

## **CLUSTER-BASED DEVELOPMENT: MACROECONOMIC FRAMEWORK**

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### **1. INTRODUCTION**

Over the last three and a half decades, Malaysia's economy has been transformed from one which was mainly dependent on the production of a few primary commodities to a broad-based manufacturing and export-based economy. The structural transformation of the economy can be segmented into three distinct phases of development:

- Modernisation and Diversification of the Agricultural Sector and Import Substitution Industrialisation, 1960s
- Export Oriented Industrialisation in the 70s and 80s
- Heavy Industrialisation: The IMP (1985–95)

The Industrial Master Plan (IMP) implemented in 1986 provided a framework for the development of a broad-based manufacturing sector during the period of 1986–1995. It also outlined the structural shift of the country's economy from one dependent largely upon agriculture and primary products, to one where the manufacturing sector played a greater role in the economy. The IMP identified the need for developing high technology industries to pave the way for Malaysia to become an industrialised nation. In line with this, it stressed the importance of preparing the workforce with technical and industrial skills in view of the increasing sophistication of 'imported' technology accompanying foreign direct investment. It also recognised the importance of developing indigenous skills in product design and production technology so that domestic industries can progress without depending too much on imported foreign technology and expertise.

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Though the national corporations (MNCs) situated in the Free Trade Zones (FTZs) and Licensed Manufacturing Warehouse (LMW) have been playing a significant role in spearheading the country's export-oriented industrialisation drive, they remained almost independent of the mainstream of the Malaysian economy. While these industrial enclaves generated employment opportunities, there were little other linkages in terms of ancillary or support industries. The lack of entrepreneurial skills, output quality and capital have been identified as among the major constraints faced by local industries, especially the small and medium scale industries (SMIs) in developing technological linkages with the larger manufacturers. The Second Outline Perspective Plan (1991–2000) and the Sixth Malaysia Plan (1991–1995) placed greater emphasis on developing an integrated industrial structure. Policies to promote the development of a wider vendor network through subcontracting system between SMIs and large foreign and domestic industries were formulated. Under the Industrial Technical Assistance Fund (ITAF), financial incentives and assistance were provided to improve the capability of SMIs to supply the required production inputs of the larger enterprises. Local SMIs were also encouraged to expand their marketing network, including to penetrate export markets.

Spurred by continued inflow of foreign investment as well as a more favourable domestic and external business environment, the period of 1988 to 1994 saw the growth of new manufacturing industries in both the resource-based and non-resource-based sectors, resulting in significant diversification of the manufacturing sector. During the period of 1988–94, the manufacturing sector grew at an impressive compounded annual rate of 20 percent, outpacing the growth rate of other sectors in the economy.

This rapid pace of industrialisation propelled the manufacturing sector's contribution to GDP to 33.1 per cent in 1995 as compared to only 14.0 per cent in 1970. In contrast, the relative share of agricultural sector in GDP declined significantly to 13.5 per cent in 1995 as compared to 31 per cent in 1970. The services sector in the meantime achieved a share of 44.3 percent thus maintaining its average share around 43 to 44 percent throughout the period of 1980s and the first half of 1990s.

In the Second Industrial Master Plan the manufacturing sector is expected to achieve a share of 38.4 percent of GDP by the year 2005 employing 2.1 million workforce. In the following sections we analyse the progress of the manufacturing sector throughout the last 3 decades and provide the macroframe for the IMP2 in which we outline the prospects for all the sectors during the period 1996–2005.



## 2. EVOLUTION OF THE MANUFACTURING SECTOR

The manufacturing sector was relatively a small sector in the early days after independence in 1957, and much of the activity was involved with the resource based industries particularly the processing of raw materials and minerals. In the period 1960–1965, the manufacturing sector's share of Gross Domestic Product (GDP) was about 9.2 per cent. During that period, the country's industrial strategy was aimed primarily at promoting industrialisation through import substitution during which relatively large industries were promoted not only through fiscal incentives but also tariff protection in the move to ensure them the domestic market. Industries that existed during the 60s were food and beverages, wood products, rubber products, chemical and chemical products, basic metals and machinery manufacturing industries. Manufactured exports as a share of total exports represented about 8.6 per cent in 1963 and that increased to 15.1 per cent in 1967. By late 60s, it appeared that the import substitution strategy did not generate the expected job opportunities. Employment share of the manufacturing sector to total employment was only about 6.6 per cent in 1965.

The introduction of the Investment Incentive Act of 1968 marked the early efforts to promote the export-oriented industrialisation and strengthen the industrial development process. The Act created three forms of incentives namely the pioneer status, investment tax credit and export incentives.

The pioneer status gave new companies tax relief of up to five years from the commencement of production, while the tax credit was granted to companies which did not qualify for the pioneer status. It was recognised later in the IMP that the pioneer status had been able to attract large companies with high capital investment, but the status offered only limited help for the small-scale industries. In other words, the pioneer status incentive was biased towards large capital intensive companies which were foreign-owned rather than domestic ones. In the period 1970–1980, for example, about 65 per cent of all approved projects in the electronics industry received pioneer status and they provided about 87.0 per cent of employment in the subsector. Overall however, the pioneer status as well as other non-fiscal incentives have been successful in attracting foreign investment and assisted in the favourable expansion of the manufacturing sector.

Export incentives were in the form of double tax deduction for expenses incurred on export promotion activities. In 1971, the Free Trade Act was introduced to create Free Trade Zones (FTZs), which are basically industrial sites where special policy parameters are applied to promote economic activities. The establishment of free trade zones with export incentives has attracted MNCs to set

up their enterprises in Malaysia and the manufacturing sector's performance, especially the electronics industry, was boosted further in the 70s. The creation of FTZs has increased Malaysia's export share in electronic components to OECD countries from almost nothing in 1970 to about 10 per cent in 1980. Apart from the incentives, the availability of low-wage labour during that time, relatively reasonable infrastructure facilities and political stability were among the important factors which attracted foreign investment into the country.

In the early 80s, the government had embarked on a heavy industrialisation programme to promote the development of selected heavy industries. It was considered by some as following Korea's model of industrial development during the 70s and a sort of a second round of import substitution for Malaysia. The program was to be implemented through the Heavy Industries Corporation of Malaysia (HICOM), considered as a non-financial public enterprise. Iron and steel, petrochemicals, cement and automotive were some of the industries selected for this purpose. The heavy industries program was set up for the purpose of broadening the industrial base and to develop some indigenous capabilities in manufacturing know-how with regard to heavy industries.

Tables 1 to 4 provide some data on employment and value added share of GDP of the manufacturing sector for the last 25 years indicating that significant progress has been made since the recession of 1985.

**Table 1**  
**Employment Share By Major Sectors**

	2nd MP 1971-1975	3rd MP 1976-1980	4th MP 1981-1985	5th MP 1986-1990	1991-1994
Agriculture, forestry and fishing	49.8	42.5	33.9	29.6	22.0
Mining and quarrying	2.3	1.8	1.1	0.5	0.5
Manufacturing	10.3	14.9	15.5	17.0	23.2
Construction	3.4	4.9	7.3	5.9	7.3
Government services	12.5	13.2	14.6	13.6	11.9
Other services	21.7	22.7	27.9	33.3	35.2
Unemployment Rate (average)	6.8	5.7	5.7	6.8	3.5

Source: Ministry of Finance, *Economic Report*, various issues



**Table 2**  
**Average Growth Rates of Real Manufacturing Output during**  
**the Malaysia Plans**

	2nd MP 1971–1975	3rd MP 1976–1980	4th MP 1981–1985	5th MP 1986–1990	1991–1994
<b>MANUFACTURING</b>	11.9	9.0	4.1	15.2	12.6
Electrical & Electronics	11.0	9.6	10.6	23.2	15.7
Transport Equipment	10.0	19.6	4.7	35.1	3.4
Food	5.0	4.4	1.6	5.6	7.1
Beverages	9.3	15.3	-3.4	10.0	2.5
Textiles & Wearing Apparel	15.1	5.6	0.7	12.3	15.7
Wood Products	8.7	2.0	-2.9	16.3	13.5
Rubber Products	5.6	2.4	0.6	33.3	18.5
Petroleum Products	6.4	6.6	8.6	7.2	4.5
Chemical & Chemical Products	6.2	9.2	3.1	8.6	8.4
Non-metallic mineral	7.8	10.1	-0.2	14.5	8.6
Basic Metals	8.1	10.3	3.2	18.5	14.8
Fabricated Metal Products	7.1	11.6	6.9	9.2	44.4

Calculated from Bank Negara Quarterly Bulletin

**Table 3**  
**Average (Compounded) Growth Rates of Exports**  
**during the Malaysia Plans**

	2nd MP 1971–1975	3rd MP 1976–1980	4th MP 1981–1985	5th MP 1986–1990	1991–1994
Electrical & Electronics	77.1	46.4	19.0	32.9	42.3
Transport Equipment	19.9	28.1	61.6	38.9	44.5
Food	33.8	16.6	3.9	20.8	14.5
Beverages & Tobacco	4.5	1.3	6.4	26.3	32.0
Textiles & Footwear	40.1	26.6	13.2	25.8	15.7
Wood Products	15.1	9.6	-6.4	25.9	52.5
Rubber Products	23.2	15.2	8.1	54.2	26.7
Paper & Paper Products	12.6	43.7	10.2	44.2	14.0
Petroleum Products	-1.4	7.8	46.6	15.6	18.4
Chemical	23.9	22.6	32.3	17.9	45.8
Non-metallic mineral	9.8	19.5	31.1	41.8	22.9
Metal	23.6	35.2	13.9	31.8	32.1
Optical and Scientific	233.8	-20.1	33.7	41.0	33.7
Toys and Sporting Goods	22.3	25.9	28.1	45.1	21.6
Total Manufactured Exports	35.2	26.2	18.2	32.2	36.9
Major Commodities Exports	13.2	19.7	2.4	12.2	-0.9
Total Exports	16.5	20.3	8.8	22.5	24.5

Calculated from Bank Negara Quarterly Bulletin

**Table 4**  
**Share of Manufacturing Exports by**  
**Major Industry Groups**

	1970	1975	1980	1985	1990	1994
Electrical & Electronics	8.5	25.2	47.8	52.1	56.6	63.5
Transport Equipment	5.3	3.3	3.5	4.5	4.1	4.8
Food	15.0	13.5	7.8	6.1	4.2	2.5
Beverages & Tobacco	3.3	1.3	0.4	0.3	0.2	0.2
Textiles & Footwear	5.2	10.8	12.8	10.3	8.3	5.0
Wood Products	14.6	10.2	7.4	2.9	3.5	4.0
Rubber Products	2.7	2.1	1.3	0.9	2.9	2.3
Paper & Paper Products	0.9	0.4	0.6	0.6	0.9	0.5
Petroleum Products	26.2	5.2	3.0	8.4	2.7	1.8
Chemical	5.7	4.3	3.0	4.9	3.1	3.8
Non-metallic mineral	3.3	1.2	1.0	1.2	1.6	1.2
Metal	5.6	3.1	4.0	2.9	3.4	3.0
Optical and Scientific	0.6	16.6	2.2	1.8	2.3	2.1
Toys and Sporting Goods	0.3	0.7	0.9	1.4	2.1	1.5
Other	2.9	2.2	4.5	1.9	4.6	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
% of Total Exports	14.3	23.7	26.9	41.0	59.2	77.2
Share of Commodity Exports	78.4	70.7	72.4	55.5	32.8	18.6
(Rubber, Tin, Saw Logs, Sawed Timber, Palm Oil & Petroleum)						

Calculated from Bank Negara Quarterly Bulletin

### 3. Challenges In Industrial Development Stemming From Experiences During The First IMP

The Industrial Master Plan (IMP) prepared by United Nations Industrial Development Organisation (UNIDO) and the Malaysian Industrial Development Authority (MIDA) was released in 1986. The purpose of the IMPI study was to provide a critical analysis of the issues, problems and prospects for Malaysia's industrialisation process. The IMPI made some policy prescriptions on the future industrialisation of the economy for the period 1986 to 1995. In general, the three broad objectives of the IMPI were:

1. to accelerate the growth of the manufacturing sector to ensure a continued rapid expansion of the economy and to provide basis for meeting the social objectives consistent with the NEP;
2. to promote opportunities for the maximum and efficient utilisation of the nation's abundantly endowed natural resources;



3. to build up the foundation for leap-frogging towards an advanced industrial country in the information age, by increasing indigenous technological capability and competitiveness.

The first IMP recognised that the manufacturing sector in the seventies and early eighties was more concentrated on labour intensive and resource-based industries. The manufacturing sector stressed on low value-added assembly activities rather than capital intensive advanced technology activities. The electrical and electronics industry for example, while being the main contributor to manufacturing output, had some weaknesses. It was mostly concentrated in the production of components such as semiconductors which relied heavily on other imported inputs. Most of the activities were assembly type operations with very little R&D activities, and the sector was dominated by foreign multinationals.

After the recession in 1985–1986, the government realised the need to further develop the manufacturing sector. The manufacturing sector was not diversified and broad enough to withstand the vagaries of the external demand. In the mid 80s, the exports of commodities formed the larger share of total exports at 55.5 per cent, compared to 41.0 per cent for manufactured exports. Electrical and electronics and textiles products represented around 60 per cent of total manufactured exports. Incentives for investment were reviewed regularly and they were well received by foreign investors as reflected by the surge in foreign investment between the period 1988–1993. The tax concessions were reinforced further in the Promotion of Investment Act, and the Investment Co-ordination Act which stipulated the relaxation of equity guidelines.

Apart from the above incentives, the depreciation of the ringgit against major currencies in 1986 had in some sense helped the manufacturing sector. The ringgit depreciated by over 7 per cent against the US dollar and the real effective exchange rate of the ringgit fell by about 20 per cent. The depreciation of the ringgit had lowered the production costs of manufacturing firms, and along with the incentives available, had attracted foreign firms to invest in Malaysia. Foreign direct investment (FDI) surged by 76 per cent in 1986 and reached a sharp growth of 136.8 per cent in 1988. FDI growth reached another high figure of 103.7 per cent in 1990 with investment worth RM17.6 billion.

By the late 80s also, Malaysia had become an important producer of electrical and electronic products, textiles and rubber products. Between the period 1986–1990, most industries experienced double digit export growth. The electrical machinery sector exports grew by a substantial average rate of 30.2 per cent per annum during the 1986–1990; rubber products industry by 28.9 per cent;



textiles by 25 per cent; and paper and paper products 32.3 per cent, to mention a few.

By 1994, the manufacturing sector had a strong foothold in the Malaysian economy, contributing 31.6 per cent to GDP in 1994 compared to 14.2 per cent in 1970. The manufacturing sector was the fastest growing sector in terms of value-added during the period of OPP1 (1971–1990) with an average growth rate of 10.3 per cent recorded. Manufactured exports grew at an average rate of 24.2 per cent during the period 1970–1990. Real manufacturing output expanded by an average of 12.5 per cent for the period 1970–1994. The share of manufactured exports to total exports increased substantially from only 14.3 per cent in 1970 to a much larger share of 77.2 per cent in 1994.

Industrialisation was seen as a way of enhancing the growth of the economy to achieve a higher income level and a better standard of living. This example was set by other Asian countries such as Taiwan, South Korea, Singapore and Japan in their economic development process. The industrialisation process thus far had been achieved partly by the continued inflows of foreign direct investment, particularly from other Asian countries.

Among the challenges in the Malaysian manufacturing sector are the high dependency on MNCs in important areas such as technology, development of international marketing and supply of raw material, and these factors had hindered the desired development of indigenous industrial base. The transfer of technology has not been significant and therefore, new efforts are needed to indigenise technology development. Heavy dependence on FDIs has also generated large import growth mainly on investment and intermediate goods, and that was part of the reason behind the current account deficit. Other consequences on the reliance on FDIs included the large repatriation of their earnings and outflow of payments on freight charges, resulting in the loss of foreign exchange reserves. Nevertheless, the FDIs have contributed a lot in fulfilling the objective of employment creation. It is the other shortcomings as mentioned above which require further attention.

In the first IMP, the major obstacles and weaknesses identified were as follows:-

- Delayed industrialisation – The change in the structure of the economy from a more agricultural base to one of manufacturing is somewhat difficult and the transition is not an easy one for Malaysia. The industrialisation process was seen as lagging behind the "normal" pattern.



- Weakness in inter-industry structure – The rapid growth of the manufacturing sector has created some imbalances in the industrial structure such as: 1) narrowly-based on few labour intensive and resource-based companies; 2) trade dominated by the electronics and textiles industry; 3) very weak inter-industry linkages as supporting industries such as the capital goods industry was still under-developed.
- Heavy dependence in areas such as technology, marketing, management and components development jeopardises the development of an indigenous industrial base.
- Weakness in export structure: A narrow manufactured exports structure dominated by electronics and textiles (around 60 per cent manufactured exports in 1983, with semiconductors accounting for almost 41 per cent). Resource based products accounted for only 19.7 per cent of manufactured exports.

Apart from the above which are considered more of structural problems, there are other issues pertaining to government policies:

- Low level of technology and lack of indigenous capability of technological mastery: The technology which was obtained from the foreign company directly has created complacency and delayed or shelved the need for policy co-ordination to foster indigenous technological capability.
- Short supply of engineers/technician level manpower: Lacking manpower to absorb foreign technology in the process of transfer of technology.
- Inadequacy of current incentives system: Incentives adopted before the IMP have been somewhat against the spirit "export-led industrialisation strategy" such as domestic market protection, and the Pioneer Status which was more large-scale bias. There were also no export incentives for companies outside the FTZ areas and for small-scale businesses.
- Low level of activities of private industry organisation: Lack of coherent force and activities among the manufacturing groups which seemed to be more interested in their own segment of activity.

- Multiplicity of objectives in industrial development: The industrial development objectives would have to be in line with other social and political objectives of the NEP, such as regional development, Bumiputra employment and equity participation.

Besides the general cross-cutting issues and problems identified, the IMP provided specific recommendations for twelve industries that were selected. Mainly the plan's analysis of each industry followed the following direction: a) assessing current status of the industries, b) identifying factors affecting, positively or negatively, the potential growth, c) deciphering patterns and effects of these factors, d) identifying common denominators, that are present in every sub-sector, and assessing the market conditions at that time as well as future demand projections together with assessment of technology trends. Some products were also identified as being priority products, meaning that they had potential for further promotion.

The twelve industries analysed by the first IMP are listed below:-

#### Resource-Based Industries

- 1) Rubber Products Industry\*
- 2) Palm Oil Products Industry\*
- 3) Food processing Industry
- 4) Wood-Based Industry\*
- 5) Chemical and Petrochemical Industry
- 6) Non-Ferrous Metal Products Industry
- 7) Non-Metallic Mineral Products Industry

\*(identified as being more export-market oriented while the rest are more domestic-market oriented industries)

#### Non-Resource-Based Industries

- 8) Electrical and Electronics Industry\*
- 9) Transport Equipment Industry
- 10) Machinery and Engineering Products Industry
- 11) Machinery and Engineering Products Industry
- 12) Textiles/Apparel industry\*

\*(identified as being more export-market oriented while the rest are more domestic-market oriented industries)

Overall, the major economic indicators (Table 5) point to a successful implementation of the first



IMP. The real GDP grew at an actual rate of 7.7 per cent for the period 1985–1995, exceeding the IMP target of 6.4 per cent GDP growth. The manufacturing value-added products industry expanded impressively at an average rate of 13.4 per cent per annum for the whole period of the first IMP, surpassing the target of an average growth of 8.8 per annum. The most outstanding achievement during the first IMP was the growth rate for exports of manufactured products which grew at a rapid average pace of 28.0 per cent per annum, far exceeding the target of 9.4 per cent per annum.

**Table 5**  
**Growth Performance Of The Manufacturing Sector**  
**Compared To IMP Targets**

per cent (%)	1985–1995 TARGET	1985–1995 ACTUAL
GDP	6.4	7.7
Manufacturing Value-Added	8.8	13.4
Share of Manufacturing Value Added to GDP	23.9 (1995)	33.1 (1995)
Manufacturing Exports	9.4	28.0
Manufacturing Employment	6.8	8.8
Manufacturing Employment ('000 workers)	1,464 (1995)	1,997 (1995)

**3. CHALLENGES FOR IMP 2 INDUSTRIAL STRUCTURING**

**3.1 Background**

Malaysia's development strategy was marked in the mid-80's by a massive re-engineering of the structure of the economy. The country is blessed with a rich and diverse resource base which has traditionally formed the core of economic activity in the country. Rubber and oil palm plantations, tin mining and other primary sector commodities constituted over 40% of the value added as a share of GDP, in 1970.

However, an export-driven growth strategy led by the manufacturing sector has led the way since then, accelerating during the late 1980s right through now. Today, manufacturing contributes an overwhelming 30% to the economy. Malaysia has not grown in isolation. Along with Singapore, Thailand and more recently, Indonesia, the country has led the tide of economic boom in the region.

### 3.2 Comparison To Other Countries

This section will compare Malaysia's structural composition to that of the developed countries. This will enable us to gain an appreciation as to whether there are lessons that can be applied to the Malaysian case.

A first group of countries, Germany, Japan and the United States, is picked as a representative set of mature economies that Malaysia can be compared with. A second group of countries selected are the newly industrialising economies (NIE's). These countries are further along in the development process. While their experiences may or may not be directly applicable to Malaysia, they may nevertheless serve to highlight pitfalls and opportunities in development that may indirectly be applicable to Malaysia. A key NIE we have picked is S. Korea. Other NIEs will be referred to as and when appropriate. A third group of countries picked for this evaluation includes Malaysia's neighbouring countries and close competitors – Thailand and Indonesia. These nations have goals that are broadly similar, ie, to transform commodity-based economies to industrial ones.

All these countries have at some point seen dramatic growth spurred by their drive towards industrialisation, and are currently in various stages of development. Comparing Malaysia to them will help provide a telescopic view of how Malaysia's structure has evolved and where it might be headed.

### 3.3 Structural Change & Economic Growth

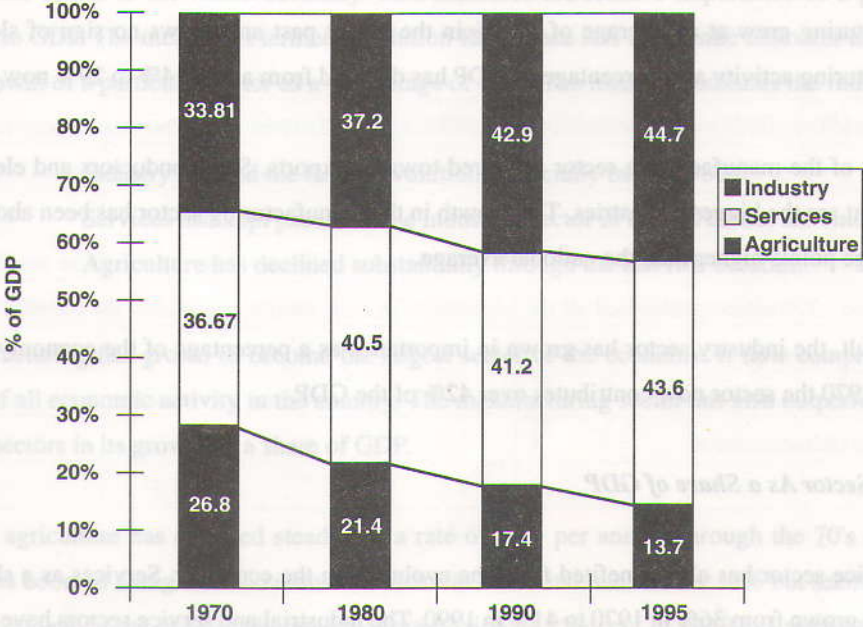
Malaysia has become a text book study for an investment intensive, export-led growth. In 1970 the manufacturing sector accounted for only 14% of the economy and manufactured exports were 15% of the economy. Presently, manufacturing contributes close to 30% of GDP and 75% of all exports. The country re-engineered its structure, from an essentially primary commodity producing to a predominantly manufactured goods producing economy in the last 20 years.

In 1970 rubber, tin and oil constituted over 70% of Malaysia's exports. Agricultural growth was an abysmal 2% per annum and a third of the population lived below the poverty line.

The government then made a push toward manufacturing. Malaysia began the complex task of switching from a commodities-based to an export-oriented manufacturing-based economy. The results of this push have been quite dramatic as seen in Figure 1 and discussed further below.



Figure 1  
Structural Change in Malaysia



*The Primary Sector as a Share of the Economy: On the Decline.*

The growth in manufacturing has been matched by a rapid decline in the fortunes of the primary sector. Agriculture has declined as a share of GDP from 26.8% to close to 17.4%. Malaysia, for long the world's leading producer of natural rubber has reduced its dependence on the rubber industry. Until recently, Malaysia produced 1.8m tons of natural rubber, the highest in the world. However, output is expected to fall this year. Thailand and Indonesia are now bigger producers of rubber.

The decline has been more dramatic in mining. Tin and other raw materials contributed to 14% of GDP in the early 70's. Today, they constitute less than 7% of the economy. This constituted a decline in real terms as well. From producing 60,000 tons of tin and employing 40,000 people in the early 1980's, the industry has shrunk to a tenth of its size and now employs only 2,000 people.

*The Industrial Sector as a Share of GDP: Shifted into High Gear<sup>1</sup>*

As part of its aim to become fully industrialised by the year 2020, Malaysia actively sought investment from abroad for industrial projects and increased spending on infrastructure projects.

<sup>1</sup> 'Industry' is defined as all manufacturing activities plus utilities and construction.

Foreign investment contributed, in no small measure, to the overhauling of the economy.

Manufacturing grew at an average of 12.5% in the recent past and shows no sign of slowing. Manufacturing activity as a percentage of GDP has doubled from a low 14% to 29% now.

The bulk of the manufacturing sector is geared towards exports. Semiconductors and electrical equipment are the biggest industries. The growth in the manufacturing sector has been about two percentage points higher than the national average.

As a result, the industry sector has grown in importance as a percentage of the economy. From 33% in 1970 the sector now contributes over 42% of the GDP.

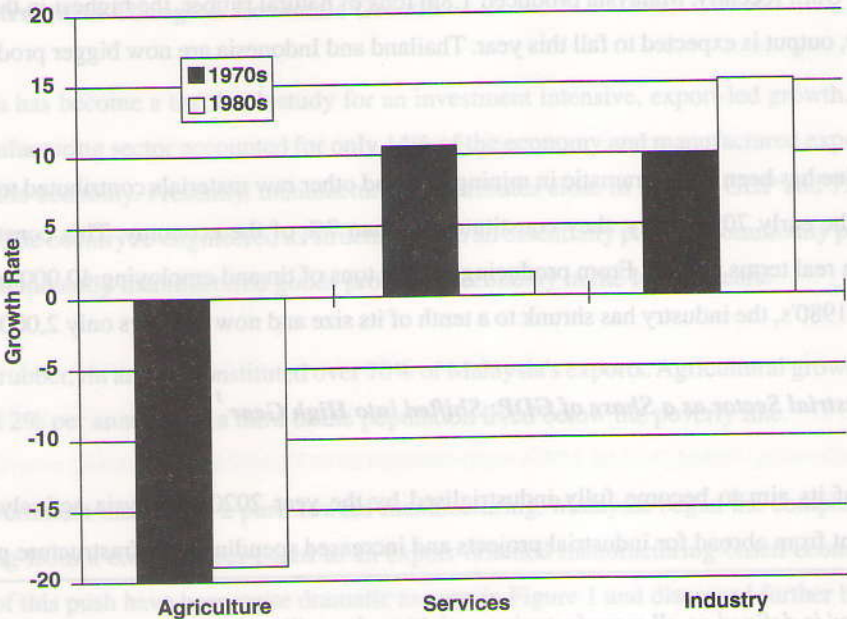
**Service Sector As a Share of GDP**

The service sector has also benefited from the evolution in the economy. Services as a share of GDP has grown from 36% in 1970 to 41% in 1990. The industrial and service sectors have grown at the expense of agriculture and mining.

**Pace of Change of Sectors**

*Figure 2*

*Industry has the Fastest Evolution Rates: 1970 – 1990*





The structural evolution of the economy is measured as the rate of change of concentration of a particular sector to the whole economy. This measures the relative importance of a particular sector to GDP. The measure is termed 'Evolution Rate' since it is a dynamic index for measuring the growth of a particular sector as a percentage of GDP. The measure indicates the following:

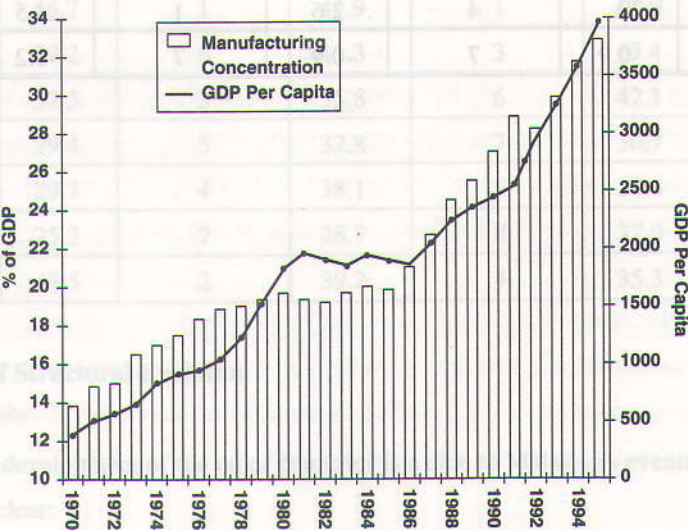
- Industry has had the fastest evolution, especially in the 1980's.
- Services had kept pace with the industrial sector in the 1970's but has since lagged.
- Agriculture has declined substantially through the last two decades.

Manufacturing has grown to become the largest sector of the economy. It now comprises over 42% of all economic activity in the country. The manufacturing sector has also outperformed all other sectors in its growth as a share of GDP.

While agriculture has declined steadily at a rate of 20% per annum through the 70's and 80's, services boomed along with the industrial sector at an annual rate of over 10% but seems to have bottomed out. In the last decade industrial production as a percent of GDP has risen by close to 15%.

In sum, the rapid growth rates of the industrial sector have been an impetus to overall GDP growth (see figure 3). The country has boosted growth rates by switching tracks from a primary commodities-based economy to an industrial one.

**Figure 3**  
**Industrial Growth has Spurred Increases in Per Capita GDP**



### Comparisons With Other Countries: Evolution Of The Industrial Sector

In comparison to other countries, the rate of evolution of industries within the economy (see Table 6) has been strong in Malaysia. While the developed nations have faced a gradual reduction in the relative size of their industrial sector, Malaysia and the other developing nations have pressed on. Korea made the jump in the 70's with an evolution rate of 3.7 and has since retained a positive rate. Malaysia is yet to have that radical push that galvanized Korea toward rapid industrialisation.

In manufacturing as a share of value added to GDP (see Table 7) Malaysia has done remarkably well. In the 1970's it outperformed all the economies in their ability to increase the manufacturing component of the economy. In the next 15 years Malaysia has stayed at second position and had the admirable record of having constant improvement in shifting the structure of its economy toward an industrial base.

**Table 6**  
**Comparative Rate of Evolution of Industry**  
**Growth Rates of the Concentration of Industry**

	1970	Rankings	1980	Ranking	1990	Rankings
Indonesia	10.2	1	-1.1	8	0.8	3
Japan	-1.1	8	-0.1	5	-0.7	5
Korea	3.7	2	0.4	3	0.4	3
Malaysia	1.1	5	1.4	2	1.1	2
Mexico	0.6	6	-0.1	4	-2.5	7
Singapore	2.1	3	-0.3	6	0.3	4
Thailand	20.	4	2.6	1	1.5	1
G3	-0.9	7	-0.9	7	-1.2	6



**Table 7**  
**Comparative Rate of Evolution of Industry**  
**Average Growth Rates in Manufacturing Concentration**

	1970	Rankings	1980	Ranking	1990	Rankings
Indonesia	1.8	5	4.7	1	5.1	1
Japan	-2.2	8	-0.1	7	-1.1	4
Korea	3.5	3	0.1	6	-5.3	7
Malaysia	3.8	1	2.9	2	3.5	2
Mexico	0.0	6	1.2	4	-5.8	8
Singapore	3.8	2	0.8	5	-1.7	5
Thailand	3.2	4	2.5	3	1.8	3
G3	-1.1	7	-3.1	8	-4.5	6

Table 8 shows us profiles of industrial concentration in these countries. This shows us that Korea made the push towards industrialisation in the 70's allowing them to raise their rank from 6th to 3rd. Malaysia has embarked on this transformation a decade later and is now heavily concentrated in the industrial sector. However, it has yet to match the levels reached by Japan in 1970.

**Table 8**  
**Industry as a Percent of GDP: Profiles**

	1970	Rankings	1980	Ranking	1990	Rankings
Indonesia	18.7	8	41.7	2	39.4	4
Japan	46.7	1	41.9	1	42.0	3
Korea	29.2	6	41.3	3	43.4	1
Malaysia	32.5	3	35.8	6	42.1	2
Mexico	29.4	5	32.8	7	30.7	8
Singapore	29.7	4	38.1	5	37.4	5
Thailand	25.3	7	28.7	8	37.0	6
G3	43.5	2	39.2	4	35.3	7

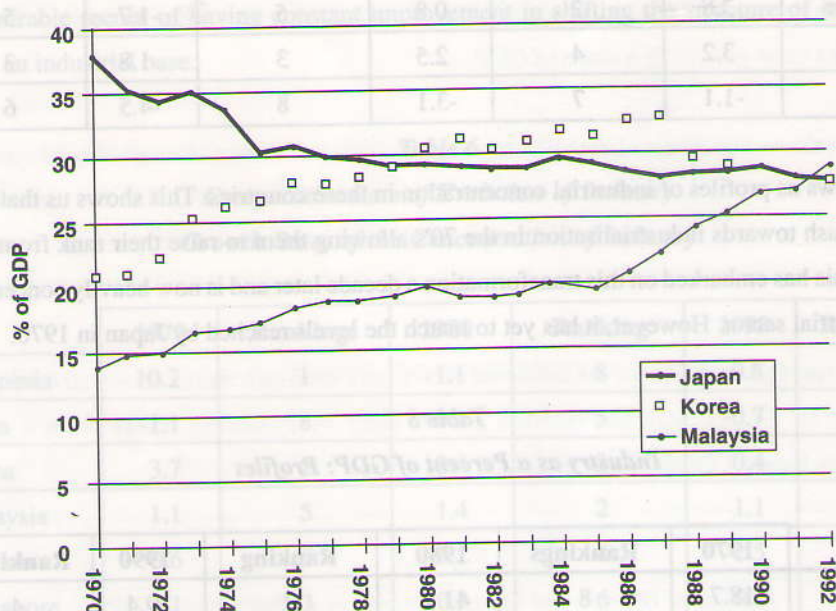
### Time Trends Of Structural Evolution

If the pattern of development of the other countries is a clue to Malaysia's eventual position two factors become clear:

First, at a certain stage of development, manufacturing as a share of GDP peaks and thereafter declines. Figure 4 presents a time trend of manufacturing concentration in an economy. The graph compares Malaysia's position in structural development in comparison to some other countries that are in different stages of evolution.

Second, the levels of concentration in manufacturing are often over 35% of the economy in developed nations. However, after this stage the emphasis shifts towards the service sector.

**Figure 4**  
**Manufacturing as a Share of GDP**



Source: World Tables 1995, World Bank

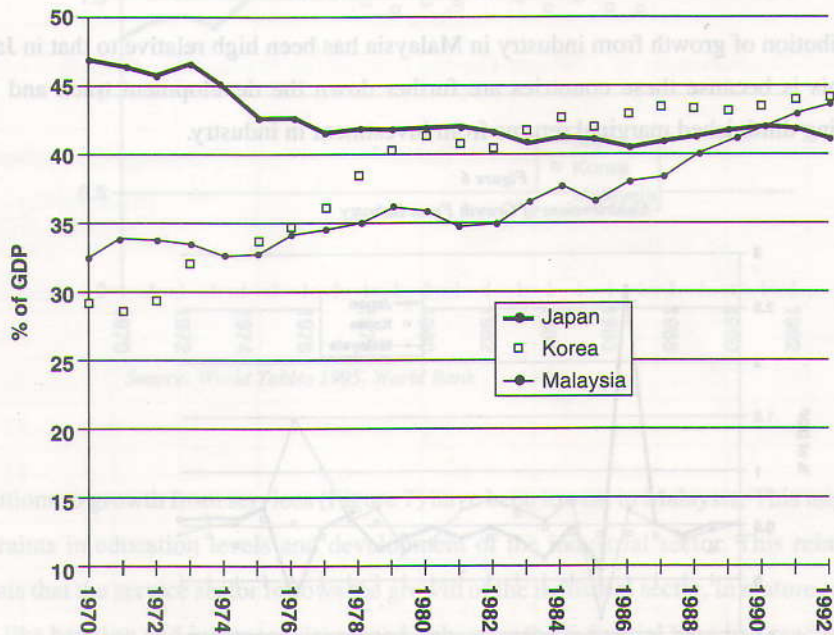
The G3 countries in the early 1970's had close to 35% of GDP from the manufacturing sector. In the past 20 years these countries have observed a shift away from manufacturing. Germany, the most concentrated in manufacturing, with over 35% in 1970, has since altered its structure. Manufacturing as a share of GDP has declined to close to 30% in 1990.

The evidence points to the fact that all successful economies have evolved from an agricultural base towards a manufacturing base and eventually to a service oriented economy. The peak in manufacturing concentration is most evident in the case of Korea and Singapore. Korea and Singapore peaked in the late 1980's after reaching high levels of manufacturing concentration.



The rate of evolution has been sustained over the last two decades prompting concern that Malaysia's service base is not expanding rapidly enough to support the industrial sector. This sentiment is reflected in the government's drive to focus on high value-added services like banking and insurance to decrease the widening services deficit.

Figure 5  
Industry as a Share of GDP



Source: World Tables 1995, World Bank

The manufacturing base should continue to lead Malaysia's growth. The development of the service sector will follow as a natural support base. The peak in manufacturing concentration is yet to be reached and services has grown proportionately. The Japanese economy had a much larger share of manufacturing in proportion to total economic output when they were in the same stage of development as Malaysia. Korea has recently peaked at over 32%.

At this stage of their economic development South Korea and Taiwan were developing their own electronics and heavy industrial companies. Malaysian industrialisation has been heavily dependent on foreign capital and technology and multinationals dominate almost every sector of the electronics industry.

The challenges for Malaysia's structural development are to find and enhance the links necessary between industry and the supporting service sector. Malaysia has to re-emphasise its efforts in manufacturing such that the service sector can draw upon the strength and depth of industry.

Figure 6 points to the fact that Korea has always had a bigger concentration in manufacturing. If Malaysia hopes to emulate the NIE countries' pattern of structural development it must press-on with its drive towards industrialisation.

The contribution of growth from industry in Malaysia has been high relative to that in Japan and Korea. This is because these countries are further down the development track and thus are experiencing diminished marginal returns from investment in industry.

Figure 6  
Contributions of Growth From Industry

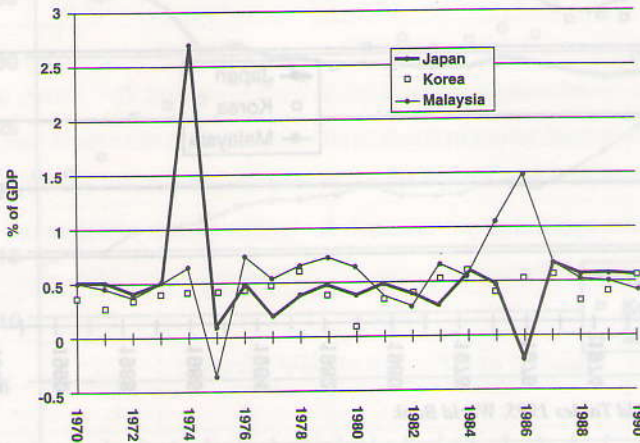


Figure 7  
Contributions of Growth from Services

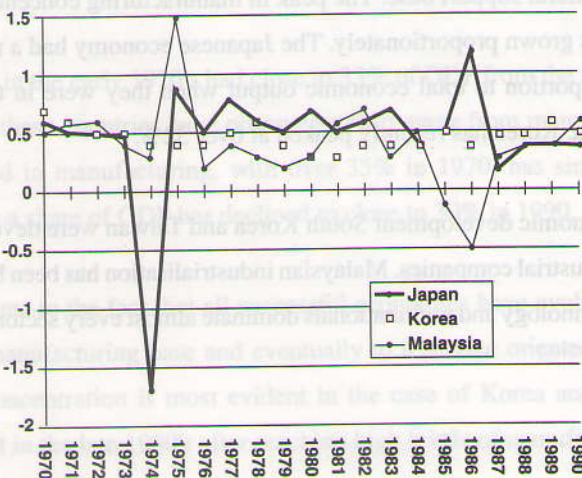
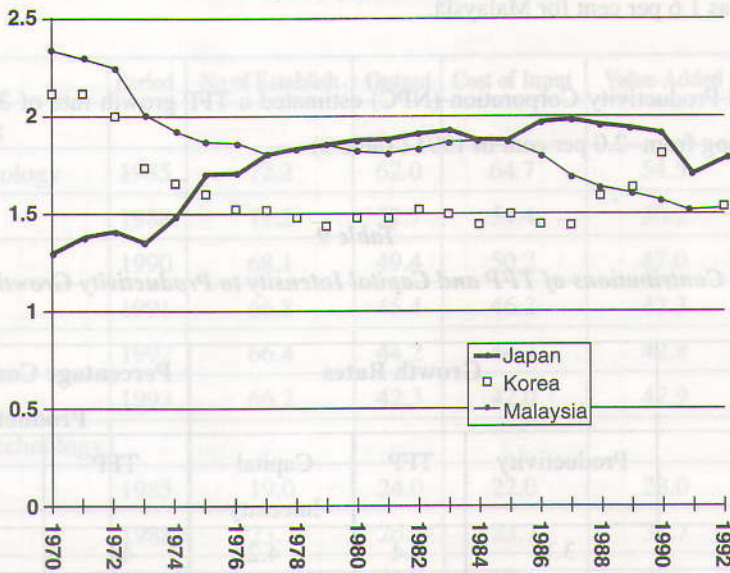




Figure 7  
Ratio of Services to Manufacturing



Source: World Tables 1995, World Bank

Contributions to growth from services (Figure 7) have been lowest in Malaysia. This might be due to constraints in education levels and development of the industrial sector. This reinforces the hypothesis that the service sector follows the growth of the industrial sector. In mature economies, services like banking and insurance developed only after the industrial base had reached close to 45% of total GDP.

4 EFFICIENCY AND PRODUCTIVITY GROWTH

Traditionally, economists disaggregated growth in value added into capital and labour growth, with the residual representing efficiency changes. Few countries can grow rapidly on the basis of new factor inputs alone. In developed countries, the broadest measure of total factor productivity (TFP) growth has accounted for between 40–65 per cent GDP growth. For the industrialising developing countries, the range has been significantly smaller around 10–20 per cent. These differences are partly due to statistical estimation including the inherent difficulties in measuring labour and capital.

Comparison of TFP growth rates are fraught with problems caused by differences in methodology, data, sectoral coverage and time periods. The World Bank estimated TFP growth for the period 1960 – 1989 as 1.6 per cent for Malaysia.

The National Productivity Corporation (NPC) estimated a TFP growth rate of 3.1 per cent for 1993 increasing from -2.0 per cent in 1991 (Table 9)

**Table 9**  
**Contributions of TFP and Capital Intensity to Productivity Growth**

Period	Growth Rates			Percentage Contribution to Productivity	
	Productivity	TFP	Capital Intensity	TFP	Capital Intensity
81 – 93	3.1	1.4	4.2	44	56
81 – 85	2.0	1.2	2.0	59	41
86 – 90	3.2	1.6	4.0	49	51
91 – 93	4.7	1.4	8.4	27	73
91	5.0	-2.0	17.0	-40	140
92	4.0	2.5	4.7	57	43
93	4.7	3.1	3.9	66	34
94	5.6	0.2	12.2	4	96

Source: NPC Annual Report 1994

There exists a close relationship between changes in productivity, capital intensity and TFP. Productivity growth is the sum of TFP growth and weighted capital intensity growth. During 1981 – 1993, capital intensity increased by 4.2 per cent per annum, with TFP at 1.4 per cent per annum and productivity at 3.1 per cent per annum. Thus, the growth in capital intensity was the major source of growth during this period, accounting for 56 per cent of the growth in productivity. The huge inflows of FDI in the late 80s were the main contributor for the high capital intensity. It is expected in the 7th Malaysian Plan that TFP shall grow at average of 3.3 percent during the period of 1996 – 2000. It implies a contribution of around 40 percent.



**Table 10**  
**Malaysian Industrial Classification According**  
**To Technology**

as % of total manufacturing	Period	No of Establish	Output	Cost of Input	Value-Added	Employment
Low Technology	1985	72.2	62.0	64.7	54.5	
	1988	71.2	52.7	54.4	50.2	55.3
	1990	68.1	49.4	50.2	47.0	49.9
	1991	66.8	45.4	46.2	43.3	48.4
	1992	66.4	44.2	44.7	42.8	48.0
	1993	66.2	42.3	42.0	42.9	46.8
Medium Technology						
	1985	19.0	24.0	22.0	28.0	19.0
	1988	23.7	26.5	23.7	31.7	20.9
	1990	25.2	24.2	22.1	30.2	22.4
	1991	25.9	25.1	22.6	31.2	22.6
	1992	25.4	23.7	22.0	29.5	22.1
	1993	25.7	23.3	21.6	28.3	21.9
High Technology	1985	9.0	14.0	13.0	17.0	20.0
	1988	4.9	20.7	21.9	18.1	23.7
	1990	6.6	26.1	27.3	22.5	26.9
	1991	6.9	29.6	31.3	24.9	28.4
	1992	6.1	31.8	33.3	27.6	29.0
	1993	8.1	34.3	36.4	28.8	31.1

Source: Annual Survey of Manufacturing Industries, various issues

**Table 11**  
**Value Added and Employment Shares in the Manufacturing Industry**  
**According to Industry Grouping**

(percentages)	Value Added Shares in Manufacturing*									
	Australia		Canada		Germany		Japan		United States	
	1980	1988	1980	1989	1980	1989	1980	1989	1980	1989
High-tech Industries	10.6	10.7	9.7	10.6	17.8	20.5	17.2	21.9	20.9	24.0
Medium-tech Industries	25.2	27.5	27.9	31.8	31.7	36.6	31.5	33.1	27.7	28.8
Low-tech industries	64.2	61.8	62.4	57.6	50.6	42.9	51.3	45.0	51.4	47.5
	Employment Shares by Manufacturing Industry and Industry Grouping **									
	Australia		Canada		Germany		Japan		United States	
	1980	1988	1980	1989	1980	1989	1980	1989	1980	1989
High-tech Industries	—	10.7	10.4	10.5	—	20.0	—	21.9	—	21.6
Medium-tech Industries	—	24.5	24.9	29.2	—	34.7	—	28.4	—	27.0
Low-tech industries	72.4	64.7	64.7	60.3	55.5	45.3	57.0	49.7	55.7	51.4

Source: Industrial Policies in OECD Countries, 1993

\* Expressed as a share of total manufacturing in current prices. Figures may not add to 100 because of rounding

\*\* Shares expressed relative to total manufacturing: figures may not add to 100 due to rounding

Table 10 shows that only 8.1 per cent of Malaysian industries were involved in high-tech industries in 1993, while 66 per cent of the industries participated in low-tech economic activity. In terms of value added, high-tech industries contributed 29 per cent compared to 43 per cent from low-tech industries. Between 1985 and 1993, there have not been any significant changes in the structure of industries in the three categories. Table 11 provides data on value-added in terms of different technology industry groups for some of the industrialised countries. The industrialised countries on average, in 1980, had high-tech industries contributing between 17 to 20 per cent of value-added to the manufacturing sector, medium-tech industries 30–37 per cent, and low-tech industries 50–60 per cent. Compared to those countries, Malaysia has performed reasonably well in terms of manufacturing value-added contribution in the high-tech group, but not in other categories. In terms of employment, Malaysian companies employed more in high-tech industries compared to



the industrialised countries. It would appear then that the hi-tech industries in Malaysia are still involved in the assembly type of operations and they need to move up the value chain into activities of international marketing, distribution and R&D activities. Therefore, we need to promote and increase the number of establishments participating in high-tech economic activities. This would enable Malaysia to achieve Vision 2020.

### Adequacy of Savings

The single greatest change in the world economy that is taking place since the Second World War has been the extent to which it has gone international in that trade and services have become more market determined. One by one the barriers which stopped the markets exerting powers have been brought down. Exchange controls have either been abandoned or become ineffective; exchange rates have come to be determined mainly by market forces; long-term interest rates are set entirely by supply and demand for funds rather than government decisions; even short term rates are influenced by the decisions of the markets. Therefore the financial services industry has become responsive to market forces and thus enables the industry to develop an array of products which both the borrowers and the savers can take advantage of.

All countries save but some save more than others. The most ferocious savers in the world are the Japanese. Until 1980 these savings were used largely within Japan itself, but from about 1980 onwards the savings were invested abroad. Japan's current account has been negative in 1980, went into surplus throughout the decade reaching a peak of US\$87 billion in 1987. After dropping to US\$36 billion in 1990 the surplus again surged forward to US\$113 billion in 1992 and remained so until 1995. The result was that Japan's net external assets rose to US\$514 billion in 1992. This surplus was utilised in many ways such as investing abroad, purchase of property in USA and financing part of US budget deficit. The total savings of the industrialised countries remained around 20 to 25 percent of GDP with the East Asian countries recording well over 35 percent in recent years. With part of the surplus of Japan invested in the Japanese welfare system for their expected ageing population during the next 15 to 20 years, and the United States embarking on the reduction of its budget deficit, much of the world's financial system is expected to be reasonably stable with investment requirements being met largely by the available world savings.

### **Macroeconomic Framework for the IMP2**

The forecast of future prospects for the Malaysian economy is developed from both the supply and demand side of the economy. For the economy as a whole, we assume the following:

1. The average real GDP growth that is sustainable for the whole period of the New Industrial Master Plan (1996 – 2005) is 7.8 percent. Sustainability here implies growth with price stability and financially manageable current account balance without imposing undue pressures on interest rates and exchange rates.
2. There is continued favourable climate for foreign direct investment.
3. The OECD economies are expected to register an average economic growth rate of between 2.0 to 3.0 per cent throughout the period of the IMP2.
4. The pattern of savings in the industrialised economies and East Asian economies is expected to remain stable and in Malaysia, investment requirements are largely expected to be met by total savings.

The following are the results of the simulations based on the above assumptions:

a. the share of the manufacturing sector is expected to reach 37.5 per cent in the year 2000 from its present share of 33.1 percent in 1995. The share is likely to increase to 38.4 per cent of GDP by the year 2005, with the expected growth of the manufacturing sector averaging 10.7 percent per annum during 1996 – 2000 and 8.3 percent during the second half of the IMP2. This forecast is in line with the forecast of 10.5 per cent made in OPP2. In the second half of the New IMP, the manufacturing sector is expected to register an average real growth rate of 8.3 per cent. The lower growth for the manufacturing sector in the second half of New IMP is premised on the assumption that more value added and increased productivity are important but these are long term developments and may not be attainable within the plan period.

Table 12 provides the share of the manufacturing sector in GDP for various countries. The development experience of the industrialised and some Asian countries suggests that the share of the manufacturing sector in GDP can fall within the range of 12.2 per cent (Malaysia 1970) to 38.2



per cent (Taiwan 1985). Many of the industrialised countries have reached the maximum sector share of between 31 per cent to 35 per cent during 1970 – 1993. As Malaysia is expected to reach a share of 38.4 per cent by 2005, we assume that the maximum share the manufacturing sector could achieve is 38.4 per cent in 2005 after taking into consideration the expected developments under the New-IMP.

**Table 12**  
**Share of the Manufacturing Sector to**  
**Gross Domestic Product (%)**  
**(1985 prices)**

	1970	1980	1985	1989	1990	1993
USA	19.4	19.5	20.1	20.4	18.0	18.0
Japan	25.1	26.8	29.6	30.6	31.5	27.0
Germany	35.2	32.5	31.4	30.4	31.0	25.0
Korea	14.2	26.8	30.3	33.7	33.5	29.0
Taiwan	33.0	36.2	38.2	37.1	35.2	30.0
Thailand	16.8	21.7	22.5	26.7	27.8	28.0
Singapore	20.5	29.5	23.6	28.7	30.0	28.0
Malaysia	12.2	19.6	19.7	26.2	26.5	30.0

Source: Industrial Policy in OECD countries. Annual Review 1993.

Handbook of International Trade and Development Statistics, UNCTAD, United Nations  
1994

b. The share of the agriculture sector is expected to decline to 10.5 percent in the year 2000 (the OPP2 forecast was 13 percent) and decline further to 8.2 in the year 2005. The share of the agriculture sector stood at 13.5 percent in 1995. The growth rate of the agriculture sector during the first half of the IMP2 (1996 – 2000) period is expected to be around 2.6 percent per annum and moderate to 2.5 per cent during 2001 – 2005.

Table 13

*Malaysia: Forecast of Sectoral Value Added Shares*

% share of GDP	1994	1995	2000	Average 1996 – 2000	2005	Average 2001 – 2005
Agriculture	14.6	13.5	10.5	11.7	8.3	9.1
Mining	7.7	7.5	5.8	6.4	4.6	5.0
Manufacturing	31.6	32.8	36.9	35.6	38.4	37.9
Construction	4.2	4.4	4.9	4.8	4.9	4.9
Personal services	2.1	2.0	1.9	1.9	1.9	1.9
Business services	31.9	32.0	34.1	33.1	38.5	36.6
Government services	10.0	9.5	7.8	8.5	6.5	7.0
Total services	44.0	43.6	43.8	43.5	46.9	45.5
less: imp bank charges	2.1	2.0	1.9	2.0	3.1	2.4
Total share	100	100	100	100	100	100

Source: *Economic Report*, Ministry of Finance.

Bank Negara, *Annual Report* and MIER estimates.

Table 14

*Malaysia: Forecast of Sectoral Performance*

RM million	1994	1995	2000	Average 1996 – 2000	2005	Average 2001 – 2005
Agriculture	16047.00	16230	18542	17599	21081	19965.7
growth (%)	-0.98	2.5	2.7	2.7	3.5	2.6
Mining	8241.00	8938	10061	9599.46	10956.8	10646.9
growth (%)	2.61	9	2.70	2.4	1.10	1.72
Manufacturing	34782.00	39525	66648.5	55871	98836.9	85251.4
growth (%)	14.47	13.20	9.0	10.86	7.80	8.20
Construction	4589.00	5277.00	8557.55	7233.61	12159.28	10666.7
growth (%)	14.10	17.30	8.00	10.16	6.90	7.3
Total services	48410.00	53303	81117	69138.9	124245	105713.8
growth (%)	8.88	10.1	8.77	8.8	8.85	8.9
Real GDP	109915.00	120309	177099	153517.21	255054.74	222972.81
growth (%)	9.24	9.20	7.9	8.04	7.6	7.74

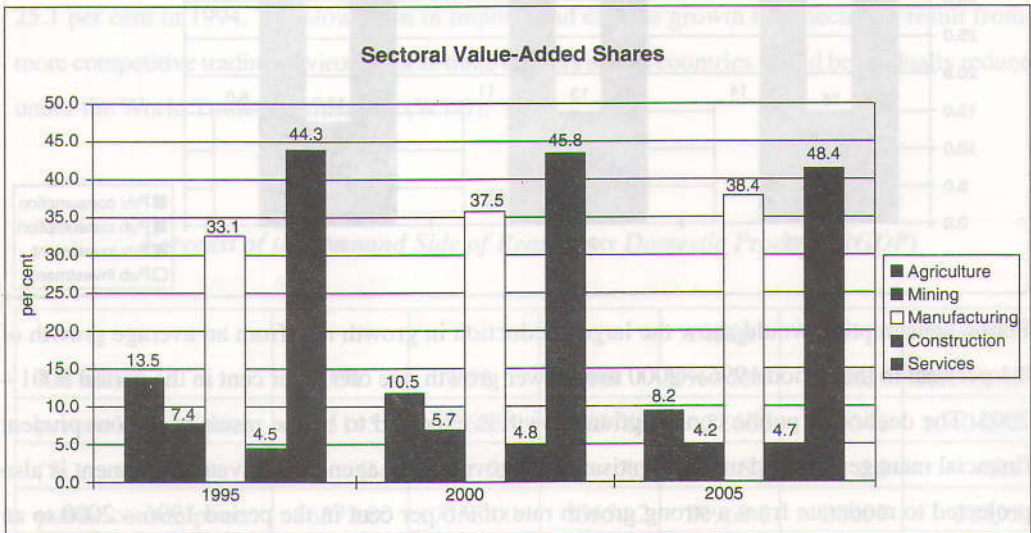
Source: Ministry of Finance, *Economic Report*.

Bank Negara, *Annual Report* and MIER estimates.



c. The construction sector's share of GDP is expected to increase from 4.5 per cent in 1995 to 4.8 per cent by the year 2000 and is expected to be maintained at 4.7 at the end of the IMP2 period. The average growth of this sector is expected to be around 9.7 per cent during the period 1996 – 2000 and slow down an average of 7.3 per cent during the second half of the IMP2 period.

Figure 8



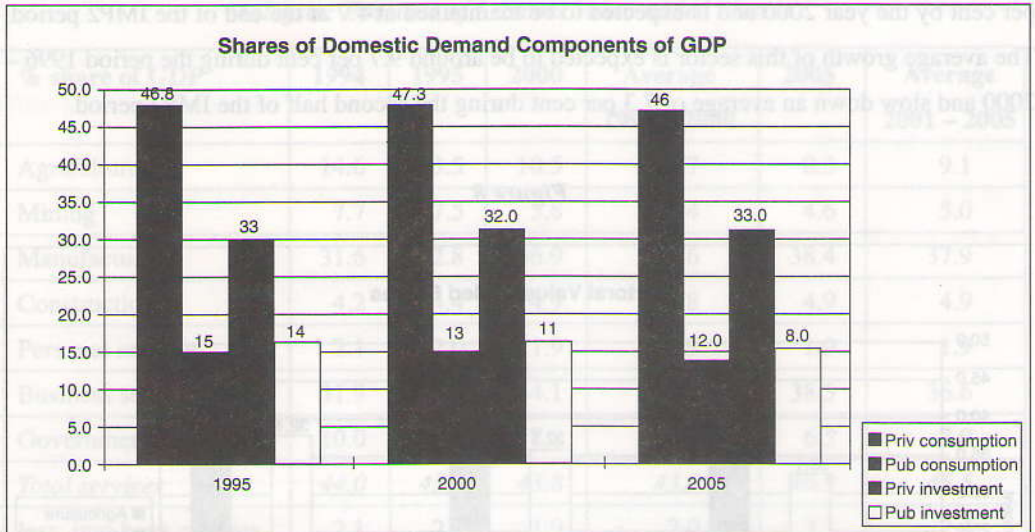
d. Total services sector (business, personal and government services together) is forecast to reach a share of 43.5% during 1996 – 2000, and rise to a share of 45.5 per cent in the second half of the New IMP. The share of the services sector, as a whole, is anticipated to peak at 48.4 per cent in 2005. The total services sector is expected to expand at a brisk rate of 8.8 per cent in the period 1996 – 2000 and 8.9 per cent in the period 2001 – 2005 as it continues to become the main contributor to real GDP.

## Aggregate Demand

### Growth Profile

The baseline scenario projects the Malaysian economy to slow down to an average of 7.8 per cent for the whole IMP2 Period, from an average of 8.0 per cent during the last seven years. The forecast indicates an average growth rate of 8.04 per cent and 7.7 percent for both periods of 1996 – 2000 and 2001 – 2005 respectively.

Figure 9



Public consumption would show the largest reduction in growth rate from an average growth of 8.1 per cent in the period 1996 – 2000 to a slower growth rate of 5.7 per cent in the period 2001 – 2005. The decline in public consumption growth is expected to be the result of a more prudent financial management and more privatisation of government agencies. Private investment is also projected to moderate from a strong growth rate of 9.0 per cent in the period 1996 – 2000 to an average growth rate of 7.4 per cent for the period 2001 – 2005. This would possibly be the result of the stiff competition in attracting foreign investment away from other low labour cost countries such as Vietnam, China and India. Private investment's share of GDP is however, projected to rise from 27.2 per cent in 1994 to an average of 31.0 per cent during 1996 – 2005. Public investment would see a moderation in growth from an average rate of 8.4 per cent in the period 1996 – 2000 to a growth rate of 6.3 per cent in the period 2001 – 2005. The continued expansion would come mainly from continuous upgrading of various infrastructure. Total investment requirement for both periods will amount to RM1,572 billion.

Private consumption, the largest contributor to GDP at an estimated share of 47.7 per cent in 1995, is predicted to maintain a growth rate of 8.1 per cent and 7.3 per cent in the period 1996 – 2000 and 2001 – 2005 respectively. The rapid rise in real GDP over the past years, and the forecast of continued strong growth over the period of 1996 – 2005, is expected to generate higher incomes and greater wealth and hence, continued strong growth in private consumption. Private consumption's share of GDP is anticipated to decline slightly to 47.1 per cent in 2005.



The growth of exports is expected to moderate from an average growth of 10.7 per cent in the period 1996 – 2000 to a slower growth of 8.2 per cent in the period 2001 – 2005. These forecasts are comparatively lower than the 20.6 per cent growth recorded in 1994. The projections are in line with the prediction of an average real GDP growth of 7.4 per cent for 2001 – 2005. Import growth is also anticipated to slow down to 7.3 per cent in the period 2001 – 2005, from an average of 10.2 per cent in the period 1996 – 2000. This is a sharp slowdown from a robust expansion of 25.1 per cent in 1994. The slowdown in imports and exports growth is expected to result from a more competitive trading environment as trade barriers across countries would be gradually reduced under the World Trade Organisation (WTO).

Table 15

*Forecast of the Demand Side of Real Gross Domestic Product (RGDP)*

RM million	1994	1995	2000	Average 1996 – 2000	2005	Average 2001 – 2005
private consumption	51455	56288	83768	72662	118046	104043.2
(% growth)	9.8	9.4	7.1	8.2	6.2	7.1
public consumption	16372.00	17568.00	23554.2	20969.8	28637	30795
(% growth)	9.90	7.3	6.6	6.5	2.5	5.1
<b>Total Consumption</b>	67827	73856	107322.2	93632	148841	132680.6
(% growth)	9.8	8.9	7.0	7.9	5.4	6.7
(% share)	62	61	61	61.2	58	59.8
private Investment	31460	39446	56672	49481	84172	72914
(% growth)	13.9	25.4	7.5	7.5	6.9	8.2
public Investment	15003	16269	19569	19301	20360	20124
(% growth)	24.3	8.4	0.96	3.9	0.44	0.8
<b>Total investment</b>	46463	55715	76241	68712	104532	93038
share (real)	42	46	43	45	41	42
growth (%)	17.1	19.9	5.7	6.4	5.6	6.5
Change in stocks	287	299	-4692	-599.6	-1377.5	2653.4
exports of goods & non-factor services	109551	128837	200122	164219	310513	256983.5
(% growth)	20.60	17.6	11.6	9.4	10.1	9.2
Imports of goods & non-factor services	114213	138398	201893.3	172178.6	306663.9	262657.9

				Average		Average
RM million	1994	1995	2000	1996 – 2000	2005	2001 – 2005
(% growth)	27.6	21.2	9.1	7.8	8.1	8.7
<b>RGDP</b>	109915.00	120309	177099.4	153006.9	256622.5	222697.6
(% growth)	9.24	9.50	7.8	8.04	7.6	7.7

Source: Ministry of Finance, *Economic Report*.

Bank Negara Annual Report and MIER estimates.

**Table 16**

***Forecast of the Balance of Payments and Saving-Investment Gap***

	1994	1995	2000	Average 1996 – 2000	2005	Average 2001 – 2005
Merchandise balance/GNP	2.52	0.11	9.7	-2.3	11.36	11.4
services/GNP	-9.4	-9.2	-8.3	-8.35	-7.2	-7.8
transfers	314.00	400.00	400.00	400.00	400.00	400.00
current account	-8055	-12150	5322	-5991.8	23119	16905
ca/gnp %	-6.7	-8.80	1.52	-2.3	4.1	3.6

Source: Ministry of Finance, *Economic Report*.

MIER estimates

**Balance Of Payments**

Under the baseline growth profile, the current account is expected to continue to improve its deficit position of 8.8 percent of Gross National Product (GNP) in 1995 to a small surplus of around 1.5 percent in year 2000. The surplus is then expected to improve to around 4.1 percent of GNP in year 2005. The trade balance is expected to improve beginning 1996 till the end of the IMP2 culminating in a surplus of around 11 percent of GNP. The services deficit on the other hand is expected to show only marginal improvement during the New Industrial Master Plan period. This view is based on the assumption that any improvement in the services balance comes from long term policy initiatives which are now being formulated in part in the IMP2. We expect these policies to have significant effects on the import structure of the Malaysian economy. The services balance of the balance of payments has other components such as education, travel, freight and insurance and repatriation of profits. Some of these items respond to the development of the



manufacturing sector. While repatriation of profits is FDI related and part of which is reinvested in the country, freight and insurance are trade related. The current account is projected to improve from an estimated deficit of 8.8 per cent of GNP in 1995 to 4.1 per cent in 2005. (Figures 10 and 11)

Figure 10

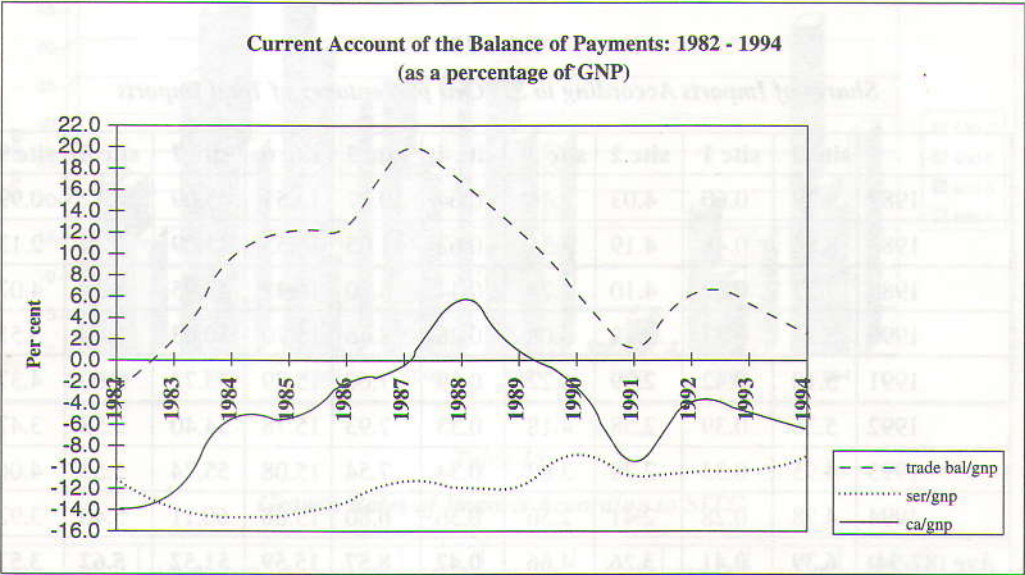
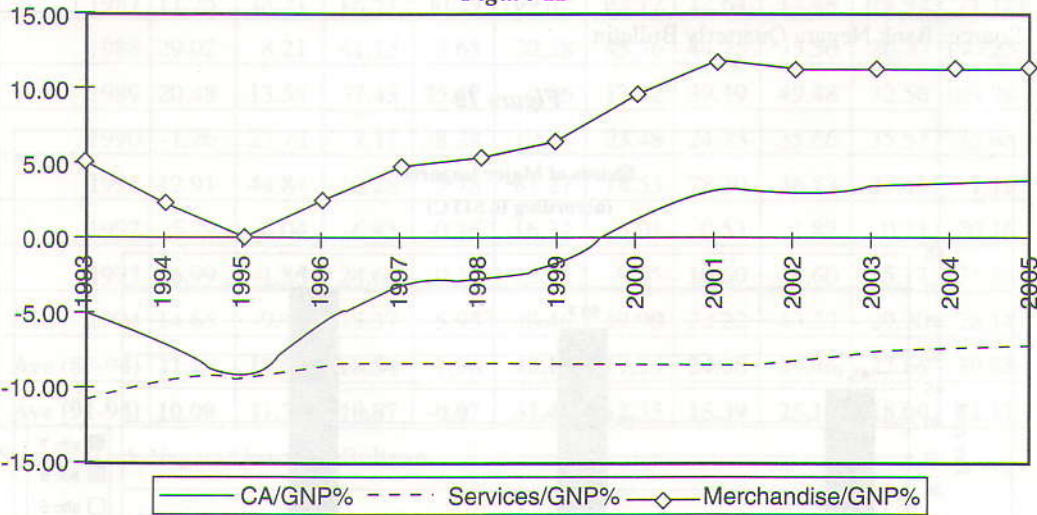


Figure 11



Import Structure

Tables 18 and 19, Figures 12 and 13 provide valuable information about the import structure of Malaysian trade. The import shares in terms of SITC (Standard International Trade Classification)

categories showed that all (exception being SITC 7) categories have declined in their share of imports between 1988 – 1994. SITC 7 (manufactured goods) increased its share from 45.1 per cent in 1988 to 60.1 per cent in 1994 (Table 1.3a). A detailed analysis of SITC 6 and 7 at 5 digit (Table 2.3) provides an insight into the type of imports that are demanded by the domestic economy.

**Table 18**  
**Shares of Imports According to SITC as percentages of Total Imports**

	sitc 0	sitc 1	sitc 2	sitc 3	sitc 4	sitc 5	sitc 6	sitc 7	sitc 8	sitc 9
1987	9.29	0.60	4.03	7.46	0.64	10.27	15.51	45.09	6.12	0.99
1988	8.84	0.48	4.19	5.35	0.62	11.05	16.55	45.09	5.70	2.13
1989	7.57	0.39	4.10	4.78	0.44	8.90	16.42	47.95	5.37	4.07
1990	5.75	0.37	3.22	5.08	0.28	8.46	15.70	50.03	5.60	5.51
1991	5.10	0.42	2.79	4.22	0.39	7.60	15.79	53.72	5.60	4.37
1992	5.36	0.39	2.58	4.18	0.33	7.93	15.78	54.40	5.58	3.47
1993	4.95	0.33	2.78	3.62	0.34	7.54	15.08	55.74	5.55	4.06
1994	4.28	0.28	2.41	2.56	0.36	6.80	13.88	60.11	5.40	3.92
Ave (87-94)	6.39	0.41	3.26	4.66	0.42	8.57	15.59	51.52	5.62	3.57
Ave (91-94)	4.92	0.36	2.64	3.65	0.35	7.47	15.13	55.99	5.54	3.96

Source: Bank Negara Quarterly Bulletin

**Figure 12**

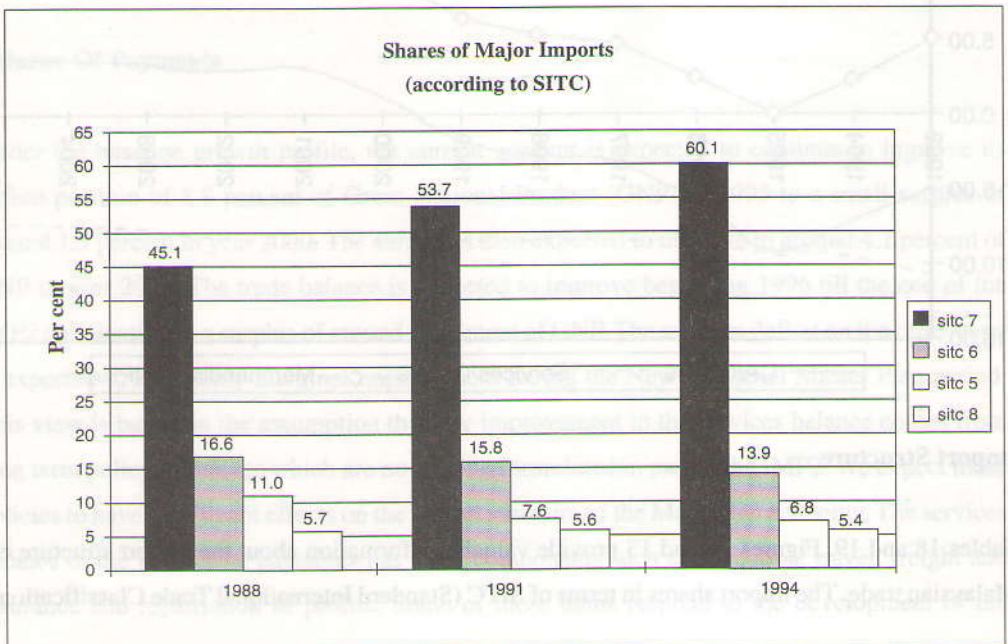




Figure 13

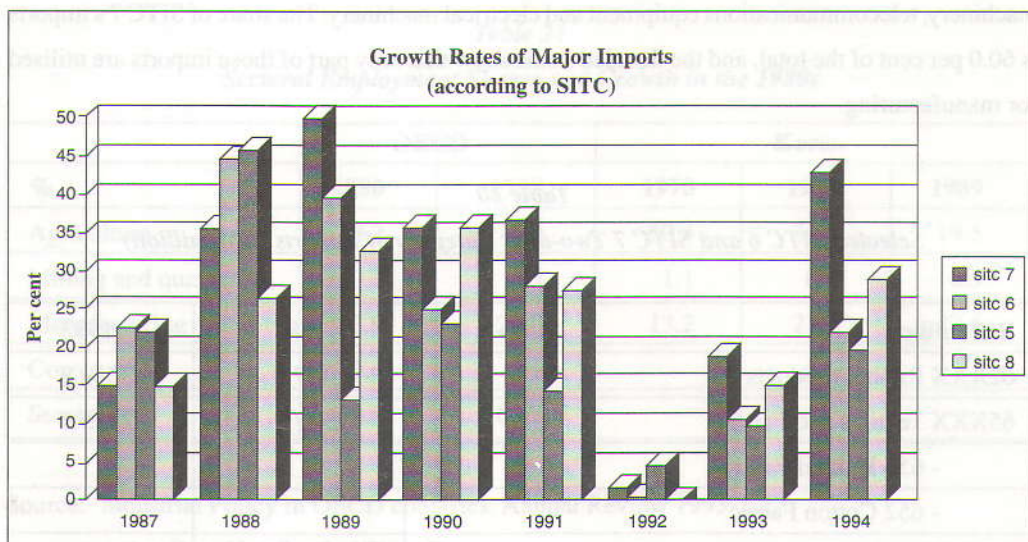


Table 19

Growth Rates of Imports According to SITC

	sitc 0	sitc 1	sitc 2	sitc 3	sitc 4	sitc 5	sitc 6	sitc 7	sitc 8	sitc 9
1987	1.75	-8.21	26.51	-0.29	199.42	22.12	22.64	14.48	14.92	-1.12
1988	29.02	8.21	41.15	-2.65	30.28	45.76	44.75	35.56	26.25	190.23
1989	20.48	13.59	37.43	25.47	0.86	13.32	39.39	49.48	32.56	169.28
1990	-1.26	23.72	2.11	38.28	-19.18	23.48	24.33	35.66	35.57	75.68
1991	12.91	44.84	10.28	5.78	81.27	14.53	28.20	36.83	27.43	1.19
1992	5.79	-6.04	-6.83	-0.26	-16.34	5.01	0.53	1.87	0.21	-20.16
1993	6.99	-1.86	24.66	0.12	22.25	9.95	10.60	18.60	15.17	35.52
1994	14.65	9.93	15.37	5.93	38.46	19.90	22.22	43.22	29.20	28.14
<b>Ave (87-94)</b>	<b>11.29</b>	<b>10.52</b>	<b>18.84</b>	<b>7.56</b>	<b>42.13</b>	<b>19.26</b>	<b>24.08</b>	<b>29.46</b>	<b>22.66</b>	<b>59.85</b>
<b>Ave (91-94)</b>	<b>10.08</b>	<b>11.72</b>	<b>10.87</b>	<b>-0.07</b>	<b>31.41</b>	<b>12.35</b>	<b>15.39</b>	<b>25.13</b>	<b>18.00</b>	<b>11.17</b>

Source: Bank Negara Quarterly Bulletin

SITC 6 consists of rubber and wood products, textiles and fabrics and iron and steel products. Total imports of SITC 6 increased from RM4.95 billion in 1987 to RM 17.7 billion in 1993. Of this, textiles, rubber, iron and steel products constitute about 9.0 per cent of the total imports of SITC 6. Similarly, SITC 7 imports have also increased, from RM14.4 billion to RM65.4 billion during the same period. Of this, some of the major items of SITC 7 as listed in Table 2.3 totalled to 42 per cent and 40 per cent of imports respectively in 1987 and 1993.

SITC 7 category imports consist of (Table 20) power generating machinery, machine tools, industrial machinery, telecommunications equipment and electrical machinery. The share of SITC 7's imports is 60.0 per cent of the total, and the detailed items show that only part of those imports are utilised for manufacturing.

**Table 20**  
***Selected SITC 6 and SITC 7 Two-digit Category of Imports (RM million)***

<b>RM million</b>	<b>1987</b>	<b>1993</b>
62XXX Rubber products	137.0	3619.8
65XXX Textiles and Fabric	1577.1	2725.3
- 655 Knitted Fabric		
- 652 Cotton Fabric		
67XXX Iron and steel	1287.6	4316.8
- 674 universals, flats and sheets		
<b>Total</b>	<b>3001.7</b>	<b>10661.1</b>
<i>As a percentage of total imports</i>	<i>9.4%</i>	<i>9.1%</i>
72 Civil engineering plans and specialised machinery	1412.9	5256.3
74 Mechanical handling equipment	1379.6	5510.3
76 Telecommunications	1419.7	6862.5
77 Electrical related	8355.5	24415.3
79 Transport related – ships, boats, etc.	705.6	5148.2
<b>Total</b>	<b>13273.3</b>	<b>47192.6</b>
<i>As a percentage of total imports</i>	<i>41.6%</i>	<i>40.2%</i>

Source: DRI/McGraw-Hill

With the New IMP in place, we assume that if various policies as suggested in the Plan are implemented, some of the imports in SITC 6 and SITC 7 categories can be manufactured domestically. For example, some of the fabrics can be printed locally with the help of public/private sector provision of dying/printing facilities. The introduction of machine tools industry or further revitalisation of machinery sector could further reduce our dependency on imports. We project that these developments can enhance the expected surplus in the trade balance and thus improve the position of the current account of the balance of payments.



## Sectoral Employment Prospects

**Table 21**  
**Sectoral Employment Shares and Growth in the 1980s**

%	OECD		Korea		
	1980	1989	1970	1980	1989
Agriculture	8.2	5.9	50.4	34.0	19.5
Mining and quarrying	0.7	0.5	1.1	0.9	0.5
Manufacturing	23.9	20.8	13.2	21.6	27.6
Construction	7.6	7.1			
Services	59.6	65.7			

Source: Industrial Policy in OECD countries, Annual Review 1993.

Asian Data Handbook, ICSEAD

**Table 22**  
**Malaysia: Forecast of Sectoral Employment**

'000 (thousand)	1994	1995	2000	Average 1996 – 2000	2005	Average 2001 – 2005
Agriculture	1517.70	1479.60	1353.56	1393.11	1331.60	1348.11
growth (%)	-3.70	-2.50	-0.84	-1.75	-1.64	-0.32
share (%)	19.9	18.9	15.3	17.0	13.5	14.0
Mining	37.90	39.20	44.23	42.35	49.32	47.32
growth (%)	1.60	3.43	2.40	2.45	2.00	2.20
share (%)	0.5	0.5	0.5	1.0	0.5	1.0
Manufacturing	1877.50	1997.24	2450.57	2279.79	2801.30	2656.12
growth (%)	7.54	6.38	3.14	4.18	2.72	2.71
share (%)	24.6	25.5	27.7	27.0	28.4	28.0
Construction	594.00	634.42	716.59	693.40	641.14	698.74
growth (%)	9.12	6.80	1.15	2.48	-5.29	-2.15
share (%)	7.8	8.1	8.1	8.0	6.5	7.0
Personal services	640.00	657.91	751.98	711.38	986.37	860.72
growth (%)	3.01	2.80	3.62	2.71	10.87	5.61
share (%)	8.4	8.4	8.5	8.0	10.0	9.0

'000 (thousand)	1994	1995	2000	Average 1996 – 2000	2005	Average 2001 – 2005
Business services	2088.00	2161.71	2565.58	2400.81	3156	2919.39
growth (%)	3.79	3.53	3.47	3.49	3.29	4.23
share (%)	27.4	27.6	29.0	28.0	32.0	31.0
Government services	868.10	869.39	902.38	890.36	986.37	950.03
growth (%)	0.32	0.15	0.43	0.75	2.00	1.80
share (%)	11.4	11.1	10.2	11.0	10.0	10.0
Total services	3596.1	3689.01	4219.94	4002.55	5129.13	4730.14
growth (%)	2.79	2.58	2.83	2.73	4.41	3.98
share (%)	47.2	47.1	47.7	47.4	52.0	49.9
Total employment	7623.20	7839.47	8784.90	8411.20	9952.49	9480.43
growth (%)	2.98	2.84	2.19	2.30	2.41	2.53
Total labour force	7846.00	8060.00	9191.67	8728.99	10423.45	9916.60
growth (%)	2.87	2.73	2.62	2.66	2.55	2.55
Unemployment	222.80	220.53	406.77	317.79	470.96	436.17
Unemployment rate(%)	2.84	2.74	4.43	3.64	4.52	4.40

Source: Ministry of Finance, *Economic Report*,

Bank Negara Annual Report and MIER estimates

1. Table 21 provides data on employment shares in OECD countries and Korea. Table 22 provides data on labour force and sectoral employment share. Labour force is expected to grow at an average of 2.66 per cent during 1996 – 2000 and marginally drop to 2.55 per cent average annual growth during 2001 – 2005. Labour force is expected to reach 9.2 million in year 2000 and to reach 10.4 million in 2005. Unemployment is expected to reach 4.5 per cent in 2005 from a rate of 2.74 per cent in 1995.

2. The total employment in the Malaysian economy stood at 7.62 million out of a total labour force of 7.85 million at the end of 1994, of which the manufacturing sector employed 1.88 million, amounting to 24.6 per cent of the total employment in the economy. This share is expected to increase to 27.7 per cent in the year 2000 and 28.4 per cent in 2005. The OPP2 forecast of 23.9 percent for the manufacturing sector has already been achieved by 1993. Employment in the manufacturing sector is expected to increase by 4.2 per cent and 2.7 percent respectively during 1996 – 2000 and 2001 – 2005. Employment in this sector is expected to reach 2.80 million in the year 2005, from 1.88 million in 1994.



3. Apart from the manufacturing, the business services sector is expected to increase its share of employment from 27.4 per cent in 1994 to 32.0 per cent in 2005. The personal services sector is projected to reach a share of 10.0 per cent by 2005 from 8.4 per cent in 1994. The government services sector on the other hand, would see its employment share declining marginally to 10.0 per cent during 2001 – 2005 from 11.4 per cent in 1994.

4. The total services sector's (as a whole) share is projected to reach a high of 52.0 per cent in 2005, from a share of 47.2 per cent in 1994. The agriculture and mining sectors are expected to show declining shares of employment.

## **INDUSTRIAL/CLUSTER GROWTH PROSPECTS**

### **DOWNSIDE RISKS**

1. The development of economic foundations such as R&D, physical infrastructure and human resource development are essential to meet the demands of the economy in the next 10 years. Temporary relief can be obtained by employing short term measures but the long term goals will remain unfulfilled if adequate plans are not made to meet the required targets.
2. The position of intermediate suppliers and buyers of goods and services in the cluster based development of the industries/clusters in Malaysia is largely met by imports. This vacuum needs to be filled by indigenous development of SMIs performing the function of the supplier of all intermediate goods and services.
3. World economy needs to grow around 2 to 3 percent to provide the external demand for the Malaysian exports.
4. Total savings (private and public) should be maintained around 38 percent to finance marginal increases in investment requirements.
5. Inflation escalates to higher rates due to supply constraints, this may result in tighter monetary policy.
6. The current account of the balance of payments continues to be in deficit.