(vi) Patents, Trademarks, Licences and Franchises

The iron and steel industry is a matured industry where innovations are rare. As such, there are no patent rights as the rights would have expired over the years. However, innovations could still-be found in the non-basic product segments such as scaffolding products. The Group is one of the largest scaffolding manufacturers in Malaysia and commands a significant portion of the local scaffolding market. The management believes the Group would continue to reap success in this area with the Crab System scaffolding, an innovative product which is poised to replace the ordinary steel scaffolding frames in the future.

The Crab System scaffolding is a patented design developed by Entrepose of France. It is an advanced scaffolding system which conforms to the European Safety Standards and is particularly suitable for heavy industrial usage such as shoring works, ship building, the oil and gas industries and general industrial applications. HTSM is the sole licensed manufacturer and distributor of the Crab System scaffolding for Malaysia.

(vii) Research and Development ("R&D")

The Group's strategies are geared towards achieving optimum profit margins whilst constantly seeking to improve product and process standards through enhancing operational efficiency. The various strategies to optimise operating efficiency include constant training and upgrading of manpower skills/expertise, increasing levels of automation, lowering production costs, process integration and conscious move towards higher margin/value-added products. The R&D department strives to assist the Group in meeting these objectives.

The Group has been actively involved in R&D since the Group commenced operations. The Group has progressively upgraded and computerised its R&D equipment in line with advance/changes in technology to supplement and ensure that the performance of the R&D team is at optimum. The R&D department is headed by an experienced senior manager, Mr Lee Kee Bau, who works closely with the Managing Director, Mr Kua Hock Lai, and is assisted by 3 technicians.

The activities of the R&D team revolve around the following objectives:-

- Increasing operational efficiency through continuous product and process enhancement and increasing level of automated process;
- Increasing productivity through developing and upgrading skills by way of training programmes; and
- Researching and developing new products/designs to meet the customers changing needs and market trends.

The R&D team has the necessary technical expertise to design/develop as well as to fabricate a complete production line necessary for new products design and specifications. Among the team's notable successes are as follows:-

Notable Successes of the R&D Team					
2001	₩,	Developed form-work equipment to complement existing scaffolding products			
1998	Redesigned and subsequently manufactured various components of the Crathat cater to local conditions which the Group's customers had to previously important.				
		Redesigned the temporary steel structure to enable the placement of seats for installation at the Formula One Circuit at Sepang. These seating structure and frames were also supplied to various stadiums constructed for the Sydney 2000 Olympic games.			
1997	\$	Redesigned some of the specifications of the Group's customers to yield variant products that weigh less and can be produced at a lower cost.			
1996	\$	Studied standard specification of steel products used in overseas markets and tailored-made its products to meet the standards imposed. This reduced the need for further tests for the products of the Group when penetrating a new market. 2 successful example are the Group's entry into the Australian and Hong Kong markets, i.e. the Group tailor-made its square hollow sections and pipes/tubes to meet the specifications of its customers in these markets.			

In its efforts to keep abreast of the recent developments in the iron and steel industry in the local and international arena, the Group regularly sends its key personnel to international courses, seminars and exhibitions in order to expose the Group to new products, technologies and materials information system. The senior management also keeps a close relationship with its supplier network which normally has information on the latest technology and machines available in the industry.

Some of the other notable achievements/awards received by the Group are as follows:-

Notable Achievements/Awards

- Distributor Platinum Award presented by Malayawata Steel Berhad to HTH in recognition of Excellent Performance for the year 2001/2002 in the sales of steel products
- Distributor Platinum Award presented by Malayawata Steel Berhad to HTH in recognition of Excellent Performance for the year 2000/2001 in the sales of steel products
- Appreciation from Perspec-Tasei-Kajima-Shimizu-Hazama Consortium to Mr Kok Kim Sang of HMSB for support and contribution for the successful design and construction of the Kuala Lumpur International Airport project, Package PTCI (Main Terminal Building, Contact Pier and Baggage Handling System)
- Certification from Entrepose that the Crab System manufactured under license by HTSM conforms to ISO 9001.

(viii) Methods of Distribution

The distribution network of the Group is centralised by the Marketing Department of the HTVB Group located in Klang. From this central location, the Group services its customers all over Peninsular and East Malaysia. The centralised location allows the Group easy access to customers located in the Klang Valley, Selangor, Johor and Singapore. In the northern region, the Group has also set up its marketing and trading house, under THH, in Butterworth, Penang. This strategy enables the Group to be constantly in direct contact with its customers throughout the Northern regions of Peninsular Malaysia and to respond quickly to customer needs.

The strategic location of the Group's production facilities within close proximity of Port Klang is also advantageous for the Group's operations as it facilitates an efficient distribution network with its customers and suppliers abroad.

4.6 Overall Malaysian Economy

The Malaysian economy's recovery regained some momentum in 2002 although faced with a challenging external environment. Real economic growth turned positive in the first quarter and strengthened to 5.6% in the fourth quarter. For the year as a whole, real GDP expanded by 4.2% compared with 0.4% in 2001.

Economic growth was broad based, driven by strong domestic demand and reinforced by improved export performance. While public expenditure was strongly supportive of economic activity, growth was reinforced by sustained strength in consumer spending and external demand. Low interest rates, improved access to financing and the significant improvement in commodity prices provided strong stimuli for private sector expenditure to grow.

Strengthening domestic demand, together with the recovery in exports, led to a turnaround in the manufacturing sector in 2002. Value added in the sector expanded by 4.1%, from a contraction of 6.2% in the previous year. Overall, manufacturing production expanded by 4.5% (2001: -6.6%), due to the stronger performance of the export-oriented industries, while the domestic-oriented industries grew at a moderate pace. Output of construction-related materials continued to expand during the year due mainly to higher construction activity, particularly in the first half of 2002, which resulted in increased demand for iron and steel products. For the year as a whole, growth in the sector was broad based. Both non-metallic mineral products, and iron and steel and non-ferrous metal products increased in response to the increase in demand for cement and concrete products as well as structural clay products. On the other hand, growth in production of the fabricated metal products industry moderated during the year. It was mainly affected by lower production of structural metal products, especially in the second half of 2002, amidst the moderation in the construction sector. However, output of brass, copper and aluminium products recovered to record a marginal growth, benefiting from a turnaround in the electronics and telecommunication sectors.

In 2002, growth in the construction sector was maintained at 2.3%. Growth was supported mainly by higher Government expenditure on infrastructure projects and household demand for residential property. In the non-residential sub-sector, construction activity remained focussed on existing projects given the prevailing large overhang of office and retail space. In the civil engineering sub-sector, growth was stimulated by higher Federal Government development expenditure on construction-related projects, especially for projects related to the transportation, education, housing and public utilities sub-sectors. While new construction in the residential sub-sector remained strong, overall demand for properties moderated. Demand for affordable and landed houses in choice locations with good accessibility, however, was sustained.

(Source: Bank Negara Malaysia Annual Report 2002)

4.7 The Iron and Steel Industry

(i) Overview of the Iron and Steel Industry

The iron and steel industry forms the foundation of an advanced, industrialised economy. Although the industry is highly capital-intensive, many developing countries have continued to install steel-making capacities for the sake of national interests, among others, to add value to natural resources, ensure ready supply for the development of the manufacturing and construction sectors, substitute for import, save on foreign exchange, and to generate further linkages with the rest of the economy. Most, if not all of the countries which have emerged as industrialised economies over the last four decades have regarded the development of their steel industry as a priority.

The structure of the steel industry in Malaysia by product type and number of establishments is set out below:-

CATEGORY AND TYPE OF STEEL PRODUCTS AND PRODUCERS					
Category	Type of Products	Number of Establishment as at 2000	Rated Capacity ('000 MT)		
Primary Products	Direct Reduced Iron Hot-Briquetted Iron Billets Blooms Slabs	1 1 6 1	1,200 720 4,400 750 * 2,500		
Rolling/Finished Products	Rolled Products Medium to Heavy Sections Hot-Rolled Coils Cold-Rolled Coils Plates	51 1 1 2 1	5,000 700 2,000 680 •• 200		
Secondary Products - Longs	Wires Mesh Hard Drawn Wire Nails Galvanised Wire Welding Electrodes Bolts & Nuts Shafting Bars Others	40 40 14 8 10 15 7 6	550 200 90 150 40 80 50		
Secondary Products - Flats	Steel and Cement-Lined Pipes Pipe Fittings Tinplate Galvanised, Prepainted and Roll-Formed Sheets Steel Service Centres	31 4 1 51	2,300 N/A 250 400		

Notes:-

To a large extent, the steel industry in Malaysia is centred around the country's construction and infrastructural needs. Production is still dominated by long products, especially bars and wire-rods although the importance of flats and steel sections has increased in recent years and rapid development and economic prosperity of the country's population.

Likewise, with continued emphasis on the manufacturing sector as the engine of growth, it is anticipated that Malaysia's consumption pattern would witness a shift from longs to flats in the medium- to long-term, as the per capita income of its population rises.

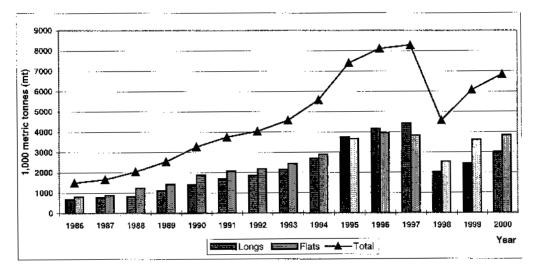
(Source: 5th MISIF Report 2001)

Capacity expected from Megasteel Sdn Bhd to make the Hot-Rolled Coils

^{**} Jikang Dimensi Sdn Bhd

(ii) Growth of the Steel Industry in Malaysia

Malaysia's aggregate steel consumption trend between 1986 and 2000 is shown in the table below. In the 10 years preceding the 1997-98 financial crisis, steel consumption grew steadily from 1.5 million mt in 1986 to 3.3 million mt in 1990, and 8.1 million mt in 1996. Consumption peaked in 1997 at 8.3 million mt despite signs of an economic slowdown. In 1998, steel consumption declined sharply as the crisis rooted itself in the real sector of the economy. Consumption nose-dived an unprecedented 45% to 4.6 million mt in1998, before picking a strong 33% in 1999 to 6.1 million mt. In 2000, aggregate steel consumption recorded 6.9 million mt, with long products accounting for 44% of total consumption and flat products making up the remaining 56%.

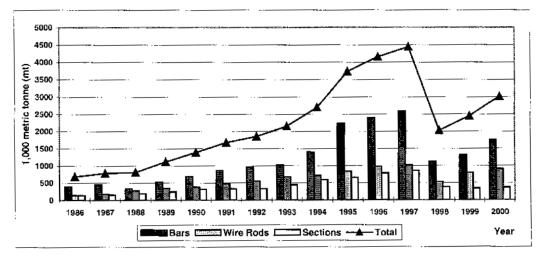


Aggregate Steel Consumption

(Source: 5th MISIF Report 2001)

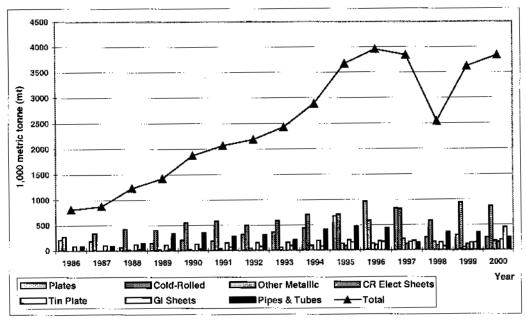
An interesting observation in the consumption pattern of steel as seen above is that between 1986-1994 and again from 1998-2000, the ratio of flats to longs consumed were higher. The trend, however, reversed from 1995-1997 with consumption of long products outstripping that of flats. A possible explanation for this trend is that construction activity was at its peak in the mid 1990s. Over the five-year period between 1993-1997, the GDP for the construction sector grew at an average annual rate of 13%. Growth was fuelled by a buoyant real estate market coupled with major infrastructural and building projects. Such projects resulted in the extensive use of rolled long products, such as bars, wire rods and sections.

The consumption of long products stood at 3.0 million mt in 2000. Bars and wire rods made up the bulk of the consumption for longs in 2000, at 58% and 30% respectively. Sections accounted for 12% of all long products' consumed. The consumption of flat products, on the other hand, stood at 3.8 million mt in 2000. Among the major categories of flat consumed during the year were hot-rolled sheets and strips (38%), cold-rolled sheets and coils (23%), GI sheets (12%), pipes and tubes (7%) and plates (7%).



Consumption of Long Products (1986 to 2000)

On the contrary, the manufacturing sector is the major consumer of finished flat products. Like the construction sector, the manufacturing sector also grew at an average annual rate of 13% between 1993-1997. This high growth rate was a key factor that contributed to the increase in consumption of flat products prior to the economic crisis in 1997-98. With the manufacturing sector growing strongly in 1999 and 2000, and the construction sector remaining relatively flat, the consumption of flats outstripped longs again in the last two years.



Consumption of Flat Products (1986 to 2000)

(Source: 5th MISIF Report 2001)

(iii) Industry Dynamics

(a) Competition

As a manufacturer of steel tubes and pipes, the HTVB Group faces competition from other producers of similar products. According to the 5th MISIF Report 2001, there were 35 establishments engaged in the production of seamed tubes and pipes in Malaysia.

The industry is concentrated with most companies in this industry ranging from medium to large-scale manufacturers with huge capital outlay. However, no single or major company dominate the industry.

(b) Barriers to Entry and Exit

Barriers to entry is one of the forces which determines the long term profitability of an industry. In respect of the iron and steel manufacturing industry, the inherent difficulties faced by new entrants will include *interalia* the following:-

Capital Intensive

Potential entrants to the iron and steel manufacturing industry require high level of capital investment for specialised production facilities and plant and machinery; in addition to the employment of necessary technological expertise/skill/knowledge, skilled/experienced key operational staff. This is a deterrent to new players from entering the business.

Economies of Scale

The high capital requirement leads to high depreciation charges and high operating leverage in order to be cost efficient. Consequently, in order to operate profitably, it is imperative for manufacturers to produce high quality products in large quantities at low costs. In this respect, committed expert workforce, facilities and expenditure on research and development activities to maintain and enhance product/process quality and efficiency levels and to keep abreast of latest developments, and thereby maintain competitiveness are important to a participant in the industry.

Licences and Tariffs

The iron and steel industry is a heavily protected one requiring various licences to be obtained prior to commencing operations. The industry is regulated by the Malaysian Industrial Development Authority ("MIDA") and any increase in capacity by any mills must be approved by MIDA in the form of issuance of new manufacturing licences. MIDA restricts the issue of production licences and do not normally award them to small scale operators.

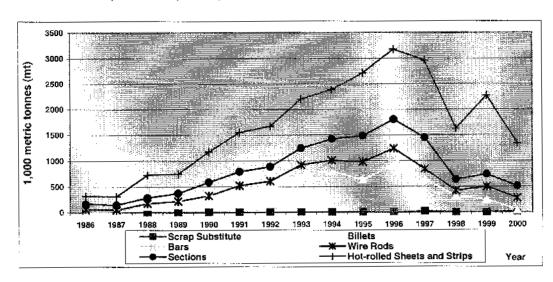
The Malaysian Government has also imposed tariff and non-tariff rules to control the import of steel to protect Malaysia's developing steel industry. For example, the Government requires importers of hot- and cold-rolled coils to apply for an Approved Permit from the MITI. The Government also imposes duties on the imported steel.

(c) Adequate Supply of Raw Materials

Malaysia's demand for steel products grew strongly in the 1980s, in tandem with its industralisation efforts. While local production of long products has been somewhat sufficient to cater to the requirements of the construction sector, the country's flat product requirements were fully imported until 1998. Shortfall in bars and wire rods were also imported to supplement local production.

A large proportion of these imports were flat products (Hot-Rolled ("HR") and Cold-Rolled sheets and coils, plates, coated sheets and seamless pipes and tubes), which were not produced locally. These items are used for finishing processes in industries such as shipbuilding, automotive, machinery and engineering, container making and food canning.

In 2000, Malaysia imported 464,000 mt of rolled longs (1999:489,000 mt) and 2.0 million mt of rolled flats (1999: 2.8 million mt). Sections alone accounted for 50% of rolled long imports while HR sheets and strips made up 43% of rolled flat imports. The import of HR flats peaked at 1.5 million mt in 1999 attributable to industry players building up their stocks with cheap imports. However, such imports moderated to 0.8 million mt in 2000 and is envisaged to decline in the next few years as local production picks up.



Steel Imports by Product Types (1986 - 2000)

(Source: 5th MISIF Report 2001)

(d) Seasonality

Iron and steel are in demand for the broad and extensive range of endproducts for diverse industries ranging from construction, metal fabrication, steel furniture frames, steel roll forming, engineering, automobile, metal stamping, electronics and home appliances.

Its dependency is therefore well spread out amongst the wide range of various end-products which are themselves utilised by a wide and growing base of end-users. Iron and steel components form the backbone and as such are important to the broad range of end-products for these industries.

Consequently, the Group would only be adversely affected by a downturn if all sectors of the economy are hit by a downturn. It therefore impinges to a significant extent on the growth of the national economy. In summary, the demand and supply growth of the industry is largely fuelled by the demand for the end-products, the economic conditions and standard of living of the country, and its population growth. This enhances the stability of demand for the products as the decline in demand from one or more sectors/industries may be well offset by the increase in demand from another sector(s)/ industries.

Along the same lines, the demand for the products is geographically spread out by virtue of the nature of the end-products which are generally used world-wide in a wide range of industries. It is envisaged that a decline in the economy of one or more user countries could likewise be offset by the economic growth of another country(ies) which would stimulate the increase in demand for the end-products.

(e) Government Legislation, Policies and Incentives for the Industry

The Government recognises the importance of the iron and steel industry in sustaining the country's economic growth. Accordingly, incentives to ensure the development of this industry have been provided under the MITI. The principal incentives for the industry under the Promotion of Investment Act (1986) and the Income Tax Act (1967) includes:-

Reinvestment Allowance ("RA")

A company granted the RA is given an allowance of 60% in respect of qualifying capital expenditure incurred on approved project for expansion of existing business and qualifying projects for expansion, modernisation or diversification. RA will be abated against the statutory income. Unabsorbed allowance is allowed to be carried forward to subsequent years until it is fully utilised. RA may allow a tax exemption of up to 100% of statutory income for each year of assessment effective from 1998 based on 60% allowance on qualifying capital expenditure incurred.

Human Resource Development

The Government is currently undertaking serious efforts to produce skilled manpower to meet the current and future requirements of various industries, including the iron and steel industry. Technical and vocational education has been designed to cater for the specific needs for the potential industries as a measure to prepare skilled manpower needed for the development of these industries.

(f) Threat of Substitute Products

Iron and steel products are distinguished from those of other base materials based on its intrinsic properties of strength and malleability (i.e. the ability of the product to bent and shaped into various forms and shapes) which lend them resistance to easy damage. Notwithstanding that the tubes and pipes manufacturing division of the Group faces potential competition from those of the stainless steel variant, the Directors are of the view that the higher prices of these products make them a costly alternative for extensive industrial use or application.

(iv) Outlook and Future Prospects

(a) Outlook of the Malaysian Economy

In an environment of heightened uncertainty in the global economy, growth in the Malaysian economy would be mainly domestic driven, supported by a modest growth in external demand. Real GDP growth has the potential to be sustained in the region of 4.5% in 2003 (4.2% in 2002). However, unlike 2002, when the public sector remained the principal driver of economic growth, private sector demand is expected to assume a more significant role in driving economic expansion in 2003. The improved domestic fundamentals would provide support for the sustained consumption and continued recovery in private investment. The public sector, whilst consolidating, would remain supportive of growth. External demand, however, remains a concern for possible downside risks. Malaysia's increased resilience provides the authorities with the policy flexibility to enhance domestic sources of growth. Hence, policies in 2003 would focus on promoting domestic-led private sector driven growth, with the Government providing a positive enabling environment for private sector activities and initiatives.

Key strategies in the 2003 Budget focused on promoting domestic investment in all sectors with growth potential, in particular to promote activities in new and niche growth areas in the services, agriculture and manufacturing sectors; enhancing human resource development to support a knowledge-based economy; and strengthening Malaysia's competitive position. Towards this end, further tax and non-tax incentives were provided to encourage the development of small- and mediumscale enterprises (SMEs) and penetration of new export markets and to encourage manufacturers to undertake higher value-added activities such as design and research and development. Direct fiscal incentives focused on lowering cost for small businesses through cuts in corporate taxes as well as attracting higher investment in target areas in the agriculture sector (including non-traditional downstream activities), and in higher value-added services related activities. Going forward, the new growth sectors, the information, communication and technology sector and resource-based industries would be important drivers of growth that would add depth and diversity as well as strengthen the resilience of the economy.

On the production side, growth is expected to be broad based and reflected in all sectors of the economy. An improved performance is projected for the manufacturing and agriculture sectors, while activity is expected to be sustained in the services and mining sectors. Construction activity is projected to be slower in 2003 due mainly to moderate activity in the civil engineering and residential property sub-sectors.

(Source: Bank Negara Malaysia Annual Report 2002)

Short Term Outlook

Major uncertainties over the Iraq War and SARS disease have dissipated. The expectations of a strong global economic rebound right after the war did not materialize, but there is hope that conditions might perk up later in the year. The global economy is showing a modest post-war recovery. On the domestic front, the Malaysian recently unveiled an economic package to mitigate any adverse effects on the domestic economy. With indicators and sentiments improving and visibility getting better, the MIER expects that these will turn into a virtuous circle that will rekindle economic activity during the second half of 2003 and into 2004. In view of these positive developments, amid lesser negative issues, the MIER has revised its GDP growth forecast upwards to 4.3 per cent. Assuming a more upbeat global economy and calmer geopolitics around the globe, Malaysia's GDP growth in 2004 could possibly reach 5.4 per cent.

(Source: The Malaysian Institute of Economic Research (MIER), updated on 16 July 2003)

(b) Outlook of the Iron and Steel Industry

As for the growth pattern in most rapidly industralising countries, there is, often a close correlation between Apparent Steel Consumption ("ASC") and GNP per capital. The underlying rationale for this trend is because steel consumption increases as a nation and its population become wealthier. Malaysia is following a similar trend in that ASC has grown in tandem (though at a larger magnitude) with GNP per capita throughout the 1990s. This pattern of growth is expected to continue in the medium-to long-term as progress in industralisation and infrastructural development continues unabated, and as the nation's population becomes more affluent.

(Source: 5th MISIF Report 2001)

(c) Outlook of the Construction Industry

With the labour shortage problem expected to improve in the first half of 2003, growth in the construction sector is envisaged to increase by 1.9%, reflecting mainly the slower growth in the civil engineering and residential sub-sectors. This reflects the lower spending on infrastructure projects by both the private sector and the Government following the completion of some of the on-going projects. In the case of the residential sub-sector, there has been an increase in property overhang and the take-up rate for newly-launched projects during the first half of 2002 was low. Meanwhile, activity in the non-residential sub-sector will continue to be affected by the oversupply situation.

(Source: Bank Negara Malaysia Annual Report 2002)

Construction has been a key sector to stimulate domestic economic activities and in enhancing growth. The sector has greater linkages, particularly with construction-related industries. It is also the Government's objective to provide affordable low and medium-cost houses for the lower income group and towards this end, various measures/incentives have been put forward by the Government in line with its objective to provide affordable housing which include implementing the Home Ownership for the People (HOPE) project. The Government will also continue to undertake development projects, with priority given to infrastructure and construction-related projects, which have multiplier effects on the economy. Further, efforts are being intensified in human resource development programmes in the construction sector with a view to upgrading skills and productivity of workers as well as providing traiing for graduates and school leavers.

(Source: New Strategies Towards Stimulating the Nation's Economic Growth, 21 May 2003)

(d) Outlook of the Manufacturing Industry

Value added growth in the manufacturing sector is expected to increase by 5% in 2003, on the assumption of a modest global economic outlook and moderate growth in the global electronics sector. The rising trend in intra-regional trade is expected to continue to augment demand for exports of manufactured goods.

Given the upside potential in the electronics and electrical products industry and the positive spin-off on the chemical products industry, growth of the export oriented industries as a whole is projected to increase by 6.2% (2002: 5%). At the same time, growth in the domestic-oriented industries is also expected to improve to 4.3% in 2003 (2002: 3.4%), supported by the food, beverages, fabricated metal, paper and petroleum products industries. Nevertheless, growth in the construction-related industries and transport equipment industry is expected to remain modest, reflecting the slower performance of the construction sector and some moderation in demand for passenger cars following the strong growth of the last two years.

(Source: Bank Negara Malaysia Annual Report 2002)

The manufacturing sector continues to be the second largest contributor to the nation's economic growth, with electronics providing the lead in the sector's expansion. However, in the light of greater uncertainties in the external environment and increased competition from new global players, efforts must be taken to accelerate the transition towards the production of high value-added goods and explore new areas where Malaysia has the competitive edge. Towards this end, the following measures from the economic stimulus package announced on 21 May 2003 will be implemented, *inter-alia*:-

- Providing matching grants for companies in selected sectors to undertake R&D activities in Malaysia for qualifying purposes;
- Providing matching grants for commercialisation of research findings and innovations in selected growth sectors;
- Establishing the Fund for Development and romotion of Malaysian Brand Names for Malaysian companies with an initial amount of RM100 million; and
- Improving road and air transportation facilities between the West Coast and Eastern Corridor of Peninsular Malaysia.

(Source: New Strategies Towards Stimulating the Nation's Economic Growth, 21 May 2003)

4.8 Major Customers

The Group's customers comprise a broad base of customers whose names are well established in both the manufacturing and construction industries. Presently the company has a wide spread of over 400 established direct customers comprising mainly hardware stockists, manufacturers of various metal-related products and civil engineering companies. The top twenty (20) customers of the HTVB Group account for about 17% of turnover in the trading division as compared to 28% of turnover in the manufacturing division based on turnover for the six(6)-month period ended 31 January 2003. The average top twenty (20) customers' relationship with the Group is between 6 and 7 years for both the trading and manufacturing divisions and these major customers of the trading division and the manufacturing division individually contribute less than 6% of the turnover of the HTVB Group and hence the HTVB Group is not overly dependent on certain major customers for its business.

4.9 Major Suppliers

Save for Megasteel Sdn Bhd, a Malaysian company with whom the Group has at least a five(5) year business relationship and from whom the Group sources hot-rolled steel coils, there are no major suppliers of the Group contributing to more than ten percent (10%) of the purchases of the trading and manufacturing divisions based on the six(6)-month period ended 31 January 2003. Purchases from Megasteel Sdn Bhd accounted for approximately 52% of the Group's purchases under the manufacturing division.

The Group is not dependent on any one particular supplier save as disclosed above. Currently, the Group sources a substantial portion of its supply of hot-rolled steel coils from Megasteel Sdn Bhd due to the restrictions imposed on their import. Notwithstanding the restriction, the Group is granted "approved permits" (AP) to import hot-rolled steel coils if the end products are re-exported or these are with specifications that Megasteel Sdn Bhd does not produce.

The Group has established good business relationships with its suppliers and they in turn have proven to be reliable business partners.

4.10 Future Plans of the HTVB Group

In addition to the future plans of the Group as stated below, the Directors will remain vigilant in exploring new opportunities to enhance the future earnings of the Group:-

(i) Emphasis on Manufacturing Division

The Group plans to place more emphasis on the manufacturing division than the trading division which can add on more value on the products and give higher margins. In order to achieve this, the Group intends to further upgrade the manufacturing facilities to produce a wider range of products. For example, depending on the size of the rollers used in the manufacturing process, the Group will be able to produce pipes with sizes that range from ½ inch to 8 inches.

(ii) Horizontal Diversification

The Group will continue to source for new markets in the iron and steel industry. This includes possible joint ventures with international business partners who possess advanced technology and know-how in the industry. The Group has been successful in joint ventures with foreign partners as demonstrated by the Crab System scaffolding. Accordingly, the Group hopes that any further ventures would similarly be landmark achievements not only for the Group particularly but also for the country.

(iii) Increase Automation

The Group plans to increase its automated manufacturing by increasing the number of robotics machine in use to increase efficiency, lower unit costs, reduce wastage and rejects and reduce dependency on manual foreign workers. This would be in line with the Government's vision for the manufacturing sector and, in particular, as outlined in the Second Industrial Master Plan which calls for an adoption of information-sensitive and knowledge-driven processes in manufacturing which would in turn form the foundation for the future development of the industrial sector.

(iv) Diversify and Increase Customer Base

The Group intends to increase its customer base, in particular through increasing its export market. To achieve this objective, the Group will undertake the following:-

- Intensifying direct international marketing efforts while reducing dependence on third party and marketing/trading agents.
- Continue to maintain growth of exports into the major markets of Singapore, Hong Kong, Australia and the United States, and concurrently, the Group will develop and diversify into fast expanding economies where there is a construction boom such as China, Vietnam and Laos.
- Exploring new markets in Asia with the possibility of setting up joint ventures. In this respect, the Group may explore the possibility of having business tie-ups with established foreign companies which may include appointing them as agents to assist in the direct marketing of the Group's products, expanding its international market in the process.

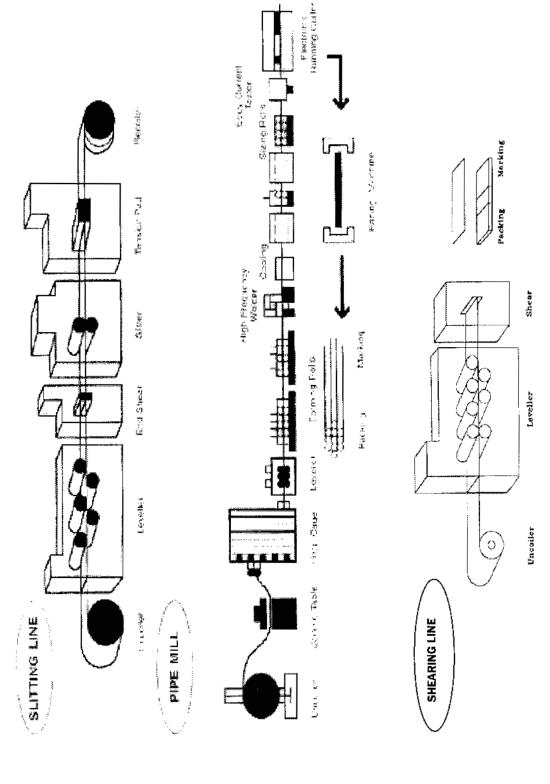
Participation in international trade expositions to gain wider exposure and to keep abreast in the iron and steel products industry and attending seminars held to promote bilateral trades amongst the Asian, South African and European regions.

Barring any unforeseen circumstances, these future plans of the HTVB Group to further spur the growth of development of the Group's business is conditional upon the following factors:-

- ☑ There is no regional and/or world recession; and
- ☐ There are no catastrophic events (natural or otherwise).

4.11 Production Flow-Chart

(a) Mill Process Flow (for steel tubes)



Principal process of the Slitting Line

Uncoiler : The mother coil is unloaded onto the uncoiler and fed into the leveler.

Leveller : As the mother coil is uncoiled, the leveler levels or flattens the strip and

it driven through the slitter.

Slitter : The slitter cuts the mother coil as it is being driven through it.

Tension pad

and re-coiler : The slitted coil (hoop coil) passes through the tension pad and then re-

coiled by the re-coiler. The hoop coil will then be removed by crane and

stored at the coil yard.

Principal process of the Pipe Mill

Uncoiler : The hoop coil is unloaded onto the uncoiler and fed into the hoop cage

or accumulator.

Leveller and

Forming roll: The strip of the hoop coil from the hoop cage is driven through the

leveler and flattened before being formed into pipes or tubes through

the forming rolls.

High frequency

welder : The formed pipes or tubes are welded by the high-frequency welder to

seal the seams.

Sizing roll: The welded round pipes are then shaped by the sizing roll.

Electronic

running cutter: The electronic running cutter cuts the pipes according to a pre-specified

length.

Storage : The completed pipes or tubes are packed and placed in a storage area

awaiting for shipment to customers.

Principal process of the Shearing Line

Uncoiler : The mother coil is unloaded onto the uncoiler and fed into the leveler.

Leveller : As the mother coil is uncoiled, the leveler levels or flattens the strip and

it driven through the slitter.

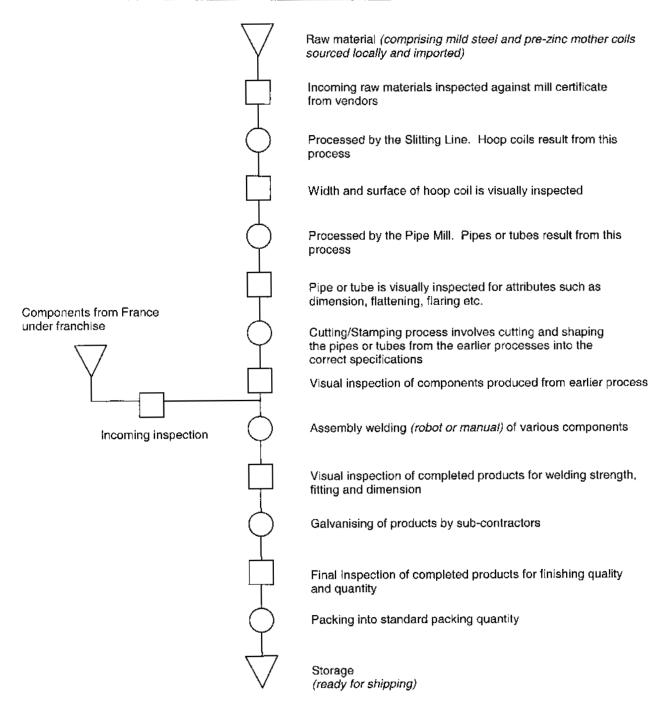
Shearer : The shearer cuts the mother coil into the required length as it is being

driven through it.

Storage : The resulting plates/sheets is arranged according to standard packing

before being moved to the storage area pending shipment./delivery

(b) Heavy Duty Scaffolding (Crab System)



(c) <u>Light Duty Scaffolding</u>

