# CAN MALAYSIAN MANUFACTURING COMPETE WITH CHINA IN THE WTO?

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***Given Malaysia's small domestic market, it is not surprising to find that the country is highly dependent on exports for growth. It is expected that China's impending accession in the World Trade Organization (WTO) will enhance China's competitiveness and this will in turn affect negatively her competitors' exports, especially exports from other developing countries like Malaysia. The objective of this paper is to assess the impact of China's impending accession on Malaysian manufacturing.***

The protracted process of China becoming a member of the World Trade Organization (WTO) is expected to be concluded soon. The prospect of China's deeper integration with the world economy has generated considerable interest in the potential impact of this accession, given China's already large and rapidly expanding trade sector even without WTO membership. Liberalization of trade under WTO commitments will undoubtedly enhance the trading position of China in the world economy. However, most of the studies have focused on the impact of this accession on China's economy and there are few studies that have investigated its impact on other countries, especially developing countries. This study represents an attempt to fill the research gap in this area by assessing the implications of China's impending entry into the WTO on Malaysian manufacturing exports.

## I. OVERVIEW OF THE MALAYSIAN STRUCTURE OF PRODUCTION AND TRADE

Based on table 1, both China and Malaysia experienced rapid growth in Gross Domestic Product (GDP) in the 1990s with the manufacturing sector registering the highest rate of growth during the same period. However, although manufacturing

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**Table 1. Growth of output**

| *Country* | *Gross domestic product* *Average annual per cent growth* | | *Agriculture* *Average annual per cent growth* | | *Manufacturing* *Average annual per cent growth* | | *Service* *Average annual per cent growth* | |
|---|---|---|---|---|---|---|---|---|
| | *1980-90* | *1990-98* | *1980-90* | *1990-98* | *1980-90* | *1990-98* | *1980-90* | *1990-98* |
| China | 10.1 | 11.2 | 5.9 | 4.4 | 10.4 | 14.7 | 13.5 | 9.4 |
| Indonesia | 6.1 | 5.8 | 3.4 | 2.6 | 12.6 | 8.8 | 7.0 | 5.4 |
| Malaysia | 5.3 | 7.4 | 3.8 | 1.3 | 8.9 | 10.8 | 4.2 | 7.6 |
| Philippines | 1.0 | 3.3 | 1.0 | 1.5 | 0.2 | 3.1 | 2.8 | 3.9 |
| Singapore | 6.7 | 8.5 | -6.2 | 1.4 | 6.6 | 6.7 | 7.6 | 8.6 |
| Thailand | 7.6 | 5.7 | 3.9 | 2.6 | 9.5 | 7.7 | 7.3 | 5.4 |

*Source:* The World Bank, World Bank Development Indicators 2000 (2000).

**Table 2. Structure of output**

| *Country* | *GDP* *$ million* | | *Agriculture value added* *per cent of GDP* | | *Manufacturing value added* *per cent of GDP* | | *Service value added* *per cent of GDP* | |
|---|---|---|---|---|---|---|---|---|
| | *1980* | *1998* | *1980* | *1998* | *1980* | *1998* | *1980* | *1998* |
| China | 201 687 | 959 030 | 30 | 18 | 41 | 37 | 21 | 33 |
| Indonesia | 78 013 | 94 156 | 24 | 20 | 13 | 25 | 34 | 35 |
| Malaysia | 24 488 | 72 489 | 22 | 13 | 21 | 29 | 40 | 43 |
| Philippines | 32 500 | 65 107 | 25 | 17 | 26 | 22 | 36 | 51 |
| Singapore | 11 718 | 84 379 | 1 | 0 | 29 | 23 | 61 | 65 |
| Thailand | 32 354 | 111 327 | 23 | 11 | 22 | 32 | 48 | 48 |

*Source:* The World Bank, World Bank Development Indicators 2000 (2000).

value added as a percentage of the GDP is the largest in China, it is the second largest in Malaysia while the service sector is the largest sub-sector for both 1980 and 1998 (table 2).

Within the manufacturing sector, both countries experienced an increase in the share of the machinery and transport equipment sub-sector in total manufacturing value added between 1980-1997 (table 3). Moreover, excluding other manufacturing, this sub-sector was the largest sub-sector in Malaysia as well as China in 1997. Nonetheless, China's production structure is more dispersed as only 25 per cent of its manufacturing value added was contributed by this sub-sector in 1997 while Malaysia has a more skewed production structure since 39 per cent of its manufacturing value added was accounted by this sub-sector alone for the same year. The second largest

**Table 3. Structure of manufacturing**

| *Country* | *Structure of value added in manufacturing $ million* | | *Food, beverages & tobacco per cent* | | *Textiles & clothing per cent* | | *Machinery & transport equipment per cent* | | *Chemical per cent* | | *Other Manufacturing per cent* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *1980* | *1997* | *1980* | *1997* | *1980* | *1997* | *1980* | *1997* | *1980* | *1997* | *1980* | *1997* |
| China | 81 836 | 343 120 | 10 | 15 | 18 | 12 | 22 | 25 | 11 | 12 | 38 | 36 |
| Indonesia | 10 133 | 57 805 | 32 | 19 | 14 | 19 | 13 | 18 | 11 | 9 | 30 | 35 |
| Malaysia | 5 054 | 28 489 | 24 | 10 | 7 | 5 | 20 | 39 | 5 | 9 | 43 | 38 |
| Philippines | 8 354 | 18 333 | 30 | 33 | 13 | 9 | 12 | 15 | 14 | 13 | 31 | 29 |
| Singapore | 3 415 | 21 995 | 5 | 3 | 5 | 1 | 44 | 60 | 5 | 9 | 41 | 26 |
| Thailand | 6 960 | 46 502 | 55 | 55 | 8 | 5 | 9 | 8 | 7 | 8 | 21 | 24 |

*Source:* The World Bank, World Bank Development Indicators 2000 (2000).

sub-sector in terms of its contribution to total manufacturing value added in both countries in 1997 was the food, beverage and tobacco sub-sector. Although this sub-sector in China experienced an increase in its contribution to total manufacturing value added between 1980 to 1997, a converse trend was obtained for Malaysia. It can also be observed that the relative importance of the textile and clothing sub-sector has fallen in both countries over the same duration. Nevertheless the textile and clothing sub-sector was relatively more important in China than Malaysia in 1997 since it's contribution to total manufacturing value added in China's economy was 12 per cent while its contribution was only 5 per cent in Malaysia.

The importance of manufacturing in terms of exports and imports is shown in table 4 while the share of selected export commodities in total exports is shown in table 5. Based on the latter table, China's exports were concentrated in textile fibres, yarn and clothing (25 per cent in 1996) while 34 per cent of Malaysia's export were accounted for by the electrical machinery sub-sector for the same year. It should however be noted that the share of the electrical machinery sub-sector in China almost doubled between 1990-1996 while the share of the textile fibres, yarn and clothing declined slightly for the same duration. This trend was also observed in Wang (1999) who attributed the decline in the share of textile and clothing exports to the quantitative constraints faced by China in the developed countries' markets. Consequently resources were shifted out of this sector to other manufacturing activities, in particular to the electronics sub-sector, with the assistance of large inflows of foreign direct investment (FDI). The relative importance of FDI in exports can be seen in the rapid increase in the share of FDI exports to total exports from 17 per cent in 1991 to 41 per cent in 1996 (Henley, et. al., 1999).

**Table 4. Structure of merchandise exports and imports**

| *Country* | *Manufactures exports per cent of total exports* | | *Manufactures import per cent of total exports* | |
|---|---|---|---|---|
| | *1980* | *1998* | *1980* | *1998* |
| China | n.a. | 84.4 * | n.a. | 79 * |
| Indonesia | n.a. | 45 | n.a. | 69 |
| Malaysia | 19 | 79 | 67 | 85 |
| Philippines | 21 | 90 | 48 | 80 |
| Singapore | 25 | 71 | 51 | 78 |
| Thailand | 47 | 86 | 54 | 84 |

*Source:* The World Bank, World Development Indicators 2000 (2000).
UNCTAD, Handbook of International Trade & Development Statistics 1996/97 (1999).
*Note:* * year for China is 1996.

## II. FRAMEWORK OF ANALYSIS

Since the issue investigated in this paper deals with the impact China's impending entry into the WTO on manufacturing exports in Malaysia, the ability to compete or the competitiveness of Malaysian manufacturing exports versus China's manufacturing export competitiveness will play a key role in determining the outcome. In traditional trade literature as developed by David Ricardo, competitiveness is captured by the notion of comparative costs which in turn is the foundation for the concept of comparative advantage that is used to determine the product or products that will be exported and imported by a country. In empirical work, indices on the revealed comparative advantage (RCA) are usually utilised as proxies since it is assumed that the comparative advantage of a country is reflected or revealed in its trade pattern when autarky prices are unknown. Based on UNIDO (1982), the net export to total trade ratio ($NX_{ij}$) was used to assess the comparative advantage of the different sub-sectors, whereby:

$$NX_{ij} = (X_{ij} - M_{ij})/(X_{ij} + M_{ij})$$

where $X_{ij}$ ($M_{ij}$): value of country i's export (import) of commodity j

This indicator's value ranges from –1 to +1 with the latter value denoting no imports are associated with exports. However, both export subsidies and import barriers can affect this measure. Unfortunately information on both the extent and magnitude of export subsidies in Malaysia is lacking while the latest study on the effective rate of protection in Malaysian manufacturing by Rokiah (1996) provides data up to 1987 alone. Nevertheless this is still a useful indicator as it reveals the import dependence of exports.

**Table 5. Structure of exports for selected commodity groups (per cent of total exports)**

| Country | year | *Medical & pharmaceutical products* | *Textile fibres, yarn & clothing* | *Metals & metal manufactures* | *Machinery* | | *Transport equipment* |
|---|---|---|---|---|---|---|---|
| | | | | | *Non-electrical* | *Electrical* | |
| | | *(SITC 54)* | *(SITC 26+65+84)* | *(SITC 67+68+69)* | *(SITC 71)* | *(SITC 72)* | *(SITC 73)* |
| China | 1990 | 1.0 | 28.8 | 5.3 | 4.4 | 6.4 | 6.5 |
| | 1995 | 1.1 | 26.0 | 8.0 | 5.3 | 11.6 | 2.5 |
| | 1996 | 1.0 | 25.1 | 6.8 | 6.7 | 12.3 | 2.6 |
| Indonesia | 1970 | 0.3 | 0.2 | 0.8 | 0.3 | – | – |
| | 1980 | 0.1 | 0.7 | 2.1 | – | 0.4 | – |
| | 1990 | 0.1 | 11.3 | 3.1 | 0.2 | 0.8 | 0.4 |
| | 1995 | 0.1 | 13.9 | 3.3 | 1.8 | 3.9 | 1.1 |
| | 1996 | 0.1 | 13.4 | 2.9 | 2.3 | 4.7 | 1.1 |
| Malaysia | 1970 | 0.2 | 0.7 | 20.0 | 0.7 | 0.3 | 0.6 |
| | 1980 | 0.1 | 2.9 | 9.5 | 0.8 | 9.9 | 0.8 |
| | 1990 | 0.1 | 5.9 | 3.0 | 4.5 | 26.6 | 2.4 |
| | 1995 | 0.1 | 4.8 | 2.7 | 12.8 | 34.4 | 2.8 |
| | 1996 | 0.1 | 4.9 | 2.8 | 14.7 | 33.6 | 2.3 |
| Philippines | 1970 | 0.1 | 2.2 | 1.2 | 0.1 | – | – |
| | 1980 | 0.1 | 6.7 | 3.6 | 0.2 | 1.3 | 0.6 |
| | 1990 | 0.1 | 9.8 | 4.8 | 1.1 | 10.4 | 0.7 |
| | 1995 | 0.8 | 0.1 | 7.9 | 3.3 | 17.9 | 1.4 |
| | 1996 | 0.2 | 13.6 | 2.9 | 14.9 | 40.3 | 1.8 |
| Singapore | 1970 | 0.5 | 5.6 | 2.4 | 4.0 | 4.0 | 3.0 |
| | 1980 | 0.8 | 4.3 | 3.8 | 6.0 | 16.1 | 4.3 |
| | 1990 | 0.4 | 4.8 | 3.2 | 23.4 | 21.5 | 2.6 |
| | 1995 | 0.5 | 2.6 | 3.5 | 30.0 | 30.4 | 1.9 |
| | 1996 | 0.5 | 2.3 | 3.1 | 31.9 | 29.5 | 2.0 |
| Thailand | 1970 | 0.1 | 7.5 | 11.8 | – | 0.1 | – |
| | 1980 | 0.3 | 10.0 | 12.1 | 0.4 | 5.2 | 0.2 |
| | 1990 | 0.1 | 16.7 | 2.3 | 9.0 | 9.8 | 1.0 |
| | 1995 | 0.4 | 12.5 | 2.4 | 13.4 | 15.7 | 2.4 |

*Source:* UNCTAD, Handbook of International Trade & Development Statistics, 1995/97 (1999).

Alternatively, the world export ratio (WES) can also be used whereby:

$$WES_{ij} = (X_{ij}/X_i)/(X_{wj}/X_w)$$

where $X_{ij}$ : value of country i's export of commodity j,
$X_i$ : value of country i's total exports,
$X_{wj}$ : value of world exports of commodity j,
$X_w$ : value of world exports.

The value for the WES index can be any positive value. For example, a ratio of two indicates that the share of that commodity in a country's exports is twice the world average. Therefore the larger the value, the greater the comparative advantage and the more competitive for the industry concerned.

The use of both these indices over time will reveal a country's dynamic comparative advantage development and it's import dependence.

## III. EMPIRICAL EVIDENCE

In this section, a survey of the existing empirical evidence is presented before assessing the evidence from more recent data.

### *Past studies*

Previous studies that have investigated China's growing competitiveness have primarily compared these developments with the competitiveness of the economies in the Association of Southeast Asian Nations (ASEAN). For example, Tyers et. al.; (1987) examined the impact of China's increasing exports of labour-intensive manufactures (LIM) on ASEAN exporters of the same products.[1] Their results revealed that in 1981, despite some differences in emphasis in the export of LIM between China and ASEAN as a bloc, they do compete in the exports of clothing, textiles, footwear, furniture, textile yarn, and thread and toys, especially in the United States and Japanese markets.

A subsequent study by Herschede (1991) on export rivalry between ASEAN, China, and the Newly Industrialized Economies (NIEs) in the Japanese import market between 1982-1987, concluded that ASEAN exports suffered the most from the entrance of China to the Japanese import market. In the case of manufactured goods, ASEAN was found to have experienced competitive disadvantage in the export of machinery and transport equipment and miscellaneous manufactures (SITC 7 and 8) and

[1] Their classification of LIM was based on Balassa (1977), using United States data on value-added per worker in each industry but they excluded items whereby labour is not considered to the primary factor in determining the location of production. The list included SITC 65 (textiles and fabrics), SITC 84 (clothing), SITC 851 (footwear), and SITC 821 (furniture).

competitive advantage in the export of chemicals and manufactures (SITC 5 and 6). China, in contrast, experienced competitive disadvantage in the export of manufactures and miscellaneous manufactures (SITC 6 and 8) and competitive advantage in the export of chemicals and machinery and transport equipment (SITC 5 and 7).

Voon (1998), in turn, analysed the export competitiveness of China and ASEAN in the market of the United States of America. The results obtained indicate ASEAN-4's exports of manufactured goods in the United States have grown absolutely between 1980-1994, despite the entry of China since 1979. However, China's share of more labour-intensive goods (MLIM, SITC 6 and 8) rose very rapidly over this period *vis-à-vis* the ASEAN-4 due to the lower cost of labour in the former country as opposed to the latter group of economies. But in the case of less labour-intensive goods (LLIM, SITC 5, 7, and 9), China's share in the United States market has been increasing steadily from 1980-1994 while Malaysia's share declined from 1980-1990 and increased from 1991-1994. More importantly, the study showed that the ASEAN-4 as a region, experienced a competitive advantage in the United States market as opposed to Herschede (1991)'s results that showed a competitive disadvantage for ASEAN in the Japanese market. This result was attributed to the appropriate emphasis in the MILM in China's industrial structure while ASEAN economies especially Singapore and Malaysia focused, again appropriately, in the LLIM. Moreover the larger annual capital outflow of the United States in terms of direct manufacturing investment to the ASEAN-4 than to China, particularly between 1992-1994, was also perceived to have contributed to the competitive edge of the ASEAN-4 *vis-à-vis* China.

Based on the above studies, it can be concluded that China has a growing advantage in labour-intensive goods while Malaysia has a declining advantage in these goods at the SITC single digit level.[2] However, in the case of technology-intensive products, the contrasting trend between China and Malaysia was not obtained. Instead, Das (1998)'s study disclosed the revealed comparative advantage (RCA) for technology-intensive goods from China increased from 0.39 to 0.45 between 1980-1993 while Malaysia's comparative advantage for the same product group also increased from 0.15 to 0.75 during the same period. In particular, by 1996, Das noted electronics exports such as PCs, semiconductors, colour televisions, VCRs, office-automation machines, and other electronics (from SITC 74, 75 and 76) became the most important exports for Singapore, Republic of Korea, Malaysia, China and Taiwan Province of China, in that order.

Subsequent study by Sunil (2000) gave additional supporting evidence for the increasing importance of high technology exports from China and Malaysia as well as a few other developing countries. Based on Hatzichronoglou (1997)'s list of

[2] It is possible that Malaysia may have a comparative advantage for some products within the labour-intensive group of products at a finer level of disaggregation.

high technology products, Sunil's RCA indices of high technology exports show an improvement in the competitiveness of China and Malaysia in these exports from 1992-1998 (table 6). However, while Malaysia's RCA index ranked third among the developing countries in 1997, China's RCA index ranked last in the same year. It should be noted Singapore has the highest RCA for this product group for the duration shown in table 6. Thus not surprisingly, Wilson and Wong (1999)'s study on the export competitiveness of ASEAN economies between 1986-1995, found Malaysia to be the main rival for Singapore in key manufacturing categories of electrical machinery, telecommunications/sound equipment and organic chemicals in the Japanese market.

However, further disaggregation by the nine product groups in the high technology list as shown in the following section will reveal the product concentration in the high technology exports of China and Malaysia.

**Table 6. RCA indices of leading high tech exporters from the developing world**

| | *Developed countries* | *Developing countries* | *China* | *Mexico* | *Republic of Korea* | *Philippines* | *Thailand* | *Malaysia* | *Singapore* |
|---|---|---|---|---|---|---|---|---|---|
| 1992 | 1.01 | 0.95 | 0.36 | 0.62 | 1.09 | 1.52 | 1.22 | 2.15 | 2.47 |
| 1993 | 1.01 | 0.97 | 0.38 | 0.62 | 1.08 | 1.61 | 1.10 | 2.18 | 2.46 |
| 1994 | 0.98 | 1.09 | 0.43 | 0.72 | 1.17 | 1.63 | 1.22 | 2.28 | 2.61 |
| 1995 | 0.96 | 1.16 | 0.52 | 0.76 | 1.30 | 1.75 | 1.22 | 2.30 | 2.70 |
| 1996 | 0.95 | 1.21 | 0.61 | 0.77 | 1.17 | 2.85 | 1.42 | 2.17 | 2.72 |
| 1997 | 0.95 | 1.19 | 0.61 | 0.82 | 1.24 | 2.47 | 1.44 | 2.29 | 2.66 |
| 1998 | 0.96 | 1.21 | 0.69 | 0.87 | 1.22 | – | – | 2.48 | 2.66 |

*Source*: Sunil, 2000.

### *Trade in High Technology Products*

Based on table 7, Malaysia has relatively high RCA in two groups of high technology goods, that is, computers-office machines and electronics-telecommunications products. Specifically, the WES index for computers-office machines has grown from 1.93 in 1994 to 3.24 in 1998. On the other hand, the WES index for the electronics-telecommunications group of products has remained within the range of 3.7-3.8 for the same duration. The share of both product groups in total manufacturing exports has grown from 39 per cent in 1994 to 51 per cent in 1998. Notably, Malaysia's exports of electronics-telecommunication products accounted for 32 per cent of total manufacturing exports in 1998.

For China, the WES index for high technology products revealed a more dispersed pattern (table 8). By 1998, the WES index for computers-office machines

**Table 7. Comparative advantage in high-technology goods for Malaysia**

| *High-technology goods* | *1994* | | | *1995* | | | *1996* | | | *1997* | | | *1998* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *NTR* | *WES* | *HTS* | *NTR* | *WES* | *HTS* | *NTR* | *WES* | *HTS* | *NTR* | *WES* | *HTS* | *NTR* | *WES* | *HTS* |
| 1. Aerospace | -0.15 | 1.50 | 0.03 | -0.35 | 1.16 | 0.02 | -0.22 | 0.71 | 0.01 | -0.45 | 0.45 | 0.01 | -0.26 | 0.58 | 0.02 |
| 2. Computers-office machines | 0.47 | 1.93 | 0.11 | 0.45 | 2.14 | 0.12 | 0.33 | 2.04 | 0.12 | 0.39 | 2.58 | 0.16 | 0.57 | 3.24 | 0.19 |
| 3. Electronics-telecommunications | 0.02 | 3.81 | 0.28 | -0.01 | 3.74 | 0.30 | 0.01 | 3.81 | 0.30 | 0.02 | 3.71 | 0.30 | 0.03 | 3.82 | 0.32 |
| 4. Pharmacy | -0.70 | 0.03 | 0.00 | -0.65 | 0.04 | 0.00 | -0.69 | 0.03 | 0.00 | -0.64 | 0.04 | 0.00 | -0.51 | 0.04 | 0.00 |
| 5. Scientific instruments | -0.12 | 0.53 | 0.01 | -0.16 | 0.54 | 0.01 | -0.09 | 0.53 | 0.01 | 0.00 | 0.62 | 0.01 | 0.07 | 0.54 | 0.01 |
| 6. Electrical machinery | -0.38 | 0.75 | 0.00 | -0.20 | 0.83 | 0. 00 | -0.33 | 0.58 | 0.00 | -0.31 | 0.49 | 0.00 | -0.18 | 0.66 | 0.00 |
| 7. Chemistry | -0.71 | 0.15 | 0.00 | -0.54 | 0.28 | 0.00 | -0.52 | 0.29 | 0.00 | -0.44 | 0.35 | 0.00 | -0.12 | 0.46 | 0.00 |
| 8. Non-electrical machinery | -0.94 | 0.09 | 0.00 | -0.92 | 0.08 | 0.00 | -0.87 | 0.09 | 0.00 | -0.74 | 0.09 | 0.00 | -0.63 | 0.11 | 0.00 |
| 9. Armaments | -0.46 | 0.07 | 0.00 | -0.51 | 0.05 | 0.00 | -0.57 | 0.03 | 0.00 | -0.89 | 0.01 | 0.00 | -0.83 | 0.01 | 0.00 |

*Source:* Computed from COMTRADE data.

*Notes:* NTR: Net Trade Ratio, $NX_{ij} = (X_{ij} - M_{ij})/(X_{ij} + M_{ij})$

WES: World Export Share, $WES_{ij} = (X_{ij}/X_i)/(X_{wj}/X_w)$

HTS: Share of Export of High Technology Products as the Percentage of Manufacturing Goods, $HTS_{ij} = (X_{ij}/X_{im})$

For categories Electrical Machinery, SITC code for 77844 is not available in Malaysia.

**Table 8. Comparative advantage in high-technology goods for China**

| *High-technology goods* | *1994* | | | *1995* | | | *1996* | | | *1997* | | | *1998* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *NTR* | *WES* | *HTS* | *NTR* | *WES* | *HTS* | *NTR* | *WES* | *HTS* | *NTR* | *WES* | *HTS* | *NTR* | *WES* | *HTS* |
| 1. Aerospace | -0.93 | 0.06 | 0.00 | -0.84 | 0.05 | 0.00 | -0.90 | 0.05 | 0.00 | -0.96 | 0.02 | 0.00 | -0.90 | 0.04 | 0.00 |
| 2. Computers-office machines | 0.11 | 0.44 | 0.02 | 0.33 | 0.64 | 0.03 | 0.34 | 0.89 | 0.05 | 0.36 | 0.94 | 0.05 | 0.34 | 1.23 | 0.07 |
| 3. Electronics-telecommunications | -0.40 | 0.46 | 0.03 | -0.31 | 0.50 | 0.04 | -0.18 | 0.59 | 0.04 | -0.13 | 0.58 | 0.04 | -0.23 | 0.64 | 0.05 |
| 4. Pharmacy | 0.36 | 0.73 | 0.01 | 0.55 | 0.82 | 0.01 | 0.72 | 0.80 | 0.01 | 0.73 | 0.69 | 0.01 | 0.55 | 0.68 | 0.01 |
| 5. Scientific instruments | -0.25 | 0.46 | 0.01 | -0.18 | 0.56 | 0.01 | -0.09 | 0.66 | 0.01 | 0.06 | 0.71 | 0.01 | 0.01 | 0.72 | 0.01 |
| 6. Electrical machinery | -0.12 | 0.81 | 0.00 | -0.04 | 0.87 | 0.00 | -0.14 | 0.84 | 0.00 | -0.01 | 0.83 | 0.00 | 0.02 | 0.86 | 0.00 |
| 7. Chemistry | 0.22 | 1.39 | 0.01 | 0.39 | 1.99 | 0.01 | 0.46 | 1.85 | 0.01 | 0.44 | 1.80 | 0.01 | 0.45 | 1.76 | 0.01 |
| 8. Non-electrical machinery | -0.93 | 0.05 | 0.00 | -0.91 | 0.04 | 0.00 | -0.94 | 0.04 | 0.00 | -0.92 | 0.03 | 0.00 | -0.92 | 0.03 | 0.00 |
| 9. Armaments | 0.96 | 0.16 | 0.00 | 0.91 | 0.10 | 0.00 | 0.84 | 0.08 | 0.00 | 0.62 | 0.09 | 0.00 | 0.94 | 1.10 | 0.00 |

*Source:* Computed from COMTRADE data.

*Notes:* NTR: Net Trade Ratio, $NX_{ij} = (X_{ij} - M_{ij})/(X_{ij} + M_{ij})$

WES: World Export Share, $WES_{ij} = (X_{ij}/X_i)/(X_{wj}/X_w)$

HTS: Share of Export of High Technology Products as the Percentage of Manufacturing Goods, $HTS_{ij} = (X_{ij}/X_{im})$

has increased from 0.44 in 1994 to 1.23. Similarly the electronics-telecommunications sub-group also registered an increase, albeit a much smaller increment from 0.4 in 1994 to 0.64 in 1998. Furthermore, computers and electronics together constituted only 5 per cent of total manufacturing trade in 1994 but has since grown to 12 per cent by 1998. The largest RCA index, however, is not found in these product groups but in the chemistry sub-group.

## IV. CHINA IN THE WTO

China's impending accession in the WTO implies that China will have a rules-based, non-discriminatory market access to WTO members at levels that currently apply between WTO members (Eglin, 2000). In exchange, WTO members expect China to make market-access commitments of equivalent value. Accordingly the WTO accession will require China to consolidate the trade reforms that were started when China decided to open up her economy 25 years ago. Hence China will have to consolidate the efforts made so far to replace the state and bureaucratic control of trade transactions with market mechanisms. It will also require China to consolidate its legal and administrative framework so as to protect private property rights and private sector activity. In other words, the accession will "lock-in the accumulated trade reform process that the Chinese government has undertaken to date, and to provide a platform from which China can sustain its reform process into the future" (Eglin, 2000). At the same time, reciprocal market access under WTO rules also means that China will be able to appropriate higher returns for the impending trade reforms that come with the accession. Therefore the accession will also assist the Chinese government in resisting domestic pressures to reverse the reform process. For Malaysia, the impending accession of China in the WTO will undoubtedly imply increasing threats and opportunities for Malaysian producers and exports as will be shown in the following section.

### *The future of Malaysian exports*

#### *Short-term impacts*

China's increasing comparative advantage in labour-intensive goods, as shown in the previous section, as well as the impending lifting of Multi-fibre Arrangement (MFA) quotas on China's exports that comes with the accession will impact positively on China's production and exports in this sub-sector. Ianchovichina et. al.; (2000) estimated that at the sectoral level, the most important impact of accession is on China's output of apparel with the exports of this good estimated to increase dramatically by 330 per cent over a ten-year period post-accession. Thus China's share of world export markets for apparel is also estimated to increase substantially to over 44 per cent over the same duration. Since Malaysia is already experiencing

falling WES for wearing apparel from 1986-1996, it is expected that the expansion in exports from China will only serve to accelerate the decline in Malaysia's export share (Tham and Loke, 1998).

More importantly, although the expansion of the apparel sub-sector will stimulate the demand for imported textiles, this may not translate into higher exports of textiles for Malaysia. First, the WES for textiles for Malaysia is not very high and has only increased marginally from 0.54 to 0.57 between 1986-1996 (Tham and Loke, 1998). Second, Japan and the Asian Newly Industrialized Economies (NIEs) have reduced their clothing production and exports and conversely increased their textile production and exports (Wang, 1999). Thus vertical integration between the Asian NIEs and China may be one of the adjustments in production and trade that will occur as a result of the accession. In fact, as observed by Wang, the Asian NIEs are already becoming upstream suppliers of intermediate inputs and market channel for China's labour-intensive products while China is becoming a downstream processing and assembling base for the Asian NIEs, thus enabling them as a whole to become a more efficient producer in the world manufacture goods market.

For the computer and electronics sub-sector that constitute the major manufacture export of Malaysia, the labour-intensive portion of this product group will also be affected negatively. On the other hand, the future of high technology exports from Malaysia that utilise skilled labour will depend on the future of foreign direct investment (FDI), given the dependency for FDI in this sub-sector.

In 1998, based on companies in production, Japanese Direct Investment (JDI) in Malaysia in the electrical and electronics sub-sectors amounted to RM 4408 million and accounted for 57 per cent of total JDI in this country (MIDA, 2000). In contrast, American FDI in the same sub-sector for the same year in Malaysia amounted to only RM 770 million and accounted for 35 per cent of total American FDI in this country (MIDA, 2000). FDI from Japan comprised of 56 per cent of total foreign investment in the electrical and electronics sub-sector in 1998 while the United States is the third largest investor with a share of 9.8 per cent. Consequently the future of high technology exports depends on the future of JDI in this sub-sector. This in turn depends on both Japan's supply of FDI and the locational advantages offered by Malaysia as a host economy.

In terms of Japanese outflows of FDI, table 9 shows that over the period 1990-1999, JDI in Malaysia registered negative growth for each year except in 1993 and 1999. As explained in Tham (2001a), the fall in JDI in the early 1990s was due to the recession experienced in Japan at that time due to the "bursting of the bubble economy" and the yen appreciation that in turn affected corporate earnings and investment. Investment diversion to China may have also contributed to the negative growth. Subsequent recovery in growth in 1993 can be attributed to the second boom in JDI due to the high yen.

**Table 9. Japan's manufacturing investment in ASEAN countries and China, 1990-1999**

| *Year* | *1990* | | *1991* | | *1992* | | *1993* | | *1994* | | *1995* | | *1996* | | *1997* | | *1998* | | *1999* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Country* | *Y100 m* | *Per cent* | *Y100 m* | *Per cent* | *Y100 m* | *Per cent* | *Y100 m* | *Per cent* | *Y100 m* | *Per cent* | *Y100 m* | *Per cent* | *Y100 m* | *Per cent* | *Y100 m* | *Per cent* | *Y100 m* | *Per cent* | *Y100 m* | *Per cent* |
| 1. Thailand | 1 045 | 0 | 816 | -21.9 | 389 | -52.3 | 485 | 24.7 | 583 | 20.2 | 966 | 65.7 | 1 047 | 8.4 | 1 662 | 58.7 | 987 | -40.6 | 686 | -30.5 |
| 2. Indonesia | 781 | 0 | 795 | 1.8 | 1 187 | 49.3 | 277 | 76.7 | 833 | 200.7 | 1 005 | 20.6 | 1 606 | 59.8 | 1 381 | -14.0 | 694 | -49.7 | 559 | -19.5 |
| 3. Philippines | 290 | 0 | 217 | -25.2 | 138 | -36.4 | 146 | 5.8 | 321 | 119.9 | 558 | 73.8 | 434 | -22.0 | 441 | 1.6 | 404 | -8.4 | 383 | -5.2 |
| 4. Malaysia | 857 | 0 | 839 | -2.1 | 607 | -27.7 | 759 | 25.0 | 583 | -23.2 | 481 | -17.5 | 467 | -2.9 | 559 | 19.7 | 487 | -12.9 | 513 | 5.3 |
| 5. Singapore | 394 | 0 | 240 | -39.1 | 177 | -26.3 | 227 | 28.2 | 353 | 55.5 | 449 | 27.2 | 481 | 7.1 | 1 184 | 146.0 | 197 | -83.4 | 567 | 187.8 |
| 6. China | 237 | 0 | 420 | 77.2 | 838 | 99.5 | 1 587 | 89.4 | 1 942 | 22.4 | 3 368 | 73.4 | 2 032 | -39.7 | 1 857 | -8.6 | 1 027 | -44.7 | 603 | -413 |

*Source:* Japan's Statistics, Ministry of Finance, http://www.mof.go.jp/english/fdi/

*Note:* Figures in per cent show the investment growth rate for each country from year to year.

Despite the crisis in 1997, detailed analysis by Ong-Giger (1999) showed that there were neither massive relocations nor plant closures by key Japanese electronic companies in Malaysia such as Fujitsu, Hitachi, Matsushita, NEC and Sony. Thus although JDI did fall from 1997 to 1998, the ensuing recovery of the economy in 1999 led to a 5.3 per cent growth in JDI from 1998-1999 (table 9). This recovery indicates that Malaysia continues to remain attractive to Japanese electronic companies. According to Ong-Giger (1999), in addition to manufacturing activities, new activities such as software development and multimedia business have been added to Japanese investment in South-East Asia. Furthermore this continued commitment to South-East Asia in the face of the mobility of technology as a factor of production may be due to path dependence, whereby earlier decisions to invest have 'locked-in' a certain technology or market structure. Technology decisions, once they have been made, may be difficult or costly to reverse. Moreover, Japanese managers have pointed out that the skill component of their human resource developed over the long years of investment in South-East Asia constitutes a knowledge asset that is not easily substituted. While the continued interest in the South-East Asian region is reassuring, Malaysia will undoubtedly face severe competition for JDI from Singapore as among all the ASEAN economies, JDI registered the highest growth in Singapore, post-crisis (table 9).

JDI in China, however, exhibited strong growth in the first half of the 1990s and negative growth since 1996 (table 9). As in the case of Malaysia, the electrical and electronics sub-sector was the largest recipient of JDI for most of the 1990s, specifically between 1991-1997, but in 1998-1999 the transport sub-sector overtook the electrical and electronics sub-sector as the largest recipient (Tham, 2001b). The initial decline in 1996/97 may be attributed to the removal of the duty-free status on capital goods imports for the enterprises with foreign investment in April 1996 (Henley, et. al.; 1999). Subsequent decline in 1998 may in turn be due to the negative impact of the Asian financial crisis on Japanese corporate profits as well as the recession in the Japanese economy. But significantly, the recovery of outflows of JDI in 1999 was not mirrored by a recovery of inflows of JDI into China. In fact, by 1999, JDI in China has fallen to less than one fifth its historic high in 1995, perhaps reflecting disenchantment with the "market potential" that was part of China's magnetism for FDI. Eriko (1999) reported in December 1998, that Japanese direct investors gave China the lowest overall performance rating among the major world regions due to the withdrawal of special benefits given to foreign investors, heightened competition and a vague legal and tax system.

More importantly, the economic malaise that has afflicted the Japanese economy since 1991 has yet to be resolved. Growth in the 1990s has fluctuated between recession and recovery and in turn, total JDI has fallen each time the Japanese economy dipped (Tham, 2001b). Despite fiscal priming and the low interest rate policy that has been pursued by the government, the reversion to anaemic growth and

increased possibility of a recession for the year 2001 may affect the future outward flow of investment from Japan. Sustained recovery is unlikely until the fundamental need to restructure the Japanese corporations and the ailing financial sector is addressed and this may take some time to complete.

At the same time, the accession will imply greater opportunities for Malaysian exports in China. Table 10 shows a substantial difference between the level of protection in China and Malaysia. In 1998, the weighted mean tariff for China was 18.5 per cent while Malaysia's weighted mean tariff was approximately half at 9.4 per cent in 1997. With accession, China's protection will undoubtedly fall rapidly. Ianchovichina et. al.; (2000), estimated on average, tariffs on imported manufactures in China will drop to about 8 per cent with accession. As shown in table 11, the fall in tariffs is highest for the most heavily protected sub-sectors at the baseline year of 1997. Hence, the weighted average tariff in China for the beverages and tobacco, textiles, wearing apparel and automobile sub-sectors is estimated to decrease, respectively, from 123 per cent, 57 per cent, 76 per cent and 129 per cent to 20 per cent, 9 per cent, 15 per cent and 14 per cent with the accession.[3] It should be noted that the rate of protection for the electronics sub-sector is relatively quite low at the

**Table 10. Tariff barriers in China and ASEAN countries**

| *Country* | | *Manufactured products* | | |
|---|---|---|---|---|
| | | *Mean tariff per cent* | *Standard deviation per cent* | *Weighted mean tariff per cent* |
| China | 1993 | 41.8 | 31.0 | 44.0 |
| | 1996 | 23.1 | 15.8 | 23.2 |
| | 1998 | 17.4 | 10.8 | 18.5 |
| Indonesia | 1993 | 20.3 | 17.0 | 25.4 |
| | 1996 | 13.2 | 15.7 | 14.9 |
| | 1999 | 8.7 | 15.3 | 14.3 |
| Malaysia | 1993 | 15.3 | 14.3 | 12.6 |
| | 1996 | 11.8 | 16.1 | 9.3 |
| | 1997 | 12.0 | 17.2 | 9.4 |
| Philippine | 1993 | 22.1 | 13.7 | 21.0 |
| | 1995 | 19.5 | 10.4 | 18.9 |
| | 1999 | 9.3 | 7.3 | 8.3 |
| Thailand | 1993 | 47.2 | 26.2 | 43.7 |

*Source:* The World Bank, World Bank Development Indicators 2000 (2000).

[3] The protection rate estimated to apply after the accession is the lesser of the initial applied rate and the bound rate of protection as agreed under the WTO.

baseline year (22 per cent). However, post-accession, the rate of protection is estimated to be even lower at 3 per cent due to China's agreement to implement the Information Technology Agreement as part of the accession package. Furthermore, it is possible that the actual reduction in protection for some sectors such as the automobile sector may be even larger than that suggested by table 11 as quota protection will also be phased out.

With the impending decrease in protection, Malaysian exporters will be able to increase exports to China, especially in the resource-based products. Based on Tham and Loke (1998), Malaysia has high WES index for wood and cork products in 1996 (4.5) while the WES index for furniture and fixtures was 1.5 for the same year. In 1997, exports of cork and wood manufactures (SITC 63) consisted of 18 per cent of total Malaysian exports to China. Table 11 also indicates that the tariff rate in this sub-sector is estimated to decline from 21.8 per cent to 4.8 per cent with the accession. Hence there is tremendous potential for Malaysian producers to increase their exports

**Table 11. Weighted average tariffs in China with and without WTO Accession**

| | *Baseline per cent* | *With accession per cent* |
|---|---|---|
| Foodgrains | 0.00 | 0.00 |
| Feedgrains | 6.03 | 6.03 |
| Oilseeds | 4.16 | 4.16 |
| Meat & livestock | 10.14 | 10.14 |
| Dairy | 26.74 | 26.74 |
| Other agriculture | 22.09 | 22.09 |
| Other food | 27.68 | 27.68 |
| Beverages & tobacco | 123.46 | 20.34 |
| Extractive industries | 3.58 | 1.26 |
| Textiles | 57.12 | 9.38 |
| Wearing apparel | 76.00 | 14.85 |
| Wood & paper | 21.59 | 4.82 |
| Petrochemicals | 20.20 | 6.95 |
| Metals | 17.54 | 6.24 |
| Automobiles | 129.03 | 13.76 |
| Electronics | 21.69 | 3.44 |
| Other manufactures | 23.55 | 6.74 |
| Total – Agriculture | 14.97 | 15.46 |
| Total – Manufactures | 27.40 | 7.99 |
| Total | 20.10 | 7.94 |

*Source:* Ianchovichina et. al.; 2000.

to China in this category of products. However, Malaysia will face severe competition from within ASEAN in exporting resource-based products to China, especially from Indonesia, given its relative abundance in natural resources.

***Long-term impacts***

While the RCA indices as well as JDI data indicate that Malaysia still has a competitive edge over China in the production and exports of high technology products, the long-term development of this sub-sector in both countries inevitably depends on the science and technology capabilities of these countries. Table 12 reveals that China appears to have an edge over Malaysia in all the science and technology indicators shown with the exception of tertiary education as a percentage of the relevant age group in 1997. This certainly does not augur well for Malaysia's drive to move up the value-added chain and away from assembly type operations. Ong-Giger (1999) has also noted that China is a formidable threat to South-East Asia in the area of investment in information technology due to its large pool of computer programmers, many of whom are trained in the United States.

Moreover, the long term challenge from China is compounded by similar strategies pursued by the other ASEAN economies to upgrade their respective economies by moving up the technology ladder. Based on table 6, Singapore, the Philippines and Thailand are also moving rapidly into the exports of high-technology products. Singapore in particular has better science and technology indicators than Malaysia while the Philippines and Thailand have more of the relevant age group in tertiary education as well as more scientists and engineers who are engaged in R&D (table 12). Thus while Malaysia has developed the Multimedia Super Corridor (MSC)

**Table 12. Science and technology indicators**

| | *Tertiary* *per cent of relevant age group in 1997* | *Scientists and engineers in R&D per million people 1987-97* | *Technicians in R&D per million people 1987-97* | *Science and engineering students per cent of total tertiary students 1987-97* | *Expenditures for R&D per cent of GNP 1987-97* |
|---|---|---|---|---|---|
| China | 6 | 454 | 200 | 43 | 0.66 |
| Indonesia | 11 | 182 | -- | 39 | 0.07 |
| Malaysia | 11 | 93 | 32 | 27 | 0.24 |
| Philippines | 35 | 157 | 22 | 14 | 0.22 |
| Singapore | 39 | 2 318 | 301 | – | 1.13 |
| Thailand | 21 | 103 | 39 | 18 | 0.13 |

*Source:* The World Bank, World Development Indicators 2000 (2000).

project in the hope of accelerating the development of the information-communications-technology (ICT) sub-sector, the shortage of skilled manpower may deter the ability of the country to achieve the technological leap that is envisaged. The ability to compete with China and the other ASEAN economies in the long-term thus depends critically on whether Malaysia can develop the necessary skilled labour force for moving up the next link of the value-added chain.

### *Chinese Investment in Malaysia*

Will the accession imply that investment from China will increase thereby crowding out domestic producers? Table 13 shows foreign investment from China into the Malaysian manufacturing sector between 1986-1998. In 1987, this investment was a mere RM 0.1 million that was channelled into only one sector, that is the rubber products sub-sector. By 1998, investment from China amounted to RM 87.1 million or 0.1 per cent of total foreign investment in Malaysia. While rubber products continue to be the focus of this investment, investment in basic metal products have taken first place, accounting for 44 per cent of total investment from China while the share of rubber products was 40 per cent in 1998. The other two sectors of interest to investors from China are plastic products and food manufacturing.

With a large domestic market at home, it does not seem likely that China will be interested in the much smaller Malaysian market, except perhaps for FDI that is in search of natural resources such as rubber or wood. Nevertheless the enlarged ASEAN Free Trade Area (AFTA) market may attract market-seeking investment for the region as a whole, although Malaysia will face competition from other ASEAN member countries in this area.

### *Outward Investment from Malaysia*

Investment outflows from Malaysia or reverse investment, gained prominence after the recession in 1985. Malaysian investors were encouraged to venture into business and investment opportunities abroad with the higher income and profits realized as a result of a decade of strong growth (1987-1997) as well as the need to form strategic alliances. Furthermore, rising labour costs and labour shortages domestically have led Malaysian investors to relocate to labour surplus economies. This has, simultaneously, been accelerated by the liberalization of previously closed economies like China and Viet Nam. The government, concurrently, has also actively encouraged reverse investment via the provision of various incentives.

Will the accession imply greater opportunities for Malaysian investors? First, as shown in table 14, the main destinations for Malaysian investors are Singapore, United States, the United Kingdom of Great Britain and Northern Ireland and Hong Kong, China. Investment in China constituted 1.5 per cent of total Malaysian investment abroad in 1992 and this peaked at 6.8 per cent in 1996. Subsequently its

**Table 13. Foreign investment from China (paid-up) in companies in production by industry in Malaysia, 1986-1998**

| *Industry* | *1986* | | *1987* | | *1988* | | *1989* | | *1990* | | *1991* | | *1992* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *RM million* | *Per cent* | *RM million* | *Per cent* | *RM million* | *Per cent* | *RM million* | *Per cent* | *RM million* | *Per cent* | *RM million* | *Per cent* | *RM million* | *Per cent* |
| Food manufacturing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Beverages & tobacco | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 1.7 | 0 | 0 | 0 | 0 |
| Textiles & textiles product | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Leather & leather products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wood & wood products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 10.6 | 0.4 | 6.3 |
| Furniture & fixtures | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Paper, printing, publishing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Chemicals & chemicals product | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 90.8 | 0 | 0 | 0 | 0 |
| Petroleum & coal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rubber products | 0 | 0 | 0.1 | 100 | 0 | 0 | 0 | 0 | 0.1 | 7.5 | 2.6 | 68.9 | 5.2 | 81.2 |
| Plastic products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-metallic mineral products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Basic metal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fabricated metal products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Machinery manufacturing | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 20.5 | 0.8 | 12.5 |
| Electrical & electronic products | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Transport equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Scientific & measuring equipment | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Miscellaneous | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0.1 | 100 | 0 | 0 | 0 | 0 | 1.4 | 100 | 3.8 | 100 | 6.4 | 100 |

**Table 13.** *(continued)*

| *Industry* | *1993* | | *1994* | | *1995* | | *1996* | | *1997* | | *1998* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *RM million* | *Per cent* | *RM million* | *Per cent* | *RM million* | *Per cent* | *RM million* | *Per cent* | *RM million* | *Per cent* | *RM million* | *Per Cent* |
| Food manufacturing | 0 | 0 | 0.5 | 5.7 | 0.4 | 1.7 | 0.4 | 1.9 | 0.5 | 1.5 | 0.5 | 2.2 |
| Beverages & tobacco | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Textiles & textiles product | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Leather & leather products | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Wood & wood products | 0.4 | 5.7 | 0.4 | 4.6 | 0.5 | 2.2 | 0.4 | 1.9 | 0.4 | 1.2 | 0.4 | 1.8 |
| Furniture & fixtures | 0 | 0.0 | 0 | 0.0 | 0.4 | 1.6 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Paper, printing, publishing | 0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Chemicals & chemicals product | 0 | 0.0 | 0 | 0.0 | 13.5 | 58.7 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Petroleum & coal | 0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Rubber products | 5.8 | 82.9 | 5.7 | 65.5 | 5.7 | 24.8 | 8.2 | 38.1 | 7.9 | 24.3 | 7.9 | 35.1 |
| Plastic products | 0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 2.5 | 7.7 | 2.5 | 11.1 |
| Non-metallic mineral products | 0 | 0.0 | 0.3 | 3.4 | 0.0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Basic metal products | 0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 10 | 46.5 | 18.7 | 57.5 | 8.7 | 38.7 |
| Fabricated metal products | 0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Machinery manufacturing | 0.8 | 11.4 | 0.8 | 9.2 | 0.8 | 3.4 | 0.8 | 3.7 | 0.8 | 2.5 | 0.8 | 3.6 |
| Electrical & electronic products | 0 | 0 | 1 | 11.5 | 1.0 | 4.3 | 1 | 4.7 | 1 | 3.1 | 1 | 4.4 |
| Transport equipment | 0 | 0 | 0 | 0.0 | 0.7 | 3.0 | 0.7 | 3.3 | 0.7 | 2.2 | 0.7 | 3.1 |
| Scientific & measuring equipment | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Miscellaneous | 0 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Total | 7 | 100 | 8.7 | 100.0 | 23.0 | 100.0 | 21.5 | 100.0 | 32.5 | 100.0 | 22.5 | 100.0 |

*Source:* MIDA, Statistics On The Manufacturing Sector, Various Years.

**Table 14. Gross Malaysian investment overseas in selected countries, 1992-1996**

| *Countries* | *1992* | *1993* | *1994* | *1995* | *1996* | *1997* | *1998* | *1999* |
|---|---|---|---|---|---|---|---|---|
| | *RM million* | | | | | | | |
| Singapore | 258.6 | 686.1 | 995 | 2 185 | 1 806 | 1 783 | 2 081 | 1 634 |
| United States | 93.9 | 627.6 | 624 | 544 | 1 416 | 1 334 | 1 650 | 1 017 |
| United Kingdom | 63.0 | 372.2 | 444 | 793 | 1 308 | 1 716 | 512 | 568 |
| Hong Kong, China | 336.7 | 733.9 | 1 892 | 816 | 769 | 936 | 162 | 160 |
| China | 20.1 | 112.2 | 217 | 331 | 514 | 327 | 75 | 201 |
| Total | 1 312.7 | 3 412.4 | 6 799 | 7 936 | 10 715 | 10 458 | 8 413 | 10 368 |

*Source*: Ragayah, 1999 and 2001.

share fell to 3.1 per cent in 1997 and further still to 0.9 per cent with the economic downturn in that year. With the recovery of the economy in 1999, its share increased to 1.9 per cent although the absolute amount is smaller than that achieved for 1994. So from a historical perspective, China is a relatively unimportant destination.

Second, Malaysia is also a minor player in the China market. Henley, et. al.; (1999) reported that the main investor in China between 1985-1996 is Hong Kong, China and Macau, China, which together accounted for 58 per cent of FDI flows into China. Second was Taiwan Province of China (8.4 per cent), followed by Japan (8.0 per cent) and the United States (7.9 per cent). Therefore many foreign competitors that are global players have already established a presence in China since the economy first opened up in the late 1970s. In 1995, the Economic Intelligence Unit (EIU, 1995) already reported intense competition with crowded sectors and low margins. This together with mounting competition from local players, particularly from the construction and consumer products sectors, imply that new start-ups will end up either chasing competition or are being chased.

Third, as reported by the EIU, companies entering China in response to the perceived market opportunities from this large economy have encountered severe constraints such as choosing and building relationships with the right Chinese partner. In addition, scarcity of managerial talent, a fragmented and chaotic distribution system, high import tariffs and difficulties in finding appropriate local inputs as well as an underdeveloped legal infrastructure in conjunction with a powerful and arbitrary bureaucracy have all compounded the difficulties in doing business in China. Even an established MNC like Coca-Cola reportedly did not make a profit for the first 11 years of its operations in China. While the accession will reduce tariffs and improve the legal infrastructure, it will take some time to change and deep reserves are needed to withstand initial losses.

## V. CONCLUSION

With the consolidation of trade reforms and the availability of reciprocal market access with WTO members that comes with accession, China will undoubtedly see an increase in its share of world trade. For Malaysian exports, the decline in the export share of labour-intensive products such as clothing and apparel will accelerate. The potential increase in demand for textiles from China is unlikely to increase Malaysia's export share given the relatively low comparative advantage that Malaysia has for this product group. Moreover, vertical integration among the Asian NIEs and China is expected to meet the demand for these goods. This is also the likely outcome for other labour-intensive products.

For high-technology products, Malaysia still has relatively high comparative advantage while JDI that has helped to develop these exports remains committed with Malaysia. However, the future development of this sector depends on the future outflows of FDI and this may face constraints as Japan struggles with the restructuring of its economy while the scarcity of skilled labour within Malaysia continues to impede the desired technological transformation. Moreover Malaysia also faces competition from within ASEAN as they share common strategies and goals in developing their respective economies.

On the other hand, resource-based products such as wood and wood products may be able to increase their market share in China due to the relatively high comparative advantage that Malaysia has in this product group. Furthermore, this is the largest manufactured export good (in value terms) from Malaysia to China in 1997 and 1998. The potential for improving Malaysia's market share is also increased by the expected fall in tariff protection for this product group when China becomes a full-fledged member of the WTO. However, Malaysia will face stiff competition from within ASEAN in exploiting the anticipated fall in protection in China as Indonesia and Thailand have also an advantage in the production and export of resource-based products.

Investment from China is rather miniscule in 1998 and the relatively small domestic market implies that investment from China that is resource-seeking is more likely to increase rather than investment that is market-seeking. On the other hand, Malaysian investment in China will have to search for market niches that are not crowded with foreign and local players and which can meet the effective demand in China.

Given that China is expected to grow even more rapidly with the accession, short and medium-term policies for Malaysia should focus on improving the market access for Malaysian products in China. In this regard, trade facilitation measures will enhance Malaysia's opportunities to exploit the growing Chinese market. Thus inter-governmental exchange of information on legal enactments, regulations, product standards and customs procedures via regular trade policy dialogues will increase the

transparency and understanding of China's market and assist Malaysian exports to China. Improving visa arrangements to promote the flow of business personnel will also contribute to easing the procedures for conducting business in China. More importantly, cooperation in terms of aligning domestic standards with international standards and the mutual acceptance of each country's conformity assessment will help to reduce hidden trade barriers. In the medium to long-term, however, Malaysia will have to accelerate its output of skilled labour, diversify exports and export markets, and develop indigenous R&D capabilities in order to counter the challenges posed by China's accession into the WTO.

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