3.26	7.24	21.60	22.20	6.25	5.88
		b	1.61	5.15	0.09	0.19	0.39	1.37
635.12	Pallets, other load	a	16.92	26.98	42.54	77.21	21.10	64.63
		b	15.63	26.34	0.10	0.84	0.24	0.41
635.2	Coopers' products	a	1.74	2.02	4.18	5.63	31.05	25.88
		b	0.12	0.32	-	0.13	0.18	0.70
635.3	Builders'woodwork	a	124.04	573.16	135.44	162.03	237.12	278.64
		b	50.53	171.77	11.03	27.84	102.44	116.99
635.31	Windows & frames	a	23.32	80.88	42.77	39.43	25.41	32.23
		b	0.84	3.77	3.88	5.63	2.94	1.04
635.32	Doors and frames	a	32.91	134.39	20.73	26.47	143.84	159.29
		b	13.47	44.26	1.86	11.51	89.31	96.74
636.33	Shingles and shakes	a	0.51	0.62	1.27	1.21	0.98	0.95
		b	-	-	0.03	0.06	-	-
635.39	Other builders' woodwork	a	67.30	357.27	70.67	94.92	86.89	86.17
		b	36.22	123.74	5.26	10.64	10.19	19.21
636.4	Domestic/decorative products	a	245.24	339.88	93.28	110.45	83.87	106.52
		b	226.59	321.73	49.56	64.14	51.31	65.54
636.41	Frames for paintings	a	25.10	46.59	21.00	27.37	19.82	22.82
		b	21.19	43.09	5.09	13.33	9.24	15.18
635.42	Tableware/kitchen	a	137.01	183.72	16.43	24.75	22.19	36.18
		b	130.72	180.92	8.20	12.46	9.56	18.21
635.49	Marquetry, cutlery etc.	a	83.13	107.57	55.85	58.33	41.86	48.52
		b	74.68	97.72	36.27	38.36	32.51	32.15
635.9	Other articles of wood	a	112.00	211.83	119.76	146.23	113.02	142.69
		b	89.77	173.75	25.03	31.39	32.03	50.11
635.91	Tools/tool handles	a	4.84	7.38	9.84	11.79	9.92	14.03
		b	3.59	5.99	3.19	3.27	3.88	6.28
635.99	Other articles	a	107.16	204.46	109.92	134.44	103.10	128.66
		b	86.18	167.76	21.84	28.12	28.15	43.83
ex 821	Wooden furniture	a	744.25	1,588.58	1,919.00	1,807.17	1,061.33	1,031.46
		b	526.97	1,089.74	125.09	229.43	189.18	308.35
821.13	Seats of cane etc.	a	33.92	43.60	17.92	22.39	35.43	18.58
		b	33.31	43.10	14.87	17.46	20.02	17.95
821.16	Seats, wood	a	227.26	528.02	658.91	605.22	184.96	279.45
		b	140.68	323.37	16.84	37.53	43.33	74.07
821.5	Furniture n.c.s.	a	375.82	913.52	1,164.08	1,130.62	811.45	692.68
		b	256.75	639.86	73.33	150.49	110.45	191.87
821.79	Other material like bamboo	a	107.25	103.44	78.09	48.94	29.49	40.75
		b	96.23	83.41	20.05	23.96	15.38	24.46

Source: ITC/UNSO Comtrade Database.

## Appendix 2c

OECD Imports of secondary processed wood product\* by product and major market, 1992 and 1996. (in millions of US dollars)

			Netherland		Switzerland		Austria	
			1992	1996	1992	1996	1992	1996
SECONDARY PROCESSED WOOD PRODUCTS		a	1,612.18	1,452.58	1,213.82	1,430.66	945.06	1,286.55
		b	155.84	324.41	27.12	27.38	43.13	73.80
of which:								
635.1	Packings, pallets etc	a	59.60	58.48	17.56	24.62	19.60	30.76
		b	0.40	0.74	0.04	0.05	0.06	0.14
635.11	Packing*, boxes etc.	a	13.43	14.22	6.63	8.35	4.20	6.92
		b	0.09	0.09	0.03	0.03	0.03	0.05
635.12	Pallets, o"r load	a	46.17	44.26	10.93	16.27	15.40	23.84
		b	0.31	0.65	0.01	0.02	0.03	0.09
635.2	Coopers'products	a	0.22	0.32	1.64	2.33	1.17	1.12
		b	0.00	0.01	0.03	0.01	0.01	0.03
635.3	Builders' woodwork	a	106.68	252.76	165.88	217.79	175.40	257.48
		b	43.99	102.20	1.62	2.28	15.34	29.20
635.31	Windows & frames	a	36.95	33.91	24.69	27.88	25.59	50.95
		b	3.46	0.91	1.09	0.12	2.45	9.21
636.32	Doors & frames	a	28.02	42.56	46.69	66.74	30.61	38.71
		b	17.13	19.05	0.13	0.25	3.24	5.83
636.33	Shingles and shakes	a	0.05	0.94	0.59	0.78	0.66	0.60
		b	0.00	0.00	0.00	0.02	0.00	0.00
635.39	Other builders' woodwork	a	121.66	175.35	83.91	132.39	118.54	167.22
		b	23.40	82.24	0.40	1.89	9.65	14.16
635.4	Domestic/decorative	a	47.48	56.10	33.32	37.12	20.38	26.45
		b	26.81	33.78	5.64	6.89	6.30	6.82
635.41	Frames & paintings	a	10.46	12.04	6.14	7.99	4.96	6.40
		b	1.98	4.97	0.28	0.97	0.61	0.47
635.42	Tableware/kitchenw	a	8.87	12.21	5.99	5.64	4.72	6.93
		b	4.33	6.82	1.67	1.59	2.45	3.16
635.49	Marquetry, cutlery	a	28.15	31.85	21.19	23.49	10.70	13.12
		b	20.50	21.99	3.69	4.33	3.24	3.19
635.9	Other articles wood	a	51.02	82.46	59.16	61.95	43.04	52.29
		b	9.03	18.99	2.07	2.37	5.85	8.87
635.91	Tools/tool handles	a	5.38	5.85	2.21	3.01	2.36	4.07
		b	1.70	2.03	0.14	0.09	0.45	0.51
635.99	Other articles	a	45.64	76.61	56.95	58.94	40.68	48.22
		b	7.33	16.96	1.93	2.28	5.40	8.36
ex 821	Wooden furniture	a	1,267.18	1,002.46	946.26	1,086.85	685.47	918.46
		b	75.61	168.69	17.72	15.78	15.57	28.74
821.13	Seats of cane etc.	a	37.93	48.25	8.39	7.42	6.05	5.42
		b	32.49	46.29	2.09	2.31	2.61	1.96
821.16	Seats, wood	a	312.99	228.61	261.04	292.57	182.13	200.21
		b	10.37	29.22	5.49	4.65	2.86	5.24
821.5	Furniture n.e.s.	a	891.11	703.62	645.26	747.77	488.81	700.97
		b	21.65	79.92	8.12	7.20	8.07	20.04
821.79	Other material like bamboo	a	25.15	21.98	31.57	39.09	8.48	11.85
		b	11.10	13.26	2.02	1.62	2.03	1.50

Source: ITC/UNSO Comtrade Database.