

MALAYSIA'S INDUSTRIAL ENCLAVES: BENEFITS AND COSTS

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I. INTRODUCTION

EXPORT processing zones or free trade zones are special areas within which foreign or domestic firms may manufacture or assemble goods for export without being subjected to the normal customs duties on imported raw materials or exported products. Frequently, firms occupying the zones also, receive special treatment in the leasing of land for their factory sites, purchase of utilities such as electricity, and exemption from other regulations normally applying to firms producing within the domestic economy.

During the 1970s, several of the rapidly industrializing nations of East and Southeast Asia included export processing zones among the package of policy measures designed to attract foreign investment in manufacturing. There were two main reasons for this interest. The first was the early and apparently successful examples of Taiwan and then the Republic of Korea, who experimented with export processing zones beginning in the mid-1960s and the early 1970s, respectively. A second and more important reason was the growing realization that the import-substitution policies of the 1950s and 1960s did not lead to the development of an efficient manufacturing sector.

In particular, it became widely recognized that the development of export industries which exploit the country's comparative advantage is discouraged by protectionist policies. Export processing zones were seen as offering a way of achieving greater development of efficient export industries without some of the political costs that a general liberalization of trade policy would entail—namely, contraction of inefficient but politically entrenched protected industries.

The importance of export processing zones in Malaysia—where they are referred to as free trade zones (FTZs)—is unique among the developing countries establishing these zones. No where else is their role as significant, either in absolute terms or as a proportion of overall manufacturing activity. In 1982, the FTZs accounted for more than half of Malaysia's total exports of manufactured goods. By this time Malaysia had become the world's largest single exporter of electronic components, of which the FTZs accounted for 90 per cent. Despite

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this, an assessment of the net contribution of the FTZs to the Malaysian economy has not yet been undertaken.¹

A policy of maintaining existing levels of protection while simultaneously establishing free trade zones is clearly inferior, from a purely economic standpoint, to the abolition of protection. Nevertheless, this still leaves open the question of whether free trade zones have positive or negative net welfare effects when protection is maintained outside the zones. This study aims to address the question empirically by providing a detailed benefit-cost analysis of Malaysia's FTZs. The analysis focuses on a comparison of the observed situation in which free trade zones are present with the hypothetical situation in which they are not present, *ceteris paribus*.

A second and related aspect of Malaysia's export promotion policy has been the introduction of administrative facilities to permit the production of manufactured goods within customs bonded warehouses. Firms wishing to use this provision must apply for Licenced Manufacturing Warehouse (LMW) status. As with the FTZs, imported raw materials and capital equipment used in the production of manufactured exports may enter the country duty free. In effect, the firm itself becomes a bonded warehouse and customs officers are located at the factory site to ensure that none of the raw materials and capital equipment which enter the country under the duty free provisions are disposed of on the local market. Since the LMW program has much in common with the FTZs, this study also includes an evaluation of the benefits and costs incurred by Malaysia through this program.

II. HISTORICAL ORIGINS OF MALAYSIA'S FTZs AND LMWs

Malaysia is unique among developing countries establishing export processing zones in that the initial impetus for their establishment came primarily from the state rather than the federal level of government. The reasons for this derive largely from the special status of the island of Penang. During the British colonial period, Penang served as an entrepôt center for commodity exports from northern Malaya and was also a port of immigration for Chinese and Indian workers destined for the mines and rubber plantations. Following independence, and until the end of the 1960s, Penang remained nominally a free port, but in practice this privilege had been slowly withdrawn. The local economy stagnated and by 1970 the rate of unemployment in Penang was well above the national rate.

In 1971, the Penang Development Corporation was established by the State

¹ Indeed, the literature dealing with Malaysia's apparent success in promoting exports of manufactured goods during the 1970s has largely overlooked the role played by the FTZs in that success. For example, the FTZs receive only passing reference in the standard references in the Malaysian economy such as Lim [3] [4] and Fisk and Osman-Rani [2]. This is presumably a consequence of the difficulty of obtaining reliable data on the zones within Malaysia. Datta-Chaudhuri [1] provides almost the only available discussion but is based almost entirely on the (inadequate) published statistics for the Penang zones. This is also true of Spinanger [5].

Legislative Assembly explicitly with a view to promoting the development of Penang through the encouragement of export-oriented labor-intensive manufacturing. This development led soon after to the establishment of the Bayan Lepas Free Trade Zone. The promotion of manufacturing was also an important feature of the federal government's New Economic Policy, which was developed at the same time and which formed the basis for the Second Malaysia Plan (1971-75). In particular, the development of manufacturing industry was seen as an important component of the government's strategy for correcting the "racial imbalances in the economy" which had led to the turmoil of May 1969.

Subsequently, and following the Penang example, two other state development corporations (SDCs) also established free trade zones. These were: Selangor, the state adjacent to the federal capital of Kuala Lumpur, which established the Sungai Way, Ulu Kelang, and Telok Panglima Garang FTZs in 1972, 1973, and 1975, respectively; and Melaka, which established the Batu Berendam and Tanjung Keling FTZs in 1973 and 1975. The Penang SDC also extended the original Bayan Lepas FTZ in two further phases and established two additional zones at Prai and Prai Wharf. Another area, known as the Pulau Jerejak FTZ, currently contains only a state-government-owned ship building and ship repair establishment. This makes it fundamentally different from all the other FTZs discussed here and it will therefore be excluded from this study. Penang continues to be the most important location for Malaysia's FTZs. In 1982, 52 per cent of total employment in Malaysia's FTZs was concentrated in the Penang zones.

The institutional origins of Malaysia's LMW program were very different from those of the FTZs. Under the federal government's Customs Act of 1967, an exporter operating anywhere within Malaysia was entitled to claim the refund or "drawback" of import duties on imported goods subsequently reexported and, more importantly, on imported raw materials or components used directly in the production of exports. This meant that even *outside* the FTZs imported raw materials and components used directly in the production of exports were in principle duty free. However, so much "red tape" and delay was involved in actually obtaining the refunds that many firms apparently found the resulting costs to be so high that they did not bother to apply for the "drawbacks" for which they were officially eligible.

As an alternative to the drawback provision, the government introduced in 1975 the LMW system which allowed for the manufacture of goods under customs bond. This means that the Customs Department stations a customs officer at the firm site to supervise the handling of imported raw material. This material must be stored in a locked area within the factory with the keys held by the customs officer. Finished goods are also stored in a bonded area in a similar way. The customs officer ensures that all imported raw material is used in the production process (or reexported) and that all output is exported, unless permission for a deviation from this system has been applied for and granted. In this sense, a LMW can be thought of as an export processing zone consisting of a single firm.

The firms utilizing the LMW provisions have tended on average to be smaller

and more labor-intensive than the FTZ firms. Electronics manufacturers dominate both groups of firms, but garments are proportionately more important LMWs than FTZ firms. Furthermore, while most of the FTZ firms were foreign and entered Malaysia for the first time when they established in the FTZ, a high proportion of LMW firms was present in Malaysia prior to applying for LMW status.

III. INCENTIVE PACKAGE FOR FTZs AND LMWs

The incentives available to FTZ and LMW firms are best seen within the context of Malaysia's overall system of export promotion. In an effort to expand and diversify the nation's exports the government has:

- (i) invested directly in export-oriented and agro-based industries;
- (ii) introduced special investment and export incentives, largely involving exemptions or deductions from normal company income taxation; and
- (iii) provided special infrastructure facilities such as industrial estates, including the FTZs themselves, on a subsidized basis.

FTZ firms are directly affected by the second and third of these measures. Firms located outside the FTZs but which are producing for export are also eligible for incentives in the second category, but these incentives are restricted to firms which have the status of resident companies in Malaysia and which are producing and exporting manufactured or semi-manufactured goods rather than primary commodities. The LMW firms belong to this category.

A. *The FTZ Incentive Package*

More than any other Asian developing country establishing export processing zones, Malaysia has succeeded in attracting large amounts of foreign investment into the zones. This is especially dramatic in the case of electronics. In part, this has been due to the favorable incentives offered. The official package has four main components.

1. *Duty-free imports of raw material and capital equipment*

The Free Trade Zone Act of 1971 defines the zones to be outside of the Federation of Malaysia for purposes of customs duties and taxes. All imported raw materials, components, and capital equipment which is directly related to production may enter the zones without payment of customs duties or other taxes. The exemption does not apply to imported capital equipment which is not directly related to production, for example, office equipment, building materials, and vehicles. For these items duty is, in principle, payable. Similarly, all goods manufactured in and exported from a FTZ are exempt from sales tax and excise tax. Goods may be moved from one FTZ to another without payment of duty or other taxes.

Goods entering Malaysia and destined for one of the FTZs must travel from the port of entry to the zone concerned by means of a bonded container truck. This vehicle is sealed by Customs Department officials at the point of entry and

this seal must be intact when the vehicle arrives at the customs checkpoint at the FTZ concerned. Goods exported from the FTZ must be transported in the same manner.

Goods purchased by FTZ firms from within Malaysia are treated as exports from Malaysia. The domestic seller is responsible for the payment of any export duty which may apply and for obtaining any necessary export licence. These goods are not subject to excise tax. Since sales to a FTZ are treated as exports from Malaysia, the manufacturer of such goods is eligible to claim drawback of duties on the imported raw materials and components which he may have used in their production.

The sale on the domestic Malaysian market of output from the FTZs requires prior government approval. Such sales are dealt with on a case-by-case basis and they are limited to a maximum of 20 per cent of a firm's annual output. These sales are treated as imports into Malaysia and import duties, surtax, and sales taxes which would normally apply to imports of these goods must then be paid.

2. *Streamlined customs formalities*

Imports into the FTZs and exports from them can be made with less customs documentation requirements than normally applies to such imports and exports, provided that bonded vehicles are used for transport to or from the port of entry or exit. Sales within FTZs or between one FTZ and another can also be effected with minimum documentation. The streamlining of administrative formalities applies only to the Customs Department, however.

The fact that Malaysia's FTZs were established and are still controlled at the state rather than the federal level means that there is no federal government authority with overall responsibility for them. From the point of view of FTZ firms this had led to the necessity to deal with the various federal government departments individually. Elsewhere in Asia, a national government authority has typically been created with authority to intercede between FTZ firms and the various government agencies at federal, state, and local levels. This reduces firms' administrative costs and, more importantly, reduces unnecessary delays in obtaining approval from each of the government agencies involved to expand plant, construct new buildings, etc. In Malaysia the absence of such an authority has meant that delays of this kind do occur and that policy has tended to be uncoordinated.

3. *Infrastructure facilities*

Except for the customs policing of the zone perimeter, the infrastructure facilities available to FTZ firms are similar to those provided in other types of industrial estates within West Malaysia. Most FTZ firms have constructed their own factory buildings. In the two Melaka zones, all FTZ firms are in this category. In Penang six firms occupy factory buildings provided by the Penang State Development Corporation and one occupies a building owned by the partially government-owned company, Malaysian Industrial Estates Limited (MIEL). In

Selangor eighteen firms in the Sungai Way FTZ and one in Ulu Kelang lease MIEL buildings. The state government authorities have not encouraged firms to continue to occupy government-provided factory buildings on a long-term basis.

The government-owned factory buildings are rented at or slightly below commercial rental rates, but the land within the FTZs is leased to zone firms at well-below market lease rates. This is the most significant subsidy element in the provision of infrastructure to FTZ firms.²

4. *Company income tax incentives*

The normal rate of company income tax in Malaysia is 45 per cent (inclusive of the 5 per cent development tax). An additional excess profit tax of 5 per cent is applied when taxable company income exceeds 25 per cent of shareholder funds or M\$200,000, whichever is greater. A complex system of tax incentives has been established to grant relief from these taxes. These tax incentives are not unique to the FTZ firms, but they are an important component of the overall package of incentives. Their stated aim is to encourage investment in export-oriented manufacturing.

There are three major systems of tax relief, known as Pioneer Status, Labor Utilization Relief, and Investment Tax Credit. These three systems are mutually exclusive. The first two entail complete exemption from company income tax for the specified period and the third, Investment Tax Credit, involves an exemption which may be complete or only partial. Only one other tax incentive may be enjoyed in addition to these three, the Export Promotion Deduction. A fifth major category of tax exemption, the Locational Incentive, applies instead of Pioneer Status or Labor Utilization Relief if the firm locates in a designated Locational Incentive area. These areas do not include any of the regions currently possessing FTZs, but suitably located LMWs may be eligible for Locational Incentive status.³

The outcome of this tax incentive system has been that until the end of 1982 almost no revenue in the form of company income tax was derived from the FTZs. This situation will not necessarily continue because most of the FTZ firms, including most of the large electronics firms, have reached or are approaching the end of their tax-relief periods. Substantial tax revenues will not begin to be realized in the immediate post-tax-relief period, however, because of the carry-over of losses, export promotion deductions, and capital allowances.

B. *Incentive Package for LMWs*

Many features of the overall incentive package available to LMW firms is similar to that described above for FTZs. The subsidized FTZ infrastructure facilities described above are not available to LMW firms but the provisions for duty-free import of raw materials and components, streamlined customs formalities,

² Details of the difference between commercial and FTZ lease rates are provided in part A of an Appendix to this paper subsequently referred to as [8]. Copies are available on request from the author.

³ Each of the above schemes is described in detail in part B of [8].

the company income tax incentive measures, and the export credit facility are similar. To characterize the LMW package it is therefore necessary only to describe the major differences between it and the FTZ package.

1. *Streamlined customs formalities*

The LMW program is administered at the federal government level through the Department of Customs and Excise. Firms report that the details of documentation for imported components and raw materials which are required of LMW firms is greater than that required in the FTZs.

A problem often mentioned is that the commodity classification system used by customs and which firms are also required to use is well out-of-date, especially as regards electronic components. To qualify for duty-free import a commodity must fit one of the categories listed, but modern components frequently do not fit into any of the categories. In practice, this entails extra and unnecessary paper work and sometimes delays.

A further problem is the requirement that customs officials hold the keys to the storage areas containing imported raw materials. This can lead to interruptions to the continuity of the production process. In addition, the internal layout of factory floor space may not be altered without customs approval. This can also cause delays. Finally, although goods can be moved within and between FTZs with a minimum of customs formalities, this is not so for LMWs.

2. *Company income tax incentives*

The package is the same as that available to the FTZ firms except that a major additional incentive category, the Locational Incentive, can be granted to LMW firms. This arises because the LMW program places no inherent restrictions on where the firms may locate within Malaysia. No LMW firms are currently located outside West Malaysia, but they are widely dispersed throughout the Peninsular states.

3. *Charges levied*

The provision of customs officers at the factory site is at the expense of the customs department during periods when production is taking place. This means that a firm using three shifts a day will have customs officials present around the clock. If shipment into or out of the firm must occur at other times (i.e., when production is not occurring), however, overtime for the customs officials must be paid by the firm itself. The firm is required to pay an annual fee of M\$1,200 for the LMW licence and is required to construct the bonded storage areas described above at its own expense.

IV. DATA SOURCES FOR THIS STUDY

A. *Survey of FTZs and LMWs*

The main data source for this study, two special questionnaire surveys of FTZ and LMW firms, were conducted by the author in October 1983 and November

1983, respectively. The collection of primary data was essential for the success of this research because, with the exception of the Penang FTZs, the economic performance of neither FTZ nor LMW firms is systematically monitored in Malaysia. In the absence of a special survey, even the total employment in Malaysia's FTZs and/or LMWs could only be estimated crudely. The FTZ survey covered all twenty-six firms in the three Selangor FTZs and all eleven firms in the two Melaka FTZs. Since adequate data were available from the offices of the Penang Development Corporation concerning the economic performance over time of the forty-seven Penang FTZ firms, a separate survey of the Penang FTZs was not required. The Penang data are described below. After extensive follow-up, responses were received from all but two firms in Selangor and one firm in Melaka. The LMW survey covered all seventy-nine firms officially registered as LMWs in 1983. Responses were eventually received from all but six firms, of which three had ceased operations.⁴

B. *Penang Development Corporation Data on Penang FTZs*

The Penang Development Corporation (PDC) conducts a detailed annual survey on the economic performance of the Penang FTZ firms. The results are summarized in an annual report, which aggregates firms into three industries, electronics, textiles, and others. In addition, since 1978 the PDC has prepared a confidential statistical summary which presents its survey data at the individual firm level. Access to this material was provided, but data relating to individual firms cannot be reported.

A problem which arises from the PDC industrial classification is that for the years prior to 1978 data are available only in aggregate form at the three-industry levels indicated above. There is a single garment manufacturer in the Penang FTZs and this firm is the largest garment manufacturer within Malaysia's FTZs. Nevertheless, to protect the confidentiality of data relating to individual firms, this firm was included within the "textiles" category prior to 1978 in the PDC's statistics and for consistency this classification has had to be maintained within this study. This means that the importance of garments relative to textiles within Malaysia's FTZs is somewhat understated.

C. *Infrastructure Costs*

Data on the costs of developing the FTZs were obtained from the Penang, Selangor, and Melaka state development corporations. This information was of varied quality and tended to reflect accounting rather than economic cost principles. For example, land acquired by the SDCs was sometimes acquired from the federal government, sometimes already owned by the state government, and sometimes purchased commercially. The average prices actually paid by the SDC are therefore a misleading (downwardly biased) indicator of the true opportunity cost of the land. Similar problems arise with other components of the reported infrastructure costs.

⁴ Further details of the survey method and data collected are provided in part C of [8].

Thus, where possible, commercial land lease rates were used to capture the opportunity cost of land developed by the SDC. The sources of these commercial price data were: the *Property Market Reports*, published annually since 1978 by the Ministry of Finance; industrial lease rate data, provided on a confidential basis by commercial property valuers in Penang and Kuala Lumpur; and a 1976 Treasury document detailing industrial land values in the early 1970s.

V. ECONOMIC PERFORMANCE OF FTZs AND LMWs

A. Free Trade Zones

The aggregate economic performance of the FTZ firms over time is summarized in Table I. To place the importance of FTZs in perspective, total exports from the FTZs in 1982 were M\$3.93 billion. From the 1983/84 *Economic Report* of the Ministry of Finance, Malaysia's total merchandise exports in that year were M\$27.97 billion and total exports of manufactured goods were M\$7.72 billion. That is, FTZ exports comprised 14 per cent of total merchandise exports from Malaysia and 51 per cent of total exports of manufactured goods. Within the electronics and electrical goods category, exports from the FTZs comprised fully 89 per cent of total Malaysian exports of these commodities. Total employment in the FTZs was approximately 70,000 in 1982, which was 8.8 per cent of total manufacturing employment in Malaysia. Clearly, production in the FTZs is much more export-oriented than the rest of the manufacturing sector, where import substitution predominates.

An important, and widely discussed feature of the FTZs is their use of domestic raw materials. It is helpful to extract from the table the proportion of total raw material use which is purchased from the domestic economy. This must be distinguished from purchases made *within* the FTZs themselves. This calculation is made for 1973, 1976, 1979, and 1982. For these years the percentage of total raw material use which was purchased locally was 2.3, 3.4, 2.8, and 3.6, respectively. In contrast, purchases within the FTZs have become more important. For the same years the corresponding percentages were 0, 4.2, 7.7, and 6.5, respectively. Most of these purchases within FTZs occurred within the Penang zones and there they were concentrated in the electronics and textiles industries.⁵ Thus, by 1978 the backward linkage of FTZ firms to *other* FTZ firms had become more important than their backward linkage to the rest of the Malaysian economy.⁶

In Table II we present a disaggregation of Table I by industry and by state for 1982. This table is particularly interesting in the case of the electronics industry which accounted for 85 per cent of total FTZ exports in 1982 and 76 per cent of total FTZ employment. The table also shows that virtually all of the output

⁵ In the PDC annual reports on the Penang Free Trade Zones, purchases from within the FTZs are included with local purchases in some of the aggregated tables. Readers should be aware of this potential source of confusion.

⁶ In [8] Table I is presented in more disaggregated form divided first by industry (electronics, electrical, garments, textiles, and "others")—Tables A.1 to A.5—and then by state (Penang, Selangor, and Melaka)—Tables A.6 to A.8.

TABLE I
AGGREGATE PERFORMANCE OF FTZ FIRMS: TOTAL ALL FIRMS, 1972-82

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Exports (M\$1,000)	6,929	223,742	448,809	723,282	1,157,266	1,153,462	2,179,295	3,622,531	3,872,375	3,818,887	3,930,347
Local sales (M\$1,000)	—	338	5,571	4,229	17,869	12,602	23,230	58,081	2,944	36,406	113,869
Imported raw materials (M\$1,000)	4,145	155,666	362,173	502,729	718,674	702,451	1,412,734	1,676,492	2,484,677	2,384,336	2,717,395
Local raw materials (M\$1,000)	202	3,674	12,051	20,398	26,308	37,973	47,226	51,648	61,763	72,760	109,451
Raw materials from FTZs (M\$1,000)	—	—	—	15,152	32,669	33,845	95,434	143,532	170,068	117,420	197,037
Imported capital equipment (M\$1,000)	434	47,731	157,141	93,603	50,634	64,887	67,089	185,211	165,260	178,436	184,795
Local capital equipment (M\$1,000)	1,558	19,847	66,975	74,592	8,406	12,974	16,821	53,697	14,733	19,721	16,773
Employment (No. of employees)	n.a.	21,243	25,591	31,743	42,053	46,879	53,309	59,529	67,053	72,509	69,757
Total wages paid (M\$1,000)	3,130	23,283	53,174	64,043	94,451	126,136	183,522	221,476	304,863	346,205	327,586
Total electricity used (M\$1,000)	31	2,149	5,130	16,360	22,116	22,755	26,763	39,394	57,157	83,372	84,329
Total taxes paid (M\$1,000)	—	—	—	1	17	94	415	390	347	2,165	5,309
Total no. of firms	12	23	45	55	58	61	68	68	74	82	84

Sources: Author's survey, October 1983; and Penang Development Corporation.

TABLE II
AGGREGATE CHARACTERISTICS OF FTZ FIRMS, 1982

	Final Sales			Raw Materials				Capital Equipment		
	Exported (M\$1,000)	Local Sales (M\$1,000)	Export/ Total Sales (%)	Imported (M\$1,000)	Local Purchase (M\$1,000)	Purchase within FTZs (M\$1,000)	Local/ Total Raw Material (%)	Imported (M\$1,000)	Local Purchase (M\$1,000)	Local/ Total (%)
Industry										
Electronics	3,343,835	3,323	99.9	2,458,755	57,449	63,540	2.2	167,650	13,836	7.6
Electrical	91,403	0	100	40,273	23,801	—	37.1	2,243	1,639	42.2
Garments	9,996	10	99.9	8,888	772	—	8.0	317	0	0
Textile	343,244	49,811	87.3	164,204	10,670	133,497	3.5	4,018	566	22.3
Other	141,870	60,725	70.0	45,275	16,759	—	27.1	10,567	732	6.5
State										
Selangor	1,873,780	3,110	99.8	1,313,026	40,861	—	3.0	85,528	6,360	6.9
Melaka	387,080	671	99.8	188,474	15,371	4,735	7.4	13,682	1,219	8.2
Pulau Pinang	1,660,587	110,088	98.8	1,215,895	53,219	192,302	3.6	85,585	9,194	9.7
Total all firms	3,930,347	113,369	97.2	2,717,595	109,451	197,037	3.6	184,795	16,773	8.3

TABLE II (Continued)
AGGREGATE CHARACTERISTICS OF FTZ FIRMS, 1982

Industry	Total Employment	Total Wages (M\$1,000)	Electricity Used (M\$1,000)	Total Taxes Paid (M\$1,000)	Total Value Added (M\$1,000)	Value Added/ Total Sales (%)
Electronics	52,954	261,616	46,661	4,934	720,753	21.5
Electrical	895	11,567	8	0	27,321	29.9
Garments	1,572	4,774	178	9	2,892	28.9
Textiles	7,451	35,104	33,058	18	51,626	13.1
Other	6,885	14,525	4,424	348	141,412	67.2
State						
Selangor	26,107	102,227	24,447	749	506,556	26.9
Melaka	7,352	30,486	5,640	86	173,481	44.7
Pulau Pinang	36,298	194,873	54,242	4,474	263,967	14.8
Total all firms	69,757	327,586	84,329	5,309	944,004	23.1

Sources: Author's survey, October 1983; and Penang Development Corporation.

of the electronics industry was exported and that almost all of its raw material and capital goods were imported. Value added in this industry was 22 per cent of total sales, but it is important to realize that only a fraction of this amount constitutes a payment to Malaysian factors of production. Wages accounted for only 38 per cent of total value added while total taxes constituted only 0.7 per cent.

An upward bias occurs in the data on value added per unit of total sales because a few FTZ firms have continued to manufacture on a subcontracting basis, receiving a fee for the assembly or processing services performed. This fee is reported as "total sales" and since raw material is provided free of charge under the subcontracting agreement, "use of raw material" is reported as zero. For these firms, value added is 100 per cent of reported sales. This does not affect the absolute magnitude of value added, or the relationship between value added and total wages, but it biases upward the overall ratio of value added to total sales. This apparently accounts for the high value added to sales ratio for Melaka.

Rapid technological change has occurred within the electronics industry and labor-saving technological changes have been introduced within most of the FTZ electronic factories. This is reflected in a declining proportion of wage payments to total sales throughout the 1970s. In 1973 this proportion was 9.1 per cent and in 1976 and 1979 it was 7.4 and 5.2 per cent, respectively. Apparently because of rising real wages in the electronics industry generally, the proportion rose subsequently to 8.2 per cent in 1982. In contrast, the same proportion remained relatively constant, at between 8 and 9 per cent, in the textile industry throughout this period.

The survey also covered the financing of FTZ firms. For the reasons indicated in the previous section, this survey covered only firms in the Selangor and Melaka FTZs and no data on this subject are available for Penang. For the Selangor and Melaka firms, borrowings from Malaysian sources were reported by fifteen of the thirty-four responding firms. These borrowings summed to M\$49.2 million and this comprised 41.8 per cent of the reported total borrowings of these fifteen firms. Most of the Malaysian borrowing occurred among electronics firms (74 per cent of the total) and this amount was concentrated in the smaller electronics firms. The total borrowings of firms which did not borrow within Malaysia were not obtained by the survey, but the fifteen firms reporting Malaysian borrowings accounted for 39 per cent of total exports from the Selangor and Melaka zones in 1982, so a rough estimate is that Malaysian borrowings constitutes between 15 and 20 per cent of the total borrowings of FTZ firms.

B. *Licensed Manufacturing Warehouses*

Table III summarizes the aggregate economic performance of LMW firms. The data relate only to the performance of these firms from the time they became registered as LMWs. Total exports from LMWs were M\$770 million in 1982, and this comprised 2.8 per cent of total merchandise exports from Malaysia and 10 per cent of total exports of manufactured goods. Total employment of LMW firms was 27,800 in 1982, and this was 3.5 per cent of total manufacturing

TABLE III
AGGREGATE PERFORMANCE OF LMW FIRMS: TOTAL ALL FIRMS, 1974-82

	1974	1975	1976	1977	1978	1979	1980	1981	1982
Exports (M\$1,000)	25,858	39,085	100,237	342,571	171,882	242,184	392,259	640,004	770,348
Local sales (M\$1,000)	976	1,071	1,784	3,968	5,075	9,686	27,312	27,740	28,143
Imported raw materials (M\$1,000)	19,738	31,592	81,107	101,918	132,034	172,078	254,648	406,490	445,692
Local raw materials (M\$1,000)	572	1,471	5,725	8,299	14,256	21,920	31,394	46,422	52,846
Imported capital equipment (M\$1,000)	10,200	8,871	5,038	2,642	7,492	14,550	14,701	54,318	52,922
Local capital equipment (M\$1,000)	141	3,458	770	490	1,584	8,620	5,749	34,283	16,706
Employment (No. of employees)	3,068	3,811	6,025	6,828	8,538	13,212	17,314	23,693	27,804
Total wages paid (M\$1,000)	3,588	4,972	8,886	14,764	20,132	29,335	50,315	77,223	97,740
Total electricity used (M\$1,000)	116	318	757	946	1,552	2,555	4,652	10,995	14,666
Total taxes paid (M\$1,000)	47	74	157	574	311	2,620	928	1,604	2,615
Total no. of firms	8	11	12	13	14	19	30	59	76

Source: Author's survey, November 1983.

employment in Malaysia.⁷ In Table IV the 1982 economic performance of LMW firms is disaggregated by industry and by state. The table indicates that wages accounted for 33 per cent of total value added, a similar result to that obtained for FTZs, while total taxes comprised 0.9 per cent.

Local raw materials were used more extensively among LMW firms than FTZ firms. In 1982, locally purchased raw material was 10.5 per cent of total raw material use among LMW firms, compared with 3.6 per cent for the FTZs. This is more striking in the purchase of capital equipment. In 1982, LMW firms purchased 26 per cent of their capital equipment locally, compared with 8 per cent for FTZ firms. Local sales were also somewhat more significant for LMW firms, amounting to 5 per cent of total sales, compared with 3 per cent for FTZs. In short, LMW firms are more closely linked to the rest of the Malaysian economy than FTZ firms, despite the fact that both groups of firms are heavily export oriented.

The data in Table V also indicate the origin of firms entering the LMW program. A total of twenty-seven of the LMW firms had been producing within Malaysia prior to becoming LMWs. The remainder were either new foreign firms or new joint-venture firms. Of all LMW firms in Malaysia in 1982, those previously producing there accounted for 46 per cent of 1982 employment, 26 per cent of total fixed assets, and 25 per cent of the total value of output. A large group of labor-intensive garment firms, with 55 per cent domestic ownership, dominates this category of firms. It is notable that all five textile firms operating under the LMW program in 1983 had been producing within Malaysia before entering the program.

A prominent goal of the government's New Economic Policy is to increase the proportion of Malays employed in the industrial work force, especially in the more highly skilled employment categories. It was initially hoped that the FTZs and LMWs would make a significant contribution in this regard but progress has been slow.⁸ Firms in each of the FTZs, and Penang in particular, report great difficulties in recruiting and retaining Malay employees in the more skilled employment categories. Competition for the small number of qualified Malay applicants is intense and firms report that their strongest competitor for these workers is the government sector itself.

VI. METHODOLOGY OF THE BENEFIT-COST ANALYSIS

Since both the benefits of establishing FTZs and LMWs and the costs incurred in doing so are essentially economic in nature, economic analysis should be capable of indicating whether the investment has proven to be worthwhile. As is usual, availability of data constrains this exercise somewhat. Substantial amounts of data have been assembled on the economic inputs and outputs from the zones

⁷ Warr [8] provides a disaggregation of Table III by industry (Tables A.9 to A.13) and by state (Tables A.14 to A.21).

⁸ See part D of [8] for a detailed discussion.

TABLE IV
AGGREGATE CHARACTERISTICS OF LMW FIRMS, 1982

	Final Sales			Raw Materials			Capital Equipment		
	Exported (M\$1,000)	Local Sales (M\$1,000)	Export/ Total Sales (%)	Imported (M\$1,000)	Local Purchase (M\$1,000)	Local/ Total (%)	Imported (M\$1,000)	Local Purchase (M\$1,000)	Local/Total (%)
Industry									
Electronics	310,180	21,244	93.6	177,539	6,176	3.4	34,461	7,097	17.1
Electrical	164,288	5,159	97.0	110,774	22,416	16.8	5,398	1,717	24.1
Garments	145,657	42	99.9	85,040	7,799	8.4	4,604	1,287	21.8
Textile	69,079	394	99.4	26,678	9,895	27.1	2,270	1,288	36.2
Other	81,144	1,304	98.4	45,661	6,560	12.6	6,189	5,317	46.2
State									
Johor	243,993	1,563	99.4	165,275	13,961	7.8	17,667	2,126	10.7
Kedah	100,881	5,177	95.1	46,344	19,232	29.3	8,005	2,808	26.0
Negeri Sembilan	147,914	19,600	98.3	102,800	575	2.6	14,089	816	5.5
Perak	38,906	0	100.0	17,629	4,216	19.3	8,648	7,052	44.9
Pulau Pinang	49,776	297	99.4	48,950	2,428	4.8	1,109	196	15.0
Selangor	90,887	1,506	98.4	50,781	9,693	16.0	1,431	1,407	49.6
Kelantan	1,207	0	100.0	419	0	0	1,146	2,291	26.3
Other states	96,784	0	100.0	13,494	2,741	16.7	827	10	1.2
Total all firms	770,348	28,143	96.5	445,692	52,846	10.6	52,922	16,706	24.0

TABLE IV (Continued)
AGGREGATE CHARACTERISTICS OF LMW FIRMS, 1982

Industry	Total Employment	Total Wages (M\$1,000)	Electricity Used (M\$1,000)	Total Taxes Paid (M\$1,000)	Total Value Added (M\$1,000)	Value Added/ Total Sales (%)
Electronics	13,403	47,432	7,280	2,377	141,325	42.6
Electrical	1,757	8,732	527	74	34,763	10.5
Garments	9,256	30,918	3,394	44	51,376	35.3
Textiles	1,769	5,687	2,366	72	29,292	42.2
Other	1,619	4,970	1,100	48	28,183	34.2
State						
Johor	8,093	28,365	3,507	1,414	67,920	27.1
Kedah	4,654	12,919	1,937	966	38,544	36.4
Negeri Sembilan	4,701	25,987	4,135	76	92,626	46.2
Perak	3,262	7,816	1,017	0	16,044	41.3
Pulau Pinang	4,432	13,001	705	52	30,253	36.7
Selangor	1,090	5,855	2,655	106	29,286	31.7
Kelantan	344	409	40	0	748	62.0
Other states	1,228	3,388	671	0	9,518	37.5
Total all firms	27,804	97,740	14,666	2,615	284,939	35.7

Source: Author's survey, November 1983.

TABLE V
FURTHER CHARACTERISTICS OF LMW FIRMS, 1982

Industry	All Firms				Firms Operating within Malaysia			
	Total No. of Firms	Domestic Ownership (%)	Total 1982 Fixed Assets (M\$1,000)	Fixed Assets per Worker, 1982 (M\$1,000)	No. of Firms	Total 1982 Fixed Assets (M\$1,000)	Total 1982 Employment	Employment before LMW
Electronics	24	12.6	223,718	16,692	7	21,326	3,214	3,266
Electrical	4	11.7	16,817	9,571	2	3,761	1,236	1,871
Garments	25	32.5	81,858	8,844	9	29,337	6,185	5,200
Textiles	5	38.4	37,987	21,473	5	37,987	1,769	1,584
Other	18	19.0	30,381	18,765	4	10,220	567	608
Total	76	19.7	390,761	14,054	27	102,631	12,971	12,529

Source: Author's survey, November 1983.

and on the costs of construction, but, even so, some strong assumptions must be made for an economic evaluation of the zones to be possible.

In this exercise, the FTZs and LMWs are treated as enclaves within the Malaysian economy. The focus is on the transfer of funds and resources between these enclaves and the Malaysian economy. The aim is to study the net benefits and costs, as experienced by the rest of Malaysia resulting from the existence of the FTZs and LMWs. It must be stressed that this study is comparing the welfare outcome for Malaysia where the FTZs and LMWs are present with the hypothetical situation in which they are absent. The analysis disregards income distributional considerations within Malaysia. That is, changes in incomes of all Malaysian nationals are weighted equally but changes in the incomes of foreigners receive zero weighting.

The estimated benefits include the net gain to Malaysia from employment of Malaysians by FTZ and LMW firms, the net gain deriving from the firms foreign exchange conversions into domestic currency, the gain due to purchase of local raw material and capital equipment by firms, the net gain from sale of electricity to firms, and the (small) gain due to the tax revenues collected from firms. The costs include administrative and maintenance costs of the FTZs and LMWs and the net costs to Malaysia of providing subsidized infrastructure facilities to FTZ firms.

Four groups of shadow prices play a central role in the benefit-cost analysis. These are the shadow prices of foreign exchange, labor, domestically produced raw materials, and capital equipment. Available estimates of these shadow prices for Malaysia leave a certain amount of latitude for judgement. Our procedure is therefore to draw upon earlier studies to obtain what seem to be the "most likely" values of these shadow prices. The set of assumptions incorporating this combination of shadow prices is referred to as "the base case." The formal benefit-cost analysis determines the implications of this set of shadow prices and then varies them parametrically around the values used in the base case to determine the sensitivity of the overall results to changes in them.

The unit of measurement (*numéraire*) in which the benefit-cost analysis is conducted is real spending (consumers' willingness to pay) expressed in Malaysian dollars (ringgit) at 1982 prices. The methodology used closely follows that described in [7], to which the reader is referred. A detailed discussion of this methodology, the derivation of the shadow prices used, estimates of the net economic cost of leasing land to FTZ firms at subsidized rates, and the administrative and maintenance costs of the FTZ and LMW programs is presented in detail in [8].⁹ Only a brief summary of the "base case" will be presented here.

Published and unpublished estimates of shadow prices for Malaysia, in particular Veitch [6, 1977 and 1984 editions], are drawn upon to give ratios of shadow prices to market prices as follows: foreign exchange, 1.11 (varied parametrically between 1.0 and 1.25); unskilled labor, 0.825 (varied between 0.75 and 0.90); domestically purchased raw materials, 0.9 (varied between 0.79 and 1.00);

⁹ See Tables A.27 to A.29 of [8], respectively.

TABLE VI
BENEFIT-COST ANALYSIS OF FTZs: VARYING TERMINATION DATE

	Assumed Termination Date				
	1982	1990	1997	2004	2012
Industry					
Electronics	407 (17)	982 (20)	1,273 (20)	1,448 (21)	1,564 (21)
Electrical	34 (19)	82 (21)	107 (21)	121 (21)	131 (21)
Garments	11 (a)	19 (a)	23 (a)	26 (a)	27 (a)
Textiles	84 (19)	156 (20)	193 (20)	216 (20)	231 (20)
Other	60 (b)	104 (b)	127 (b)	141 (b)	151 (b)
State					
Penang	376 (26)	776 (28)	980 (28)	1,102 (28)	1,183 (28)
Selangor	156 (13)	432 (17)	571 (17)	656 (17)	712 (17)
Melaka	63 (a)	136 (a)	173 (a)	196 (a)	211 (a)
Total	595 (21)	1,344 (23)	1,724 (23)	1,953 (23)	2,106 (23)

Note: Units: net present value, M\$ millions, 1982 prices except numbers in parentheses which are internal rates of return in percentage form.

- a. Internal rate of return not defined because all components of time stream positive.
- b. Multiple solutions exist because of alternating positive and negative components of time stream.

domestically purchased capital equipment, 0.91 (varied between 0.82 and 1.00);¹⁰ and electricity, 0.93. The discount rate used is an estimate of the real rate of interest faced by Malaysia on international capital markets, 7.5 per cent.¹¹

VII. RESULTS OF BENEFIT-COST ANALYSIS

A. Free Trade Zones

The results of the analysis for FTZs are summarized in Tables VI and VII. As explained above, all net present value (NPV) calculations are presented in 1982 values. It is of course necessary to impose assumptions about the behavior

¹⁰ The effects of varying these four conversion factors shown in Tables A.30 to A.33 of [8].

¹¹ This is an average London Interbank Offer Rate from 1978 to 1982 (12.4 per cent) expressed in real terms (giving 7 per cent) plus half a per cent risk premium.

TABLE VII
BENEFIT-COST ANALYSIS OF FTZs: VARYING DISCOUNT RATE

	Discount Rate (%)				
	2.5	5	7.5	10	12.5
Industry					
Electronics	2,605	1,804	1,273	912	659
Electrical	216	150	107	77	57
Garments	44	32	24	18	14
Textiles	380	268	193	141	104
Other	240	173	127	97	75
State					
Penang	1,929	1,360	980	720	537
Selangor	1,219	830	571	395	272
Melaka	337	238	173	130	99
Total	3,485	2,427	1,724	1,245	909

Note: Units: net present value, M\$ millions, 1982 prices.

of the stream of benefits and costs occurring after 1982, the last year for which data were available. Except in Table VI the NPV calculations presented all assume that the performance of FTZs remains the same as in 1982, for each year until 1997, after which the program terminates. Unless otherwise indicated, the calculations assume a termination date of 1997 (relaxed in Table VI), a real discount rate of 7.5 per cent (relaxed in Table VII) and the conversion factors described above.

The central column of each of these tables depicts the results from this base case. It is helpful to review the components of the overall benefit-cost analysis for this case in more detail. Focussing on the aggregate net benefit computed for all FTZ firms of M\$1,724 million, the composition of this total by source is as follows: foreign exchange conversions M\$807 million (47 per cent of total); employment M\$999 million (58 per cent); local raw material use M\$162 million (9 per cent); local capital equipment use M\$72 million (4 per cent); electricity use M\$99 million (6 per cent); taxes M\$55 million (3 per cent); administrative costs M\$-35 million (-2 per cent); and land subsidy M\$-435 million (-25 per cent).

The significant feature of the results is that net benefits are positive in all cases examined and even when assumptions highly unfavorable to the calculation of net benefits are made. For example, net benefits are positive even when the conversion factor for foreign exchange is set at 1.0. That is, even if there was no net gain to Malaysia deriving from firms' foreign exchange conversions, the other sources of net gain to Malaysia from the operations of FTZs—due to employment, use of domestic raw material and domestic capital equipment, purchase of electricity, and payment of taxes—would be more than sufficient to outweigh the net costs incurred by Malaysia in establishing, maintaining, and administering the zones.

TABLE VIII
BENEFIT-COST ANALYSIS OF LMWS: VARYING TERMINATION DATE

Industry	Assumed Termination Date				
	1982	1990	1997	2004	2012
Electronics	96	218	280	317	342
Electrical	8	17	22	25	26
Garments	57	119	151	170	183
Textiles	9	35	49	57	62
Other	8	24	32	37	40
Total	178	413	533	606	654

Note: Units: net present value, M\$ millions, 1982 prices.

TABLE IX
BENEFIT-COST ANALYSIS OF LMWS: VARYING DISCOUNT RATE

Industry	Discount Rate (%)				
	2.5	5	7.5	10	12.5
Electronics	505	371	280	216	170
Electrical	40	29	22	17	13
Garments	267	198	151	118	94
Textiles	95	67	49	36	27
Other	61	44	32	24	19
Total	967	709	533	410	322

Note: Units: net present value, M\$ millions, 1982 prices.

B. Licenced Manufacturing Warehouses

The results of the benefit-cost analysis of LMWs are presented in Tables VIII and IX. These tables show the implications of variations in the termination date and discount rate. The estimated stream of net benefits accruing to Malaysia is positive for all years under all combinations of assumptions shown in these tables and all combinations of shadow price assumptions discussed above.¹² This reflects the fact that, unlike the FTZ program, the LMW program was not characterized by an initial period of high infrastructure costs (negative net benefits). The implication of this is that internal rates of return are not mathematically defined. The tables therefore present only NPV calculations.

In the base case shown in the central column of each table, the aggregate NPV of all benefits and costs computed for the LMW program is M\$533.4 million. The composition of this is as follows: foreign exchange conversion M\$193.2 million (36 per cent of total); employment M\$223.3 million (42 per cent); local raw material use M\$70.1 million (13 per cent); local capital equipment

¹² See Tables A.34 to A.37 of [8] for detailed results on the effects of varying shadow prices.

use M\$22.8 million (4 per cent); electricity use M\$13.6 million (3 per cent); taxes M\$35.1 million (7 per cent); and administrative costs M\$-24.7 million (-5 per cent).

Total NPV is positive in all combinations of assumptions. As with the FTZ program, the absolute size of estimated NPV depends significantly on the assumed conversion factor for labor but this is proportionately less true of LMWs than FTZs. For example, if this conversion factor is 0.8, the net gain due to the difference between wages paid and the opportunity cost of labor is 33 per cent of total NPV, compared with 49 per cent for FTZs. The main reason for this difference is that LMW firms are, on average, more closely integrated with the domestic economy than FTZ firms. The gains from the use of domestic raw materials, capital equipment, etc., thus form a higher proportion of total gains from the LMW program than the FTZ program.

When allowance is made for the diversion of LMW firms from elsewhere in the economy, the absolute value of the NPV of the program will obviously be affected. But the conclusion that the net benefits of the program are positive will not be altered. It was argued above that the diversion of firms could account for as much as 46 per cent of all employment by LMW firms and 25 per cent of the value of total output. Allowance for this would imply a downward adjustment of the benefits of the LMW program, but not its administrative costs. But since the present value of total administrative costs is less than one-twentieth of the sum of the present value of all benefit items, regardless of the assumed termination date, any realistic allowance for diversion of firms could not alter the conclusion that the LMW program has generated positive net benefits to Malaysia.

VIII. SUMMARY AND CONCLUSIONS

A. *Free Trade Zones*

By the end of 1982, the net benefits to Malaysia from its FTZs had already exceeded the net costs incurred in establishing the zones. Positive net benefits would continue to be received by Malaysia if the FTZ program continued without change. Nevertheless, these benefits could be increased. The most important avenue is clearly taxation. The taxes raised from FTZ firms up to 1982 were almost negligible, but the generous tax incentives which caused this were also partly responsible for the success of the program. The FTZs have been beneficial to Malaysia even *without* substantial tax revenues being raised and, while it is clearly desirable that revenues be raised from FTZ firms, it would be harmful to Malaysia's interests if the effort to raise large amounts of revenue from FTZ firms caused an exodus of firms from the zones. This argument could not be made as forcefully if the FTZs were only marginally beneficial, or not beneficial at all, in the absence of significant tax revenues.

The initial tax holiday periods are now ending and Malaysia must clarify its policy with respect to company income taxation. It would seem desirable to

levy company income tax for FTZ firms from the end of their present tax-relief periods, but at substantially lower rates than the 45 per cent applying to firms operating within the domestic economy. It may be appropriate to proceed in stages—to introduce rates in the 10–15 per cent range initially and later to consider raising this. Subsequent policy would depend on how much revenue was actually raised and the degree to which Malaysia's other benefits from the zones appeared to have been affected.

An important aspect of the taxation issue is that, so long as Malaysia applies a corporate income tax rate which is positive but significantly *below* that of the home countries of the firms operating in the FTZs, Malaysia is more likely to benefit from transfer pricing practices than to lose from them. That is, companies' global tax burdens will be minimized by moving profits to Malaysia rather than away from it. This provides a possible source of tax revenue for Malaysia so long as Malaysia's tax rate is *positive but low enough* to encourage this practice.

The administration of Malaysia's FTZ program is uncoordinated and, with the recent transfer of function from state to local government authorities, this problem seems likely to become worse. Firms must deal with a large number of separate local, state, and federal authorities and firms' expansion plans and even routine operations can be disrupted by the large amounts of "red tape" involved. Consideration could be given to the establishment of a federal body, or separate state bodies, with the power to intercede between FTZ firms and other government agencies and also with the power to impose levies on FTZ firms for the budgetary costs of maintaining and administering the zones. Malaysia's FTZs are not well maintained physically and this must be a deterrent to new firms considering entering the zones.

The policy of providing land to new FTZ firms at heavily subsidized rates seems to lack any continuing economic rationale. This is also true of the rules limiting FTZ firms' sales on the domestic market. So long as these sales continue to be treated as imports into Malaysia and the appropriate duties are levied, these sales simply substitute for imports and there is no apparent reason why the restrictions should be maintained.

Customs clearance of imported raw materials and capital equipment involves unnecessary delays and the requirement that goods be transported to and from the port in large bonded container vehicles means that firms must accumulate stocks at the firms and port ends to utilize these vehicles more efficiently. These procedures could be streamlined in such a way as to reduce firms' costs, without jeopardizing the security requirements of the program.

The degree of linkage between FTZ firms and the domestic economy, through the purchase of domestically produced raw material and capital equipment, has been disappointing. It seems appropriate to consider linking future tax incentives to this feature of the FTZ firms' performance by making tax exemptions dependent on this form of linkage. Nevertheless, this will not in itself cause the domestic industrial development which must occur for a significantly greater linkage with the FTZs to be possible. It must be recognized that the primary obstacle to

greater linkage between FTZ firms and the local economy is not a lack of willingness of FTZ firms to use domestically produced raw materials, intermediate goods of capital equipment, or even a lack of incentive for them to do so, but rather the inability of FTZ firms to obtain these materials domestically at the required standards of quality and dependability. Policies directed at potential suppliers of raw material and capital equipment must play the major role if greater linkage between FTZ firms and the domestic economy is to be achieved.

B. *Licensed Manufacturing Warehouses*

Malaysia's LMW program must also be considered a success. The main avenues for possible improvement appear to lie in the taxation area, for which the above remarks on FTZs also apply (although taxation issues are administratively separate from the LMW program itself), and in the reduction of "red tape" (which is not separate).

LMW firms report that the requirement for Customs Department approval of any change to the factory floor plan is time-consuming, inefficient, and deters expansion. Further streamlining of documentation requirements, especially for importation of capital equipment, would also seem possible without threatening the purposes of the program.

An expansion of Malaysia's LMW program could easily be justified. LMW firms are more closely integrated with the domestic economy than FTZ firms. The major obstacle to this expansion appears to be administrative. The documentation requirements imposed on LMW firms are severe and the existing procedures for policing the "bonded warehouse" aspects of the existing program are cumbersome and impose unnecessary costs on LMW firms.

C. *Broader Conclusions*

Malaysia's export-oriented industrial enclaves—FTZs and LMWs—have contributed to the country's economic welfare mainly through their absorption of unskilled and semi-skilled labor. The groups employed have obviously benefitted from the increased incomes which resulted. Moreover, the increased involvement of Malays in the manufacturing sector has contributed to the reduction of racial tensions in the country. Nevertheless, it must be recognized that the kind of industrial development which has resulted is essentially offshore in nature. Linkages to the domestic economy are very limited and this type of development makes only a modest contribution to the government's long-term development goals. Countries like Korea and Taiwan, which have proceeded further along the path of industrial development, have become considerably less interested in promoting this type of enclave development. Perhaps, a similar change of government attitude will occur in Malaysia in the coming decade.

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